DESIGNER OPERATIONS MANUAL

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SECTION 1 -- INTRODUCTION

The DESIGNER Console is a "hybrid" type of lighting control console. It incorporates features available on memory systems, rock boards, and functions popular in the video industry. These features, and the latest microprocessor technology makes the DESIGNER a flexible tool for the creative lighting designer.

The DESIGNER is available with 24,36, or 48 channels.

This manual will take you step by step through the hookup and operation of your DESIGNER. Since it is basically a two scene console with enhancements it should not be difficult to master. Study the manual carefully with the console to become familiar in all operations and let your creativity go.

SECTION 2 -- INSTALLATION AND HOOKUP

Since the DESIGNER is for portable use as well as permanent installations there is no complicated installation procedure. The console should be placed on a flat surface larger than the console. Allow some room at the rear of the console for access to cable connections and rear panel controls.

The DESIGNER is equipped with a 6" (2M) detachable power cord. Connect the receptacle end to the DESIGNER and then plug the cord into a standard wall outlet. The DESIGNER requires only 2 Amps of 120 Volts, 60 Hz power. The console can be energized at this point using the key switch.

Control signal to dimmers is contained in a multiplexed digital signal from the data link connectors. Connect the data cable to the console "A Data Connector" on the back of the console and then to your dimmer rack, interface box, or plug in box. You are now ready to operate the console. The "B Data Connector" is used for backup. The standard data format is the USITT DMX-512 digital standard.

The DESIGNER is equipped with two working lights mounted to retaining clips on the console rear. Remove them and install them using a quarter turn to latch them into sockets on the top of the console. Even when attached they will seem loose. Adjust them to best light the console in your operating situation. A dimmer potentiometer on the rear of the console will adjust their intensity.

SECTION 3 -- TWO SCENE OPERATION

The DESIGNER is what is referred to as a "Two Scene" console. What this means is that we can set a look or "scene" on stage using the faders in "Scene 1" and while it is running set the next scene up in "Scene 2" and be ready for it on command. After fading into the "Scene 2" we can go back and use the "Scene 1" to set the next look.

CROSSFADERS

The CROSS-FADE faders are used to change control from "Scene 1" to "Scene 2". You will notice that the fader for "Scene 2" is upside down. This will allow you to fade from "Scene 1" to "Scene 2" by grabbing both faders at once.

The LED's next to the faders track the actual fade. The green LED's show the active scene. The red LED's show the inactive. As you will see further on, the actual fade may not be where the position of the faders is, but as indicated by the LED's.

Since each scene has its own cross fader it is possible to have both or neither scene operational. When both scenes are operational, the output will be the higher of the two.

GRAND MASTER

The GRAND MASTER fader proportionally controls all channels. For example, if the GRAND MASTER is set to 50% then the maximum that any channel output can be is 50%. (Exception: Level set by the Groupmasters are not effected by the GRAND MASTER.)

SYSTEM BLACKOUT

The SYSTEM BLACKOUT forces all outputs to "0". This works similar to bring the GRAND MASTER to "0" but does it instantly. The LED will come on when in blackout.

TIME FADERS

The TIME FADERS allow the cross faders to act slowly over a period of time, freeing the operator from the tedious operation of doing it by hand. The actual fade time is displayed in the window above each fader. Since each cross fader has its own time fader, each can

fade at its own rate. Times can be set from "0" to "5:00" minutes.
Time is broken up into 1 second intervals up to 25 seconds, 5
second intervals up to 2:00 minutes and 10 second intervals up to
5:00 minutes. Please note that these times are not precise and may
vary depending on the mode of operation.

To use the TIME FADERS, set the time desired in the display window
for each scene, then take the CROSSFADERS and fade to the next
scene. The TIME FADER will automatically fade at the desired rate.
The actual fade progress will be indicated on the bi-color LED's.

TYPICAL OPERATION:

        Preshow – GRAND MASTER set to "10"
                 – SCENE 1 CROSS FADER TO "0"
                 – SCENE 2 CROSS FADER TO "0"
                 – BLACKOUT "OFF"
                 – FADERS in "SCENE 1" set to levels for cue 1.
                 – FADERS in "SCENE 2" set to levels for cue 2

    Cue 1 –   Bring SCENE 1 CROSS FADER to "10".

    Cue 2 –   Crossfade from "SCENE 1" to "SCENE 2" by moving
              both CROSSFADERS together till the SCENE 2
              CROSSFADER is at "10".
          –   Set FADERS in "SCENE 1" to levels for cue 3.
          –   Set timer for both CROSS FADERS to "10".

