

Studio Master Plus with CCL

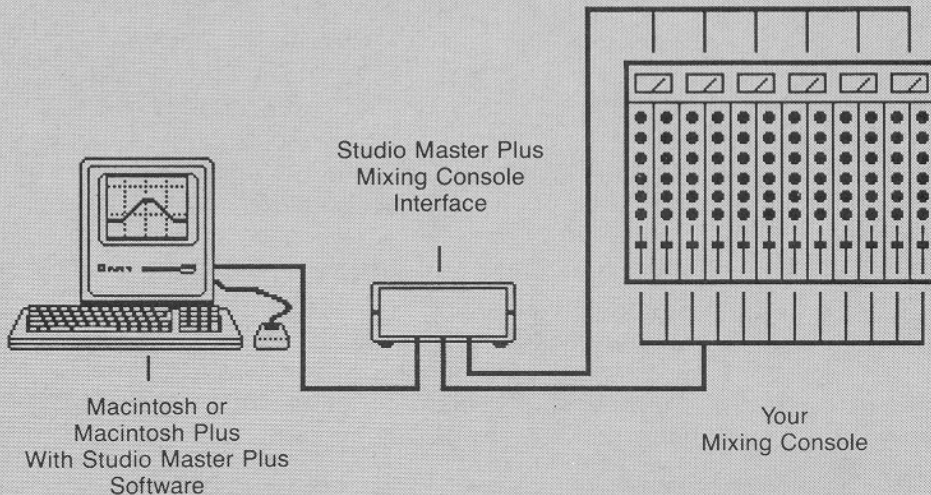
Mixes

Record All Settings...
Record Some Settings...
Record A Channel

Reset All Settings...
Reset Some Settings...
Reset To A channel

Buttons...
View Buttons...
Patch List...
View Patch List...
Peripherals..
View Peripherals...

Set Options...



Studio Master Plus with CCL (Console Control Logging) gives you the ability to accurately log the position of every knob and control on your mixing console. Until now, this advanced feature was only available on the most expensive mixing consoles.

Studio Master Plus system consists of an Apple Macintosh computer, a specialized 16-channel spectrum/level analyzer and our customized software package.

With all the features listed below, Studio Master Plus makes your studio both more productive (\$\$\$) and more attractive to your clients.



Billing System

Automatically times sessions and breaks to the minute. Produces highly accurate invoices and work orders on demand. Tracks materials used and miscellaneous charges as incurred.



Track Sheets

The operator uses the Macintosh's point and click user interface to design and modify track sheets. An instruments menu reduces typing. Multiple copies are easily printed.



Tape Labels

Custom tape labels can easily be created by the operator as he works. A point and a click of the mouse and a few typed keys are all that is needed.



Outboard Equipment Charting System

A system which allows you to create a representation or picture of a piece of equipment on the computer screen. The picture may be used to store knob, switch and light bulb settings. In this way the settings can be saved or printed.



Maintenance Log

The maintenance log documents all equipment malfunctions and down times, as well as the repairs that were made later to the equipment. It can also be used to aid technicians who are tracing down recurring problems.



Session Log

The Session Log is a complete record of all events that happen in a particular session. The entries are made automatically as the session progresses. It also documents the names of all files that a session creates for later reference.



Captain's Log

The Captain's Log is a complete record of all events that happen in the studio. The entries are made automatically as the session progresses.



Word Processor

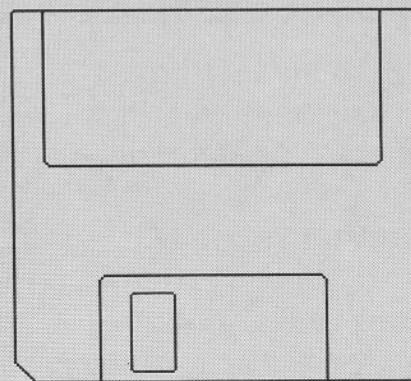
The easy to use word processor helps both the client and the studio owner. Lyrics and notes can be documented at any time.

