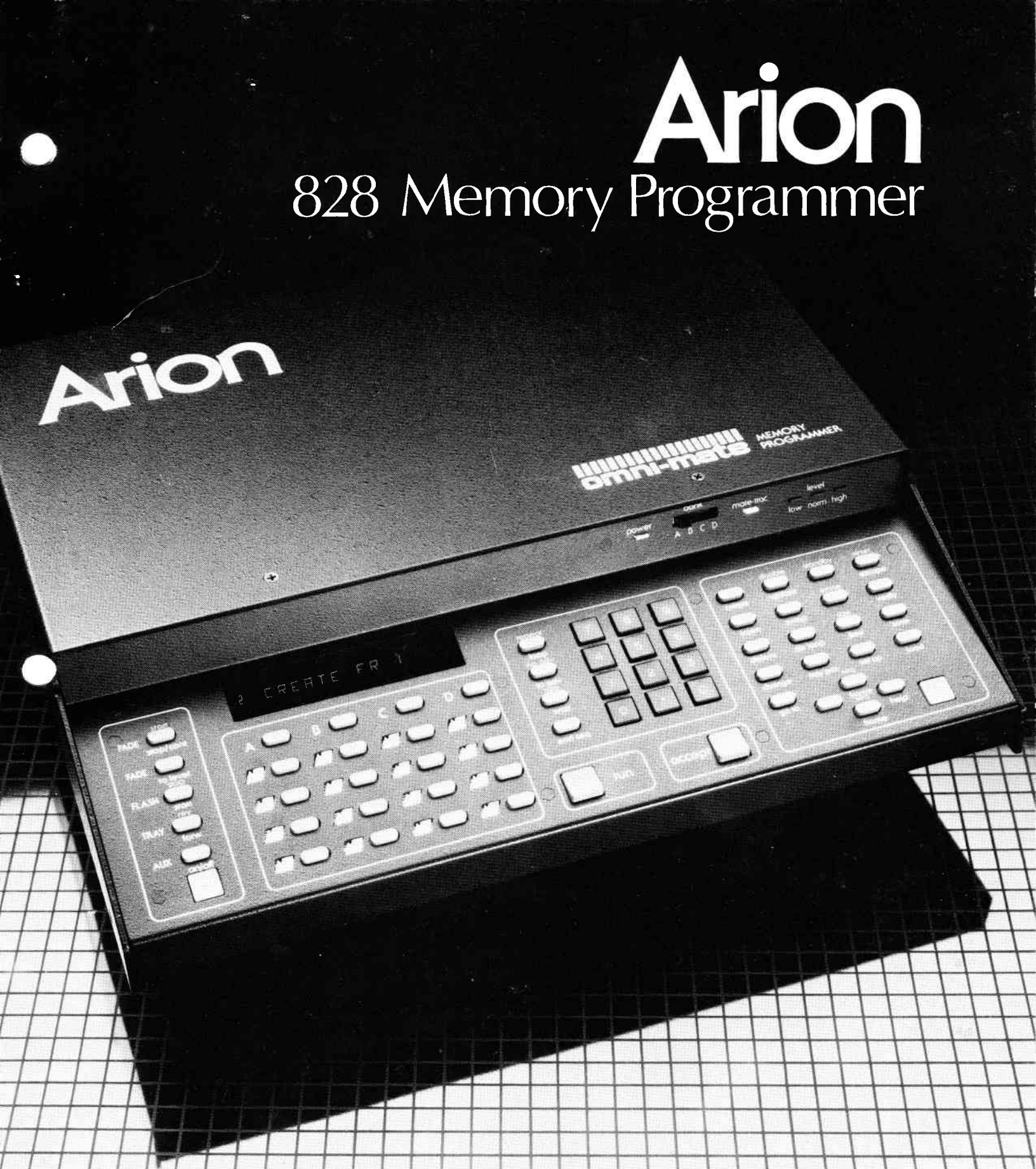
Arion

828 Memory Programmer



OWNERS MANUAL

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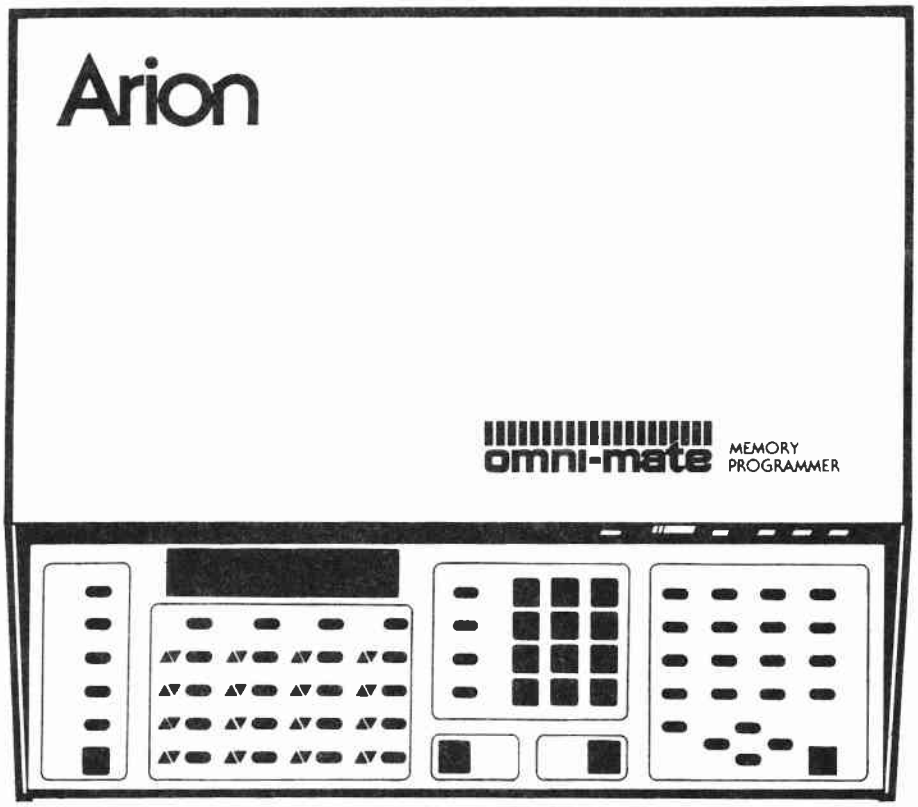


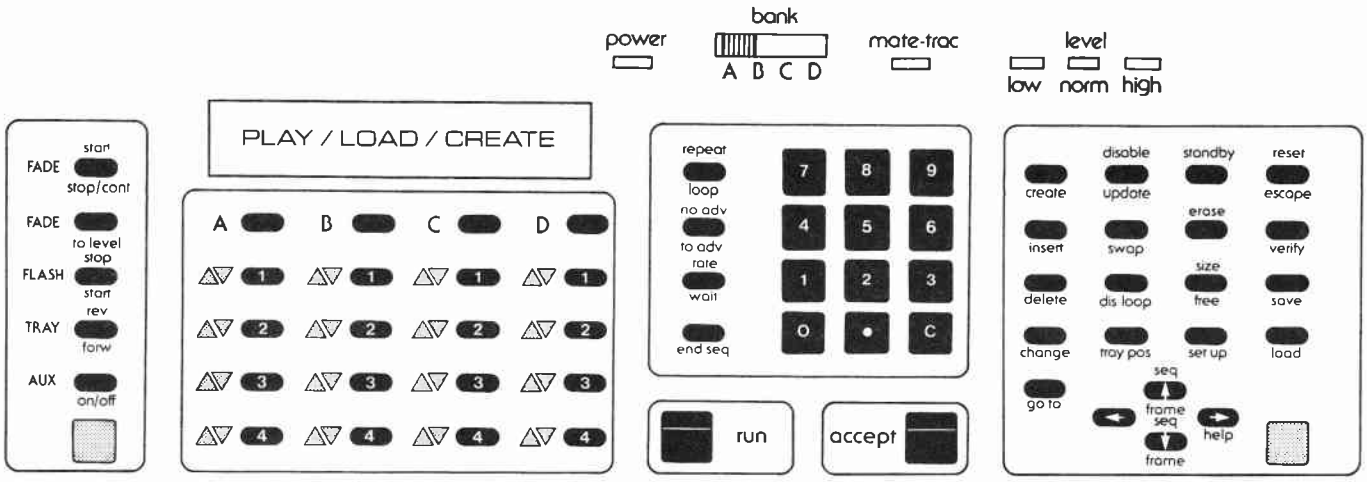
DESCRIPTION OF THE 828 PROGRAMMER

The 828 Programmer is a system in itself. It contains a microprocessor, a keyboard and display, a four projector dissolver, and relay controlled power outlets for four projectors.

The microprocessor is the heart of the system. It responds to the keyboard, stores the information and controls the dissolver unit.

Up to three additional dissolver units can be added to control a total of 16 projectors.

The 828 Programmer gives you independent control of each projector, with a complete array of programming effects usually found only in the large expensive computer systems. Not only does it have great creative flexibility, but it also will prompt you through each step of the programming, giving you instruction and feedback in English to guide you along. This programmer is designed for the creative mind. If you can imagine it, you can do it with the 828 Programmer; easily.



FRONT OF 828 MEMORY PROGRAMMER

The front of the Arion 828 Programmer has six areas. Each of these areas will be described separately. The keyboard has four groups of keys.

1. Function keys
2. Projector Lamp keys
3. Number Entry keys
4. Edit keys

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1. FUNCTION KEYS

There are five keys. Some have two functions. One function is obtained when the key is pressed normally and the other when the yellow Shift key is pressed and held while the Function key is pressed. This is known as a shifted function.

The legend below the key calls for regular operation while the legend above the key calls for the yellow Shift key operation.

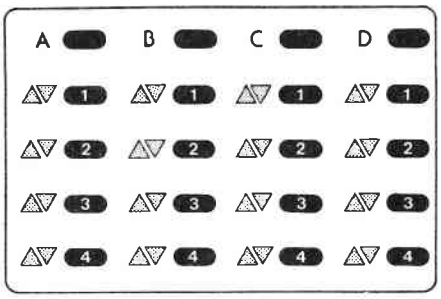
There are five regular functions (not using the yellow Shift key):

Stop/Resume Fade
Flash Lamp
Fade To Level
Forward Tray
Auxiliary On/Off

The functions known as shifted functions are (using the yellow Shift key):

Start Fade
Stop Flash
Reverse Tray

2. PROJECTOR LAMP KEYS



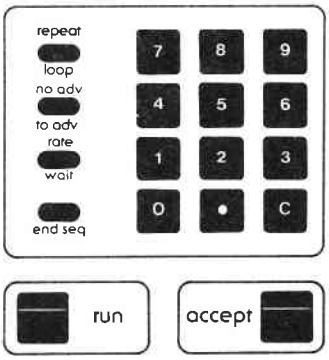
The top four keys [A,B,C,D] are Dissolve keys. The lower sixteen numbered keys are assigned to individual projector lamps, to the left of each of the sixteen keys are sets of yellow indicators that we'll call "LEDs" [Light Emitting Diode].

When the up ▲ LED is on, that projector lamp is to Fade On. A down ▼ LED means that projector lamp is to Fade Off. When both of the LEDs are off, △▽ the lamp of the projector is off, and if both the LEDs are on, ▲▼ the lamp of that projector is on.

The LEDs will also work with some of the Function keys, such as, Fade To Level, Flash, Stop Flash, Auxiliary, Forward and Reverse Trays. This will be discussed in detail later in the manual.

The four keys [A,B,C,D] at the top are the Dissolve keys. When a Dissolve key is pressed, a projector lamp which was on will fade off and its down▼ LED will be lit, at the same time another projector lamp that was off will fade on and its up▲LED will be lit.

3. NUMBER ENTRY KEYS

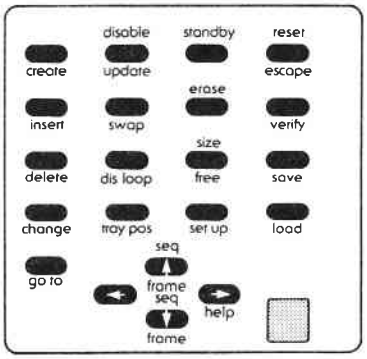


This area contains more than the Number keys, but for ease of reference, this area is referred to as the Number Entry keys.

The Number keys are used to designate how long a projector lamp takes to fade on or off ["fade rate"] or the time before executing the next frame ["wait time"].

There are many other uses of the Number keys. These will be described in various sections of the manual as will the other keys located in this area. The Clear [C] key is used to clear a number entry.

4. EDIT KEYS

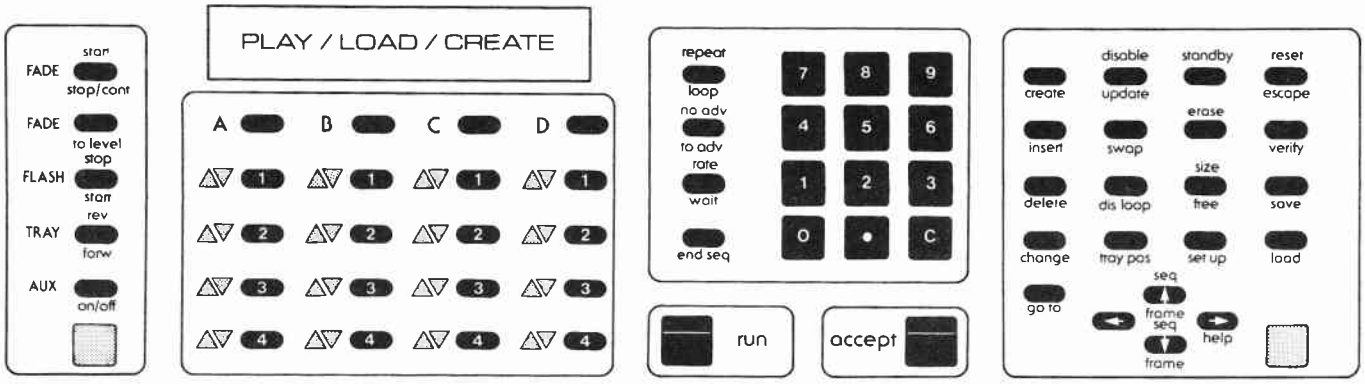


The Edit keys have two levels of operation, regular and shifted.

The yellow square key at the bottom right is another Shift key.

The bottom keys in this area are used to view messages in the message window.

Go To takes you to the start of any sequence.

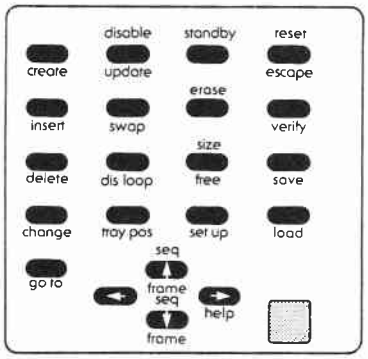


These two keys step the program one frame at a time. To step one sequence at a time, hold down the Shift key and press one of these keys.

These two keys step to each message within a frame.

help This key also prompts you with questions.

The keys on the left (Create, Insert, Delete, and Change) affect the program memory per their designations.



The keys on the right relate to the program in memory.

The Escape key clears the current operation, thereby allowing a choice of another operation.

Load is used when transferring a program from tape into the memory of the programmer.

Reset places the program at the start of the first sequence.

Save is used when sending the program onto magnetic tape for storage (safe keeping).

Verify is used to indicate whether or not the program was recorded properly.

Erase is used to delete the entire program in the memory.

The remaining keys are explained later in this manual.

5. MESSAGE WINDOW

Above the projector lamp keys is a red glass window. One message will appear in the window at a time.

When the 828 Programmer is turned On, the message in the window reads:

PLAY / LOAD / CREATE

These words indicate the three functions of the 828 Programmer.

When playing a tape with Mate-trac into the 828 Programmer, the message reads: PLAYING SHOW #

When loading the memory, the message reads: LOADING SHOW

When you begin to create a program, the message reads: 1 CREATE FR 1

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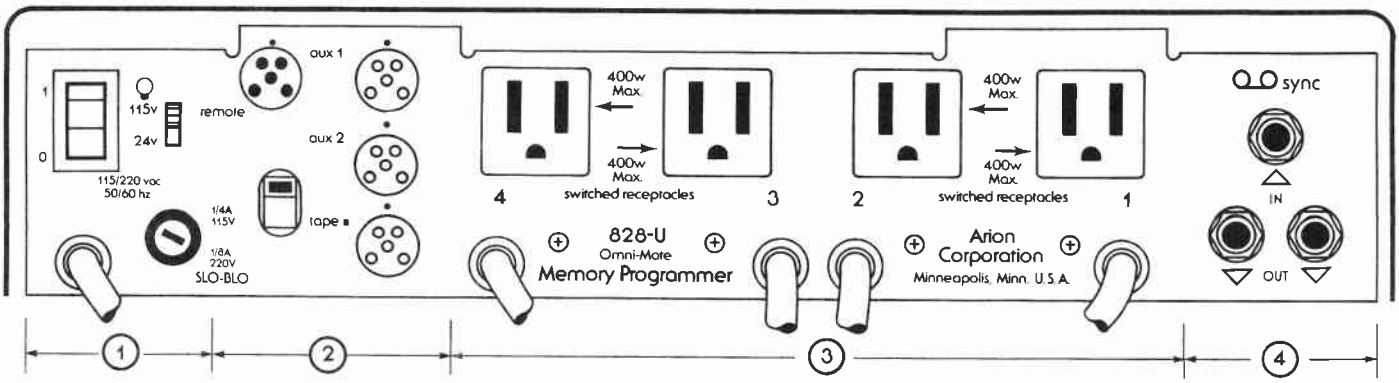
6. OTHER INDICATORS

On the upper right of the front of the programmer are:

1. A yellow power indicator.
2. Bank select switch.
3. Mate-trac indicator.
4. Signal input level indicator.

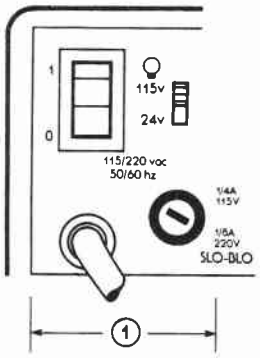


BACK OF THE ARION 828 PROGRAMMER

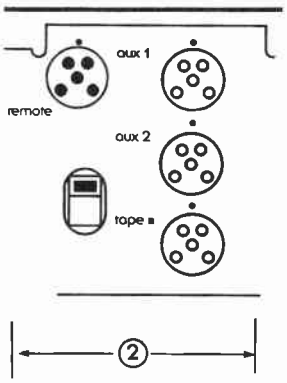
There are four areas on the back panel.

