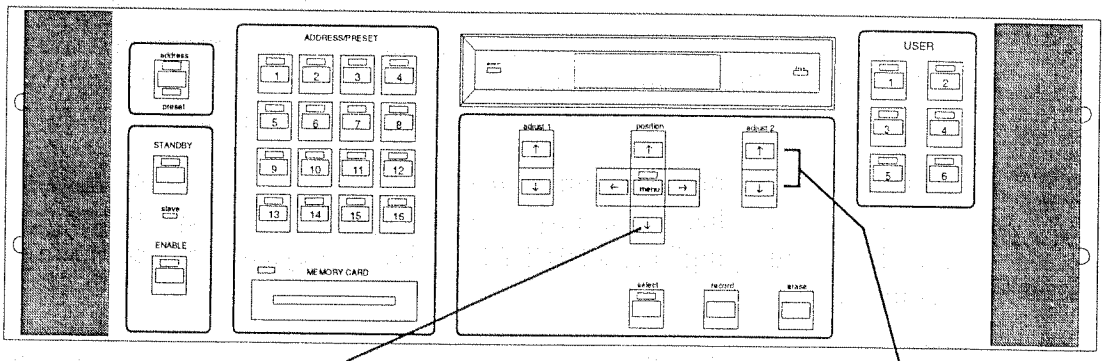
4. The LCD window displays:

Blinking → ERASE MEMORY
ERASE USER KEYS

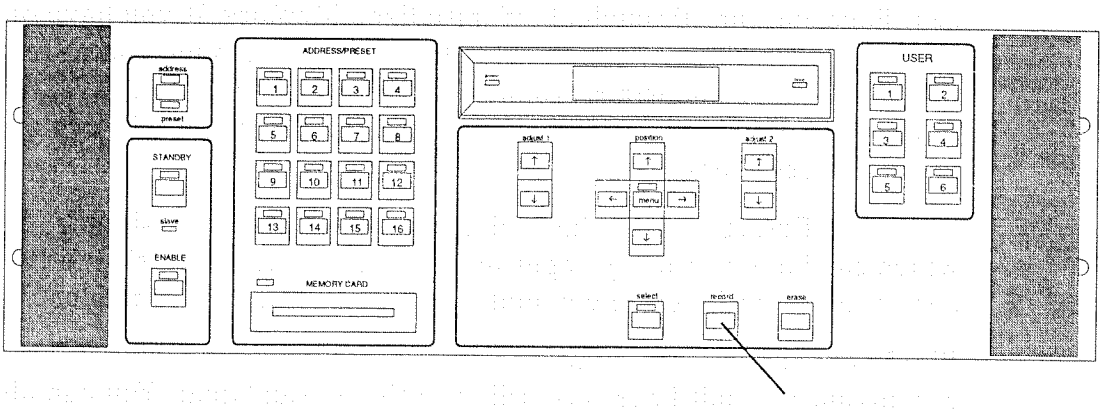


5. Then, press the POSITION Down Arrow key to select: ERASE USER KEYS.

6. Next, press any ADJUST key to enter the ERASE USER KEYS display.

7. The LCD window displays the following message:

PRESS RECORD TO
ERASE USER KEYS



8. To complete the operation, press the RECORD key.

9.. The LCD window briefly displays:

ERASING
USER KEYS

and then returns to the Ready mode.

Playback

You can playback a program manually or automatically. Programs consist of single Pages, a sequence of Pages in a loop (chase), a single Preset, or a sequence Preset. You can also playback all Pages in Memory.

Playing Single Pages —You playback single Pages manually by simply selecting the Page with the ADJUST 2 Up/Down keys. The moment you select the Page it performs the operations recorded in the Page.

Manually playing a sequence of Pages — You can play a sequence of Pages manually. Play them manually by selecting the first Page in the sequence and then keep "bumping" the ADJUST 2 Up/Down keys to proceed through the sequence.

Playing a loop — You playback a loop automatically. A loop has a Uninitialized Page as its first and last page. You select any Page in the loop and then press the POSITION Right Arrow key (Delay) and set the delay (rate) value; the loop runs continuously. When it encounters the ending Uninitialized Page it loops back to the beginning Uninitialized Page and continues until you deselect the Delay.

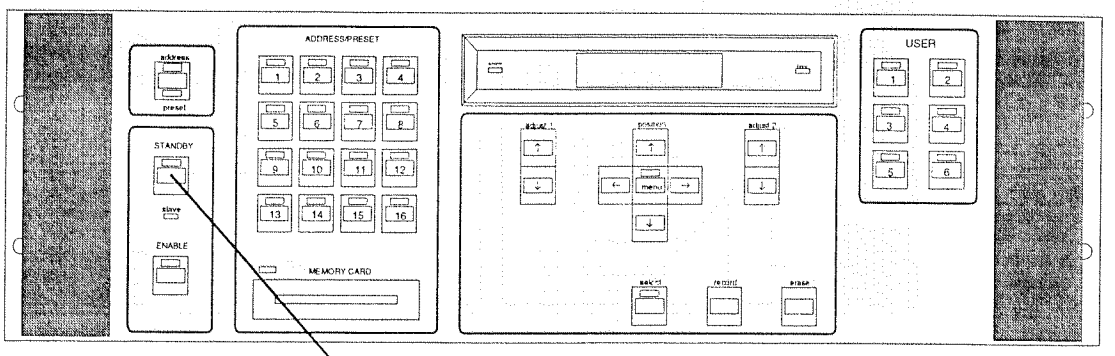
Playing All Memory (Allmem) – You automatically sequence through (playback) all initialized Pages in Memory (up to 500 Pages). If you are running a loop and enable this feature, then the controller continues with the next Page and runs through all of initialized Memory. If you have only created a single loop in Memory and enable this feature, then the controller runs through the loop and wraps around through this loop. If you have, for example, three loops defined in all of memory, then the controller will cycle through only the three loops.

Playing a Preset — You playback a Preset in a similar fashion as a loop, which can be one or many pages long. That is, when you select a Preset it runs continuously until you select another Preset or exit Preset mode.

Playback with Effects –There are two audio input override effects where you can advance or halt Pages according to the musical beat. You can also change fixture colors, gobos, size modulation and light intensity according to the musical beat.

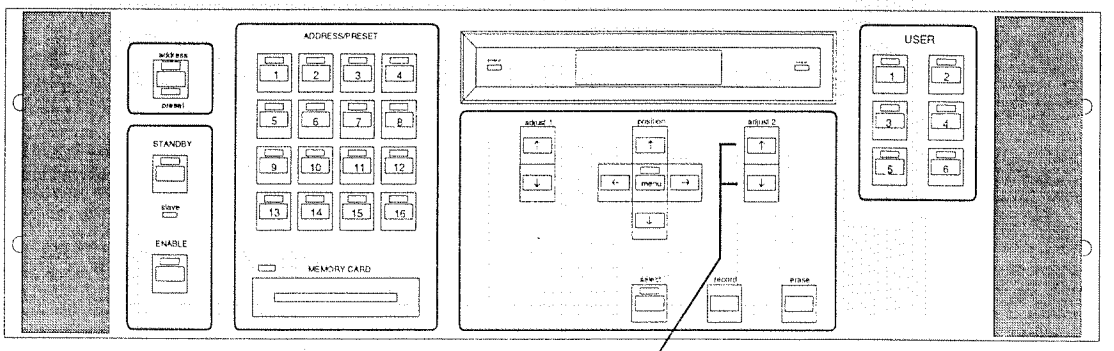
Playback a Single Page

To manually playback one or more Pages:



1. If the controller is in Standby mode, take the controller out of Standby by pressing the STANDBY key; the STANDBY key LED turns "Off".