    Cue 3 –   Crossfade from "SCENE 2" to "SCENE 1" by moving both
              CROSSFADERS together till the SCENE 1 CROSSFADER
              is a "10" (The actual fade will take 10 seconds and
              will show on the CROSSFADER LED's.

    Cue 4 – . . .

Fade time may be changed during a fade if needed. Fade progress may
be stopped by bringing the CROSSFADERS to meet the LED's. It may
also be reversed by moving the crossfaders past the actual fade
point, back to the original scene.

SECTION 4 -- SPECIAL EFFECTS

BUMP
Any channel may be "Bumped" to full using the BUMP effect.

To activate the CHANNEL BUTTONS below each channel, press the BUMP
ENABLE button. The LED will come on. Each time you press and hold
one or more CHANNEL BUTTONS, the corresponding channel will flash
to full. When released, the channel will return to original level.

SOLO
Any channel may be "Soloed" to full using the SOLO effect. To
activate CHANNEL BUTTONS below each channel, press the "SOLO
ENABLE" button. The LED will come on. Each time you press and hold
one or more CHANNEL BUTTONS, the corresponding channel will flash
to full as in the "Bump" mode. At the same time any channel not
"Soloed" will go to "0", thus giving a solo or single light effect.

CHASE
The DESIGNER has a user programmable channel chase. Any channel
can be included in the chase pattern once. The chase pattern can
be programed in any order and will be played back in the same order
it was put in. The CHASE FADE MASTER will control the level of the
chase. The CHASE BLACKOUT button will activate the chase on stage
(This comes on at power up) when disabled. The CHASE PREVIEW will
allow the user to preview the speed and direction of the chase by
showing it on LED below each channel. The CHASE RATE FADER will
control the speed and direction of the chase. Placing this fader
in the center position will stop the chase.

To program a chase pattern, press the CHASE PROGRAM button. The
LED should come on. Press the BUMP BUTTON below each channel
desired in the pattern. Press them in the order that you want them
to chase. Pressing a button twice will remove it from the pattern.
Once removed from the pattern if pressed again, it will be placed
after the last channel selected. Press the CHASE PROGRAM button
again to record the chase.

Chases can not be cleared, so be sure to keep the CHASE BLACKOUT
on if you do not want it to have an effect on stage.

SECTION 5 -- MEMORY MASTER

Besides the two manual scenes, the DESIGNER also has "hidden" scenes. These scenes can be programed and stored for use later. When bringing them back they will be controlled by one fader or master. Thus we have "Memory Masters". The "Memory Master" has two modes, "Program" and "Playback".

PROGRAM
To put the "Memory Master" into the "Program" mode, press and hold the MEMORY MASTER button for 3 seconds. When you release the button the LED should blink. Place the GRAND MASTER at "10". Use the "Scene 1" FADERS to set the level for the memory scene. Press the BUMP BUTTON below the channel to program it into that memory.(ie. channel 1 = memory 1).

Press the MEMORY MASTER button again to exit the "Program" mode.

One or all memories can be programed while in the program mode.

To clear a memory, program levels of "0" into all channels of that memory.

PLAYBACK
To put the "Memory Master" in "Playback" mode, press the MEMORY MASTER button. Do not hold it in, or you will go into program mode. The LED should come on (not blink).

While in the "Playback" mode "Scene 1" will act as normal. "Scene 2" will act as master for the hidden memories. Channel 1 will bring up memory one and so on. Using the crossfader will fade the memories in "Scene 2" and the levels set in "Scene 1".

While in "Playback" mode, "Bump" and "Solo" will bump memories, but only while faded into the memory scene("Scene 2) . Also note that the LED's below each channel do not come on as they do in normal "Bump" mode. (The first 6 do flash sometimes, please ignore this)

The "Chase" will operate as normal when in "Playback" mode.

SECTION 6 -- MISCELLANEOUS

CLEARING ALL MEMORY
To clear all chase & memory master memory in the console, press the
SYSTEM BLACK OUT and the MEMORY MASTER function pushbuttons at the
same time. Most of the LEDs on the control will flash. This will
clear all memory used for chases and memory masters in the console.

MEMORY RETENTION
The DESIGNER has a 10 year lithium battery to retain all recorded
information while the unit is turned off. It is always wise to
record all information on paper also, in case some memory problem
arises.

MAINTENANCE
The DESIGNER has been designed using the latest digital technology.
It will give you many years of reliable service. There are no user
serviceable parts inside the console and no adjustments to make.