Logging The Control Settings On A Channel

During console logging and resetting the spectrum/level analyzer's output test signal is fed to each of the mixing console's inputs one at a time. The analyzer's 16 input channels are hooked up to the line outputs of the console's mixing busses (2 mix, echo send mixes, cue send mixes, etc.). In this way, the frequency and level response for each input channel can be measured at each of the console's mixing outputs.

This information is stored on a Macintosh disk for later recall.

In order to ease the task of setting and resetting the console, it is suggested that the test signal be interfaced with the console's test oscillator routing system (oscillator buss) so that a test signal can be conveniently brought to all channels of the console. Otherwise the test signal would have to be patched into each channel individually.

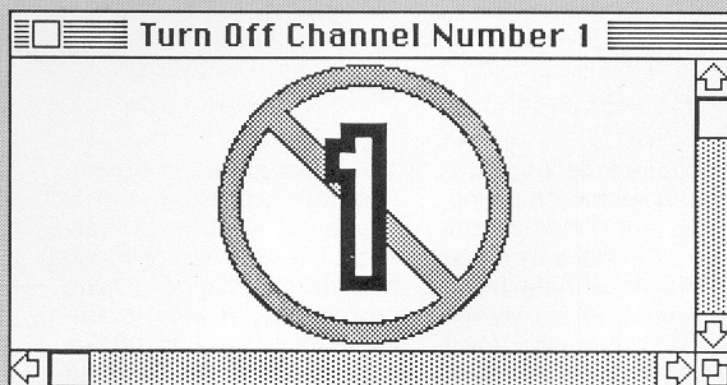
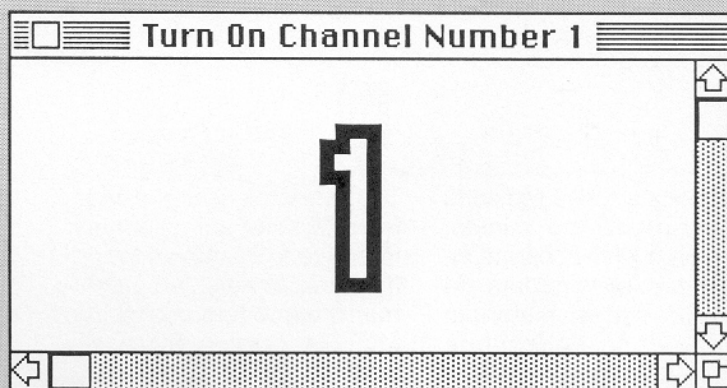


Before any logging or reset can take place however, all channels in the console must be muted. The channel mute buttons are used to kill the test signal on all the channels not being tested.

Because of its unique design, Studio Master Plus with CCL is almost foolproof. When you record levels the Macintosh displays screens with prompts that can easily be seen from clear across the room.

Though each channel is handled individually, the process takes only a few seconds per channel. A screen like that at the right will flash the channel number that should be activated (unmuted).

When it is finished with a channel Studio Master Plus with CCL shows the screen at right to indicate that the numbered channel needs to be muted, so that it can proceed to the next channel to be logged or reset. It will then indicate a new channel to unmute. In this way, it cycles through all the channels.



Resetting The Controls On A Channel

During the resetting phase, current frequency responses can be viewed simultaneously with the previously recorded response for this input channel. The grey line on the graph represents the frequency response which was recorded for this channel previously. The black line on the graph represents the current frequency response for this channel which is being measured now and updated continuously in real time.

All the user needs to do to reset his equalizer is adjust the equalizer's controls until the black line overlays the grey line. At that time the present and former equalization curves for this channel are identical.

After the channel's equalizer has been adjusted, the channel's level and panning controls can be reset. This is accomplished by comparing the previously logged level responses from each of the mixer's output channels to the level responses currently being measured for this same input channel. This is displayed in a Macintosh window like this.