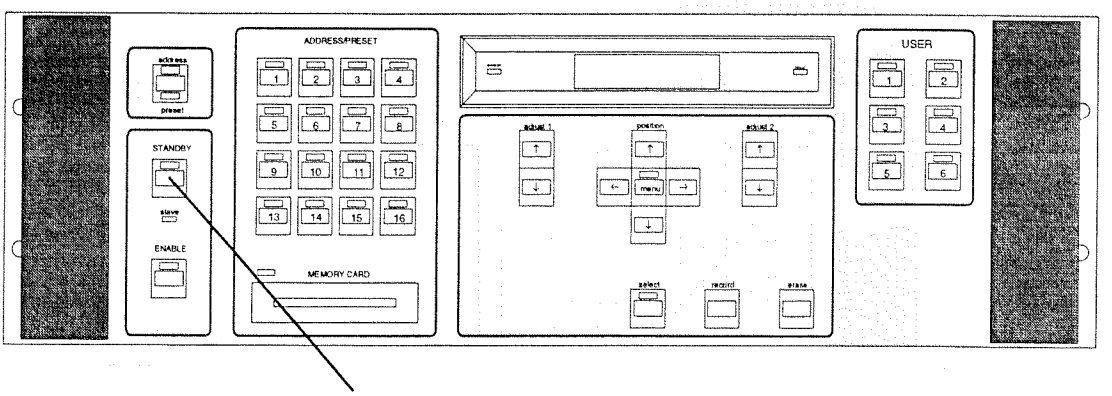
Note: When the controller exits Standby it immediately plays the Page currently displayed in the LCD window.



2. Then, in Ready mode, use the ADJUST 2 Up/Down Arrow keys to select any Page that you want to Playback. If you press and hold either the ADJUST 2 Up or Down Arrow key, the Pages change quickly until 1 or 500 is reached. If you release and press the ADJUST 2 Up/Down Arrow key again, the process repeats.

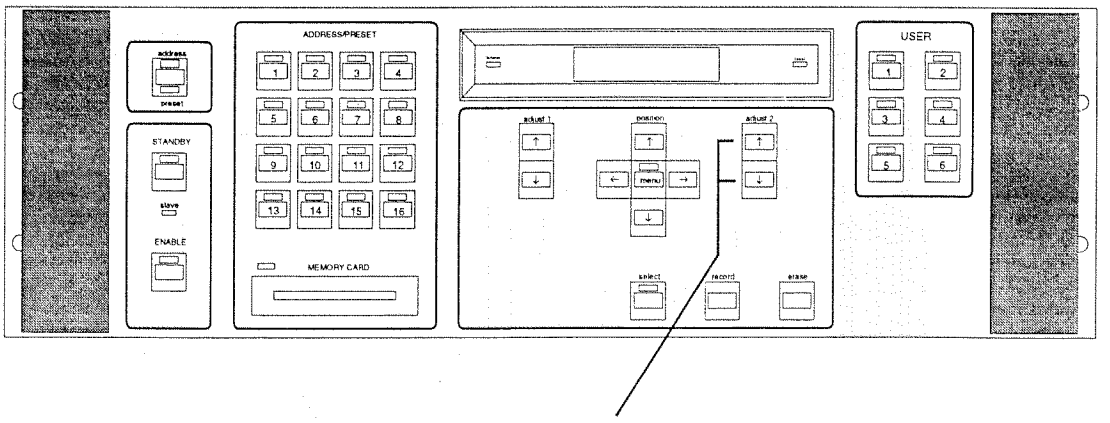
Playback a Loop of Pages

To automatically playback Pages within a loop:

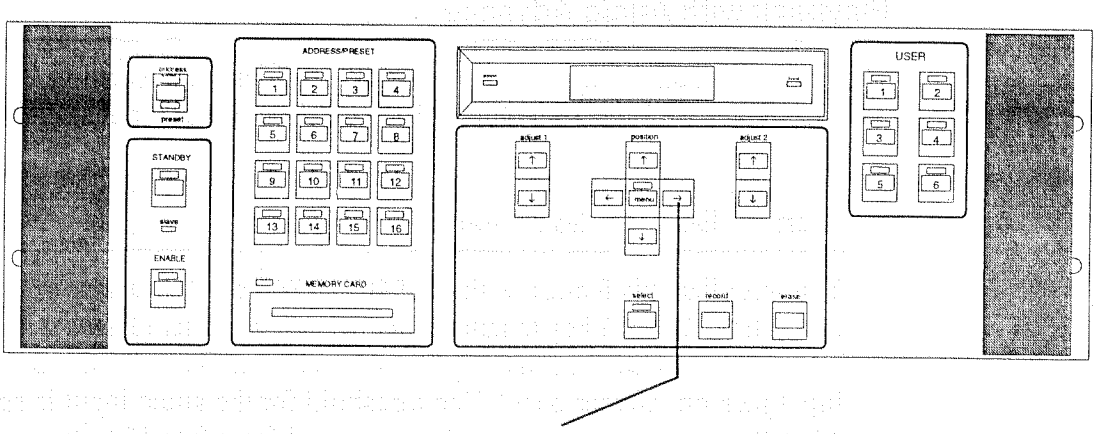


1. If the controller is in Standby mode, remove the controller from Standby by pressing the STANDBY key; the STANDBY key LED turns "Off".

Note: When the controller exits Standby it immediately plays the Page currently displayed in the LCD window.

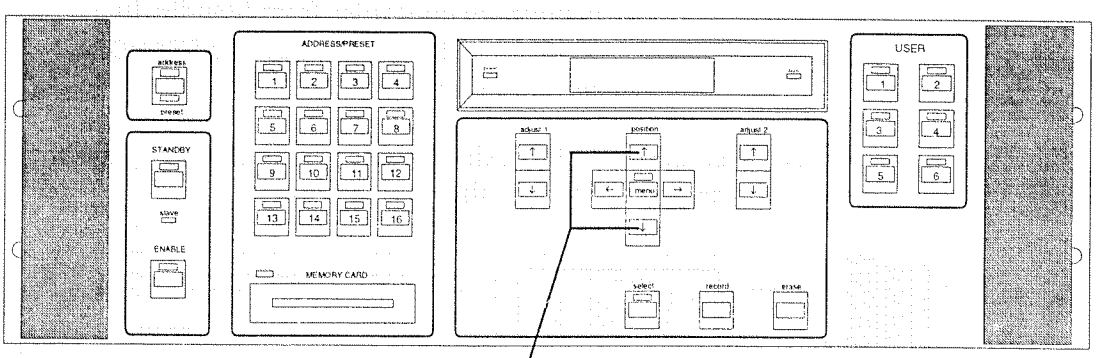


2. Then, in Ready mode, use the ADJUST 2 Up/Down Arrow keys to select any Page in the loop that you want to Playback to start on. If you press and hold either the ADJUST 2 Up or Down Arrow key, the Pages change quickly until 1 or 500 is reached. If you release and press the ADJUST 2 Up/Down Arrow key again, the process repeats.



3. Then, in Ready mode, press the POSITION Right Arrow key, this is the Delay key.

4. As soon as you press the Delay key the controller begins to playback all of the Pages within the current loop until it encounters an Uninitialized Page. When it encounters an Uninitialized Page it loops back to the starting Uninitialized Page in the loop and continues with the first programmed Page after the Uninitialized Page. The controller runs continuously sequencing through the loop until you deselect the Delay key.



5. To vary the playback delay (rate) use the POSITION Up/Down Arrow keys and set the delay time between Pages from 0.1 seconds to 9.9 seconds. The delay you set with the POSITION Up/Down keys adds to the Delay time programmed into each Page.

