PRESET TEN ARCHITECTURAL TWO OWNERS MANUAL

model: PRE10-A2

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PRODUCT DESCRIPTION

The *Preset 10 Architectural Two* is a further development of our popular *Preset 10 Architectural* controller. The *Preset 10 Architectural Two* (PRE10A2) offers new features and different wiring options. The new features of the PRE10A2 include a grand master, pile on mode (input + preset), jumper selectable button modes (radio or push on/push off), and a two gang form factor that allows PRE10A2 to fit in all two gang back boxes. The PRE10A2 has separate input and output ports allowing merging incoming levels with the local preset. This cascading of inputs allows creation of systems where multiple PRE10A2 stations and a live theatrical console can share control. Additionally, systems can be created where multi-room control is required by a single dimming system.

The *Preset 10 Architectural Two* lighting control station capable of storing up to ten presets. These presets are recorded by capturing the output of a DMX512 console. Each preset can then be assigned a unique fade time, from 0 to 999 seconds. Presets are recalled by pressing one of the buttons.

Systems can be created by using one or more stations and a power supply. The solid aluminum faceplate is designed to install over a standard two gang electrical box.Connections to the *Preset 10 Architectural Two* are power (2 wires) and DMX512 (3 wires). Power for the *Preset 10* can be supplied from a variety of sources, including a 10V class 2 "doorbell" transformer.

The *Preset 10 Architectural Two* system can work in conjunction with a lighting console, automatically switching between preset and console control or by combining the console's levels with the active preset. In switch over mode when the console generates DMX the *Preset 10 Architectural Two* goes off-line. The console then operates normally. Upon loss of DMX from the console, the *Preset 10 Architectural Two* either returns to its pervious preset or holds the last look (jumper selectable). In combining mode the *Preset 10 Architectural Two* merges the levels from the console with the levels of the currently active preset.
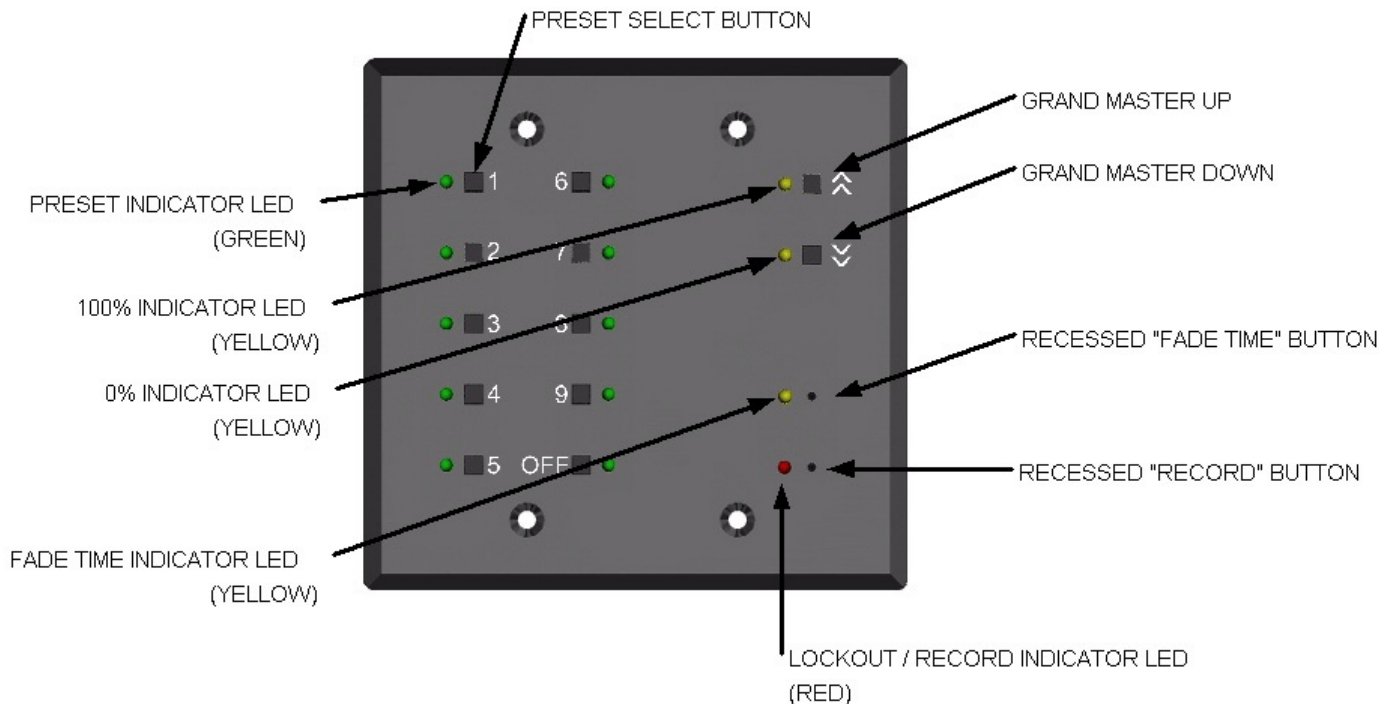
SPECIFICATIONS