The (1) area concerns the electrical rating of the power line and the lamp voltage. The On/Off switch affects the power to the electronic circuit board. Part of the circuit board in turn controls the On/Off relays to the projector power receptacles.

Before pressing the power switch to On, always be sure to check the setting of the voltage select switch for proper position.



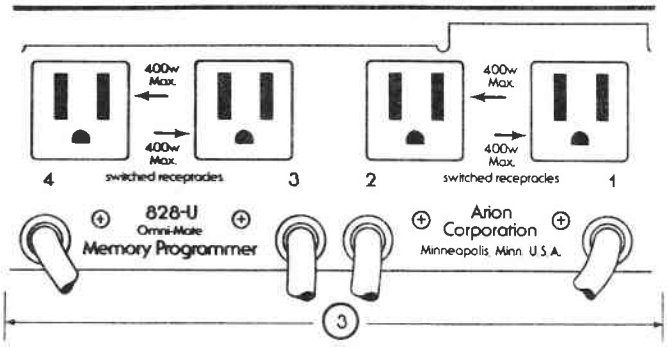
Area (2) consists of a remote control socket, a selector switch for the power line voltage in your area and three auxiliary receptacles. The remote socket will accept a Kodak Ektagraphic type remote controller. Pressing the forward key of the remote control will cause a sequence to be activated. Pressing the reverse button of the remote control will reverse the program to the previous sequence.



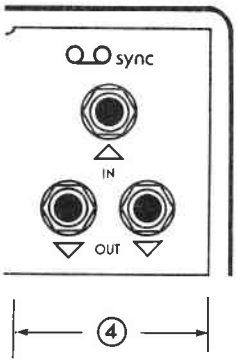
Auxiliaries 1 & 2 control equipment such as dimmers or movie projectors, etc.

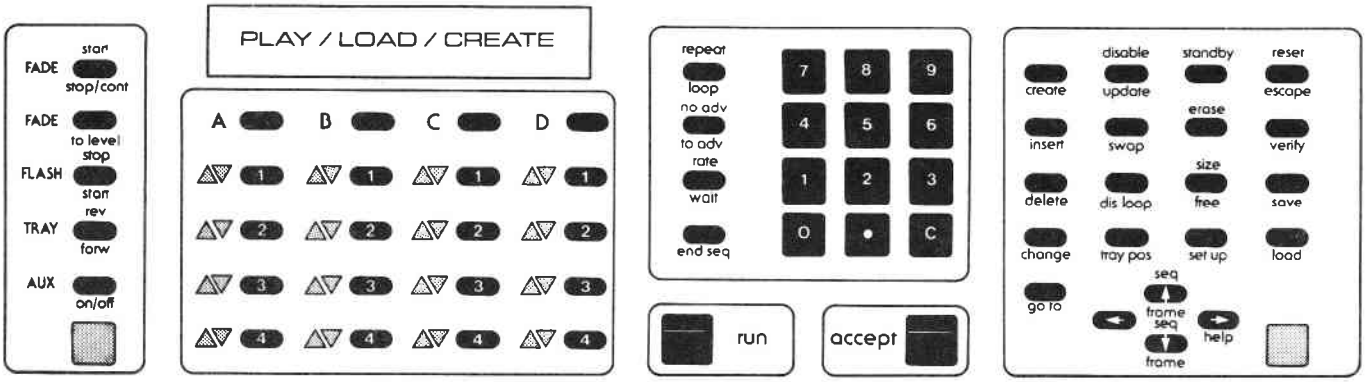
The area (3) consists of four AC power receptacles and four control cables. The AC receptacles are relay controlled by the 828 electronics. The projector power cables can be plugged in any of these receptacles.

The control cables are identified by number and should be connected to the corresponding projectors. It is important that the wattage rating of these receptacles be observed. Each has a 400 watt maximum rating. DO NOT connect modified SAV or Ektagraphic projectors into these receptacles.



The area (4) consists of the Mate-trac signal in/out receptacles. There are two output receptacles for the purpose of daisy-chaining to Omni-Mates.





PROGRAM STRUCTURE

An Arion multi-image program is composed of three building blocks: messages, frames and sequences.

FUNCTION

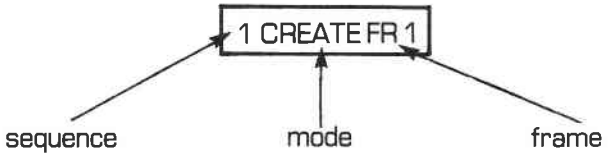
The Function is the fundamental building block of a program. It is the information seen in any one window.

1 CREATE FR 1

FRAME

A frame is a group of mesages that the programmer will put into effect simultaneously.

The first message is called the IDENTIFIER. It shows which sequence you're in, the mode the programmer is in and the frame you're about to view.



The second group of messages are called FUNCTIONS. They together form the action that is to take place on the screen.

The last message is the RESPONSE because it asks you to respond by pressing the Accept key.

SEQUENCE

A sequence consists of a group of frames that are to be executed sequentially. The time between the occurrence of each frame in a sequence is determined by the message referred to as a Wait.

WAIT 1 SEC

INTRODUCTION TO CREATING

CREATING WITH PROMPTING

Letting the programmer prompt you through each entry is advised for first time use of the 828 Programmer.

The messages will prompt you when you press the Help key.

If you make an incorrect entry, press Escape, then press Create to continue creating.

Turn the Programmer on (switch on back). The message is:

PLAY-LOAD-CREATE

Press the Create key, the first message is the Identifier.

1 CREATE FR 1

It identifies the sequence by number, the operation and the frame number within that sequence.

Next, press the Help key in the Edit area, the message now asks for projector lamp to fade on or off.

FADE LAMP

Since there are none on, pressing any Projector key will turn on the up ▲ LED for that projector. If no Lamp key was pressed, pressing the Help key would cause the message to read:

WHICH LAMP?

Press 1 key in bank A, 1 key in bank C.

▲▽ 1 ▲▽ 1 ▲▽ 1 ▲▽ 1

If you press the wrong Projector key just press it again to cancel.

Press the Help key for the next message which prompts for the fade rate for the lamps selected.

AT "??" SEC RATE

Press the number 4 key. Now the message reads:

AT 4 SEC RATE

Press the Help key for the next message.

It offers a choice of entering a wait time or ending the sequence.

WAIT OR END SEQ?

Press the Wait key located in the number area. The message now reads:

WAIT "??.??" SEC

Press the Number keys: decimal . point, 2 and 5. The message reads:

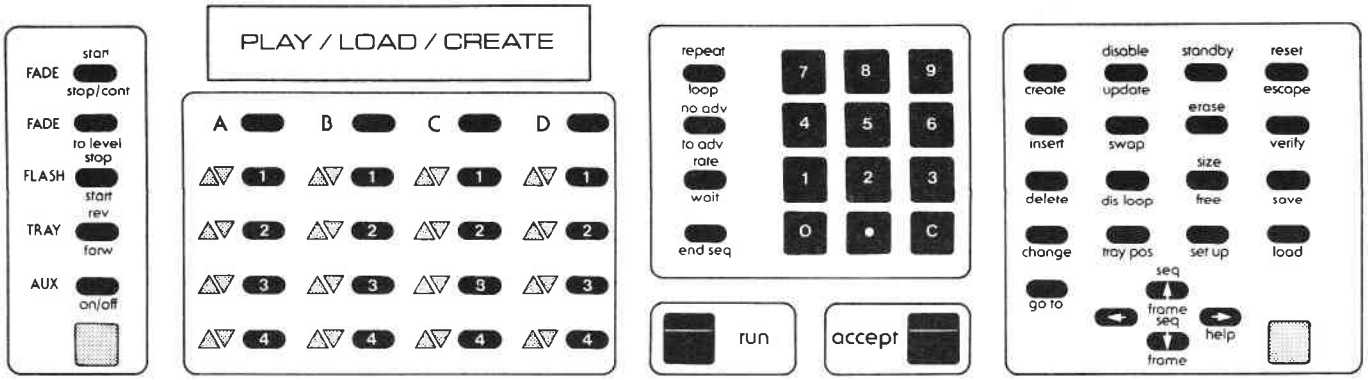
WAIT 0.25 SEC

Press the Help key for the next message. This message asks you to press the Accept key to complete the frame that has been created.

ACCEPT TO CREATE

At this time pressing the Accept key will store the above entries into the memory of the programmer. The message now shows the next frame number.

1 CREATE FR 2



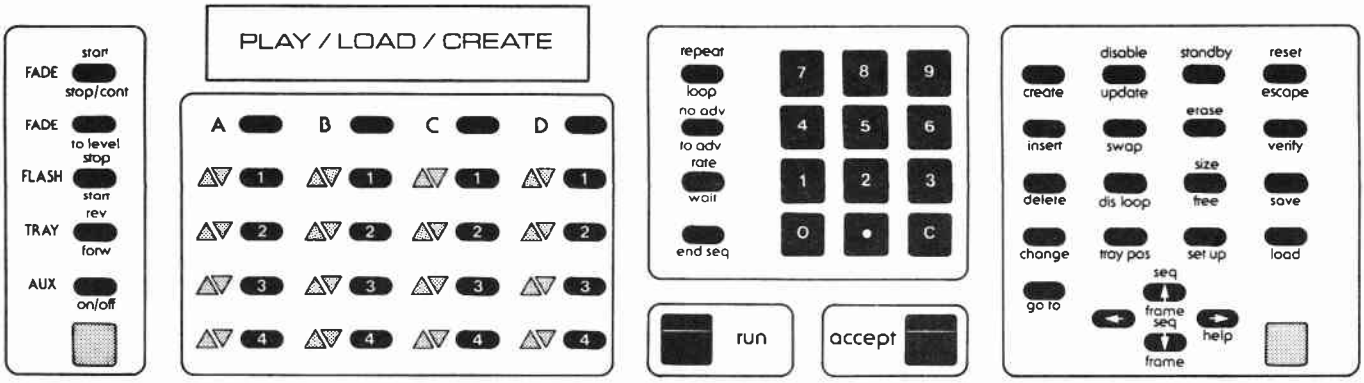
Using the procedures described on previous pages, go through the practice program to give yourself a basic understanding of the programmer's messages and functions.

Faster more advanced methods will be explained in the section following the practice program.

PRACTICE CREATING

	ACTION	MESSAGE APPEARING IN WINDOW AND INDICATOR NEXT TO PROJECTOR LAMP KEYS
1.	Turn on power [switch on back].	PLAY-LOAD-CREATE
2.	Press the Create Key.	1 CREATE FR 1
3.	" " Help.	FADE LAMP
4.	In the A bank press Key 1 [A1].	▲▽A1
5.	Press the Help Key.	AT "??" SEC RATE
6.	" " Number key 2.	AT 2 SEC RATE
7.	" " Help.	WAIT or END SEQ?
8.	" " Wait.	WAIT "??.??" SEC
9.	" " Number key 1.	WAIT 1 SEC
10.	" " Help.	ACCEPT TO CREATE
11.	" " Accept.	1 CREATE FR 2 The A1 LEDs will both be on ▲▼
12.	" " Dissolve key in bank A.	FADE LAMP The A1 LED will be △▼ while the A2 LED will be ▲▽
13.	" " Help.	AT "2" SEC RATE
14.	" " Help.	OFF PROJ "?? ADV"
15.	" " To Adv.	OFF PROJ TO ADV
16.	" " Help.	WAIT or END SEQ?
17.	" " Wait.	WAIT "1" SEC
18.	" " Help.	ACCEPT TO CREATE
19.	" " Accept.	1 CREATE FR 3 The A1 LED is off △▽ and both LEDs for A2 will be On. be On. ▲▼

20.	Press the Help.	FADE LAMP
21.	" " Help.	WHICH LAMP?
22.	" " 3 key in bank A.	FADE LAMP A3▲▽
23.	" " Help.	AT "2" SEC RATE
24.	" " Number key 6.	AT 6 SEC RATE
25.	" " Help.	WAIT or END SEQ?
26.	" " End Seq.	ACCEPT TO CREATE
27.	" " Accept.	2 CREATE FR 1
28.	" " Fade To Level.	FADE TO LEVEL ?
29.	" " Number key 4.	FADE TO LEVEL 4
30.	" " Help.	LEVEL 4 LAMP
31.	" " 1 key in bank A.	LEVEL 4 LAMP A1 ▲▽ up LED will come on. The LED's for A2, 3 will remain on. ▲▼
32.	" " Help.	AT "6" SEC RATE
33.	" " Number key 2.	AT 2 SEC RATE
34.	" " Help.	WAIT or END SEQ?
35.	" " End Seq.	ACCEPT TO CREATE
36.	" " Accept.	3 CREATE FR 1
37.	" " Flash. Start.	FLASH [ON:OFF] 0:0
38.	" " Number key 1.	FLASH [ON:OFF] 1:0
39.	" " Number key 2.	FLASH [ON:OFF] 1:2
40.	" " Help.	FLASH 1:2 LAMP
41.	" " 1 key in bank A.	The A1 LED will light ▲▽
42.	" " Help.	WAIT or END SEQ?
43.	" " End Seq.	ACCEPT TO CREATE
44.	" " Accept.	4 CREATE FR 1
45.	" " Tray Forward.	FORWARD TRAY
46.	" " Help.	WHICH TRAY?
47.	" " 1, 2 in bank A.	The LED's of both A1 and A2 will light.▲▼
48.	" " Help.	WAIT OR END SEQ?
49.	" " End Seq.	ACCEPT TO CREATE
50.	" " Accept.	5 CREATE FR 1
51.	" " Auxiliary. On/Off	AUXILIARY
52.	" " Help.	WHICH AUXILIARY
53.	" " 3 key in bank A.	AUXILIARY The A3 up▲▽LED with light.
54.	" " Help.	WAIT or END SEQ?
55.	" " End Seq.	ACCEPT TO CREATE
56.	" " Accept. A relay will click on.	6 CREATE FR 1
57.	" " Yellow Shift Key and Flash. Stop.	STOP FLASH LAMP
58.	" " Help.	WHICH LAMP? The A1 LEDS ▲▽ are on indicating which lamp is flashing.
59.	" " 1 in bank A.	STOP FLASH LAMP The A1 up▲▽LED will remain lit, the down ▽ LED will go off
60.	" " Help.	WAIT OR END SEQ?
61.	" " Wait.	WAIT "1" SEC [a ditto]
62.	" " Number key 7.	WAIT 7 SEC
63.	" " Help.	ACCEPT TO CREATE
64.	" " Accept.	6 CREATE FR 2



65.	"	" Loop.	START LOOP
66.	"	" Help.	ACCEPT TO CREATE
67.	Press the Accept.		6 CREATE FR 3
68.	"	" 3 in bank A.	FADE LAMP
			A3 down LED lights.
69.	"	" Help.	AT "??" SEC RATE
70.	"	" decimal point and #2.	AT 0.2 SEC RATE
71.	"	" Help.	OFF PROJ "?? ADV"
72.	"	" No Adv. [Remember to shift.]	OFF PROJ NO ADV
73.	"	" Help.	WAIT OR END SEQ?
74.	"	" Wait.	WAIT "??.??" SEC
75.	"	" decimal point and #5.	WAIT 0.50 SEC
76.	"	" Help.	ACCEPT TO CREATE
77.	"	" Accept.	6 CREATE FR 4
78.	"	" 3 key in bank A.	FADE LAMP
			A3 up ▲▽ LED lights.
79.	"	" Help.	AT "0.2" SEC RATE
80.	"	" Help.	WAIT OR END SEQ?
81.	"	" Wait.	WAIT "0.5" SEC
82.	"	" Help.	ACCEPT TO CREATE
83.	"	" Accept.	6 CREATE FR 5
84.	"	" Loop.	LOOP 0 TIMES
85.	"	" Number key 5.	LOOP 5 TIMES
86.	"	" Help.	WAIT OR END SEQ?
87.	"	" Wait.	WAIT "0.5" SEC
88.	"	" Help.	ACCEPT TO CREATE
89.	"	" Accept.	6 CREATE FR 6
90.	"	" 1, 2, 3 in bank A.	FADE LAMP
			A123 down△▼LEDs will be on
91.	"	" Help.	AT "0.2" SEC RATE
92.	"	" Number key 8.	AT 8 SEC RATE
93.	"	" Help.	OFF PROJ "NO ADV"
94.	"	" To Adv.	OFF PROJ TO ADV
95.	"	" Help.	WAIT OR END SEQ?
96.	"	" End Seq.	ACCEPT TO CREATE
97.	"	" Accept.	7 CREATE FR 1
98.	"	" Escape.	7 END OF SHOW
99.	"	" Reset. [Remember to shift.]	SEQUENCE 1
		Relay will click.	