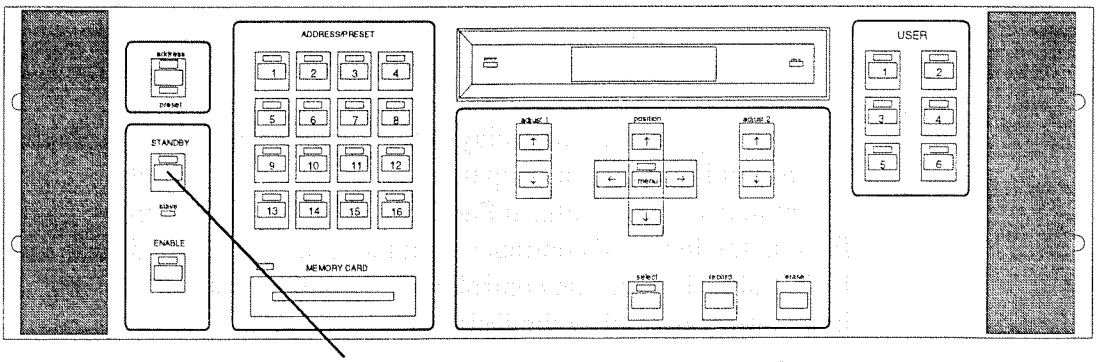
Playback with Audio Advance

The universal Controller provides two audio options for advancing Pages. You can advance Pages with the Step on beat (advance) option or the Pause on beat (halt) option.

Step on Beat Audio Advance

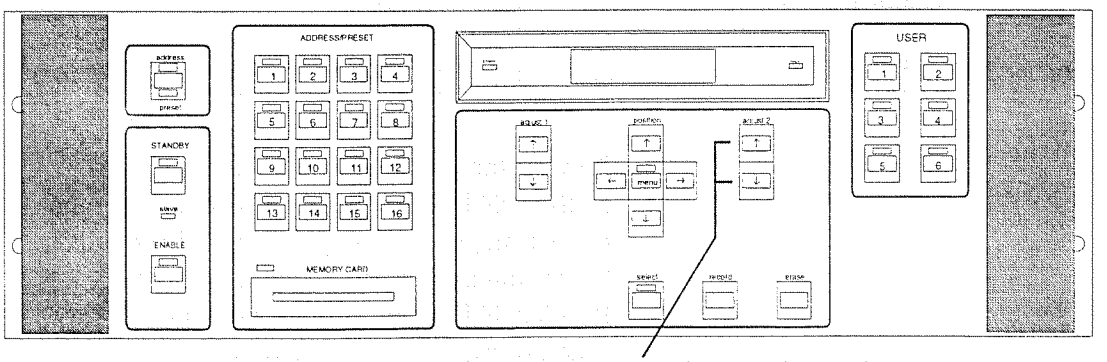
You initialize this feature with the POSITION Left Arrow key or optionally through the USER 1 key to automatically step (advance) Pages with the musical beat. You must have a musical source connected to the 6 mm (1/4 inch) Audio Input jack on the rear panel. The threshold for the audio input is set by the AUDIO adjustment control on the rear panel from 0 to 10 volts.

To advance Pages with Step on beat:



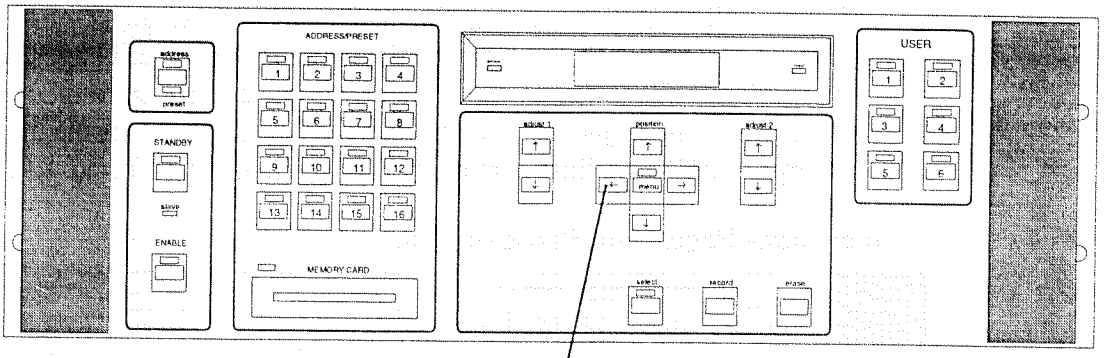
1. If the controller is in Standby mode, remove the controller from Standby by pressing the STANDBY key; the STANDBY key LED turns "Off".

Note: When the controller exits Standby it immediately plays the Page currently displayed in the LCD window.



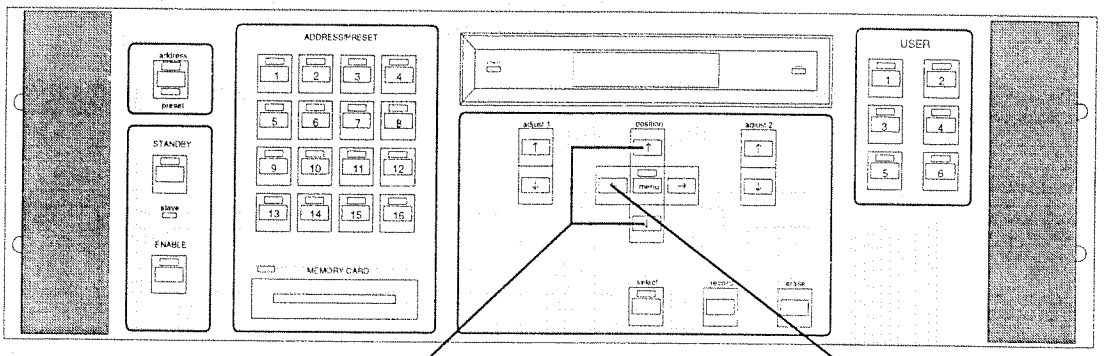
2. Then, in Ready mode, use the ADJUST 2 Up/Down Arrow keys to select any Page that you want to Playback. If you press and hold either the ADJUST 2 Up or Down Arrow key, the Pages change quickly until 1 or 500 is reached. If you release and press the ADJUST 2 Up/Down Arrow key again, the process repeats.

Then:



3. Press the POSITION Left Arrow key to enter the Audio advance mode. You can alternately press the USER 1 key (providing it has not been redefined).

4. As soon as you press the Audio key, the controller begins to playback all of the Pages within the current loop.



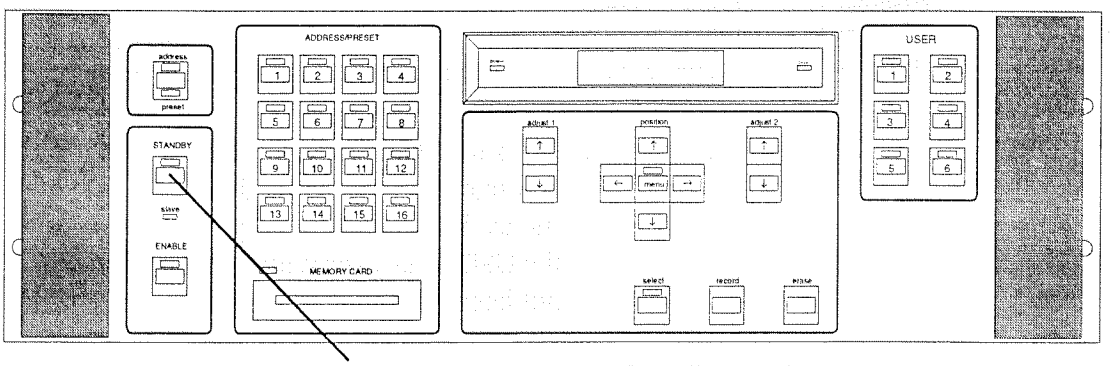
5. Specify the step rate by presssing the POSITION Up/Down Arrow keys, selecting the width of beat needed to trigger page advance, S01 requiring the narrowest beat to trigger an advance, and S10 requiring the widest beat to trigger an advance.