Connector:	Phoenix Contact MSTB series 3 position two part terminal block Model: MSTB MSTB 2,5/3-ST-5,08 Order Number: 17 57 02 2

Phoenix Contact MSTB series 5 position two part terminal block
Model: MSTB 2,5/5-ST-5,08 Order Number: 17 57 04 8

Connector pin out:
1 (C) DMX512 common
2 (-) DMX512 data - (input)
3 (+) DMX512 data + (input)

1 (C) DMX512 common
2 (-) DMX512 data - (output)
3 (+) DMX512 data + (output)
4 (C) Supply common (internally tied to pin1)
5 (V) Supply voltage "hot"

Input/Output Circuit: ESD protected EIA-485 transceiver (LT1785)

Indicators:
Ten green preset indicator LEDs
One yellow "Grand Master 100%" indicator LED
One yellow "Grand Master 0%" indicator LED
One yellow Fade Time LED
One red Signal / Record LED

User controls:
Ten preset push buttons
One "Grand Master Up" push button
One "Grand Master Down" push button
One recessed record push button
One recessed fade time push button

Option Jumpers: For a single station installation all jumpers should be installed.

	INSTALLED	REMOVED
JP1	Recording Enabled	Recording Disabled
JP2	Main Station	Remote Station
JP3	Fade to last active preset	Hold Last Look
JP4	Single Station Mode Station Mode	Multi Station Mode
JP5	Switch Over Mode	Highest Takes Precedence (HTP) Mode
JP6	Radio Button Mode	Push On Push Off Mode

Power input: 9-15 volts AC or DC, 200mA per station
(A 10 volt class 2 "doorbell" transformer is recommended for fixed installations)

Color: Black anodized with laser engraved nomenclature

Size :
Faceplate: 4.5"H x 0.2"D x 4.6"W
Faceplate rear inset: 4.15"H x 0.1"D x 4.25"W
Electrical box minimum inside dimensions: 2.9"H x 1.26"D x 3.6"W
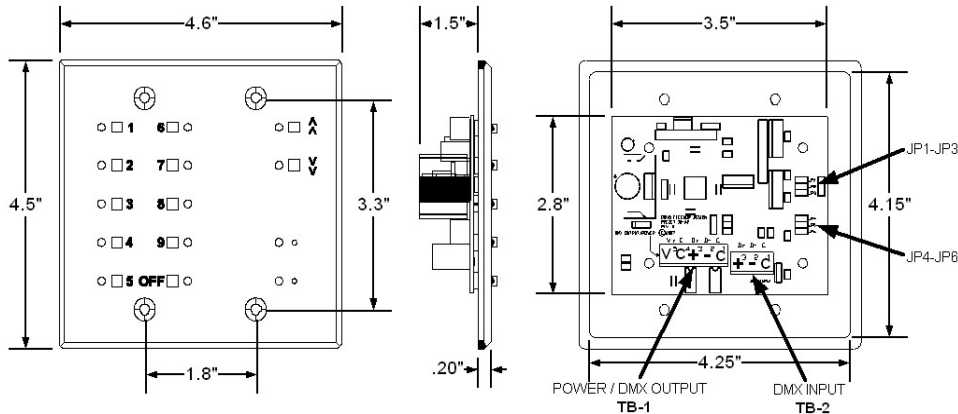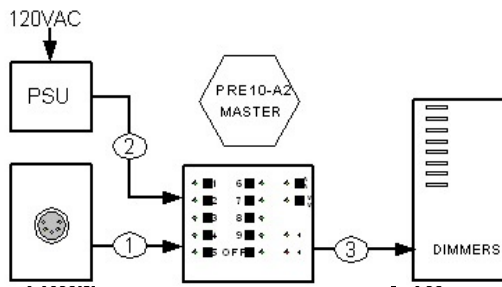
WIRING INFORMATION

Preset 10 Architectural Two is designed to use daisy-chain wiring topology. Unlike its predecessor the *Preset 10 Architectural,* the *Preset 10 Architectural Two* has an input (TB2) and output (TB1) connector. Also note that a system may contain multiple power supplies when voltage drop becomes a concern. Please give us a call if you have any questions.