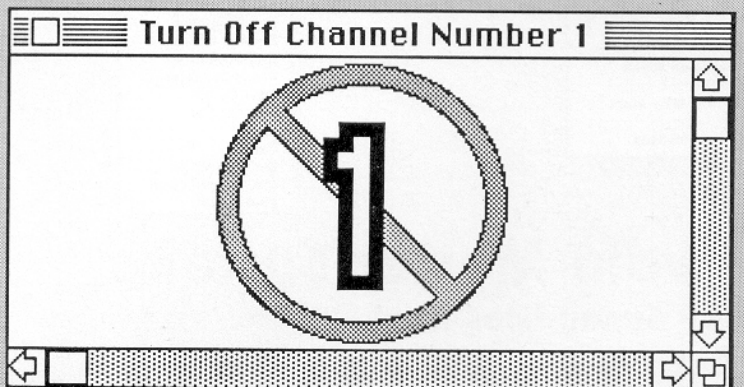
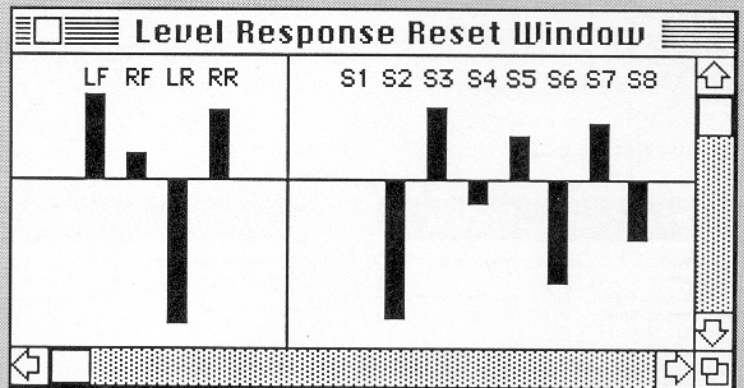
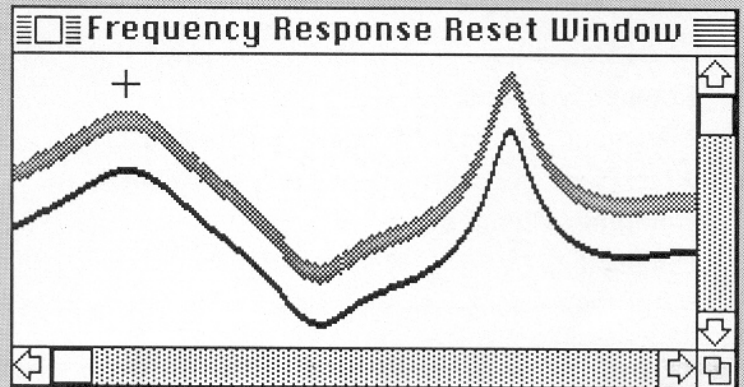
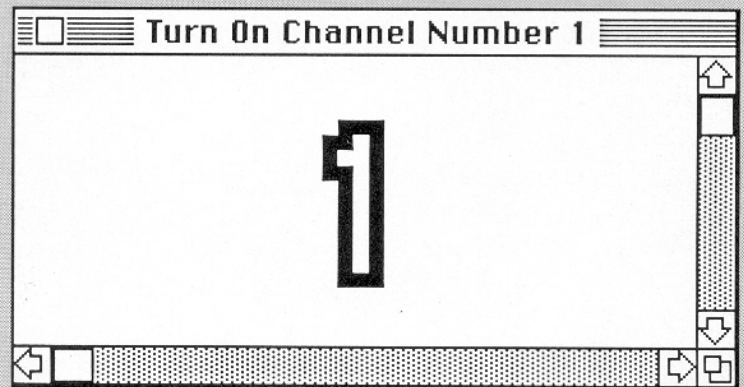
Each bar represents an output mix buss on the console. The first bars show levels for the main outputs of a quadraphonic mixing console; LF, RF, LR, RR. The other eight bars are for the console's send mix busses; S1, S2, S3, S4, S5, S6, S7, and S8.