6. To exit out of this feature press the POSITION Left Arrow key again. You can also press the POSITION Right Arrow key and go directly to the Delay advance option.

Pause on Beat Audio Advance

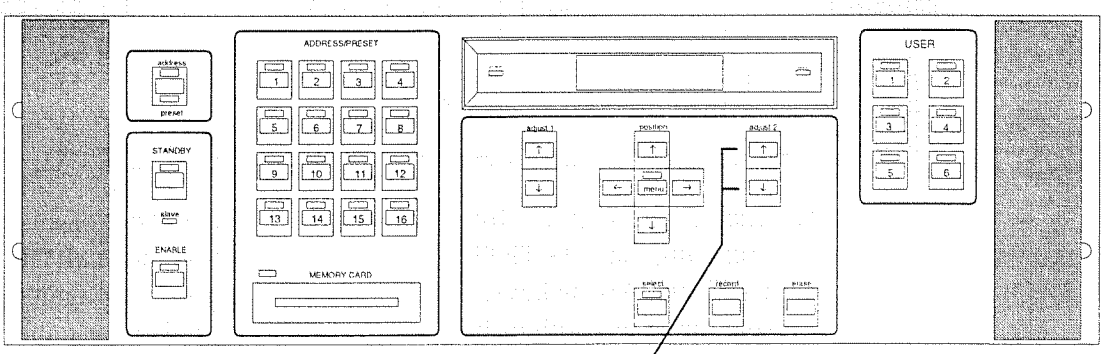
You initialize this feature with the POSITION Left Arrow key or optionally through the USER 3 key to automatically pause (advance) Pages with the musical beat. You must have a musical source connected to the 6 mm (1/4 inch) Audio Input jack on the rear panel. The threshold for the audio input is set by the AUDIO adjustment control on the rear panel from 0 to 10 volts.

To advance Pages with Pause on beat:



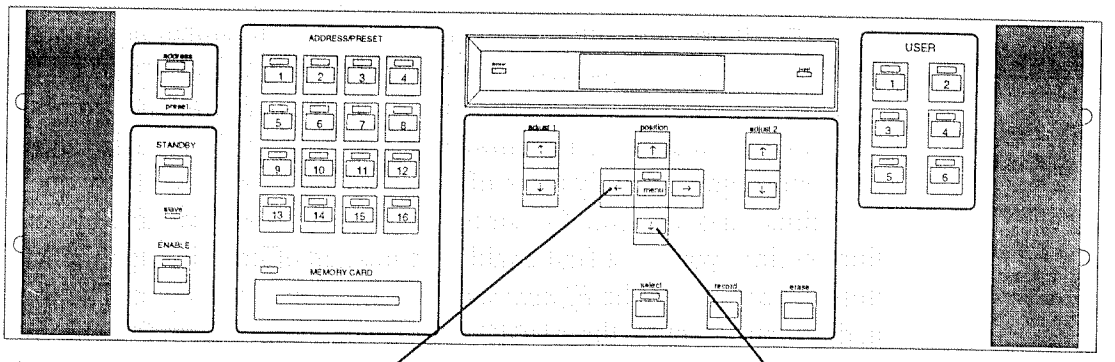
1. If the controller is in Standby mode, remove the controller from Standby by pressing the STANDBY key; the STANDBY key LED turns "Off".

Note: When the controller exits Standby it immediately plays the Page currently displayed in the LCD window.



2. Then, in Ready mode, use the ADJUST 2 Up/Down Arrow keys to select any Page that you want to Playback. If you press and hold either the ADJUST 2 Up or Down Arrow key, the Pages change quickly until 1 or 500 is reached. If you release and press the ADJUST 2 Up/Down Arrow key again, the process repeats.

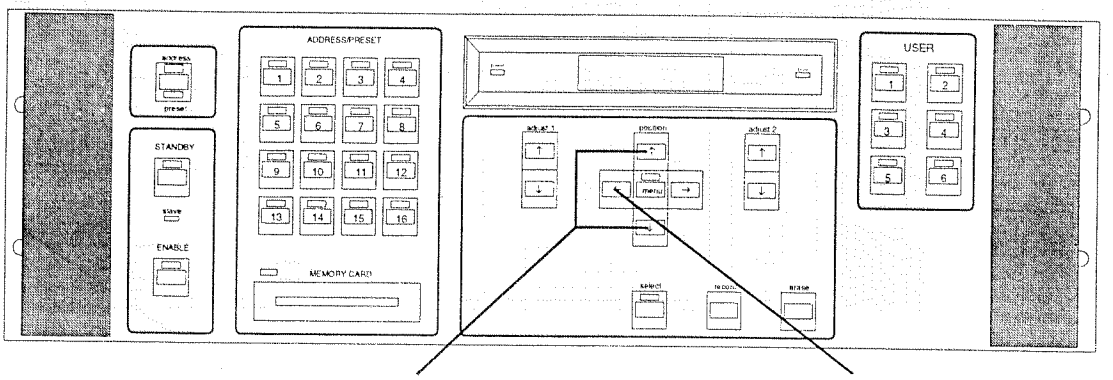
Then:



3. Press the POSITION Left Arrow key to enter the Audio advance mode. You can alternately press the USER 3 key (providing it has not been redefined).

4. Press the Position Down Arrow key to enter Pause on Beat audio mode.

5. As soon as you press the Audio key, the controller begins to playback all of the Pages within the current loop.



6. Specify the step rate by presssing the POSITION Up/Down Arrow keys, selecting the width of beat needed to trigger page advance, P01 requiring the narrowest beat to trigger an advance, and P10 requiring the widest beat to trigger an advance.

7. To exit out of this feature press the POSITION Left Arrow key again. You can also press the POSITION Right Arrow key and go directly to the Delay advance option.

Note: You must consider the Delay advance value when using the pause-on-beat feature. For example, if the Delay value is set to 0.5 seconds between Pages and the pause-on-beat value is set to (P10), then the Pages will advance at the 0.5 second rate, pause for on the beat, then continue advancing at the 0.5 second rate again waiting for another beat.

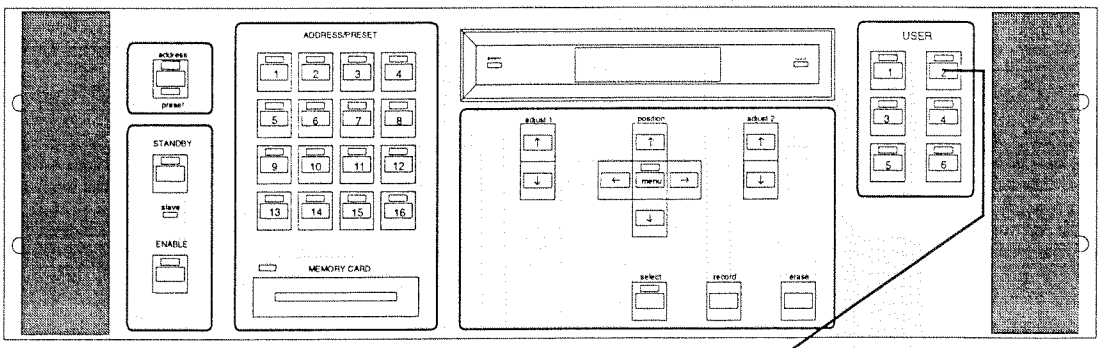
Playback with Effects

The ***universal*** Controller effects allows you to modulate or advance the Color wheel, Gobo wheel, pattern Size, and Dim to a musical beat. The Delay time can be used to modulate Color and Gobo. The ***intellabeam*** and ***trackspot*** respond to Color, Gobo, and Dim. The ***emulator*** responds to Color, Size, and Dim. You can advance Pages, or apply these effects to a single page with any one or a combination of all three Constructs. Before you can use these effects as outlined in this section, you must first enable the desired effects through the Menu Effects item; refer back to the *Effects* section earlier in this chapter. The threshold for the audio input is set by the AUDIO adjustment control from 0 to 10 volts.