POWER SUPPLY

The voltage provided to the *Preset 10 Architectural Two* must be between 9-15 volts AC or DC. The *Preset 10 Architectural Two* has been designed to operate on a standard class 2 "doorbell" transformer. For example Ace Hardware's model# ACE36483 10 volt 5 watt transformer.
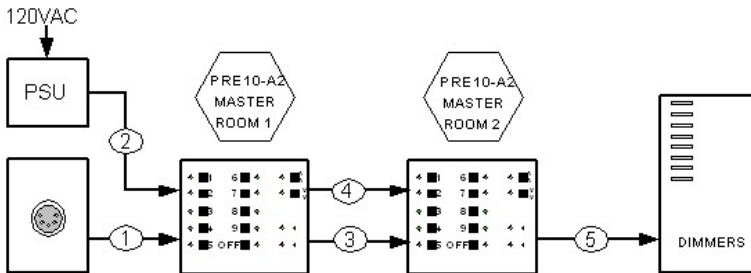

Single Main Installation
Note: All jumpers installed

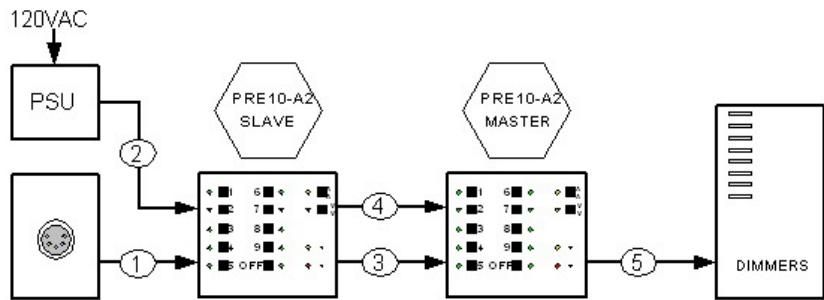|	CABLE	COLOR	FROM		TO		USE
1	120 Ohm Data Cable Belden 9829 or Equivalent	Shield	5 Pin XLR Plate	Pin 1	PRE10-A2 Main	TB2-1	Common
		White/Blue Stripe		Pin 2		TB2-2	Data -
		Blue/White Stripe		Pin 3		TB2-3	Data +
2	(2) #16 AWG Stranded Wires	Black	Power Supply	Common		TB1-4	Supply
		Red		Power		TB1-5	Supply "hot"
3	120 Ohm Data Cable Belden 9829 or Equivalent	Shield	PRE10-A2 Main	TB1-1	Dimmer Cabinet	?	Common
		White/Blue		TB1-2		?	Data -
		Blue/White Stripe		TB1-3		?	Data +

Multi-Main Installation
Note: Remove JP5

	CABLE	COLOR	FROM		TO		USE
1	120 Ohm Data Cable Belden 9829 or Equivalent	Shield	5 Pin XLR Plate	Pin 1	PRE10-A2 Main Room 1	TB2-1	Common
		White/Blue Stripe		Pin 2		TB2-2	Data -
		Blue/White Stripe		Pin 3		TB2-3	Data +
2	(2) #16 AWG Stranded Wires	Black	Power Supply	Common		TB1-4	Supply
		Red		Power		TB1-5	Supply "hot"
3	120 Ohm Data Cable Belden 9829 or Equivalent	Shield	PRE10-A2 Main Room 1	TB1-1	PRE10-A2 Main Room 2	TB2-1	Common
		White/Blue Stripe		TB1-2		TB2-2	Data -
		Blue/White Stripe		TB1-3		TB2-3	Data +
4	(2) #16 AWG Stranded Wires	Black		TB1-4		TB1-4	Supply
		Red		TB1-5		TB1-5	Supply "hot"
5	120 Ohm Data Cable Belden 9829 or Equivalent	Shield	PRE10-A2 Main Room 2	TB1-1	Dimmer Cabinet	?	Common
		White/Blue		TB1-2		?	Data -
		Blue/White Stripe		TB1-3		?	Data +