The horizontal line in the window's center represents each bar's null point (the previously recorded level). When a particular level control is set too low (below the point you want to reset to) the bar goes below the nulling line. When a particular level control is set too high (above the point you want to reset to) the bar goes above the nulling line.

First you must adjust the channel's level and pan controls to make the main mix bars shrink and disappear. After these have been reset, the send level and panning controls are adjusted to eliminate the send level bars. When all the bars have disappeared, you have successfully reset this channel's level controls to their previously held positions.

When all of the levels have been reset the window disappears and CCL prompts you to turn off the channel by flashing the appropriate channel number in the international "not here" sign.

The user would proceed in this way through the console until all the channels on the mixing console have been done.



Specifications

Power Input	:	110 Volt — 220 Volt on special order
Connectors	:	30 pin Tuchel — Amphenol DIN connector
	:	All connectors included.
Mixing Console Input Channels	:	Almost unlimited. The number of input channels is only limited by available disk storage space.
Output	:	Test signal nominal level +4 dbm
	:	Output Impedance 600 ohm BALANCED.
	:	Attaches to mixing console's OSC/Slate buss or can be patched into each line input one at a time.
Inputs	:	16 Standard — Maximum level +28 dbv
	:	Input Impedance 20K ohm BALANCED.
	:	Attaches to mixing console's mixing outputs
	:	2 Mix, Echo Sends, Effects Sends, etc.
Relays	:	8 standard — contact current rating .5 amp
Level Response	:	Logarithmic
Level Resolution	:	.1 db
Frequency Response	:	Logarithmic or Linear
Maximum Number of Frequency Readings	:	500 logarithmic and 500 linear
Number of measurements taken per channel	:	1,016
Computer Interface	:	RS 422 — SCSI on special order
Dimensions	:	W14¼ by D16¼ by H7½ inches

Studio Master Plus with CCL integrates and includes all the features of these application programs (see separate spec sheets for):

Studio Master

Billing System
Maintenance Log
Captain's Log
Session Log

Track Master

Track Sheets
Tape Labels
Word Processing

Outboard Master

Logs outboard gear settings

Times

24 Track
48 Track
24 Track W. Video
48 Track W. Video
24 Track Transfer
2 Track Transfer
2 Track Recording
2 Track To Cassette
Setup
Waiting
Run

Session Break

Downtime Start

Session Stop

Billing

Examine Bill

Add Materials...
Add Extras...

Open Old Bill...

Sheets

Make A New Sheet...
Open Old Sheet...

Bass Drum
Snare Drum
Tom Tom
Floor Tom
L Overhead
R Overhead
Crash Cymbal
Hi Hat Cymbal
Electric Guitar
Rhythm Guitar
Acoustic Guitar
Bass Guitar
Synthesizer
Organ
Vocal
Vocal Lead
SMPTE Time Code
Click Track

Logs

Make New Tape Log
Open Old Tape Log...

File

New

Open

Close

Save

Save As...

Revert

Page Setup...

Print One

Print...

Quit

Shades

White

Light Gray

Gray

Dark gray

Black

Setting

Open Setting Window

Studio Master Systems

229 Sunny Isles Blvd.

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PATENT PENDING 1985

Track Master

Sheets

Make A New Sheet...
Open Old Sheet...

Bass Drum
Snare Drum
Tom Tom
Floor Tom
L Overhead
R Overhead
Crash Cymbal
Hi Hat Cymbal
Electric Guitar
Rhythm Guitar
Acoustic Guitar
Bass Guitar
Synthesizer
Organ
Vocal
Vocal Lead
SMPTE Time Code
Click Track

Logs

Make New tape Log
Open Old Tape Log...

Track Master features track sheet and tape log generators that simplify the two most common bits of paperwork done in a recording studio. Instead of paper and pencil and tacky looking sheets of paper with multiple corrections and/or erasures, Track Master gives you neat and tidy forms. No need for a copy machine or special forms, since Track Master will print out as many copies as you need quickly and quietly.