100. Press the Run key until SEQUENCE 2 appears. Lamps A2 & A3 will be on.

SEQUENCE 2

101. Press the Run key for each sequence. Repeat until END OF SHOW appears. Listen for click after Sequence 5 is run. Notice the Loop in Sequence 6 as it counts down. Lamps A3 will flash On and Off.

7 END OF SHOW

102. To stop a Run, press the Escape key. To resume the Run, press the Run key. There is a fast method of creating that is explained in the Advanced creating section but before going to that section, try the use of the various Edit keys.

EDIT

Leave the practice creating program in memory.
The Edit mode provides quick and easy access to the individual messages. Enter the Edit mode by pressing the Escape key.

1. Press the Escape key (do not erase memory).

7 END OF SHOW

2. Press the Reset key.

SEQUENCE 1

3. Again, press the Escape key

1 EDIT FR 1

When in Edit, there are two areas, the message window and the yellow LEDs that give you visual feed-back of your entries in each frame. The messages in the window report to you just as they did during creating. The yellow LED's will indicate whether a lamp is fading up ▲▽ or down △▼ or if the lamp is on ▲▼ or off △▽.

4. Slowly press the Help key 8-10 times. Notice the various messages.
5. Press the Frame key 2-3 times.
6. Press the Frame key 2-3 times. Notice that the message moves an entire frame and not individual windows in a frame.
7. Press the Seq. key. (Shift key)
8. Press the Seq. key. (Shift key) Note it moves to the beginning of each sequence.
9. Press the Go To key.

GO TO SEQ. 0

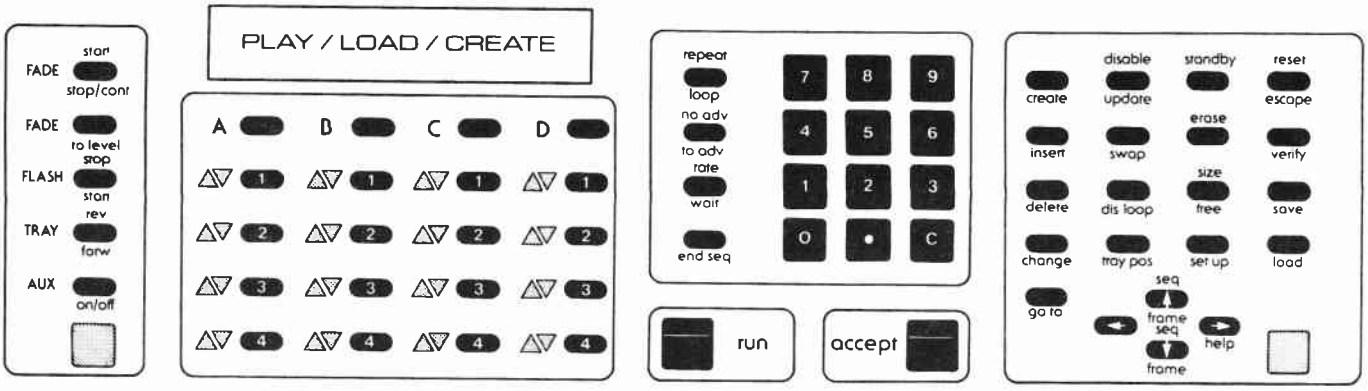
10. Press the Number key 6, then press the decimal point, then press the Number key 5. This is telling the memory to Go To Sequence 6, Frame 5.

GO TO 6 FR 1
GO TO 6 FR 5

11. Press the Accept key.

6 EDIT FR 5

Thus the Go To will get to any point in the program memory rapidly.
This completes basic creating.



CREATING WITHOUT PROMPTING

The following steps for creating are recommended when one becomes familiar with the programmer. Its purpose is to speed up creating.

1. Erase memory by first pressing Shift and while holding down, press Erase key. Then press Accept.

   ERASE SHOW ?
   PLAY-LOAD-CREATE

2. Put Identifier window in the display by pressing Create.

   1 CREATE FR 1

3. Press 1 key in banks A, B, C.
   In this step the window appeared as soon as a Projector key was pressed. Thus eliminating the need to press Help.

   FADE LAMP ▲▽A1 ▲▽B1 ▲▽C1

4. Press #6.
   Note that again we bypassed the Help key.

   AT 6 SEC RATE

5. Press Wait

   WAIT "??.??" SEC

6. Press .35.

   WAIT 0.35 SEC

7. Press Accept.
   In this method the entire frame was created but pressing Help key was not necessary.

   1 CREATE FR 2
   ▲▼A1 ▲▼B1 ▲▼C1 LED's are on

DITTOS

A ditto is a Fade Rate or a Wait Time or a Projector To Adv entry that is automatically repeated in each frame until changed.

For example:

1. Press 1 key in bank A.

   FADE LAMP △▼A1

2. Press Wait.

The programmer needs to know if the off projector will advance or not. [If the slide is to be recalled or not.]

OFF PROJ "?? ADV"

3. Press To Adv.
4. Press Wait.

The wait time is repeated.

The dittoes can be changed simply by entering another number.

OFF PROJ TO ADV
WAIT "0.35 SEC"

5. Press #1, #2
6. Press Accept.

WAIT 12 SEC
1 CREATE FR 3

If all these dittos are to continue there are only two messages that need to be created.

Press the 1 key in banks B, C.

FADE LAMP ▲▽B ▲▽C

Now there is a choice:

Continue to create frames using waits or end the sequence

1. Press Wait
2. Press Accept

WAIT "12" SEC
1 CREATE 4 all LED's off

Let's do another frame and end this sequence.

1. Press the 2 key in bank A, 4 key in bank B
2. Press End Seq.
3. Press Accept

FADE LAMP ▲▽A2 ▲▽B4
ACCEPT TO CREATE
2 CREATE FR 1 ▲▼A ▲▼B

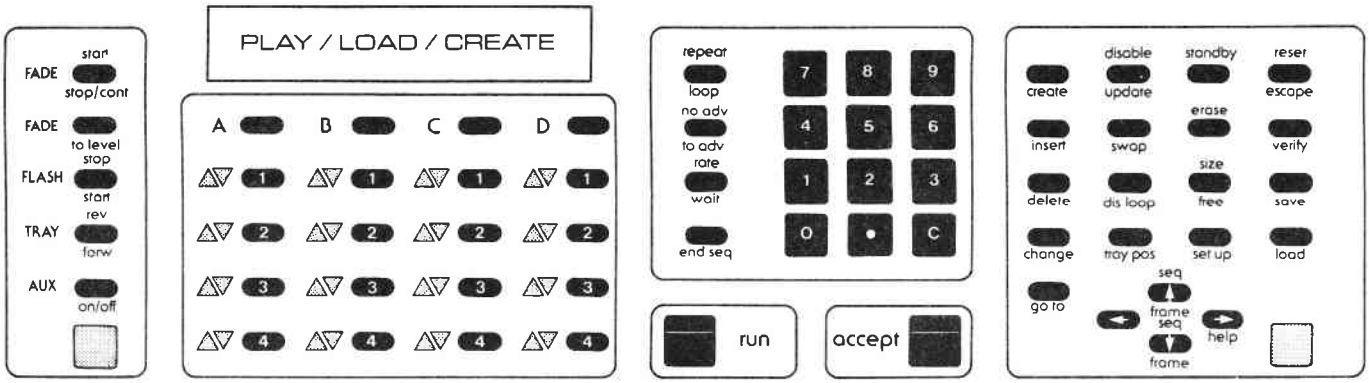
Fade rate, to adv. and wait all dittoed; a frame created in three key strokes! Note the numbers, they show that we're ready to create the first frame of the next sequence.

2 CREATE FR 1
2nd Sequence
1st Frame

If in the Create mode and pressing keys does not give a response, press the Help key for a prompt of the right entry.

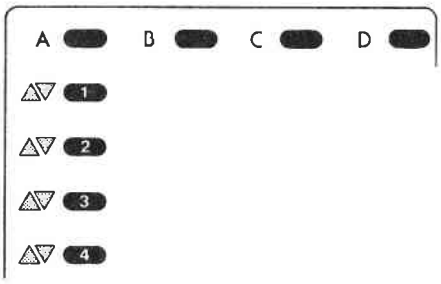
1. Press Help twice.

FADE LAMP
WHICH LAMP?



CREATING

DISSOLVE KEYS



The Dissolve keys are next to the letters [A, B, C, D] at the top of the projector Lamp key area. They have no yellow indicators.

The purpose of these keys is to create a cross fade [dissolve] between 2 projector lamps. Each Dissolve key affects only the vertical bank of keys and LEDs directly below it.

This is a convenience feature only.

For the Dissolve key to work, one lamp must already be on.

EXAMPLE: First press Shift and while holding it down, press Erase.

Press Accept
" Create
" 1 key in bank A
" #2
" End Seq
" Accept
" Dissolve key in bank A
" To Adv.
" Wait
" #2, #9
" Accept

Pressing the same Dissolve key in the next frame. will then dissolve from #2 to #3 and so on.

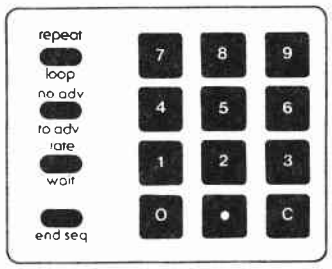
If there is more than one LED fully on, the Dissolve key will have no effect because the programmer doesn't know which lamp should dissolve off. Simply press the key of the lamp you want to fade off and the key of the lamp you want to fade on.

ERASE SHOW?
PLAY-LOAD-CREATE
1 CREATE FR 1
FADE LAMP ▲▽ A1
AT 2 SEC RATE
ACCEPT TO CREATE
2 CREATE FR 1

Note how A1 is fading off△▼and A2 is fading on ▲▽

OFF PROJ TO ADV.
WAIT "??.??" SEC
WAIT 29 SEC
2 CREATE FR 2
Notice A2 is now on; ▲▼

FADE RATE



The rate at which a lamp fades up or down is known as a Fade Rate. Fade Rates are expressed in seconds of time (e.g., 2.0 seconds).

The Number keys are used for this entry.

Fade Rates can be entered in the Create, Insert, or Change modes. To change a Fade Rate when in the Edit mode first press the Insert or Change keys.

When changing a fade rate, a Wait Time of .1 second or more must be entered at the end of the previous frame. In any sequence remember to create a total wait time long enough for the projector to fade before it's used again. For a 4 sec. fade be sure that the waits together total 5.2 sec. before that projector is used again.

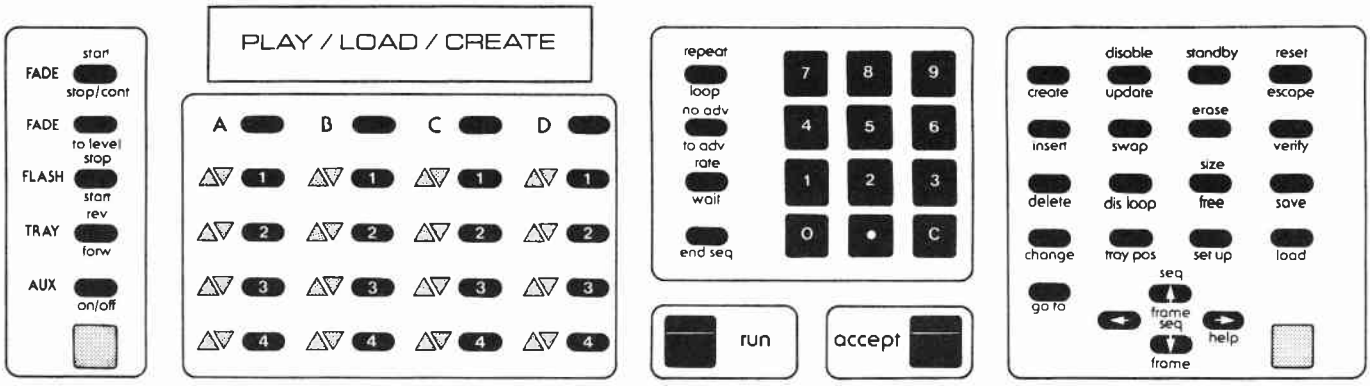
EXAMPLE:

Frame 1	A1	4 SEC FADE		WAIT 1	SEC.
3	C4	6	"	"	1.5 SEC.
4	C1	2	"	"	1.5 SEC.

Total 5.5 sec. wait A1 projector will be ready for use again.

FADE RATES AVAILABLE

0 (Hard Cut)
.2 (Soft Cut)
.5
1
1.5
2
2.5
3
3.5
All whole numbers from 4 to 99



AUXILIARY

An auxiliary is a piece of equipment other than slide projectors that will be controlled by the programmer.

1. Press Erase.
2. Press Accept.
3. Press Create.
4. Press the Auxiliary key, the message reads:

Select a bank and an auxiliary channel
(Example:

ERASE SHOW?
PLAY-LOAD-CREATE
1 CREATE FR 1
AUXILIARY

A1], press that key, the ▲ up LED will come on. Press the End of Sequence. Press Accept.
An Auxiliary On to A1 has just been entered into the programmer memory. The relay clicked.

ACCEPT TO CREATE
2 CREATE FR 1

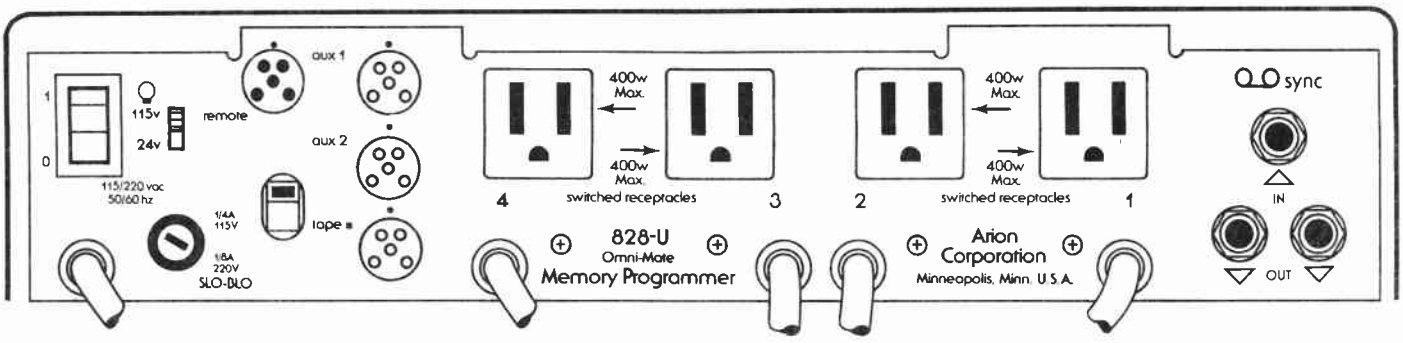
This is a latched auxiliary. To unlatch this Aux, it is necessary to repeat the above procedure. The A1 down LED will be on. Press End of Seq. key and when procedure is accepted the LED will be off.

AUXILIARY
ACCEPT TO CREATE
3 CREATE FR 1

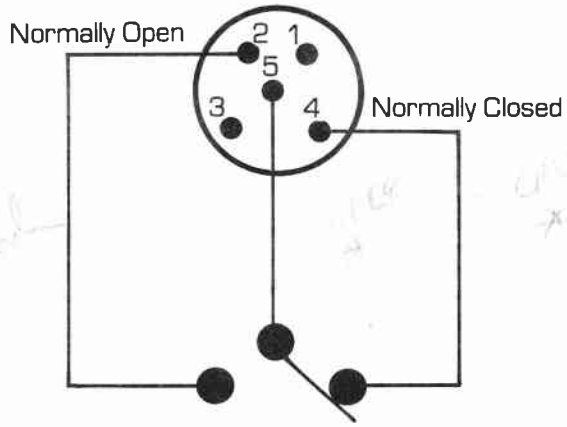
MOMENTARY AUXILIARY CLOSURES. To create a momentary closure, create the auxiliary on and terminate the frame with a Wait. The "off" is created in the next frame.

EXAMPLE: 1] A1 Aux. On
2] WAIT .5 SEC.
3] A1 Aux. Off
4] END SEQ.

The momentary closure above is for a half second in duration. The Wait time to be chosen is dependent on the one device to be controlled by this auxiliary relay [3 Amp max.], although .5 sec. is very common.