Upstream Remote Installation

Note: Main - Remove JP4
      Remote - Remove JP2 & JP4

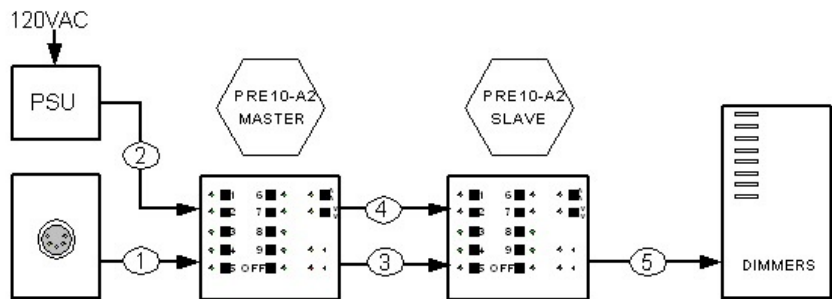|	CABLE	COLOR	FROM		TO			USE
1	120 Ohm Data Cable Belden 9829 **or** Equivalent	Shield	5 Pin XLR Plate	Pin 1	PRE10-A2 Remote	TB1-1		Common
		White/Blue Stripe		Pin 2		TB1-2		Data -
		Blue/White Stripe		Pin 3		TB1-3		Data +
2	(2) #16 AWG Stranded Wires	Black	Power Supply	Common		TB1-4		Supply
		Red		Power		TB1-5		Supply "hot"
3	120 Ohm Data Cable Belden 9829 **or** Equivalent	Shield	PRE10-A2 Remote	TB1-1	PRE10-A2 Main	TB2-1		Common
		White/Blue Stripe		TB1-2		TB2-2		Data -
		Blue/White Stripe		TB1-3		TB2-3		Data +
4	(2) #16 AWG Stranded Wires	Black		TB1-4		TB1-4		Supply
		Red		TB1-5		TB1-5		Supply "hot"
5	120 Ohm Data Cable Belden 9829 **or** Equivalent	Shield	PRE10-A2 Main	TB1-1	Dimmer Cabinet	?		Common
		White/Blue		TB1-2		?		Data -
		Blue/White Stripe		TB1-3		?		Data +

Downstream Remote Installation

Note: Main - Remove JP4
      Remote - Remove JP2 & JP4

	CABLE	COLOR	FROM		TO			USE
1	120 Ohm Data Cable Belden 9829 **or** Equivalent	Shield	5 Pin XLR Plate	Pin 1	PRE10-A2 Main	TB2-1		Common
		White/Blue		Pin 2		TB2-2		Data -
		Blue/White		Pin 3		TB2-3		Data +
2	(2) #16 AWG Stranded Wires	Black	Power Supply	Common		TB1-4		Supply
		Red		Power		TB1-5		Supply "hot"
3	120 Ohm Data Cable Belden 9829 **or** Equivalent	Shield	PRE10-A2 Main	TB1-1	PRE10-A2 Remote	TB1-1		Common
		White/Blue		TB1-2		TB1-2		Data -
		Blue/White		TB1-3		TB1-3		Data +
4	(2) #16 AWG Stranded Wires	Black		TB1-4		TB1-4		Supply
		Red		TB1-5		TB1-5		Supply "hot"
5	120 Ohm Data Cable Belden 9829 **or** Equivalent	Shield	PRE10-A2 Remote	TB1-1	Dimmer Cabinet	?		Common
		White/Blue		TB1-2		?		Data -
		Blue/White		TB1-3		?		Data +

Preset 10 Architectural Two - SETUP

FACEPLATE CONFIGURATION

Each *Preset 10 Architectural Two* has six jumpers, JP1 through JP6, that select different modes of operation. The factory default is to have all jumpers installed.

JP1 When this jumper is installed on the MAIN faceplate recording of presets is enabled. When removed, the TIME and RECORD buttons are disabled. The position of JP1 on a REMOTE faceplate has no affect.

JP2 When this jumper is installed the faceplate takes on the MAIN duty. The MAIN faceplate is responsible for transmitting and receiving DMX, storing presets and communicating with REMOTE faceplates. When removed, the faceplate takes on the REMOTE duty. A REMOTE faceplate communicates button presses and mimics the state of the LEDs on the MAIN faceplate.