And it is even easier to use the paper and pencil, because it runs on a Macintosh computer. The point and click menus make it simple to work with track sheets or tape logs. A pointer on the Mac's screen is positioned by moving the mouse over a smooth surface. The mouse has a button which is pressed to indicate when the pointer is on the item of your choice. (Called clicking the mouse.)

You can jump around between tape logs and track sheets as easily as you shuffle between sheets of paper, without all the clutter around the console. Because of its simplicity, anyone in the control room can learn to use these functions with only a few minutes instruction. A word processor is included, so you can jot down song lyrics, phone numbers, notes or brilliant ideas instantly.

If that's not enough, you can create special logos that will make your forms look even more impressive. Imagine your personal or studio logo appearing on every track sheet or tape log that goes out the door. Goodbye to the expense and bother of stocking these specially printed forms. If you'd like to get even more fancy, you can design customized band logos that will really jazz up the forms.

Filling out track sheets is so easy and tidy using Track Master, you'll wonder why you ever used a pencil.

If you have a standard track sheet form that you use, you can create a computerized version that need only be copied and renamed for each new project. Writing information into an empty track's cell can be as easy as pointing to an instrument in the menu and pushing the button on the mouse. We include 22 of the more commonly used instruments as illustrated by the list above. Other instruments can quickly be typed in using the Mac's keyboard.

Changing the contents of a track is almost as easy. You can type over the old information or delete it entirely and start from scratch.


Sample Track Sheet

FRAMEWORK STUDIOS

123 Silicon Valley Drive
Gaspet New Mexico 011187
(305) 945 9774

To: Off the Wall Records 86 Apple Drive Buzzword Ct., 80M3A				TRACK SHEET BAND: Symphony In Jazz PRODUCER: Willie Paybill ENGINEER: Gary Knobturner ASST ENGINEER: Ina Daze DATE: Sept. 23, 1986			
SONG: It Works For Me							
1 Bass Drum	2 Snare Drum	3 Floor Tom Tom	4 Tenor Tom Toms	5 OH Left	6 OH Right	7 Hi Hat Cymbal	8 bass Direct
9 Bass Amp	10 Grand Left	11 Grand Right	12 ASST. MIDI	13 Hand Claps	14 AMB. Mens Room	15 AMB. WOMENS ROOM	16 Pilot Vocal
17 F_ing Loud Guitar	18 Other Guitar	19 B G Vocal L	20 B G Vocal R	21 Lead Vocal 1	22 Lead Vocal 2	23 Click Track	24 SMPTE Non Drop

SYMPHONY IN JAZZ



Outboard Master

File

New
Open

Close
Save
Save As...
Revert

Page Setup...
Print One
Print...