Color Modulate

Use this effect to instruct all active fixtures to begin changing colors from their current settings with either the *beat* of the audio input signal or the Delay value set by the POSITION Up/Down keys. The color modulate effect overrides the Color program information, but returns when you deselect the USER 2 key.

To apply Color Modulate to your playback:



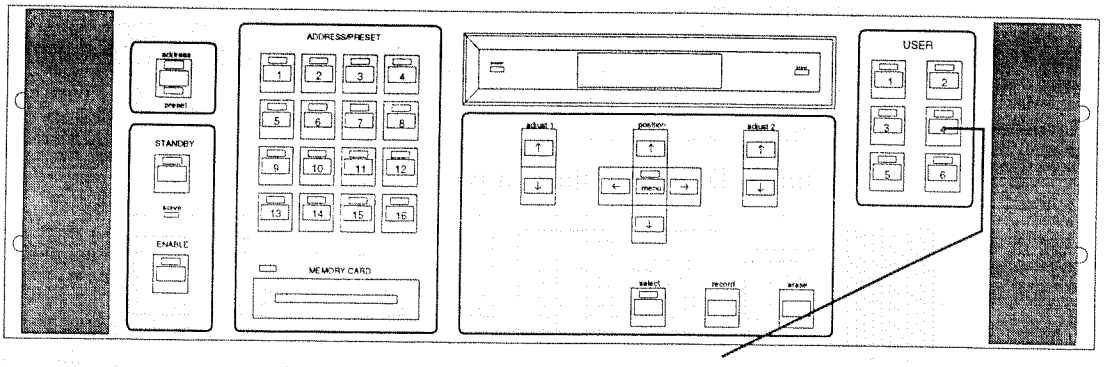
Press USER 2 key to implement this feature, if USER 2 key not redefined.

The Color wheel advances with each beat of the music source in Audio mode and a small "c" is flashed in the LCD window. In Delay mode, the color wheel advances each time the total delay (the sum of the delay programmed into the page plus the Master Delay) expires.

Gobo Modulate (*intellabeam* and *trackspot*)

Use this effect to instruct all active fixtures to begin changing gobos from their current settings with either the *beat* of the audio input signal or the Delay value set by the POSITION Up/Down keys. The gobo modulate effect overrides the gobo program information, but returns when you deselect the USER 2 key.

To apply Gobo Modulate to your playback:



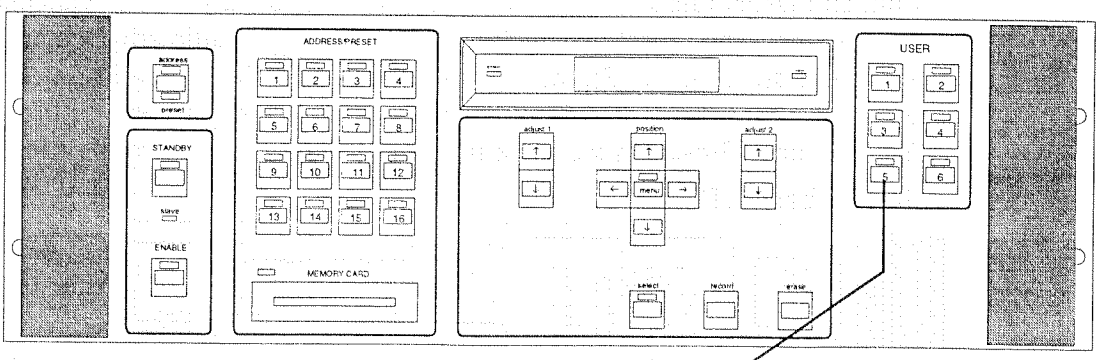
Press USER 4 key to implement this feature, if USER 4 key not redefined.

The Gobo wheel advances with each beat of the music source in Audio mode and a small "g" is flashed in the LCD window. In Delay mode, the Gobo wheel advances each time the total delay (the sum of the delay programmed into the page plus the Master Delay) expires.

Size Modulate (*emulator*)

Use this effect to instruct all active fixtures to begin changing pattern size from their current settings with the *beat* of the audio input signal. The size modulate effect overrides the Size program information, but returns when you deselect the Size Modulation.

To apply Size Modulate to your playback:



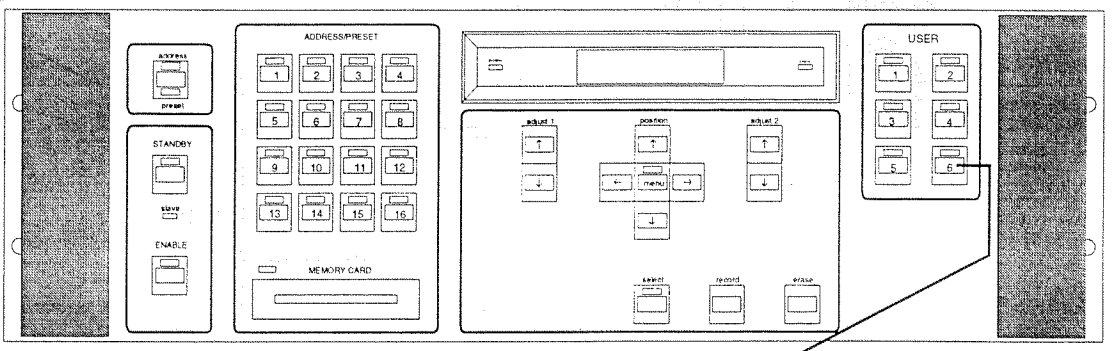
Press USER 5 key to implement this feature, if the USER 5 key is not programmed for a macro.

The pattern Size changes with each beat of the music source and a small letter "s" is displayed in the LCD window when this modulation is in effect.

Dim Modulate (*intellabeam, trackspot and emulator*)

Use this effect to instruct all active fixtures to brighten their lights with the *beat* of the audio input signal. The Light modulate effect overrides the light program information, but not the master dim value. Program control returns when you deselect the USER 6 key.

To apply Dim Modulate to your playback:



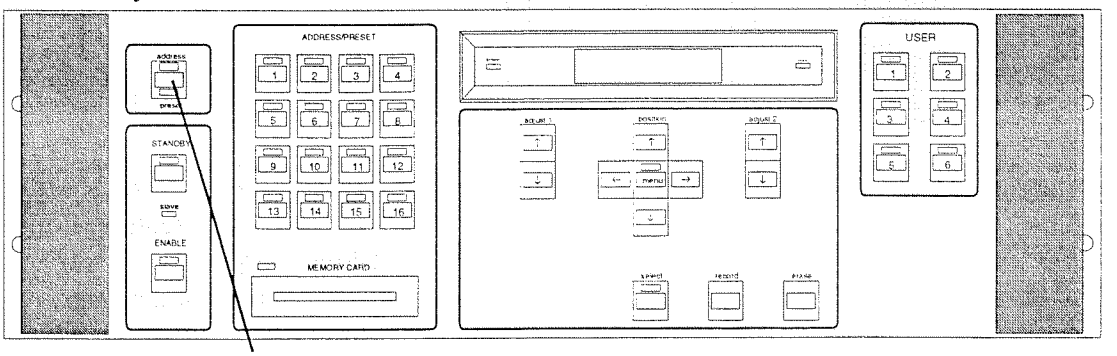
Press USER 6 key to implement this feature, if the USER 6 key is not programmed for a macro.