JP3 When this jumper is removed the *Preset 10 Architectural Two* will hold its last look upon loss of DMX input.

JP4 When this jumper is installed it enables SINGLE STATION MODE. In this mode the faceplate will not send any "alternate start code" packets. When this jumper is removed it enables MULTI STATION MODE. This allows the alternate start code packets required for main/remote station operation. If your system contains only one *Preset 10 Architectural Two*, there is no need to remove the jumper.

JP5 When this jumper is removed the DMX input is merged with the output of the active preset. The merge is Highest Takes Precedence (HTP), where the output for each DMX channel is the highest level on any input for that channel. When using this feature, remote stations must be installed downstream from the Main Preset 10-A2.

JP6 When this jumper is installed the preset buttons act like "radio buttons". Selecting a different preset releases the current active preset. When this jumper is removed the preset buttons act in a push on, push off manner. All the presets pile on to each other in Highest Takes Precedence (HTP). The OFF preset is an exception. See the details in the section on POPO operation**.**

MAIN SELECTION

A typical system consists of a single MAIN faceplate. Shunt JP4 should be installed (default condition) for normal MAIN operation. In a systems that contain remote stations, the shunt at JP4 should be removed. For safe keeping place the shunt over only one of the pins at JP4.

REMOTE SELECTION

To modify a faceplate to become a REMOTE the shunts located at JP2 and JP4 should be removed. For safe keeping place the shunt over only one of the pins at JP2 and JP4.
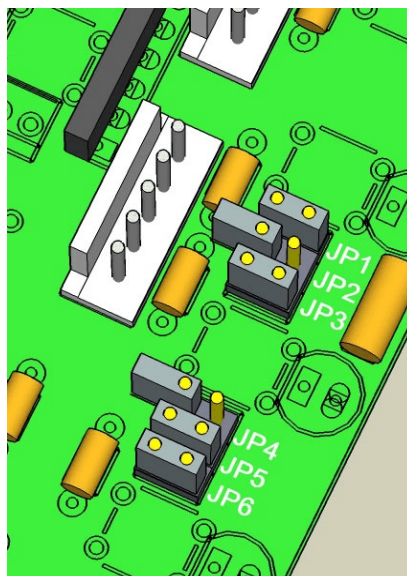
Preset 10 Architectural Two - *OPERATION*

INDICATORS

GREEN LED
ON = CURRENTLY SELECTED PRESET
FLASHING = TIME SETTING MODE SELECTED FOR THIS PRESET

YELLOW TIME LED
ON = PRESET FADE IS IN PROGRESS
FLASHING = TIME SETTING MODE SELECTED

YELLOW GRAND MASTER 100% LED
ON=GRAND MASTER AT 100%
OFF=GRAND MASTER LESS THAN 100%

YELLOW GRAND MASTER 0% LED
ON=GRAND MASTER AT 0%
OFF=GRAND MASTER GREATER THAN 0%

RED LED
ON = STATION LOCKED OUT / RECEIVING DMX512 FROM EXTERNAL CONSOLE
FLASHING = RECORD MODE ACTIVE

GREEN LED	YELLOW TIME LED	RED LED	STATE
OFF	OFF	OFF	UNIT NOT POWERED
OFF	OFF	ON	RECEIVING DMX512 *PRESET 10* IS LOCKED OUT FROM TRANSMITTING
OFF	OFF	FLASHING	RECORD MODE ACTIVE CURRENT LOOK WILL BE STORED TO THE NEXT PRESSED PRESET
FLASHING	FLASHING	OFF	TIME SETTING MODE ACTIVE FOR SELECTED PRESET
ON	OFF	OFF	*PRESET 10* TRANSMITTING DMX512 NO DMX512 INPUT
ON	ON	OFF	*PRESET 10* TRANSMITTING DMX512 CURRENTLY FADING FROM PREVIOUS PRESET

PRESET SELECT BUTTON

PRESET INDICATOR LED
(GREEN)

100% INDICATOR LED
(YELLOW)

0% INDICATOR LED
(YELLOW)

FADE TIME INDICATOR LED
(YELLOW)