Be sure to plug the console in to 110/120V AC.

Keep console covered when not in use to keep dust out of it.

Keep containers of liquid, ash trays and other sources of small
particle away from console. (especially Coca-Cola).

Do not try to clean faders. They are lubricated from the
manufacturer and cleaning will drastically shorten their life. If
you have any problems contact your dealer or Lighting
Methods Inc. (716)-328-1020.

DESIGNER QUICK REFERENCE SHEETS

CLEAR ALL CHANNELS PATCHED TO DIMMER 11

| CLEAR | DIMMER | 1 | 1 | PATCH | PATCH |
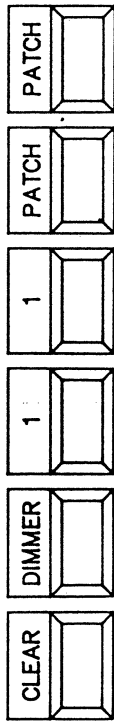
CLEAR ALL CHANNELS PATCHED TO GROUP 4

| CLEAR | CHANNEL | 9 | 4 | PATCH | PATCH |
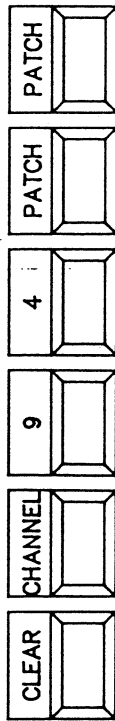
CLEAR ONLY DIMMER 3 FROM CHANNEL 2

| DIMMER | 3 | AT | 0 | 0 | PATCH | 2 | + | PATCH |
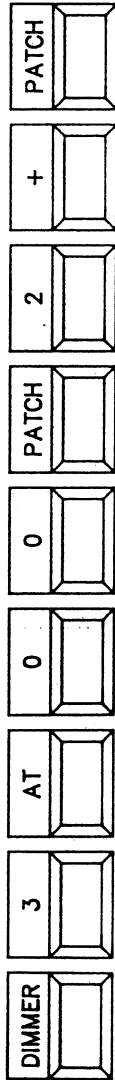
CLEAR ALL DIMMER FROM ALL CHANNELS AND ALL CHANNELS FROM ALL GROUP MASTERS

| CLEAR | CHANNEL | 9 | 9 | PATCH | PATCH |
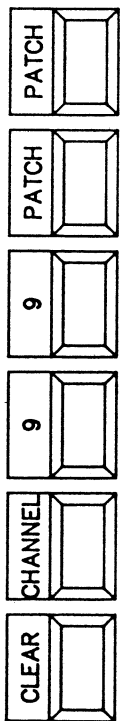
DESIGNER QUICK REFERENCE SHEETS

SEND DEFAULT PATCH TO DIMMERS

PATCH	CHANNEL	PATCH	PATCH
□	□	□	□
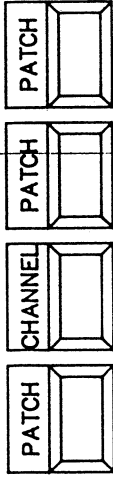
SEND ALL PATCHES IN CONSOLE TO DIMMERS

PATCH	FULL	PATCH	PATCH
□	□	□	□
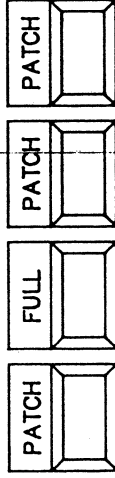
RECORD PATCHES TO TAPE