The light brightens in proportion to the beat width of the music source. *Master Dim sets the maximum brightness allowed for all fixtures.*

Playback a Preset

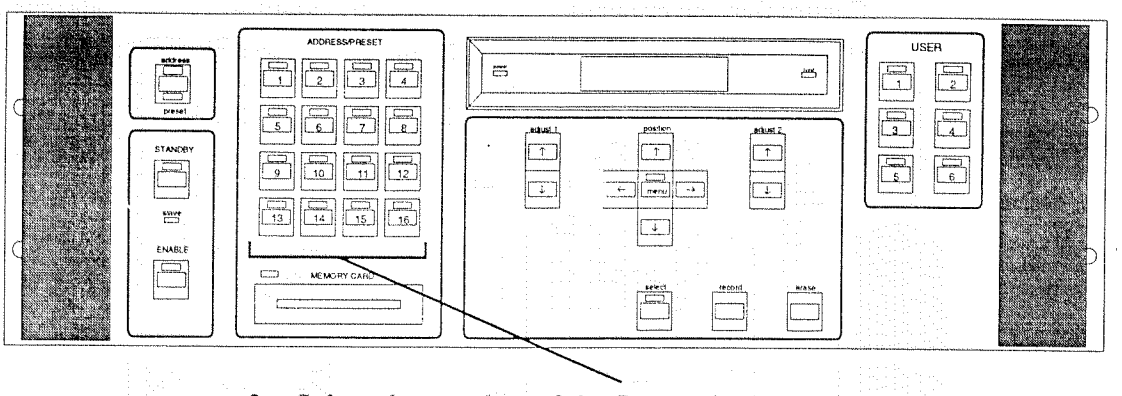
Presets store a Page or group of Pages and their Audio advance, Effects, Master dim, and Delay rate settings. Any changes made to the Audio advance and Effect selections during Preset playback will not affect the Audio advance and Effect selections stored in the Preset Memory. When you playback a Preset, it continues to playback indefinitely until another Preset is selected or you exit Preset mode. You playback Presets in the same manner as playing back a loop of Pages.

To Playback a Preset:



1. Press the ADDRESS/PRESET key to select Preset mode. The Preset LED lights.

The controller is now in Preset Mode.



2. Select the number of the Preset that you want to play back by pressing the corresponding key on the ADDRESS/PRESET keypad. The Preset immediately begins to playback and runs continuously if created in a loop. A single Page Preset plays the Page and waits for you next action.

3. If you want to change to another Preset during the currently running Preset, just press another Preset key. To quit Preset playback press the ADDRESS/PRESET key and exit back to Address mode. The currently running Preset continues to run until that trigger method is deactivated by pressing the appropriate trigger key, either Audio or Delay.

   Another way to halt the playback of a Preset is to select a Preset that is not programmed. That is, a PRESET key that is not lit. The controller remains in the Preset mode.

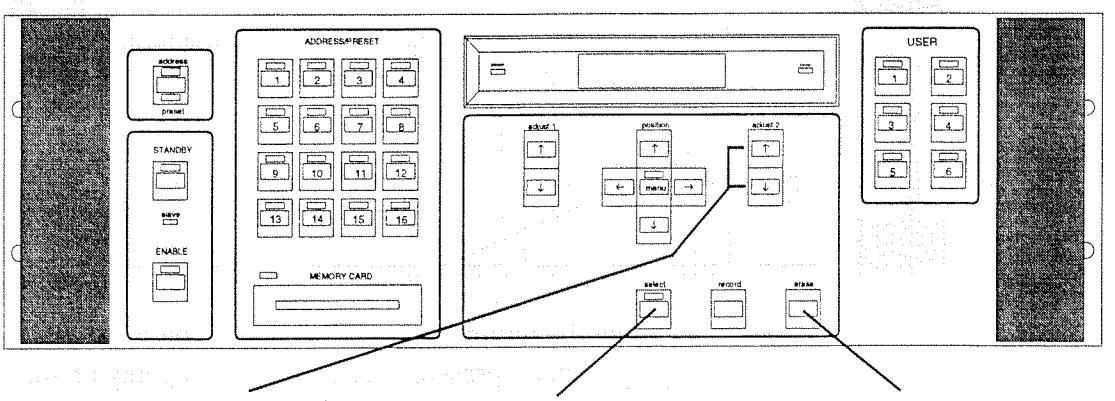
Erase a Page and Create a Blackout Page

You may want to erase a Page when there is undesirable or old Pages in Memory. It is often best to clear out these Pages to prevent confusion in future programming. Otherwise, you can record over the old Pages. An erased Page is still an Initialized Page; it acts as a "placeholder" Page in a loop of Pages. Therefore, use this feature to create Blackout pages. You can include erased Pages as part of a sequence.

If you want to erase many Pages, first erase several Pages using this procedure. Then, use the Block Copy procedure and copy the erased Pages to another area of Memory. If you have large number of Pages to erase, then lock the Pages that you want to keep and perform the Erase Memory operation from the menu. Then unlock the locked Pages.

To erase a Page:

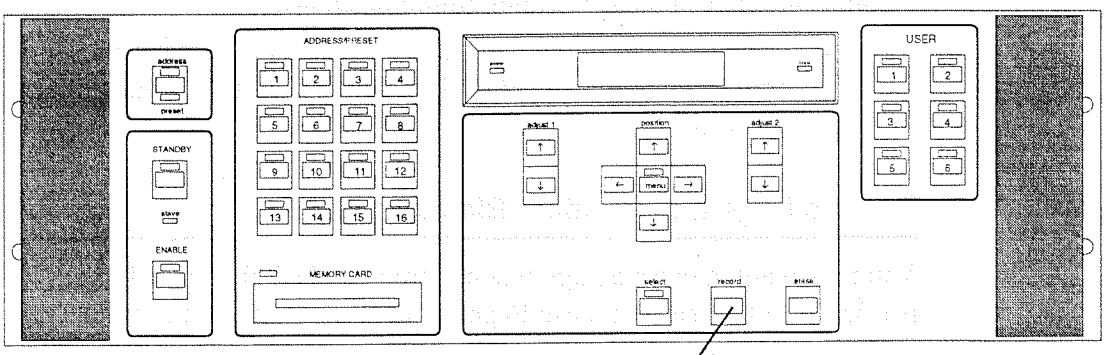
1. Ensure that the controller is in Ready mode and Address mode; the SELECT key LED is off and the top LED on the ADDRESS/PRESET key is on.



2. Select the Page that you want to erase with the ADJUST 2 Up/Down keys.
3. Press the SELECT key, its LED flashes.
4. Press the ERASE key once.

5. The LCD window begins flashing two prompting messages.:

press ERASE key to deinit page	◄►	press RECORD key to erase page



6.To complete the erase operation press the RECORD key.

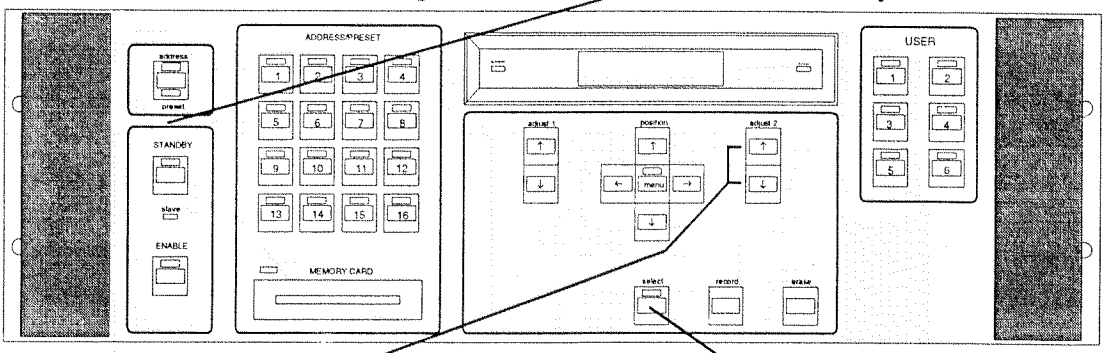
To abort the operation at any time, press the SELECT key.