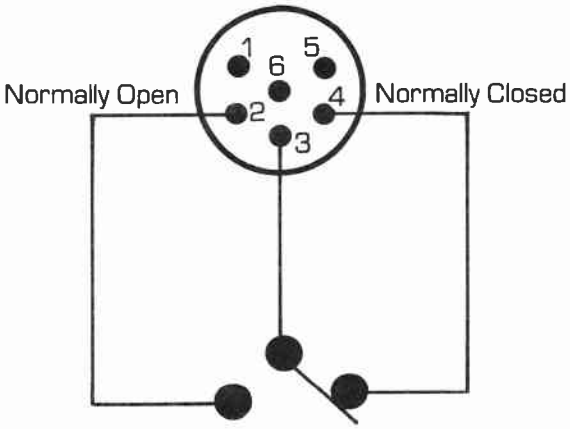


WIRING DIAGRAMS FOR AUXILIARY OUTPUTS ON BACK PANEL

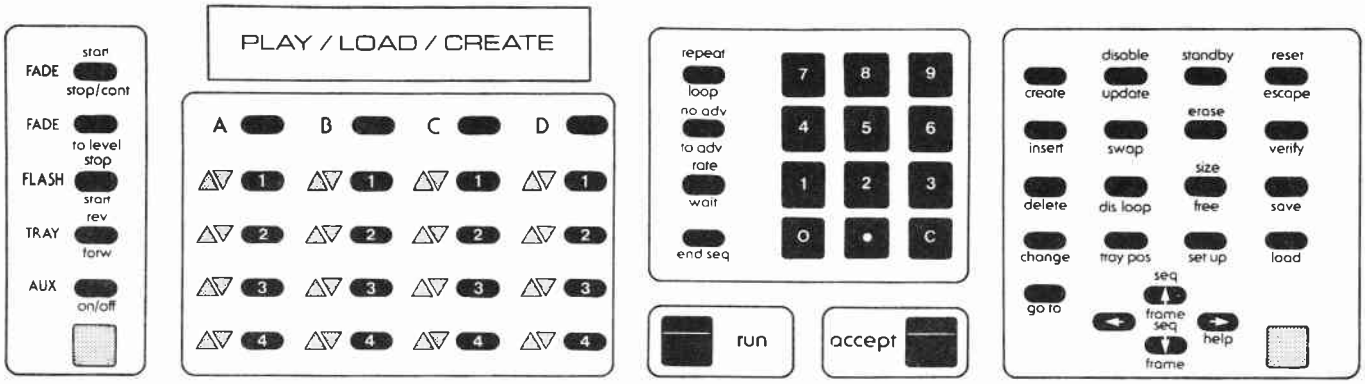


UNIVERSAL models

Pin	Color	Kodak Remote
1	Black	Focus
2	Red	Forward
3	White	Reverse
4	Brown	_____
5	Yellow	Common



S-AV models



FORWARD OR REVERSE

Forward or Reverse are used to move projector trays independent of lamp activity.

Press the Forward or Reverse key. The message will read:

FORWARD TRAY or REVERSE TRAY

Select any of the projectors in the A-D banks that are to have their trays moved. Press those keys [1-4]. Next select Wait or End of Seq. [NOTE: A zero Wait can be entered following the forward or reverse tray].

Both LEDs will come on.

After creating many frames containing Forwards or Reverses consecutively, you may press the Tray Pos key to verify that the trays are at their proper positions. Just press Projector Lamp keys for those projector trays.

TRAY A1 : #

If a move of many tray positions is desired, use Repeat to reduce the number of entries.

EXAMPLE: 20 tray positions to be forwarded. Erase memory and create the following three frames:

1.	Press Create	1 CREATE FR 1
2.	" Repeat	START REPEAT
3.	" Accept	1 CREATE FR 2
4.	" Forward	FORWARD TRAY
5.	" Choose projectors Ex. 1, 2, 3 in bank A	▲▼A1 ▲▼A2 ▲▼A3
6.	" Wait	WAIT "??.??" SEC.
7.	" 0	WAIT 0 SEC
8.	" Accept	1 CREATE FR 3
9.	" Repeat	REPEAT 0 TIMES
10.	" 20	REPEAT 20 TIMES
11.	" End of Sequence	ACCEPT TO CREATE
12.	" Accept	2 CREATE FR 1

NOTE: DO NOT use a Loop entry.

Press Reset
" Run
" Tray Pos
" A2
" A3
" A4

All trays A1, A2, A3 have advanced 20 positions with just a few entries. A4 remains at position 1.

SEQUENCE 1
2 END OF SHOW
Tray A1:21
A2:21
A3:21
A4:1

FLASH

The flash feature allows the flashing of one or more projector lamps at a predetermined rate. The rate of flash is entered in ratio form indicating the lamp time on and off. This time is expressed in tenths of a second. This feature is useful for creating animation effects.

START FLASH

1. Erase memory
2. Press Create
3. Press Start Flash

This message is prompting for a lamp on/off duration ratio in tenths of a second. After deciding on the on/off duration press the number keys. Do not use decimal key. 0 is .05 and 9 is 0.9.

4. Press #1, #1

Next, select lamps to flash.

5. Press 1, 3 key in bank A.

6. Press Wait, a Number key, Accept.

The programmer is in a flashing mode, but you will not see it unless the lamps created to flash are on. Fade them on in a frame before or after the Start Flash frame.

Press 1, 3 keys in bank A
" #2
" End of Seq.
" Accept
" 2 key in bank A
" Wait
" Accept
" Reset
" Run

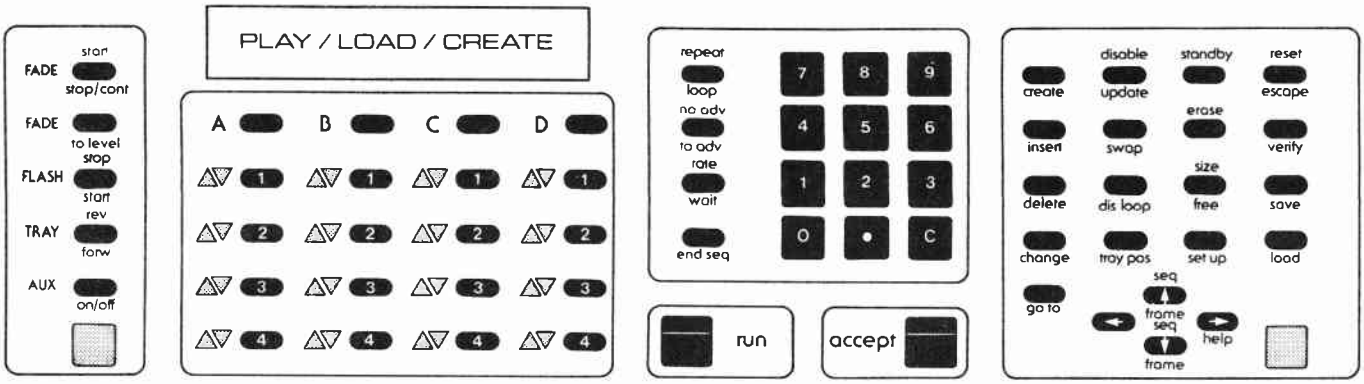
1 CREATE FR 1
FLASH [ON:OFF] 0:0

FLASH [ON:OFF] 1:1

FLASH 1:1 LAMP A1▲▽ A3▲▽
The up LED's will always light, but will not flash.
1 CREATE FR 2

FADE LAMP A1▲▽ A3▲▽
AT 2 SEC RATE
ACCEPT TO CREATE
2 CREATE FR 1
FADE LAMP
WAIT "2" SEC
2 CREATE FR 2
SEQUENCE 1
SEQUENCE 2

Note: The A1 and A3 LED's will flash until Run is pressed again.



STOP FLASH

Stop Flash is used to stop the Flashing of lamps. If this is created while the lamps are on, the flashing will stop and the lamps remain on.

1. Press Create
2. Press Shift and while holding it down press Stop Flash. The on LED's indicate which lamps are flashing.
3. Press 1, 3 key in bank A.
4. Then select either a Wait or End Sequence.
5. Accept
6. Reset
7. Run

Another effect is to stop flashing without lamps remaining on. To accomplish this effect, create a Fade Lamp off frame before the Stop Flash frame.

2 CREATE FR 2

STOP FLASH LAMP ▲▼A1 ▲▼A3
▲▽ A1 ▲▽A3

2 CREATE FR 3
SEQUENCE 1

FADE TO LEVEL

Fade to Level allows one or more projector lamps to fade to a pre-selected level of intensity. These levels are expressed in percentage of intensity.

1. Erase memory
2. Press Create
3. Press Fade to Level key
4. Choose a level 1-10
   There is no decimal or 0 value. If a decimal number was selected it is necessary to press the C key to clear the entry and select a whole number between 1 and 10.
5. For example, press #6.
6. Select lamps to be affected.
   Press 3 in bank A, 4 in bank B
7. Enter fade rate. Press #2
8. Then Wait or End Sequence.
9. Press Accept.

To run this effect projectors must be connected.

1 CREATE FR 1
FADE TO LEVEL ?

FADE TO LEVEL 6
LEVEL 6 LAMP
▲▽A3 ▲▽B4 will be up just as an indicator
AT 2 SEC RATE

2 CREATE FR 1

STOP FADE

Stop Fade is very similar in effect to Fade to Level. Stop Fade allows the stopping of a fade in progress. The level of intensity when a fade is stopped is dependent on the rate of the fade (Fade Rate) and the Wait time which preceeds the Stop Fade.

This can be used whether a lamp is fading on or off.

EXAMPLE: To stop a 4 second fade at 50% intensity, there would need to be a Wait time of 2.0 seconds prior to the Stop Fade frame.

1. Erase the memory and create A1 and B3 lamps on at a cut rate and wait 1 sec.

1 CREATE FR 1 ▲▽A1 ▲▽B3
AT .2 SEC RATE
WAIT 1 SEC
1 CREATE FR 2

2. Press the A1, A2, B1, B3 keys

FADE LAMP △▼A1 ▲▽A2 ▲▽B1 △▼B3

3. " the Number key 8
4. " the no adv.
5. " the Stop/Cont key.
6. " the Accept key.
7. " the Stop/Cont key.
8. " the A1, A2, B1, B3 keys.

AT 8 SEC RATE
OFF PROJ NO ADV
WAIT 1 SEC
1 CREATE FR 3
STOP FADING LAMP

The ▲▽LED's indicate which fading lamps are to Stop Fading.

9. " the End Seq key.
10. " the Accept key.

ACCEPT TO CREATE
2 CREATE FR 1

When in the Run mode, the projector lamps A1 and B3 will fade down at an 8 second rate and 2 seconds later the lamps will stop fading. At the same time the A2 and B1 projector lamps will be fading up at an 8 second rate and after 2 seconds, stop fading. This is referred to as a Freeze.

After entering a Stop Fade there are two options, 1] to continue fading in the same direction, or 2] to reverse the direction of the fade.

1] To continue fading in the same direction:

1. Press the Stop/Cont key
2. " the A1, A2, B1, B3 keys

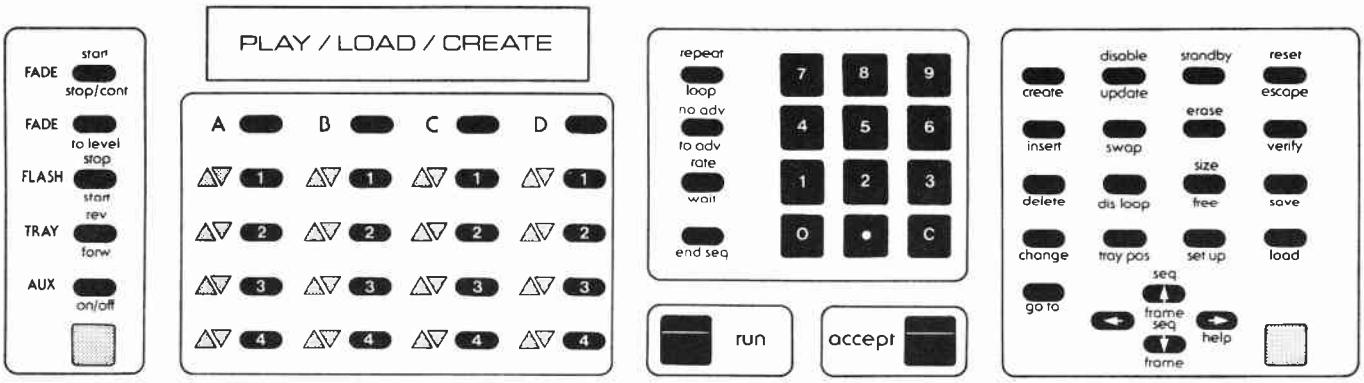
STOP FADING LAMP

The up ▲▽ LED's indicate which stopped lamps are to continue fading.

3. " the 2 key
4. " the End Seq key
5. " Accept

AT 2 SEC RATE
ACCEPT TO CREATE
3 CREATE FR 1

The lamp will continue fading in the same direction at a second fade rate and the off projector will not advance because they were told NO ADV in step 4 above.



2] To reverse the direction of the fade:

1. Press A1, A2, B1, B3 keys.
2. " the 4 key.
3. " the To Adv key.
4. " the End Seq key.
5. " Accept

The lamps will fade in the reverse direction at a 2 second fade rate, off projectors will advance because they were told to ADV in step 4 above.

WIPES

A wipe is an effect where a multi-screen visual dissolves up sequentially on the screen.

EXAMPLE: Visuals wipe on from left to right on three screens, A,B,C, using a 4 second fade rate and 2 sec. wait time.

1. Erase memory and press Create
2. Press A1, Fade 4, Wait 2, Accept
   " B1, Wait, Accept
   " C1, End Seq., Accept

For a duplicate wipe on the next set of projectors:

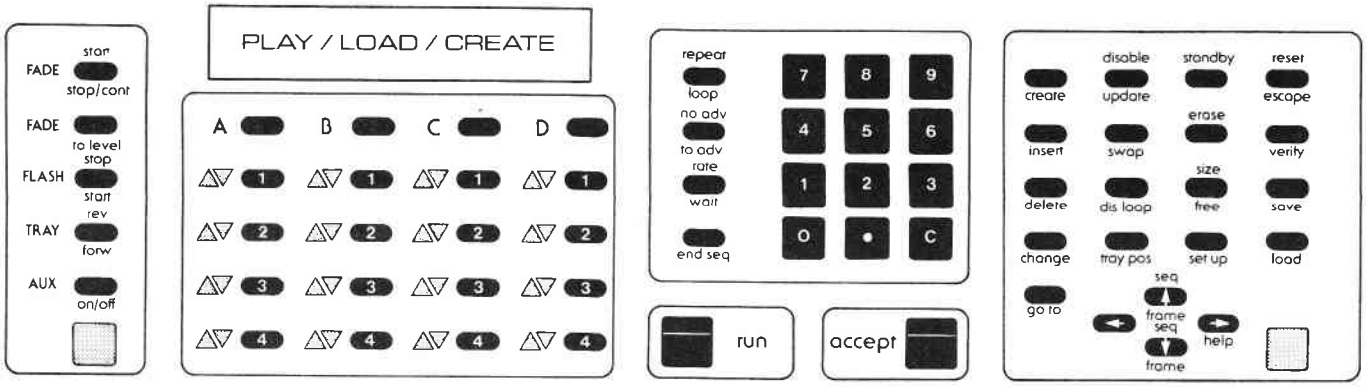
1. Press A Dissolve key, to Adv., Wait Accept. (Fade Rate, to Adv., and Wait will all ditto).
2. Press B Dissolve key, to Adv., Wait, Accept.
3. Press C Dissolve key, to Adv., End Seq., Accept.

RUN SEQUENCE

A run sequence allows a sequence to be executed automatically following the completion of the previous sequence.

If RUN SEQ is in the 1st frame of the show, the 1st sequence of the show will automatically run when the show is reset. This sequence usualy presets the lighting conditions in the room.

1.	Erase memory	PLAY-LOAD-CREATE
2.	Press CREATE	1 CREATE FR 1
3.	" 1 key in bank A	FADE LAMP
4.	" #1 key	AT 1 SEC RATE
5.	" END SEQ	END SEQ
6.	" ACCEPT	2 CREATE FR 1
7.	" AUX key	AUXILIARY
8.	" 4 in bank A	FUN SEQUENCE
9.	" WAIT, #0	WAIT 0 SEC
10.	" ACCEPT	2 CREATE FR 2
11.	" 2 in bank A	FADE LAMP
12.	" TO ADV	OFF PROJ TO ADV
13.	" END SEQ	END SEQ
14.	" ACCEPT	3 CREATE FR 1
15.	" 3 in bank A	FADE LAMP
16.	" END SEQ	END SEQ
17.	" ACCEPT	4 CREATE FR 1



RESET SHOW

Reset Show is an entry that will return the program and trays to the starting position and be ready for showing again. It's also known as "homing".

In the last frame of the last sequence of your program:

1. Press Aux — AUXILIARY
2. " D4 — RESET SHOW
3. " End Seq.
4. " Accept — ACCEPT TO CREATE

When this program is run, this last frame will reset the program to Seq. 1 and trays will go home by the shortest route.

> NOTE: Remember to allow enough wait time in the preceding frame for all fades to finish. If lamps are still on they will be cut off when reset begins.

WAIT OR END OF SEQUENCE

A wait is the time between frames within a sequence. The END OF SEQUENCE message ends the series of frames that make up a sequence. A Wait or End of Sequence cannot be entered into the program memory in a frame by itself. If a Wait is desired to delay the run of a sequence.