RECORD	RECORD	RECORD
□	□	□

RECALL PATCHES FROM TAPE

RECALL	RECALL	RECALL	PATCH
□	□	□	□

DESIGNER QUICK REFERENCE SHEETS

REMOVE ALL DIMMERS PATCHED TO CHANNEL 15 AND
PATCH DIMMER 10 AT 75% TO CHANNEL 15

DIMMER	1	0	AT	7	5	PATCH	1	5	−	PATCH

KEEP ALL DIMMERS PATCHED TO CHANNEL 3 AND
ADD DIMMER 6 AT FULL TO CHANNEL 3

DIMMER	6	AT	FULL	PATCH	3	+	PATCH

KEEP ALL DIMMERS PATCHED TO CHANNEL 24 AND
ADD DIMMERS 1 THRU 6 AT FULL TO CHANNEL 24

DIMMER	1	−	6	AT	FULL	PATCH	2	4	+	PATCH

REMOVE ALL DIMMERS PATCHED TO CHANNEL 20 AND
PATCH DIMMER 24 AT FULL AND DIMMER 44 AT NON−DIM TO CHANNEL 20

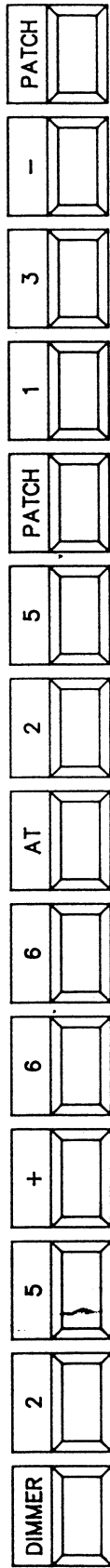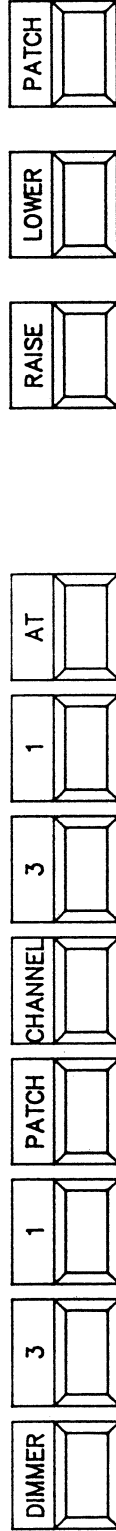| DIMMER	2	4	AT	FULL	4	4	AT	NON−DIM	PATCH	2	0	−	PATCH

DESIGNER QUICK REFERENCE SHEETS

REMOVE ALL DIMMERS FROM CHANNEL 7 AND PATCH DIMMER 25 AND 66 AT 25% TO CHANNEL 13

[DIMMER] [2] [5] [ ] [+] [6] [6] [AT] [2] [5] [PATCH] [1] [3] [-] [PATCH]

ADJUST PATCH LEVEL OF DIMMER 31 IN CHANNEL 19 LIVE

[DIMMER] [3] [1] [PATCH] [CHANNEL] [3] [1] [AT]   [RAISE] [LOWER] [PATCH]

PATCH CHANNEL 3 THRU 7 TO GROUP MASTER 7

[CHANNEL] [3] [-] [7] [PATCH] [7] [PATCH]
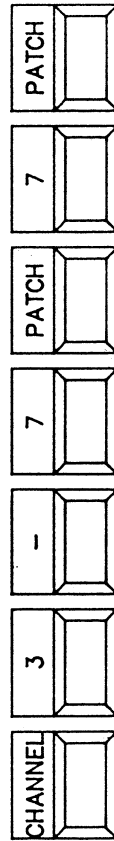
PATCH CHANNEL 22 AND 23 TO GROUP MASTER 2

[CHANNEL] [2] [2] [+] [2] [3] [PATCH] [2] [PATCH]
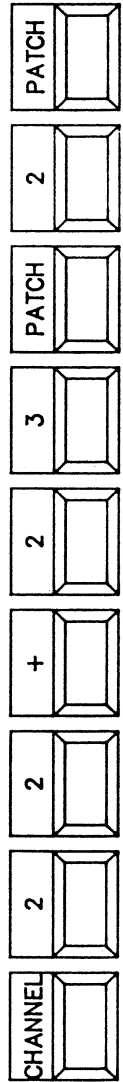
DESIGNER QUICK REFERENCE SHEETS

VIEW ALL DIMMERS PATCHE TO CHNNEL 10

| CHANNEL | 1 | 0 | PATCH | | + | - | STEP | CLEAR |
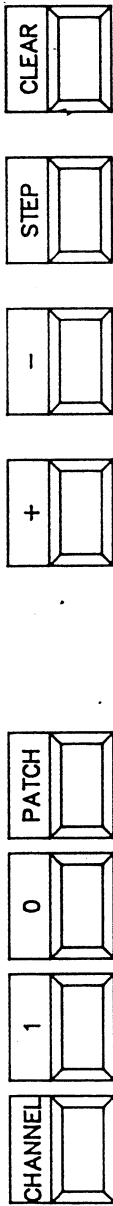
VIEW ALL CHANNELS PATCHED TO DIMMER 85