Erase Selected Fixtures on a Page

Use this procedure to erase the selected fixtures from the Page. Using this procedure allows you to return a selected address to default values without erasing the entire page.

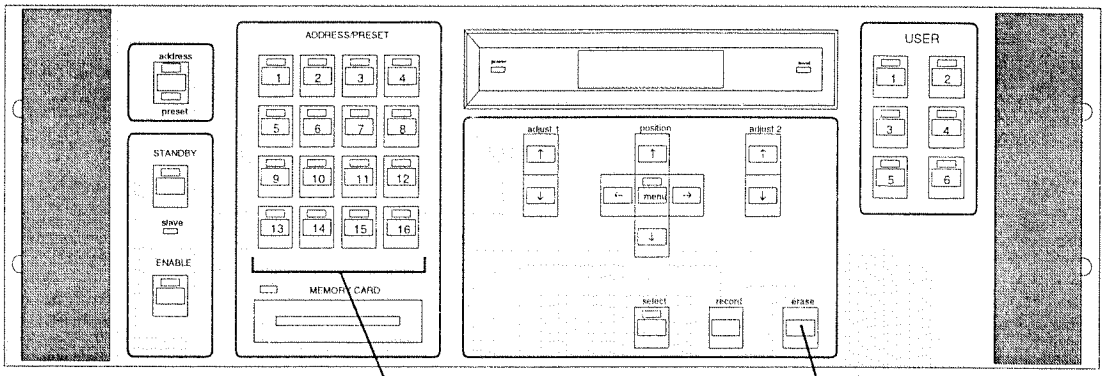
To erase the selected fixtures on a Page

1. Ensure that the controller is in Ready mode and Address mode; the SELECT key LED is off and the top LED on the ADDRESS/PRESET key is on.



2. Next, select the Page with the fixtures that you want to erase with the ADJUST 2 Up/Down keys.

3. Then, press the SELECT key, its LED flashes.



4. Press the ADDRESS key or range of keys of the fixtures that you want to erase on this Page.

5. Press the ERASE key once.

6. The LCD window begins flashing two prompting messages:

press ERASE key to deinit page	◄►	press RECORD key to erase page

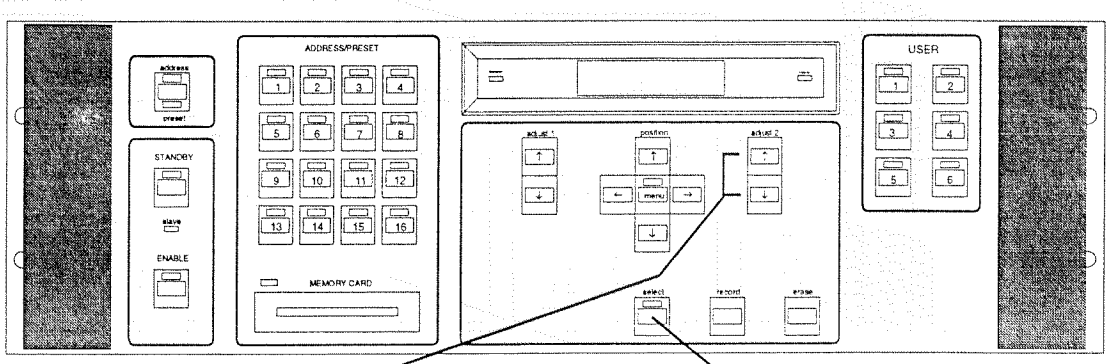
7. To complete the erase operation press the RECORD key. To abort the operation press the SELECT key.

Erase a Preset

As with erasing Pages, you may want to erase Presets to delete undesirable or old Presets.

To erase a Preset:

1. Ensure that the controller is in Ready mode and Preset mode; the SELECT key LED is off and the bottom LED on the ADDRESS/PRESET key is on. If the Address mode LED is on, press the ADDRESS/PRESET key to enter Preset mode.



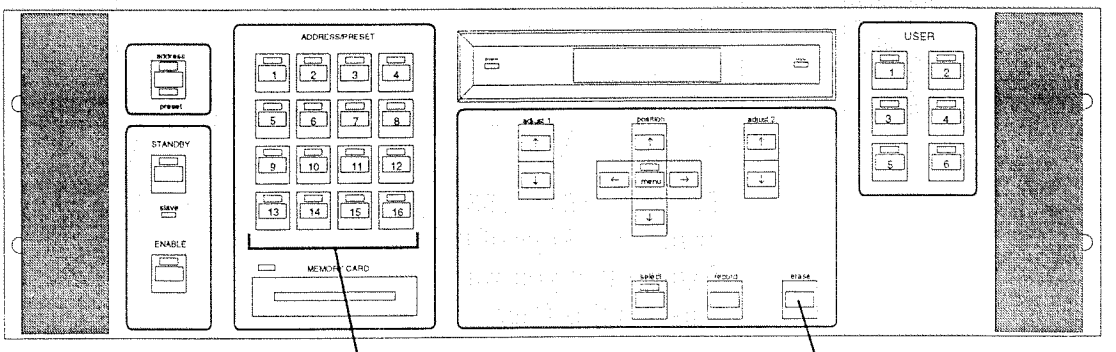
2. Then select the desired Preset Bank (1, 2, 3 or 4) with the ADJUST 2 Up/ Down keys.

3. Next, press the SELECT key; the LED flashes.

4. The LCD window displays:

DIM	PRESET	BANK
99	RECORD	n

Bank 1, 2, 3 or 4



5. Press the PRESET key for the Preset that you want to erase, its LED flashes.

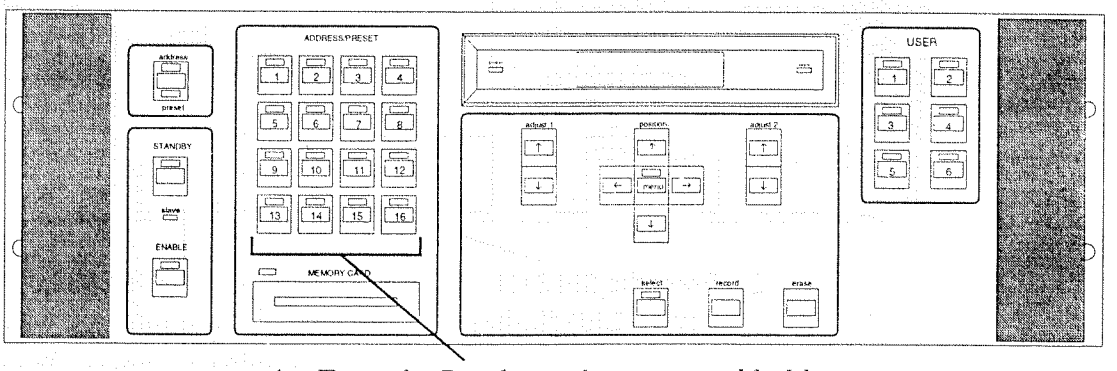
6. Press the ERASE key to complete the erase operation.

To abort the operation press the SELECT key.

Lockout a Fixture (Fixture Exclusion)

This feature enables the **temporary** removal of one or more fixture Addresses from all sequences. This might be necessary in the event of a malfunction or if you want to remove an Address from a program for a special event or effect. Removing a fixture in this manner requires no reprogramming because no Memory is actually changed. Use the *Unlock a Fixture* procedure to return the fixture to normal operation. Locked Addresses become unlocked at controller power up.

To lockout an Address (fixture):



1. From the Ready mode, *press and hold* the ADDRESS keys of one or more Addresses that you want to lock out.

2. After 2 seconds of fixture-type display, the fixture exclusion cycle begins and an 8 second countdown begins. The LCD window displays:

FIXTURE LOCKOUT time: 8 sec.