Pressing the Wait key after a function has been chosen, the window will read: WAIT "??.??" SEC

The Number keys are then pressed to indicate how long the wait will be. Any value is acceptable. 1.86, .74, 6.31, etc.

Should an error be encountered when pressing the Number key, press the clear (C) key. Only the number will be cleared and the correct number can then be entered. Once the Wait number is satisfactory, press the Accept key to complete the frame. If the Accept key does not complete the entry an improper Wait Time was pressed.

EXAMPLE: A zero Wait Time is allowed only after a Forward or Reverse tray position entry and after the special function Auxiliary. Otherwise a .05 second Wait is the minimum. An exception is when changing the Fade Rate then a .1 second minimum Wait Time is necessary.

NOTE: To enter a Wait Only. If using a sync unit to run show memory, a delay is often desired. With the first frame of a sequence in the window:

1. Press Insert
2. " Aux
3. " B4
4. " Wait
5. " Desired #
6. " Accept. You now have a wait delay.

Example 6 EDIT FR 1

LOOP

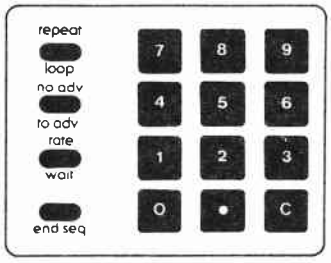
This feature allows a sequence of frames to be repeated.

Within the loop, the "To Advance" function will only happen when the loop cycling is completed.

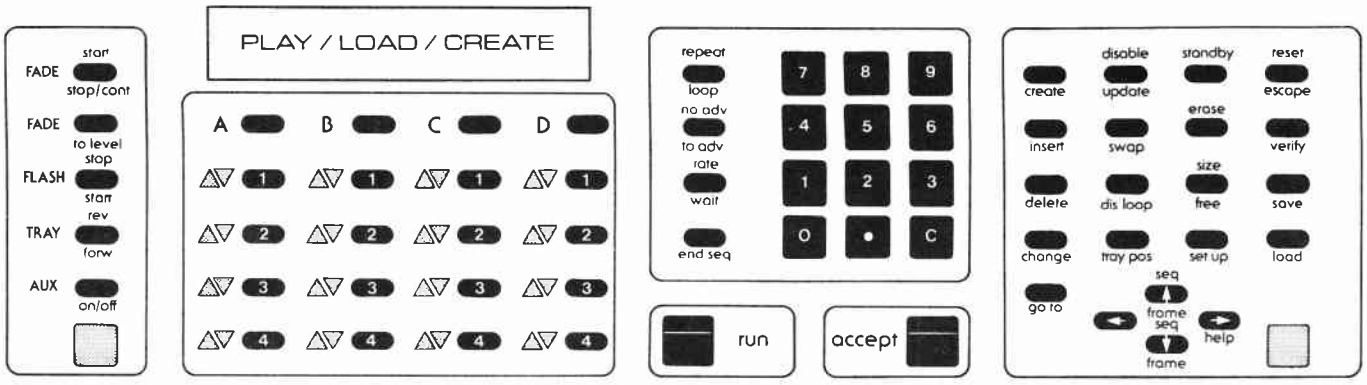
NOTE: There is an exception. If the same projector lamp is turned off more than once within the loop, a "To Advance" function must appear only after the last time the same lamp is turned off.

EXAMPLE: All projectors to advance after the loop:

1. A1 On
2. Loop
3. *A1 Off A2 On "No Adv"
4. *A2 Off A3 On " "
5. A3 Off A2 On "To Adv"
6. *A2 Off A1 On " "
7. *A1 Off " "
8. Loop # Times



Notice that *A1 and *A2 were turned off twice. They were told "To Adv" only the last time they are off.



An example of the exception to the rule:

If a lamp is turned off more than once in a cycle of the loop:

Pendulum action

1. Press Create — 1 CREATE FR 1
2. Press A1 on, 1 sec. Rate, Wait 1 sec., Accept — 1 CREATE FR 2
3. Press Loop, Accept — 1 CREATE FR 3
4. Press A2 on, A1 off, 1 sec. Rate, To Adv., Wait 1 sec., Accept — 1 CREATE FR 4
5. Press A3 on, A2 off*, No Adv., Wait, Accept
6. Press A2 on, A3 off, To Adv., Wait, Accept
7. Press A1 on, A2 off*, To Adv., Wait, Accept
8. Press Loop 5 times, End Seq., Accept

In this example: A2 was turned off twice*. To prevent A2 from advancing twice, it was necessary to enter a NO ADV when A2 lamp was turned off the first time, and a TO ADV the last time A2 went off.

If the number of loops is not known, just press 0. This will cause looping until you press the Run key after which one more cycle of the loop will run. This feature saves making calculations.

REPEAT

A repeat is similar to a Loop, but has two important differences.

1. Projectors forwards are repeated in each cycle within the "repeat".
2. A "0" repeat cannot be entered it must be a specific number of times, 1 to 999.

EXAMPLE OF REPEAT

1.	Erase memory	
2.	Press Create	1 CREATE FR 1
3.	" A1, 1 sec. Rate, Wait 1, Accept	1 CREATE FR 2
4.	" Repeat [remember shift]	START REPEAT
5.	" Accept	1 CREATE FR 3

Dittos will not carry over a start repeat. Functions to be dittoed in the repeat must be entered after the Repeat Start frame.

5.	Press A Dissolve key, 1 sec. rate, to Adv., Wait 1, Accept	1 CREATE FR 4
6.	Press A Dissolve key, Wait, Accept	1 CREATE FR 5
7.	" A Dissolve key, Wait, Accept	1 CREATE FR 6
8.	" A Dissolve key, Wait, Accept	1 CREATE FR 7
9.	" Repeat	REPEAT 0 TIMES
10.	" 20	REPEAT 20 TIMES
11.	" End Seq.	ACCEPT TO CREATE
12.	" Accept	2 CREATE FR 1

The four projectors will dissolve 20 times with a new visual each time since the trays will advance each time a lamp faces off.

To watch Repeat; press Escape, Reset, Run

SEQ REPT = 19

The count will go down after each cycle of the repeat.

After the completion of repeat cycle, press the Tray Pos key and check position of A1-4 trays.

OPERATIONS

Operations are for assistance in creating and will not be entered into the program.

GO TO

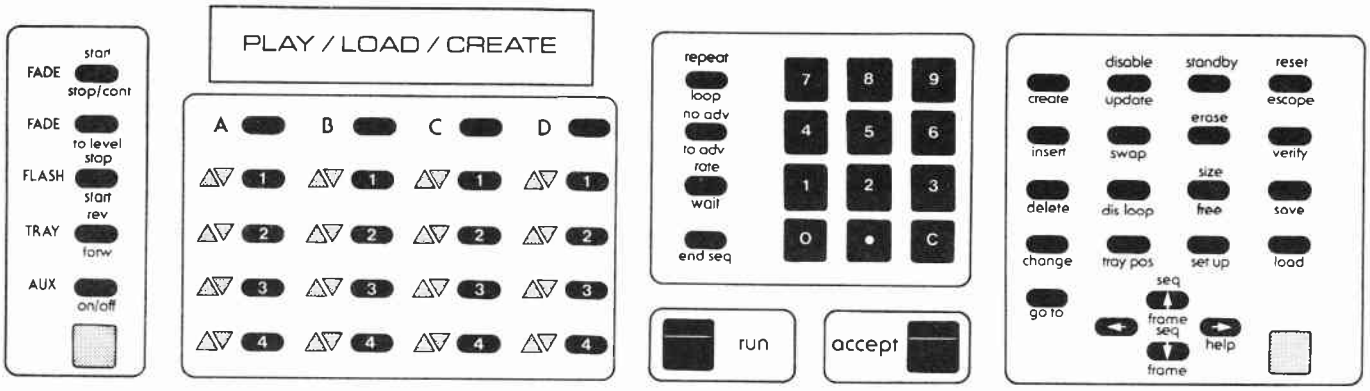
This feature allows to go to any specific sequence and/or frame in your program.

1.	Press Go To	GO TO SEQ 0
2.	" Number key for desired sequence, press #2. Press Decimal Point key and frame number. Press .3.	GO TO SEQ 2 GO TO 2 FR 3
3.	Press Accept.	2 EDIT FR 3

If the number is larger than the program, the message will read:

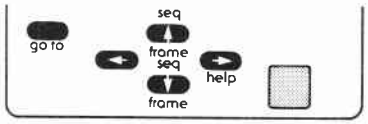
END OF SHOW

and show last sequence number in the program.



PREVIOUS FRAME AND NEXT FRAME

The Previous Frame key steps back one frame at a time and the Next Frame key steps forward one frame at a time.



PREVIOUS SEQ. AND NEXT SEQ.

Similar to Previous Frame and Next Frame but when the Shift key is pressed it will step whole sequences.

HELP

The Help key will move you forward one message at a time.

It will also help you by asking questions called "prompts".

It will always ask for correct entries in the correct order and one at a time.

When in the Change, Delete or Insert mode, each press of the Help key displays the messages in one frame only. You choose the frame.

In the Edit mode the Help key will step one message at a time to the end of the show.

AT "??" SEC RATE

WAIT OR END SEQ?
WAIT "??.??" SEC

BACK

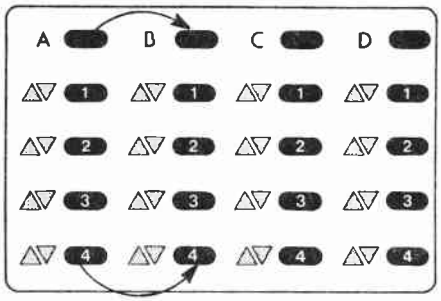
The Back key steps backwards in the program one message at a time.

SWAP

This key allows you to move the program on one bank of projector lamp keys to another bank.

This is useful when you need to mix screen formats in a presentation. You can use this key instead of changing cables.

> EXAMPLE: A three screen format program on screens A,B,C is to run first. Next a one screen format program is to run. You will want it on the center screen, but it's in the program on bank A and you need it on B because that's the center bank.



1. Put a program into memory on bank A.
2. Press Escape
3. " Swap
4. " Dissolve key A
5. " Dissolve key B
6. " Accept

SWAP BANK
SWAP BANK A
SWAP BANK A & B
EDIT FR
Identifier of next frame.

It may show SWAPPING if there are many sequences to swap. When the display shows # EDIT FR # the swapping is completed.

TRAY POSITION

Pressing the Tray Pos key will display both the projector number and its tray position at that point in the presentation.

1. Press Tray Pos.

TRAY A1:1
Projector
Tray Position

The message will read show A1 first. To read other tray positions, just press the key for the projector you want. [Do not press the Dissolve keys at the top of the bank.]

2. Press C3

TRAY C3:_
Projector C3
Whatever tray position it has.

Tray Pos. is disabled when in Run mode.

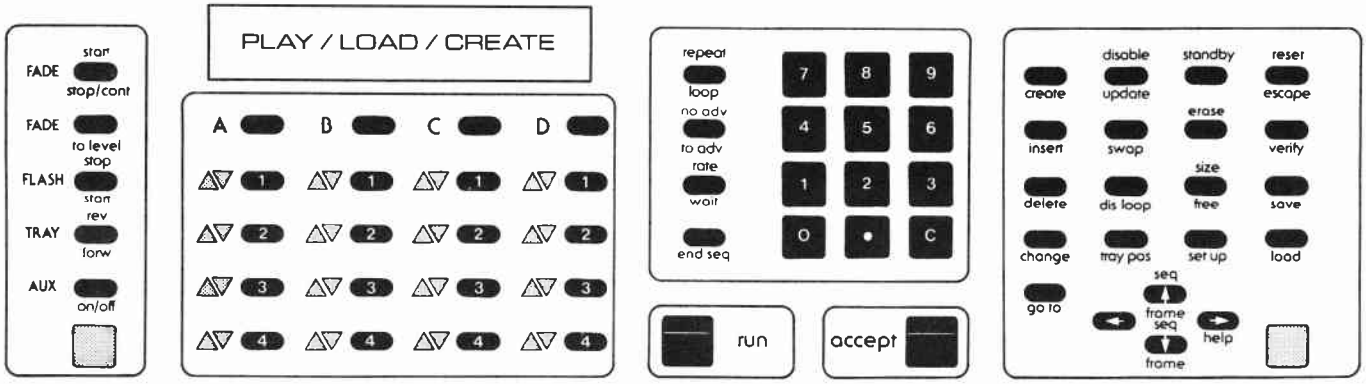
SET UP LAMP

The Set Up key enables the operator to turn on or off any of the projector lamps. This feature is valuable when aligning and focusing projectors or when inquiring as to which slide is to be up on the next screen.

Press Set Up and keys for lamps to turn on/off.

SET UP LAMPS

The Set Up key is operative in all of the modes, except in the Run mode.



FREE

The Free key indicates how much memory is still available in the programmer.

Turn on programmer.
Press the Free key, the message will read:

FREE: 62

This number indicates the total number of blocks of memory available for creating. 62 is the maximum, when this number appears nothing has been created. Each block is equivalent to 128 messages. All messages are stored in the first block before going on to the next block. Total memory is 8K, more than needed for 16 trays of slides.

SIZE

The Size key is used to determine how much program is in the memory. Press Shift and Size key together.

SIZE: 2

The number indicates the number of blocks of memory that have been created. When the number 62 appears, you have reached the last block of memory. Congratulations! That's one huge program you have!

DIS LOOP

The Dissolve Loop key sets the number of projectors to be used while creating with the use of the Dissolve keys.

The normal Dissolve Loop is four projectors per Dissolve key.

The first time the Dis Loop key is pressed, all the projector LED's will light up.

LOOP = ?

To change the number of projectors that are to dissolve:

1. Press Dis Loop
2. Press A2

You now have only 2 projectors in the A bank in the dissolve loop.

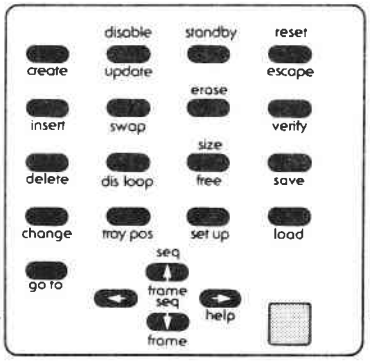
The Dissolve Loop can be changed at any time during creating. It's a real convenience.

All LED'S light.
The two lamps in the loop for this bank remain lit, the other 2 go off.

DISABLE

The Disable key turns off Mate-trac to the Omni-Mate dissolvers. It's a shifted key.

1. If the Mate-trac LED is on, pressing the Disable key will turn it and the dissolver's operation off. The projector lamps that are lit will remain lit.



UPDATE

The Update key turns on the Mate-trac to the Omni-Mate dissolvers and the Mate-trac LED will be lit. [Power relay click will be heard.]

STANDBY

Using the Standby key will turn off the Mate-trac to the Omni-Mate dissolvers, the Mate-trac LED, the projector lamps and after 2.1 seconds the projector fans. [The Disable key doesn't affect the projector status.]

To turn on Mate-trac and projector power press the Update key.

These keys are inoperative in the Run mode.

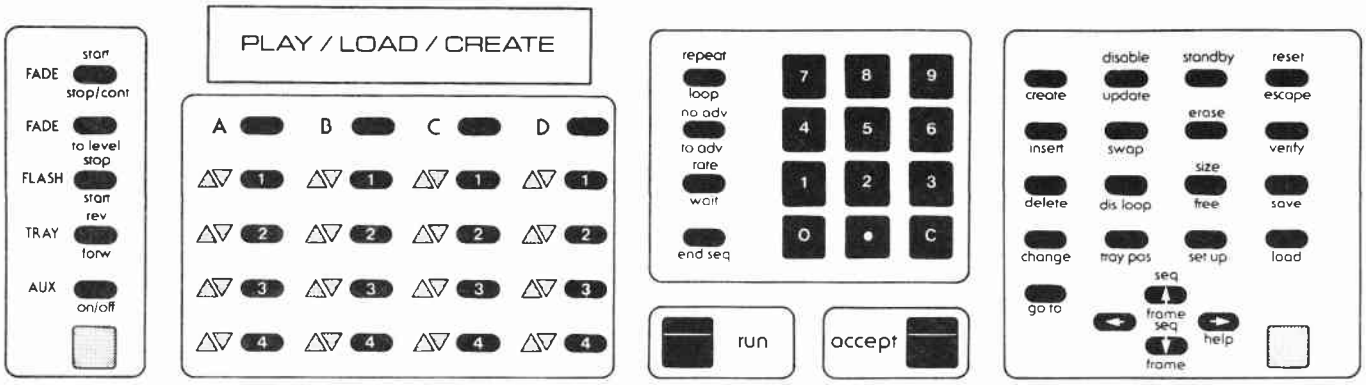
— STAND BY —
Appears for short time.

EDIT FR

RESET

The Reset key returns the program to sequence 1. The programmer is then ready to run the program. The Reset key is inoperative in the Run mode. Remember this is a key requiring the use of the Shift key.

SEQUENCE 1



ESCAPE

In Create or Run, the Escape key puts the programmer in Edit. The message will be:

END OF SHOW

In Run, the message will be the identifier of the frame you were on:

EDIT FR

sequence

frame

FADE RATES

The rate at which a lamp fades up or down is known as the Fade Rate. Fade Rates are expressed in seconds of time (e.g., 2.0 seconds).