| DIMMER | 8 | 5 | PATCH | | + | - | STEP | CLEAR |

VEIW ALL CHANNEL PATCHED TO GROUP 5

| CHANNEL | 9 | 5 | PATCH | | + | - | STEP | CLEAR |

CLEAR ALL DIMMER PATCHED TO CHANNEL 8
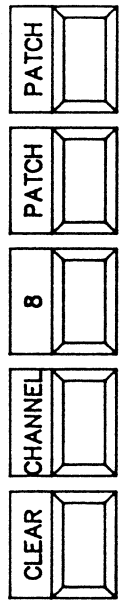
| CLEAR | CHANNEL | 8 | PATCH | PATCH |

11/91

MYTHICAL BUS

VISN-333 Rev.B

JUMPERS
A B C D

A – ALL 192 ON II
B & C – IDEA
D – VISION & EXPRESSION

STRAND PINOUT
1 – CLOCK (-)
2 – COMMON
3 – CLOCK (+)
1 – ANALOG DATA

USITT AMX-192 PINOUT
1 – COMMON
2 – CLOCK (-)
3 – ANALOG DATA
1 – CLOCK (+)

Small 4 pin   Large 4 pin

ANALOG LEVEL ADJUST

R7

OUTPUT CONNECTOR
1 – CLOCK I (+) (GRN)
2 – CLOCK I (-) (RED)
3 – DATA I (OR)
1 – Common (YEL)
5 – CLOCK II (+) (GRN)
6 – CLOCK II (-) (BLU)
7 – DATA II (VIOL)
8 – Common (SLATE)
9,10 – nc

J2   J1   POWER
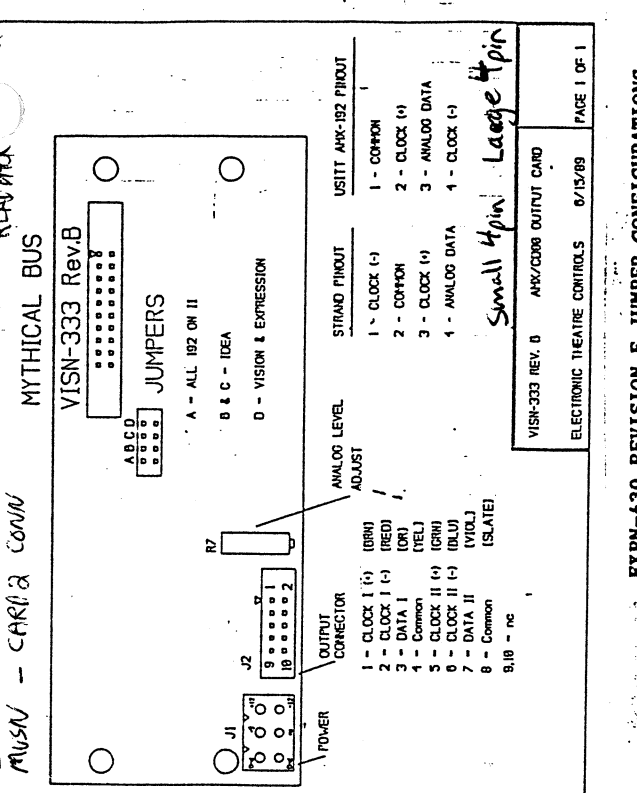
EXPN-430 REVISION F JUMPER CONFIGURATIONS

Output Clock Select – A – IN
                      B – OUT

DMX   D-192
C – IN / OUT   JUMPER CLIP
D – OUT / IN

SRAM/EPROM Select – E – Hard-wired Trace
                    F – OUT
                    G – OUT
                    H – Hard-wired Trace
                    I – OUT
                    J – Hard-wired Trace
                    K – OUT

Disk Interface – L – OUT
                 M – Hard-wired Trace
                 N – OUT
                 O – Hard-wired Trace
                 P – OUT
                 Q – Hard-wired Trace

SRAM/RTC Options – R – OUT
                   S – OUT / IN

	Standard	RTC Installed
T –	IN	OUT
U –	OUT	IN
V –	OUT	IN
W –	IN	OUT
X –	OUT	IN
Y –	IN	OUT

VISN-333 REV. B	AMX/CD00 OUTPUT CARD	
ELECTRONIC THEATRE CONTROLS	6/15/09	PAGE 1 OF 1

Can't be DMX out on 221a

L.M.I Protocol   dk

PIN	(1)	(2)	(3)	(4)
	D+	D-	C+	C-

ETC Protocol

(1)	(2)	(3)	(4)	(5)
⏚	D-	D+	C+	C-

FOR LMI on Black Box (Magic Box)

Output cannot be set up for LMI (8-signal clock) or DMX 2 → REG DMX/QUARTR

LMI (CHAON ONLY)
(1) D+
(2) D-
(3) C+
(4) C-

EXPN/DMX

DMX – f   2 3 4 5