3. After the 8 second countdown, all selected fixtures will be locked-out.

Unlock a Fixture

You can return any locked out Addresses to normal operation by using the same procedure that locks out an Address. Also, all Addresses are returned to their un-locked settings upon power up of the controller.

To unlock a locked Address (fixture):

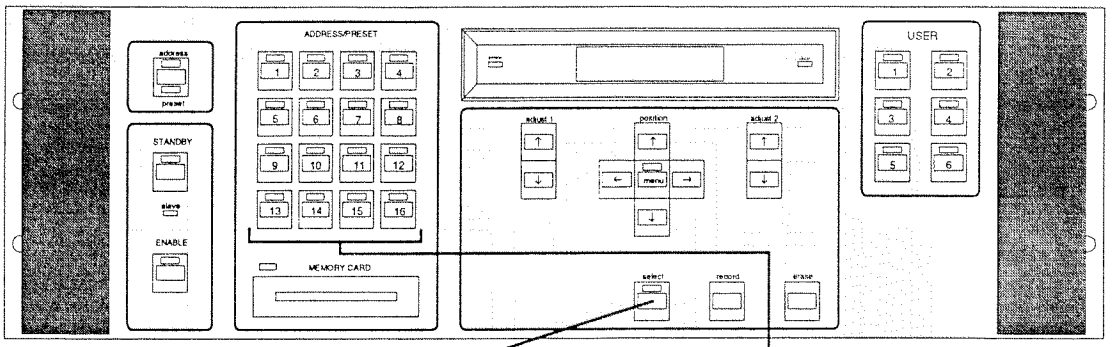
Repeat the *Lockout a Fixture* procedure to unlock a fixture. Except this time the LCD window displays:

FIXTURE UNLOCK time: 8 sec.

Using the Position Memory (Preset Focus) as a Position Reference

Use this procedure to assign any one of the 32 Position Memories to a Page. To assign a Position Memory (preset focus) to a Page:

1. Ensure that the controller is in Ready mode and Address mode; the SELECT key LED is off and the top LED on the ADDRESS/PRESET key is on.

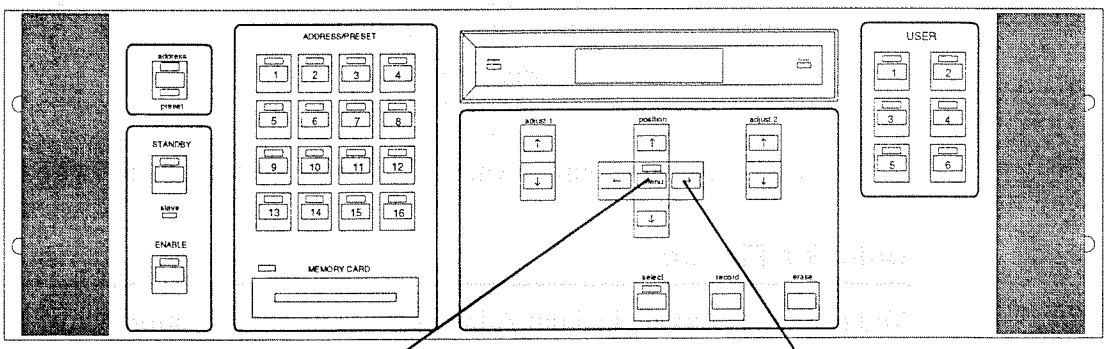


2. Press the SELECT key, its LED flashes.

3. Press the ADDRESS keys of the fixtures that you want to reference to one of the 32 Position Memories.

4. The LCD window displays the first Construct item:

item: GATE closed

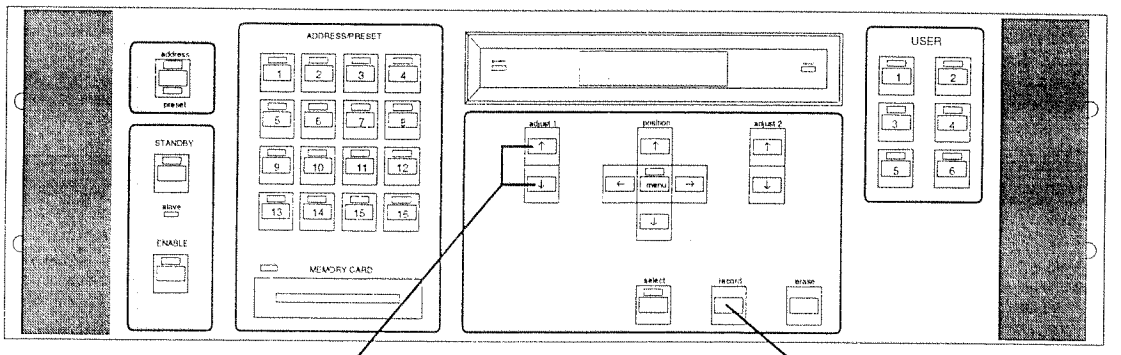


5. Press the MENU key to access the remaining Constructs and their parameters. For this procedure you only require the POSITION Construct.

6. Press the POSITION Right Arrow key until the POSITION Construct is displayed.

7. The LCD window displays:

item: POSITION cursor



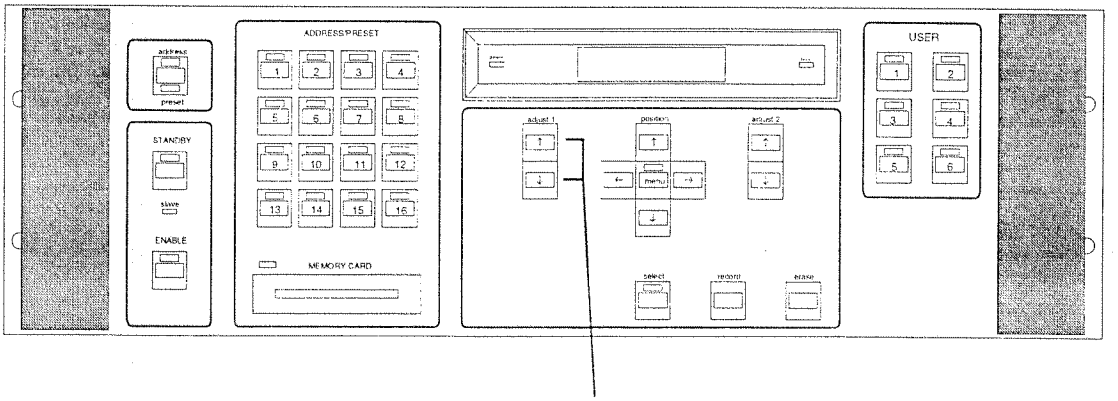
8. Use the ADJUST 1 Up/Down keys to select the desired Position Memory, 1 to 32, that you want to assign to this fixture.
9. Press the RECORD key to complete the operation. Press the SELECT key at any time to abort the operation.

The fixtures that you selected in step 3 now use the position information recorded in the selected Position Memory. Any time you edit the Position Memory the Pages that refer to that Page for position will also change.

Master Dim

You can easily perform the Master Dim operation from the front panel. The LCD window displays the current state of the Master Dim in percentages from 0 to 99. The default value is "99" which equates to full bright. The "0" value equates to off or full dark (off).

To adjust the Master Dim:



Press the ADJUST 1 Up or Down key.

Notice that the dim value in the DIM field follows the ADJUST 1 Up/Down keys similar to using a fader control. Press and hold the ADJUST 1 Up/Down key to quickly change the dimming value for all connected fixtures. The value does not automatically wrap past the limits. That is, to fade to dark press and hold the ADJUST 1 Down key. When it reaches 0 it stops. If you release and press the ADJUST 1 Down key again, then it wraps to 99. The wrap feature works likewise in the other direction.