FLASH

The Flash feature allows the flashing of one or more projector lamps at a predetermined rate. The rate of flash is entered in ratio form indicating the lamp time off and on. This time is expressed in tenths of a second. This feature is useful for creating animation effects.

FADE TO LEVEL

This feature allows one or more projector lamps to fade to a selected level of intensity. These levels are expressed in percentage of intensity.

10% = 1
20% = 2
etc.

STOP FADE

Stop Fade is very similar to Fade to Level.

Stop Fade allows the stopping of a fade in progress. The level of intensity when a fade is stopped is dependent upon the rate of the fade (Fade Rate) and the Wait time which preceeds the Stop Fade Frame (Wait).

EXAMPLE: To stop a 4 second fade or dissolve at 50% intensity, there would need to be a Wait time of 2.0 seconds prior to the Stop Fade frame.

LOOP

This feature allows a sequence of frames to be repeated.

GO TO

This feature allows you to go to any specific sequence and/or frame in your program.

EDITING

In the section introduction to Creating we gave basic instruction in editing. This section will deal with advanced editing techniques. Edit provides quick and easy access to the individual messages. Edit is brought about by pressing the Escape key. You can then Delete, Insert or Change any part of the program.

DELETE

Use of the Delete key will erase an entire frame. (To delete part of a frame see Change.)

1. With a program in the memory, press Escape. You are now in the Edit mode at the Identifier window of the frame you were on.
2. Press Delete. You're now at the end of the frame you want to delete.
3. Using the Back◄ key, verify that this is the frame you want to erase.
4. Using Help►, step to ACCEPT TO DELETE message and press Accept. (If you decide you don't want to delete this frame, just press Escape to return to the Edit mode.)

ACCEPT TO DELETE

DELETE

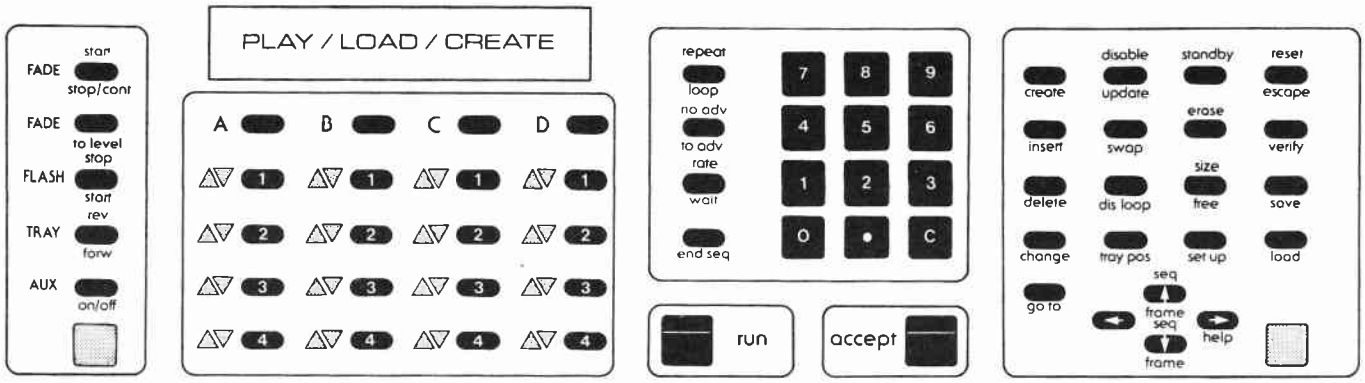
The frame numbers following the deleted frame will be one lower.

20 EDIT FR 3	FADE LAMP	AT 3 SEC RATE	OFF PROJ TO ADV	WAIT 1 SEC
20 EDIT FR 4	FADE LAMP	AT 8 SEC RATE	OFF PROJ TO ADV	WAIT 3 SEC

After deleting frame 3, frame 4 will be frame 3.

20 EDIT FR 3	FADE LAMP	AT 8 SEC RATE	OFF PROJ TO ADV	WAIT 3 SEC

IMPORTANT: Remember, if you delete the last frame of a sequence, you are deleting the END SEQUENCE message. Be sure to change the previous (WAIT # SEC) message to an (END OF SEQ #) message or the program will run on to the next sequence!



DELETING AN ENTRY IN A REPEAT

In Repeat, the frame numbers accumulate. Only the frames within the 1st repeat loop can be deleted. Therefore, when deleting in a Repeat, make sure the program is in the first cycle of the Repeat, otherwise the Delete key won't work.

INSERT

Inserting means to put an additional frame into an existing program. An inserted frame will be placed before the frame showing in the window and be assigned that number with all subsequent frames moving up one number.

20 FRAME 3
20 INSERT FR 4
20 FRAME 5
20 FRAME 6
ETC.

1. Program is in memory
2. Find location for insert and press Insert key. Window shows Identifier message of frame to be inserted.
3. Enter frame to be inserted. Press A1, At 1 Sec. Rate, Wait 1.
4. When message reads:
   Press Accept.

   # INSERT FR #

   ACCEPT TO INSERT
   # EDIT FR #
   Window shows programmer is at the next frame in Edit mode.

5. If you decide not to Insert, press Escape to return to Edit mode.

   NOTE: To add a frame to the end of a sequence, change the END OF SEQUENCE in the last frame to a wait, insert the new last frame, ending it with End Seq.

TO INSERT AN ENTRY INTO A REPEAT OR LOOP

The program must be in the first cycle of the repeat or loop because those first few frames are the ones to be repeated. The Insert key will be locked out if the program isn't in the frames of the first cycle.

INSERTING A START LOOP (OR REPEAT)

1. Go to the frame which will be the beginning of the Loop (or Repeat).
2. Press Insert. — # INSERT FR #
3. " Loop or Repeat. — START LOOP or START REPEAT
4. " Accept. — # EDIT FR #

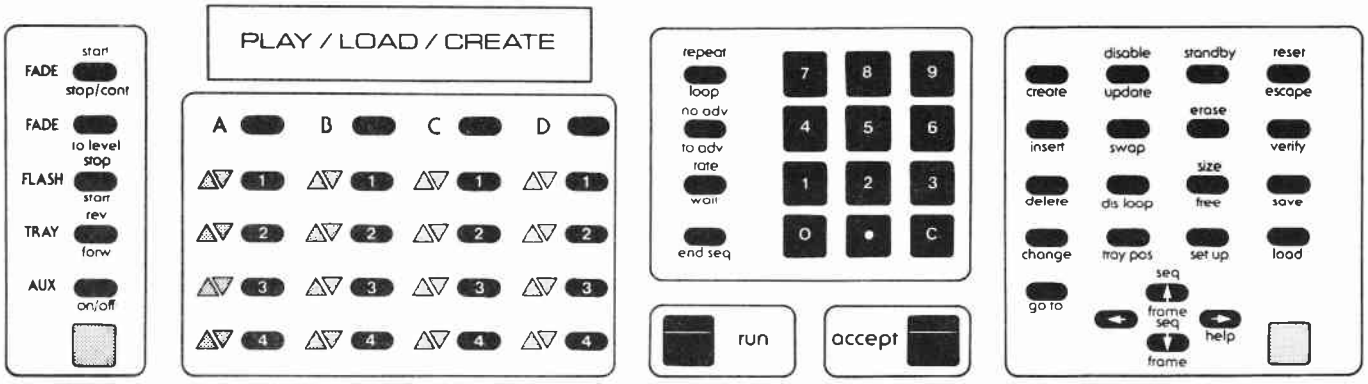
   NOTE: All dittos will become question marks.
5. Step to all messages with ??.
6. Press change.
7. Select desired entry(s) (any fade rate, Adv., or wait time that has been changed, will be dittoed from this point on).
8. Press Accept.
   Go to the last frame in the Loop (Repeat).
9. Press Loop or Repeat. — LOOP 0 TIMES or
10. Enter number of Loops or Repeats. — REPEAT 0 TIMES
11. Press Help key for prompting.

Be sure you're not trying to insert a loop or repeat in the middle of a previously created loop or repeat.

If this happens message will read: — START LOOP ?? or START REPEAT ??
This indicates there are two loops or repeats in succession without a LOOP # TIMES at the end of first loop. In other words, there are two starts and no # of times statement.

To remedy this, just insert a LOOP # TIMES before the 2nd START LOOP . If one of the Start Loops is not wanted, delete this frame. Repeat is remedied the same way.

IF LOOP # TIMES or REPEAT # TIMES are inserted in succession the message will read: — ? 0 TIMES
Remedy by deleting the wrong # times frame.



CHANGE

In the Edit mode, press the Change key. View the messages of the frame to be changed by pressing the Help and Back keys.

EXAMPLE: 20 EDIT FR 4 FADE LAMP AT 8 SEC RATE OFF PROJ TO ADV WAIT 3 SEC

With Frame 4 in the window, press the Change key.

20 CHANGE FR 4

Press the Ahead key until the message to be changed is in the window. Enter the new message. Press Ahead key until the message reads:

ACCEPT TO CHANGE

If the changes are to be made, press the Accept key.

20 EDIT FR 4 FADE LAMP AT 10 SEC RATE OFF PROJ TO ADV WAIT 1 SEC

If no change was made or to cancel an unwanted change, press the Escape key to return to the Edit mode.

Note that the system automatically returned to the Edit mode after pressing the Accept key. The window shows the first message of the next frame.

20 EDIT FR 5

For the Pro, use the short cut method. Find the message to be changed. ex: AT 10 SEC RATE Press Change key, message remains AT 10 SEC RATE. Press the Number key for new rate ex: AT 5 SEC RATE Press the Accept key. Change has been completed.

CHANGING AN ENTRY IN A REPEAT

In a Repeat the frame numbers accumulate although only the first few frames are the ones to be repeated. Therefore, when changing in a Repeat cycle, the program must be in the first cycle of the Repeat, otherwise the Change key is locked out.

TO CHANGE A DITTO

A ditto is the automatic use of previously created fade rates, wait time, to adv. or no adv. Whenever a ditto is changed, the following dittos will also be changed to the new value or function.

Therefore, when a ditto is changed, the next ditto that is not to change, must be returned to the original value. The dittos following that one will then be the original value again.

EXAMPLE:

1 EDIT FR 1	FADE LAMP	AT 4 SEC RATE	OFF PROJ TO ADV	WAIT 1 SEC
FR 2	FADE LAMP	AT "4" SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC
FR 3	FADE LAMP	AT "4" SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC
FR 4	FADE LAMP	AT "4" SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC
FR 5	FADE LAMP	AT "4" SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC

The quotation marks signify a ditto.

If fade rate in frame 3 is to be changed to a rate of 2 sec. then frames 4 & 5 will also become "2" sec. fade rate since they are "ditto" frames.

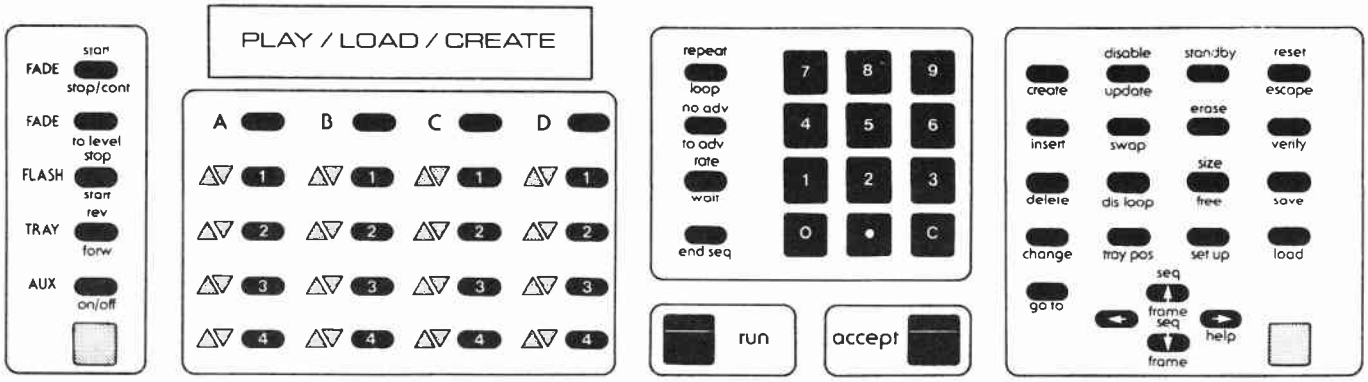
Changing frame 3

FR 2	FADE LAMP	AT "4" SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC
FR 3	FADE LAMP	AT 2 SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC
FR 4	FADE LAMP	AT "2" SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC
FR 5	FADE LAMP	AT "2" SEC RATE	OFF PROJ "TO ADV"	WAIT "1" SEC

If FR 4 & FR 5 are to remain at 4 sec., then change FR 4 back to 4 sec. and FR 5 will ditto to 4 sec.

TO CHANGE A LAMP STATUS

Each lamp on/off status must be changed separately because they cannot be dittoed.



EDITING WITH A FULL MEMORY

When the memory is quite full you will have to pause for the programmer to update its status. To avoid that, follow these steps.

Go forward in the program. There is no pause for updating in the forward direction.

To go back use the Go To key to get to the desired sequence.

If sequence number is not known, enter the number of the prior sequence.
Press Accept.

WAIT

SHOW MEMORY

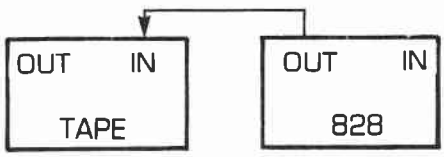
SAVE

Saving a show means to record the program on tape. When the programmer is turned off, its memory is erased, but when the program is stored on tape it can be reloaded into the programmer memory.

> IMPORTANT NOTE: The programmer puts out two kinds of signal; the program and Mate-trac. Mate-trac signal is not the program and cannot be loaded back into the programmer memory. To save a show the program data must be recorded on tape.

Record the program on tape twice as a safeguard. Follow these steps:

1. Connect cable from SYNC OUT of the 828 programmer to the input of the sync track of the tape recorder.



2. Adjust record level of the tape recorder between – 3db and 0 db. Message reads:
   SAVE SHOW
   The Mate-trac indicator (LED) will go off. This procedure will not erase the program in the programmer memory.
4. Start the tape recorder into Record.
5. When the leader has passed the heads, press the Accept key. Message reads:
   SAVING SHOW 1
   The number will count by blocks; note the last number displayed for future reference of program size.

After the first Save is completed,

6. Press Save key, wait about five seconds.
7. Press Accept key. This will be the second copy of the program.

The reason for recording two copies onto the tape is that tape may become damaged or accidentally partially erased.

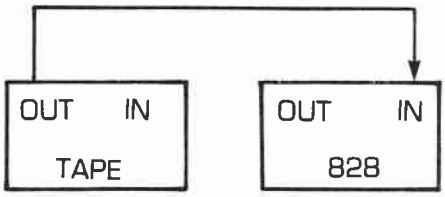
1. Tape may become damaged or is accidentally partially erased.
2. Very convenient and time saving when loading the program from the tape into the programmer memory.

VERIFY

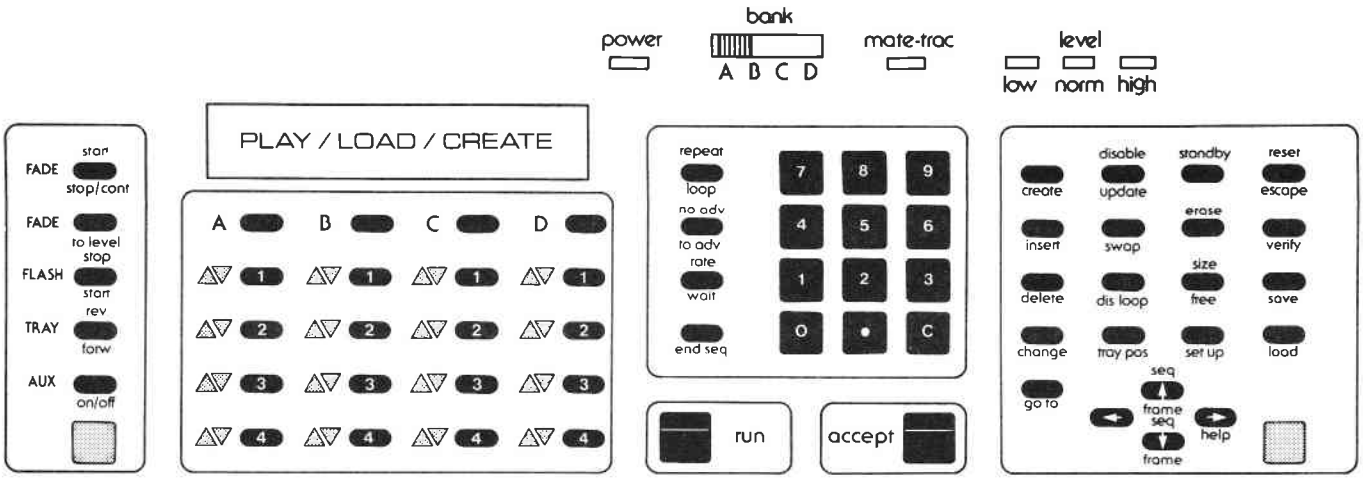
To verify show means to match the program in the 828 with the program recorded on tape. (Remember this is not verifying Mate-trac signal recorded on tape.)