Quit

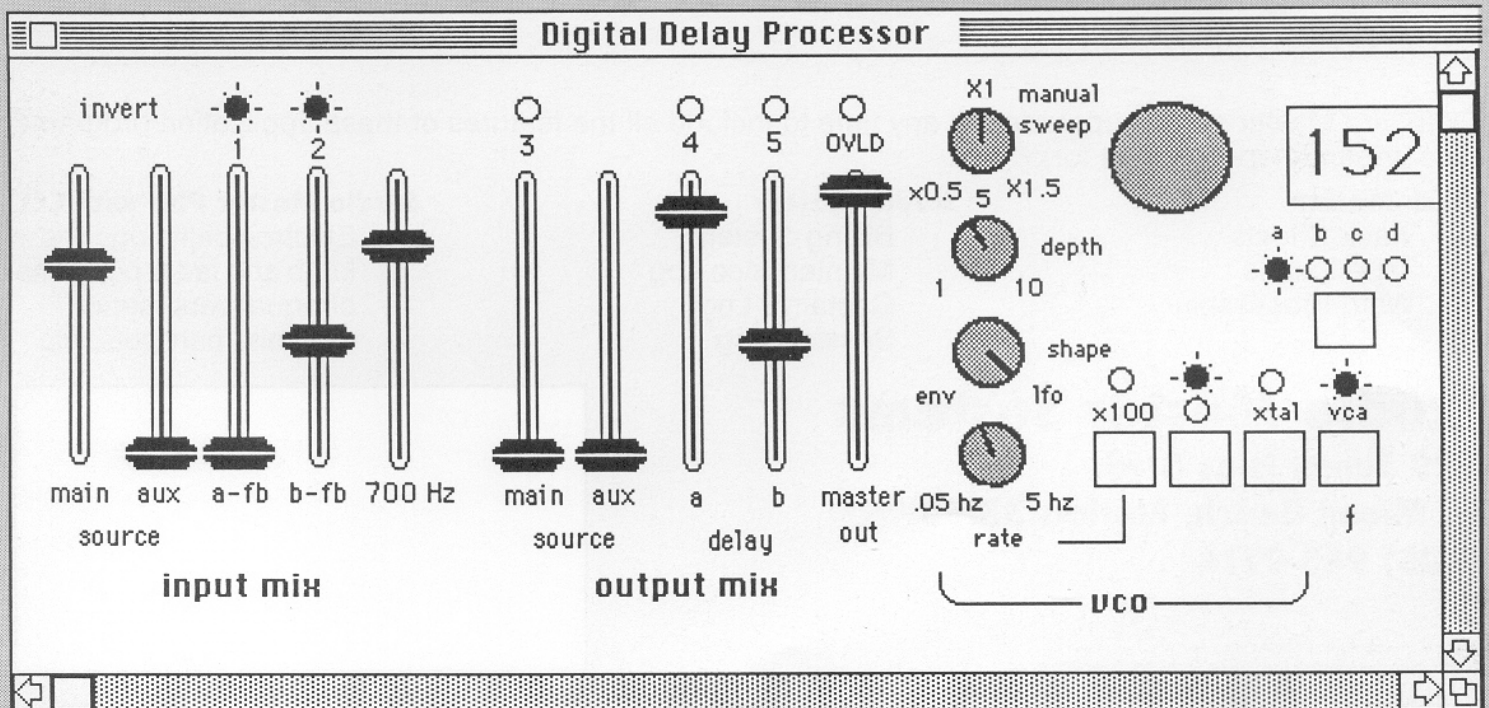
Shades

White
Light Gray
Gray
Dark gray
Black

Setting

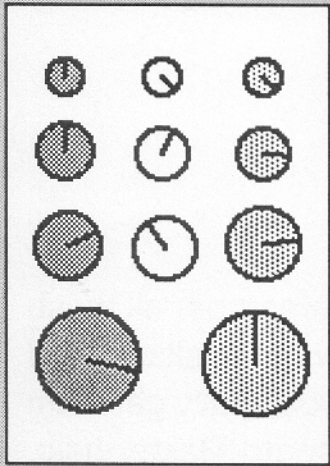
Open Setting Window

Knobs, faders, buttons and switches. Who can remember all those settings? Tired of trying to draw a picture to show the positions and orientations of all those silly controls? And when you finally get them reset, they just don't sound quite right. Let Outboard Master help. Oh you'll still have to draw pictures, but you only have to draw them once. And the precision of a Macintosh computer will help you get closer realignment. You can create a control panel with knobs, round or square buttons, toggle switches, faders, or light bulbs. Lines used to draw the panels can be situated at any angle and can be made thicker or thinner as needed. Text can be added to label the panel's controls. Once the standard panel is created, you use it as a template. A copy of the template is made for each mix. When actually working on a project all you need do is make a few modifications to reflect changes in settings made for this mix.

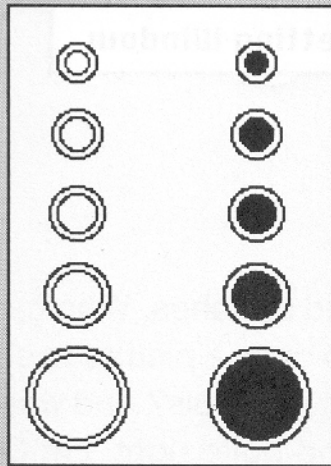


With Outboard Master you can create and store any of these types of controls. Lines or text can also be added.