1. Connect cable from the sync output of the tape recorder to the SYNC IN of the 828 Programmer.

   Both cables can be connected at the same time. The solid line indicates the signal path.

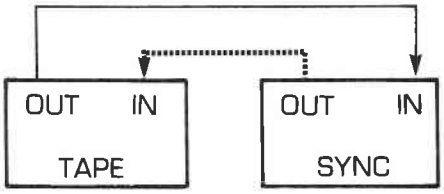


2. Press the Verify key. The message reads:
   VERIFY SHOW
3. Play the tape. When the data is received from the tape, the message reads:
   VERIFYING SHOW 1
   The number will count the blocks of memory. Use this number as a reference.
4. When the Verify has been completed accurately, the message reads:
   SEQUENCE 1
5. If the Verifying was not accurate, the message reads:
   REVERIFY SHOW
   Verify once more using steps 1 thru 5.
6. If the "REVERIFY SHOW" appears in the window again, repeat the Save procedure. Apparently the recording was not successful. (Check cables, record level setting, etc.)



LOAD

Loading a show means to play the program stored on tape into the programmer memory.



Remember, you can't load Mate-trac signal, only programs.

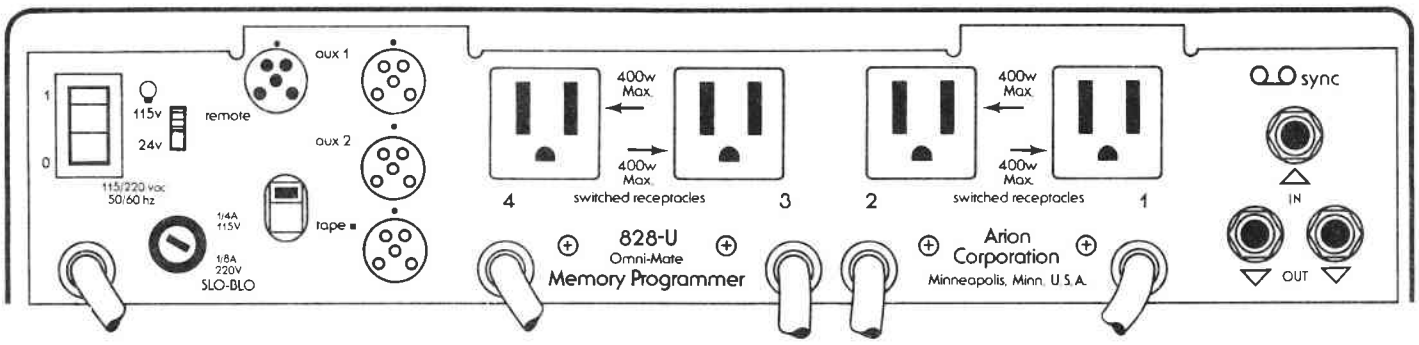
1. Connect the output of the tape recorder to the SYNC IN of the 828 Programmer.
2. Press the Load key. Message reads: LOAD SHOW
3. Play the tape. Be sure the normal level indicator [LED] is on steady while receiving the data from the tape recorder.
4. When the data is received by the 828 Programmer the message reads: LOADING SHOW 1
5. When the Load has been completed the message reads: SEQUENCE 1
   At this point it's good to verify the loaded program by comparing this first load with the second copy of program recorded on tape.
   1. Press Escape.
   2. Press Verify. VERIFY SHOW
   3. Play second copy of program. VERIFYING SHOW

Message returns to SEQUENCE 1 when the second copy is finished playing.

NOTE: If the Load was not successful the message reads: RELOAD SHOW

Follow steps 1 thru 5 again. If unable to Load, check cables, connections and recorder. Also check level indicator to be sure proper level of signal is being supplied to the programmer.

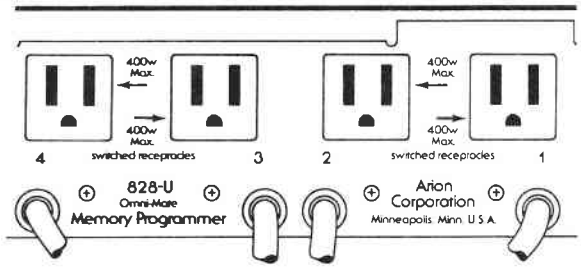
Only 828 program that was stored on tape can be loaded into the 828. Mate-trac signal can not be loaded into the 828 Programmer.



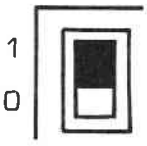
SYSTEM CONNECTIONS

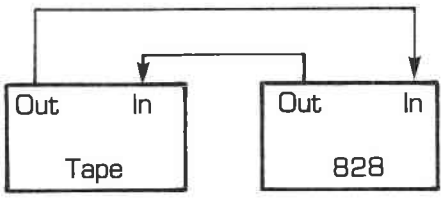
The 828 programmer has a built-in Omni-Mate dissolver for four projectors. Three other Omni-Mate dissolvers can be "daisy-chained." Daisy chaining means connecting the output of the Omni-Mate to the input of the next and so on.

PROCEDURE



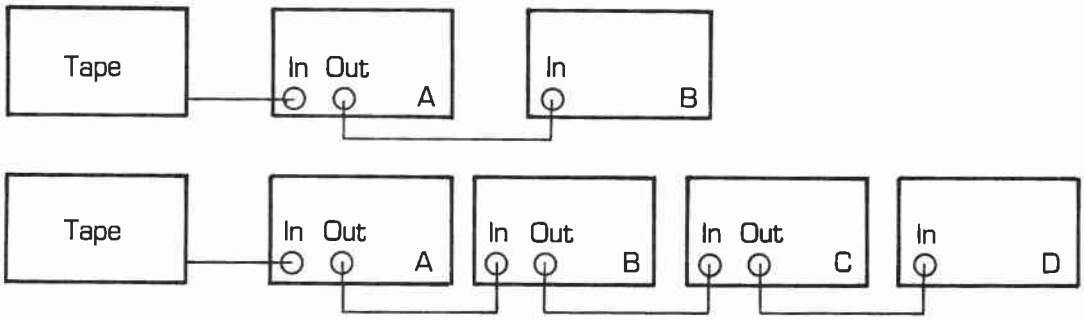
1. Plug the control cables labeled 1, 2, 3, and 4 into corresponding remote sockets of each projector (located on rear of the projector).
2. Set the projector power switches to the "Fan" position.
3. Plug the projector power cables into the receptacles on the back panel of the Omni-Mate 828.
4. Set the Bank switch to the "A" position.
5. If more Omni-Mates are being used, repeat steps 1-4 for each. Daisy chain their sync cables and assign their Bank switches. The second Omni-Mate would be B, the third C and the fourth D. (Of course they can be set for whatever configuration you're using, but this is the basic set-up for 16 projectors with four banks.)
6. Plug the main power cable into an AC grounded receptacle.
7. Turn the power switch on the back of the 828 programmer to the on (1) position.
8. Place slide trays on the projectors and set them to the starting position.
9. Connect an audio cable from the 828 programmer Signal OUT jack to the appropriate IN jack of the tape recorder and/or from the output of the tape recorder to the IN of the 828 programmer.



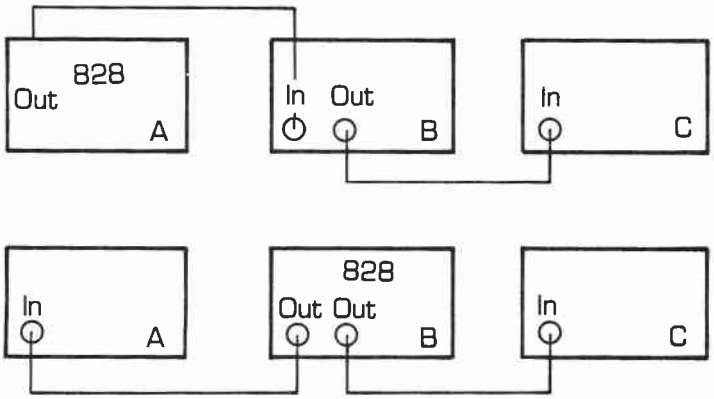


CONNECTING MORE THAN ONE OMNI-MATE "DAISY-CHAINING"

Omni-Mate 2 or 4 projector models.

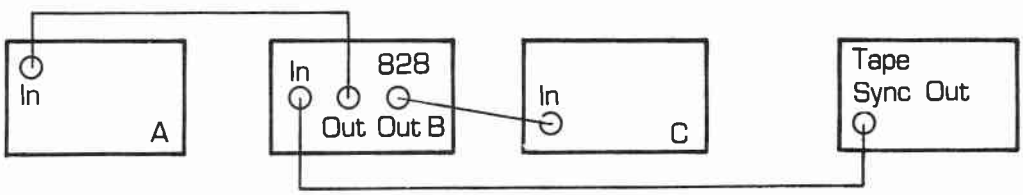


Connection for creating a program with the 828 and one or more Omni-Mate 2 or 4 projector dissolvers.



NOTE: Connecting the 828 between the dissolvers is also proper. The 828 has a bank select switch, therefore, it can be in any position in the hookup.

Connection when playing Mate-trac tape using the 828 Micro Programmer and one or more Omni-Mate Dissolvers.



Recommended distance from tape recorder to the most distant unit should be less than 100 feet.

Impedence of tape player output should be 2K Ohm or less.

All Mate-trac indicator LED's should be steady (without flicker), if not, check tape or connections.

MATE-TRAC LED'S

This indicator is very meaningful along with the signal level LED's.

1. When Mate-trac LED is "on" but the signal LED's are not — the 828 programmer is sending out the Mate-trac and is in full control of its built-in dissolver and all additional dissolvers in the chain.

2. When Mate-trac LED is "on" and the signal LED is also "on", the tape is sending out the Mate-trac and the programmer is not in control. The built-in dissolvers of the 828 is now controlled by the Mate-trac from the tape recorder as are all the other dissolver in the chain.

3. When the Mate-trac is "off" —
   a. If the signal LED's are also "off", the programmer is in a disable mode (no output to its built-in dissolver and all other dissolvers in the chain.)
   b. If the signal LED's are "on", then a bad signal is received from the tape recorder.

PLAYING SHOW

IMPORTANT: Even though the signal level is normal, Mate-trac can be poor (tape drag, poor head contact, head alignment, preamp distortion, etc.). Therefore, pay attention to the Mate-trac LED.

PROJECTOR LED's

During playback the LEDs respond differently. The LEDs representing the bank of projectors controlled by the 828 respond to flash commands whereas the other LEDs will not respond for this command. All projectors run as programmed and all of the LEDs on the 824 dissolvers in the system will respond correctly.

FOCUS AND ALIGNMENT OF PROJECTORS

The following is a suggested procedure for focusing and aligning projectors.

1. Press Set Up key [if no response, press Escape then Set Up].
2. First, turn projector lamp number one on by pressing #A1 key.
3. Focus the projected image.
4. Press A1 again. Turn projector lamp number two on by pressing A2.
5. Focus the projected image.
6. Press A2 again and repeat this for the number of projectors in use in each Bank [up to 4].
7. Now turn projector lamp number one and lamp number two on by pressing A1 and A2.
8. Now with both focused images superimposing each other, align #2 to #1 on the image area.
9. Turn off number two and turn on number three by pressing #2 and #3.
10. Align projector #3 to #1.
11. Turn off number three and turn on number four by pressing #3 and #4.
12. Align projector #4 to #1.
13. Repeat this for all projectors in use. Aligning all to #1.
14. Turn off all the projector lamps.
15. Press Reset.
16. Set the trays to the starting position.

[Always align to a common projector, not necessarily number one.]

IMPORTANT

From this point on DO NOT manually move the trays. The Omni-Mate 828 automatically keeps the trays in synchronization relative to their starting positions.

PERFORMANCE OPERATIONS
TO RUN A LIVE PERFORMANCE

1. Turn on 828 Programmer.
2. Load program. Remember the Mate-trac signal is not the program. Press Escape.
3. Verify program.
4. With SEQUENCE 1 in window, press Escape then Reset.
5. Make sure all cables to projectors are connected properly and all trays are at starting position.
6. Press Run to execute sequences one at a time (press forward of remote control). The programmer memory is in control of the projectors and tray positions.

TAPED PERFORMANCES

Taped means "recorded on tape". This operation uses the Mate-trac signal to control the projectors. The operator only starts the tape (with everything plugged in correctly) and the Mate-trac takes it from there.

PLAYING SHOW 1

Mate-trac is not program, but is Arion's unique digital signal designed to guarantee projector control automatically.

EXAMPLES:

1. Start the tape anywhere, the projectors will automatically go to that part of the show by the shortest route and once there, begin showing the slides. So, you can review a section or skip a section and the trays will keep in sync.
2. You can relamp, unplug the sync cord, or completely remove the projector (provided the tray remains at the same slide when it's put back on.).
3. Or, if the tape is damaged, the Mate-trac will continue control in sync when the damaged part has passed. This is accomplished because of the way information is recorded in the Mate-trac signal.

Each little bit of information is continually repeated until it's changed. So, if the tape is damaged, the show will continue in sync when proper signal is restored. The projectors will advance to, in this case, 3 when signal is restored.

TO RUN TAPED PERFORMANCES

1. Connect audio cable from recorder SYNC OUTPUT to 828 in. Turn on 828.
2. Run tape to see if Mate-trac LED is on and norm level is on [a dim red is OK].
3. Cue up tape to start, set all trays to starting position.
4. Then, with cables from 828 to Omni-Mates to projectors all connected start the tape, sit back and watch your show. Remember, if you want to move the tape to another segment or if a lamp goes out, don't move the trays. The Mate-trac will bring them into sync for you if you don't move them.

LIVE AND TAPED PERFORMANCES

Combining a live section [a speech, for example] with taped segments is only a little more complex than either alone. It is very important to remember that the memory of the 828 cannot load Mate-trac so unless you let it know the proper tray positions, it will assume the start of a Mate-trac means starting positions of the trays. They'll take off back to that position instead of playing the next show!

To avoid that, load the memory with programs for both live and taped segments [remember Mate-trac is not program]. There's another advantage of having both live and taped programs loaded in the memory; if something happens to the tape sync, you can step through the show by hand.

TO RUN LIVE AND TAPED PERFORMANCES

1. Make sure all cables from 828 to projectors are connected.
2. Load and verify program.
3. With SEQUENCE 1 in display press Escape and then Reset.
4. Be sure trays are in start position.
5. When running live portion, use the Run key or the forward button on a remote control.
6. When playing taped portion, the Run key and remote control are disabled. The tape always has priority. When the tape stops the program automatically updates to that point of the show.
7. Any number of modules of live and Mate-trac can be intermixed.

RECORDING

We will assume you now have:

1. Created your program in the 828 memory.
2. Connected all equipment.
3. Focused and aligned the projectors.

FOR TAPED PERFORMANCES

1. If you haven't already done so, go through your audio script writing the sequence numbers at their appropriate audio cues.

   NOTE: If using the Model 826 sync pause unit see page 53.

2. Set Mate-trac signal at −3VU on your tape recorder. [If on playback the signal level and Mate-trac LED's do not indicate a good signal, check tape condition, cables, etc. If it seems your tape deck is putting out a low signal, then record Mate-trac signal at 0 VU].
3. Put trays at starting position.

   IMPORTANT: From this point on DO NOT manually move the trays. The 828 programmer will automatically keep the trays in synchronization relative to their starting positions.

4. With your audio script in hand, listening to the soundtrack, recording the sync track, press the Run key of the 828 to execute the sequences at their appropriate audio cues. As you do this the Mate-trac signal is being recorded on the tape.
5. If you need to re-execute a sequence, just start again after the last correct sequence. Rewind, play tape to the last correct sequence [make sure the green Mate-trac LED lights], wait for projector trays, go back in to record and continue executing the sequences.
6. When you need to change a sequence in the middle of a synchronized show, begin recording the change after the last correct sequence, re-execute the sequence changed and the one after, to avoid a glitch caused by left over signal from the old sequence.
7. To return trays to beginning of show rewind tape to the start. Press Reset. Trays will return to starting position.

RECORDING (continued)

FOR LIVE AND TAPED PERFORMANCES

Do not record live portions of the program.

You'll be covered if the program of both the live and Mate-trac sections has been loaded into the memory before show time.

PROCEDURE

Follow steps 1-4 on page 50.

5. At the end of the taped portion of the show stop the tape.
6. Run all of the live sequences by pressing the Run key.
7. For the next taped portion of show, place recorder into record; while tape is running press Run key.