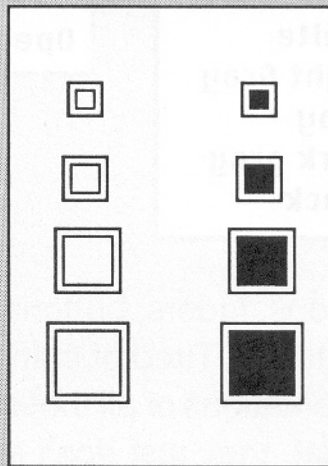
Knobs



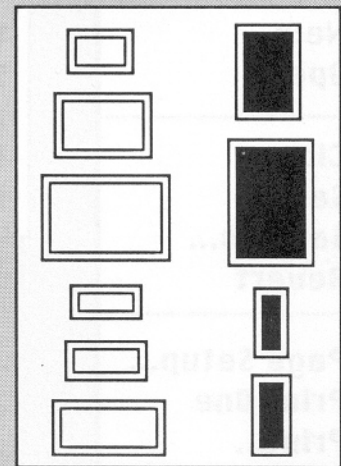
Round Buttons



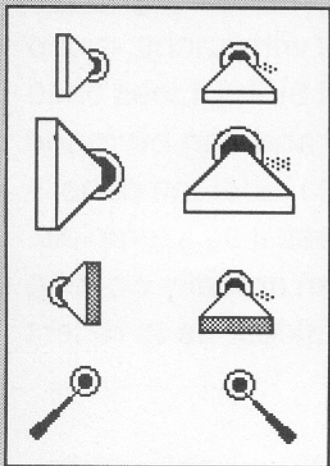
Square Buttons



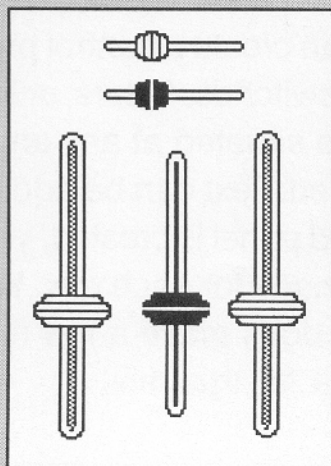
Rectangular Buttons



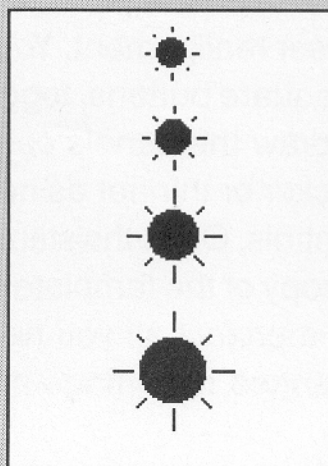
Toggle Switches



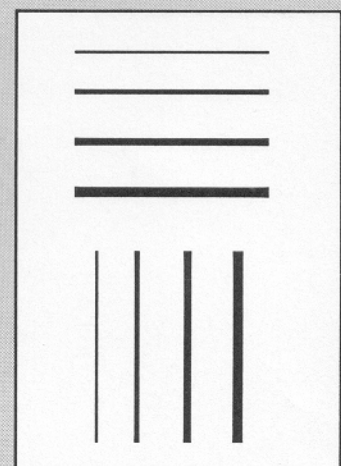
Slide Controls



Light Bulbs



Lines



Outboard Master can be upgraded at any time to include all the features of these application programs (see separate spec sheets for):

Track Master

- Track Sheets
- Tape Labels
- Word Processor

Studio Master

- Billing System
- Maintenance Log
- Captain's Log
- Session Log

Studio Master Plus with CCL

- Electronically logs the knob and fader positions of equalizers, send controls, pan pots, etc.

Studio Master Systems

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