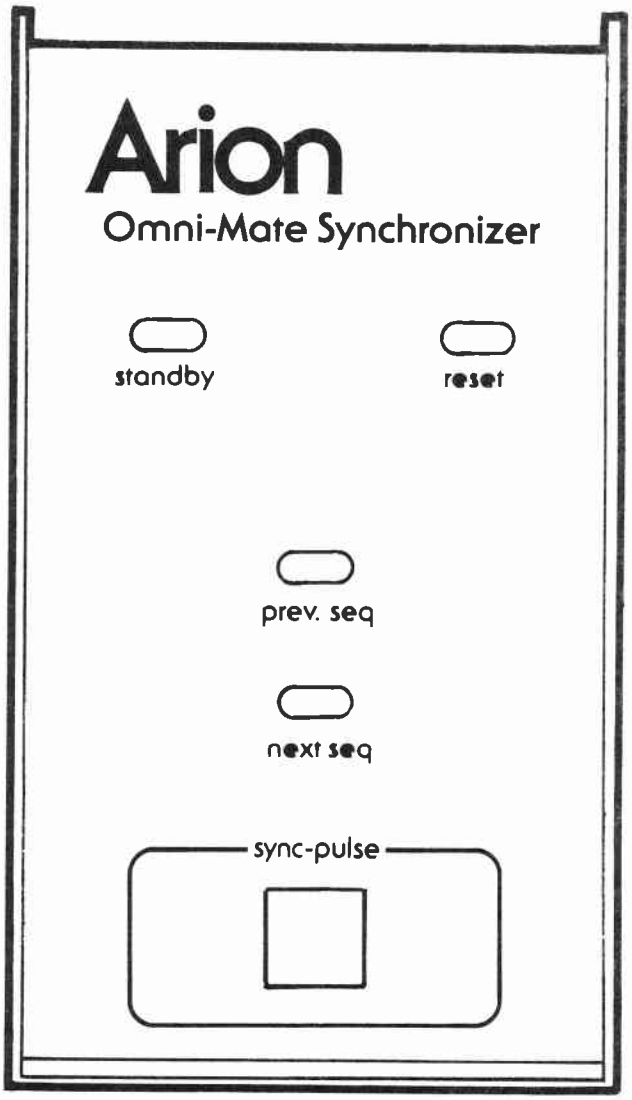
This procedure quarantees that the trays will be in the proper positions.

826 OMNI-MATE SYNCHRONIZER

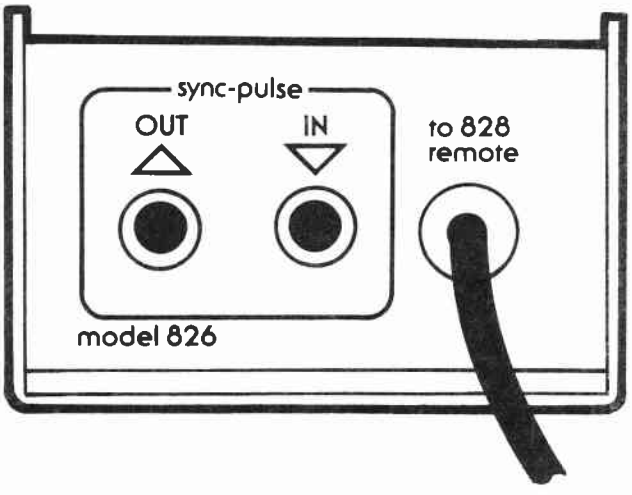
OPERATING CONTROLS

The keyboard of the 826 allows fast and easy synchronization. The front panel of the 826 is comprised of 5 keys.

A. The STANDBY key lends a convenience feature which allows you to turn off all projector lamps if you should have to leave the equipment for a period of time.
B. The RESET key sets the program in the 828 memory to the first sequence.
C. PREVIOUS SEQUENCE key backs the program in the 828 memory one sequence at a time.
D. NEXT SEQUENCE key moves the program in the 828 memory ahead of one sequence at a time.
E. The SYNC PULSE key generates a 1000 Hertz signal which can be recorded on tape. This key also runs sequences that are stored in the 828 memory.



F. The SYNC PULSE area contains both an IN and an OUT jack. It is through these jacks that the 826 both generates and decodes 1000 Hertz pulses.
G. The REMOTE cable is the interface between the 826 and the 828 Omni-Mate Programmer. This cable also supplies power to the 826.



RECORDING SYNC PULSES

The 826 Synchronizer may be used with any Omni-Mate Programmer or Dissolver (except model 816).

To record Sync Pulses onto tape, use the following procedure:

1. Connect the REMOTE cable of the 826 into the REMOTE receptacle of the 828 Omni-Mate Programmer.
2. Connect a shielded audio cable from the SYNC PULSE OUT jack of the 826 to the appropriate IN jack on the tape recorder (use line level inputs).
3. Press and hold down the SYNC PULSE key. This causes a 1000 Hertz signal to be generated by which you can adjust the recording level. Set the recording level to approximately Odb on the VU meter then release the key.
4. With your audio cue sheet in hand and your ears tuned to the sound track, begin recording. At each desired sync point press and hold down the SYNC PULSE key for about ½ second then release it.

SUGGESTION: To simplify the setting of the playback level, you may wish to record a section of tape, separate from the show tape that contains only a reference signal.

To do so simply follow steps 1 through 3 from above. Only at step number 4, begin recording and continue holding down the SYNC PULSE button. Record about 30 seconds of this reference signal. Splice it to the head of your show tape.

When it comes time to playback the sync pulses, you have a reference signal that will allow you to precisely set the playback level.

RECORDING MATE-TRAC

After you have recorded sync pulses onto your show tape it's time to generate a Mate-Trac show tape.

1. Connect the REMOTE cable of the 826 into the REMOTE socket of the 828 Omni-Mate Programmer.
2. Connect a shielded audio cable from the SYNC PULSE IN jack of the 826 to the output channel of the tape recorder which contains the sync pulses.
3. Connect a shielded audio cable from the Omni-Mate SYNC OUT jack to the IN jack of the appropriate channel of the tape recorder (use line level inputs).
4. Set the sync pulse playback level to approximately Odb on the VU meter.
5. Reset the program in the 828 memory to the starting sequence.
6. Set the Mate-trac record level to approximately Odb on the VU meter.
7. Begin to record at least 4 seconds of Mate-Trac before the first sequence is to begin. When a sync pulse is received the 826 automatically activates the sequence appearing in the 828 Message Window.

SUGGESTION: To save time you may wish to edit and polish your presentation prior to recording a Mate-trac show tape.

To do this follow steps 1 through 6. However, at step number 7, do not place the tape recorder into record. Now you can go through your show, sequence by sequence. and correct any timing, fade rates, etc. After the show is proven to be correct, then you are ready to generate a Mate-trac show tape without interruption.

WINDOW MESSAGES

START LOOP

2 START LOOP

The Start Loop is a frame by itself. It tells where the loop is to start.

LOOP # TIMES

LOOP 5 TIMES

The Loop # Times tells the programmer to loop and how many times. This is the Loop ending.

START REPEAT & REPEAT # TIMES

These are identical to the Loop messages above except exchanging the word REPEAT for the word LOOP.

STOP FLASHING

STOP FLASHING

The projector lamp LED's identify which lamps will Stop Flashing. These are identified with an ▲▽ up LED.

FORWARD TRAY

FOWARD TRAY

Projector lamp LED's identify which projectors are to forward their trays. The up▲▽LED's identify the projectors that are to forward.

REVERSE TRAY

REVERSE TRAY

Projector LED's identify which projectors are to reverse their trays. The ▲▽up LED's identify the projectors that are to reverse.

STOP FADING LAMP

STOP FADING LAMP

The Fade Rate and Wait Time in a previous frame will determine the level at which the Stop Fading Lamp function is to occur. The lamp that is instructed to Stop Fading will always be identified by an▲▽up LED.

AUXILIARY

AUXILIARY

These messages show that the projector lamp keys are controlling auxiliaries.

To identify which auxiliary is turning off or turning on, read the projector lamp LED's. If the LED is a △▼down LED the auxiliary is turning off, if it's an up ▲▽LED the auxiliary is turning on.

Note there are only three auxiliaries available in the Omni-Mate 4 dissolvers, therefore, the number 4 LED in each bank can not be used to control auxiliary devices.

FLASH LAMP

When in Create, Insert, or Change modes, the Start Flash function will have four messages. The second message prompts for the on/off time during the flashing.

FLASH [ON:OFF] 0:0

This is stated in tenths of a second. The third message prompts for the lamps that are to flash and restates the ratio chosen in the previous message. Any projectors 1-4 can be selected to flash. The lamps that are to flash will be identified by the▲▽up LED's only.

FLASH 1:3 LAMP

FADE TO LEVEL

When in the Create, Insert, or Change modes, the Fade to Level function will have five messages. The second message prompts for a fade level [1-10], the next message prompts for the lamps that are to fade to that level. Any projectors 1-4 can be selected. All the lamps fading to a pre-set level will be identified by the ▲▽ up LED's regardless of whether they are going to a higher or lower level. Fade to Level is always a lamp "on" command since there is no Fade to Level 0 command.

FADE TO LEVEL 5 LEVEL 5 LAMP

WINDOW MESSAGES

MESSAGE	MEANING
ACCEPT TO CHANGE	Pressing the Accept key completes the operation.
ACCEPT TO CREATE	Asks for Accept key to complete frame.
ACCEPT TO DELETE	Asks for Accept key to erase a frame in program.
ACCEPT TO INSERT	Asks for Accept key to put another frame in between two others.
AT # SEC RATE	This is the fade rate at which the projector lamp[s] will fade on or off.
AT ?? SEC RATE	Asks for fade rate selection.
AUXILIARY	Identifies which auxiliary is being turned on or off.
1 CHANGE FR 1	A message indicating the changing of a frame.
1 CREATE FR 1	Starting point at which a new frame can be created.
1 DELETE FR 1	This frame can be deleted.
1 EDIT FR 1	The presentation can be reviewed, frames can be inserted, deleted or changed.
END OF SHOW	End of show program has been reached.
END SEQ	All of the frames of the previous sequence have been completed.
ERASE SHOW?	Asks, "Are you sure you want to erase program memory?"
FADE LAMP	Identifies which lamp[s] are being changed [On/Off].
FADE TO LEVEL	Asks for percentage of brightness at end of fade. From 1-10.
FLASH [ON/OFF] #:#	This message is prompting for an entry of two numbers from 0-9. The first # is the lamp[s] On time and the second # is the lamp[s] Off time.
FLASH #:# LAMP	States the lamp[s] On and Off time in tenths of a second that were chosen.
FORWARD TRAY	Identifies which projector tray will change position in a forward direction.
FREE: 61	Identifies amount of program memory available for creating.
GO TO SEQ #	Indicates which sequence the program will go to when Accept key is pressed.
GO TO 81 FR#	Ability to GO TO a position in the program memory by frame number selection. Indicates the sequence and frame the program will go to when Accept key is pressed.

1 INSERT FR 1	A new frame can be inserted.
LEVEL # LAMP	This message states fade level selected.
LOAD SHOW	Program can be received by 828 programmer memory.
LOADING SHOW	Program from tape is being received by 828 programmer memory.
LOOP # TIMES	The number of cycles of the frames in a loop. During playback this number will count down after each cycle.
LOOP = ?	Indicates the projectors to be affected by the Dissolve key in each bank. Sets up a dissolve loop. Different than a LOOP # TIMES.
NO ROOM!	Memory is filled to capacity.
OFF/NO ADV OFF PROJ/	Fading off projector will not advance tray.
OFF/TO ADV OFF PROJ/	Fading off projector tray will advance one position.
PLAYING SHOW #	Mate-trac is being received by the 828 (not program).
RE VERIFY SHOW	Program from tape is not the same as the program in 828 memory.
REPEAT # TIMES	The number of cycles of the frames in a repeat operation.
REVERSE TRAY	Identifies the projector tray that will change in the reverse direction.
SAVE SHOW	Program (not Mate-trac) can be sent to tape.
SAVING SHOW	Program of the 828 (not Mate-trac) is being sent to the tape.
SET-UP LAMP	Allows any lamp to be turned on or off individually. Used for focus & alignment procedure.
SIZE: 12	Indicates the amount of program created to that point.
— STANDBY —	Lamps turned off, waiting. Dissolvers remain on. Projector power will be turned off.
START LOOP	Indicates that frames after this point will be repeated.
START REPEAT	Similar to start loop, except that projector trays are advanced for each cycle of the repeat.
STOP FADING	Identifies which lamp(s) is to stop fading.
STOP FLASHING	Which projector lamp(s) will stop flashing.
SWAP BANK	Moves the program to a different bank.
? # TIMES	Indicates that the START LOOP or start repeat is missing.
TRAY A1:1	Shows projector and tray position.
VERIFY SHOW	Program from tape is being compared with program in 828 memory.
VERIFYING SHOW	
WAIT # SEC	The amount of time that will pass before the next frame will be activated.
WAIT "??.??" SEC	Asks for amount of wait time to be selected.
WHICH AUXILIARY?	Which auxiliary do you wish to activate.
WHICH LAMP?	Asks for lamp selections.
WHICH TRAY?	Which tray do you wish to Forward or Reverse.

GLOSSARY

AUDIO CUE	A point at which audio and sequences are synchronized together on tape.
AUXILIARY	Devices other than projectors to be controlled by programmer. Also refers to use of Auxiliary key to enter certain instructions.
CONTINUE	A function to resume a lamp fade in the same direction it was going before stop fade.
CREATE	To program into the memory of the 828 Programmer.
DAISY-CHAINING	Connecting output of one dissolver to input of next and so on.
DELETE	An editing function meaning to completely erase from program the frame displayed in the window.
DISSOLVE	A compound projector function meaning to cause the lamp of one projector to "fade-off" and simultaneously for another projector lamp to "fade-on" at the same fade rate.
DISSOLVE LOOP	Operation used to choose number of projectors to be active when using the dissolve key.
EDIT MODE	Mode for access to individual messages in order to review, insert, delete or change them.
ENTRY	Pressing a key on the programmer.
ESCAPE	Revert to a neutral status in order to change mode of operation.
EXECUTE	To carry out program entries and to run program.
FADE-ON	A projector function meaning to cause a projector lamp[s] to go from an "off" condition to an "on" condition at a given fade rate.
FADE-OFF	A projector function meaning to cause a projector lamp[s] to go from an "on" condition to an "off" condition at a given fade rate.
FADE RATE	This is the total time, in seconds, required for a projector lamp to go full "off" to full "on" or vice versa.
FADE TO LEVEL	A creating function meaning to fade a lamp to one of 10 levels of brilliance.
FLASH RATIO	The on-off duration of the lamps that will flash.
FRAME	An unit of program made of messages.
IDENTIFIER	First message of frame showing where entry will go and what mode it will be in.
INSERT	An editing function meaning to insert a new frame just prior to the frame shown in the window.
LOAD SHOW	Transfer program from tape to programmer memory.
LOOP	To cycle a series of frames without advancing trays until last cycle is started.
MATE-TRAC	A unique Arion digital signal continuously providing lamp status, fade rates, tray position, etc. for reliable operation.
MEMORY	The area within the programmer where all entries are stored.
MESSAGE	The basic unit of program. They combine to form a frame.
NO ADVANCE	A projector function meaning to cause a projector tray to stay at the same position after its lamp fades off.
PROGRAM	The contents of the Memory which are made up of Frames and Sequences [together these make up a "show"].
RE-LOAD SHOW	Load show was not accepted.
RE-VERIFY SHOW	Program from tape did not match program in programmer memory.
REPEAT	To cycle a series of frames with trays advancing in each cycle.
RESET SHOW	Return to start of program [sequence #1].
RESPONSE	The last message of a frame calling for final acceptance of frame just created.
RUN SEQUENCES	To execute one or more sequences with or without the dissolver/projector hardware connected.

SAVE SHOW	Transfer program (not Mate-trac) from programmer memory to tape for safe storage.
SETUP LAMP	Used during alignment and focusing of projectors. Allows individual lighting of projector lamps.
SEQUENCE	The unit of a program made of frames to be automatically executed.
STANDBY	Used to turn off all lamps.
START FLASH	A projector function meaning to cause projector lamps to flash on and off at a rate selected. The "flash" condition will operate even if no projector lamps are currently "on" when the function is given.
STOP FADE	Command to freeze a fading lamp after a time interval.
SWAP	Used to reassign program from one bank to another.
TO ADVANCE	A projector function meaning to cause a projector tray to advance one position after its lamp fades off.
TRAY FORWARD	A projector function meaning to cause a projector tray to advance one position independent of the lamp status (On-Off).
VERIFY SHOW	To test the program saved on tape by compounding it to the program in the memory, thus insuring a successful program storage onto tape.
WAIT	Time before the execution of the next frame in a sequence.
WINDOW	Red area above Projector keys in which message appears.

USING THE PROGAMMING SHEETS

SEQUENCE/FRAME	Enter the Sequence Number and the Frame Number. The Sequence Number should be entered only when it changes. Write these numbers on your audio script to aid in synchronizing your tape.
FUNCTION	One of the functions such as, Fade to Level, Flash, Stop Flash, Auxiliary, Forward-Reverse, Fade, Stop Fading Lamp, Loop, Repeat, etc. are recorded.
LAMP INDICATOR	Designate lamp on commands with upper case letters [A1, C2] and lamp off commands with lower case letters [a1, c2].
FADE RATE	Enter the Fade Rate Number. Enter ditto marks (") when rate remains the same.
ADVANCE/NO ADVANCE	Enter one or the other. Enter ditto marks until a change occurs.
WAIT/END SEQUENCE	Enter either the Wait Time or the word End. Again, use of ditto marks is recommended.

Upper right square is for page numbering. Write both the cue sheet page number and the audio script page number. At the bottom of the sheet enter the show title.

Use pencil for ease of correcting entry errors.

Arion

Multi-image Success Systems

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