GRAND MASTER UP

GRAND MASTER DOWN

RECESSED "FADE TIME" BUTTON

RECESSED "RECORD" BUTTON

LOCKOUT / RECORD INDICATOR LED
(RED)
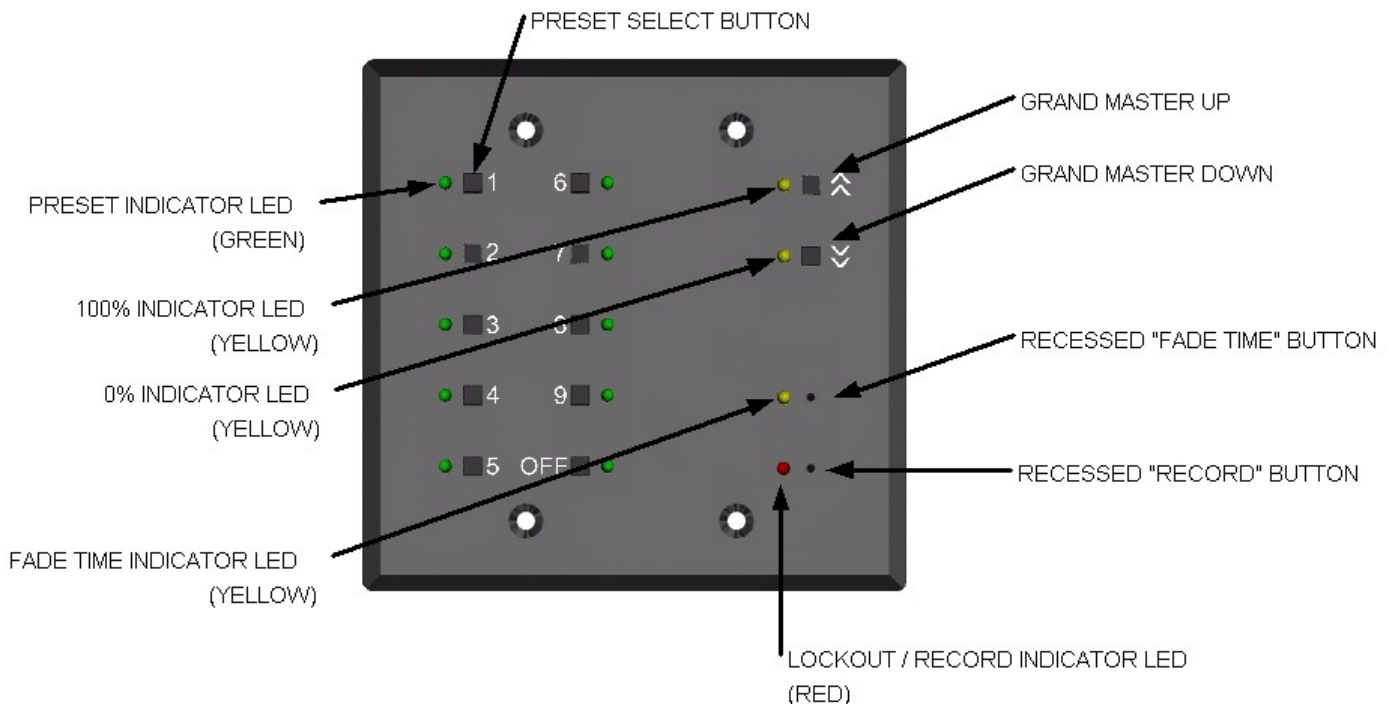
RECORDING PRESETS

In order to set the individual dimmer levels recorded to a preset, the *Preset 10 Architectural Two* must be connected to a DMX512 source. When less than 512 dimmer levels are received, a level of 0% will be stored for all channels above those received.

> Note:
> - For predictable results, avoid recording when the DMX levels are changing.
> - Recording of presets must be done from the MAIN faceplate

1. Using the primary DMX512 console, set a "look" to be recorded.

2. Using a small blunt object (e.g. paper clip), depress the RECORD MODE recessed button located next to the RED LED. The RED LED will begin to flash. If you decide after depressing the RECORD MODE button that you do not wish to make an edit, depress the RECORD MODE button a second time. No changes will have been made.

3. Depress the PRESET SELECT button adjacent to the preset number you wish to record. (Example: press the upper most left button to store preset 1)

4. Upon pressing the PRESET SELECT button, the RED LED will no longer flash. This Indicates recording is complete.

Repeat steps 1 through 4 until you have recorded as many presets as required, up to ten total.

PRESET NUMBER 10 (OFF) - SPECIAL FUNCTION

When the levels stored in preset number 10(OFF) are all zeros a special function is enabled. When preset 10(OFF) is selected and the crossfade is completed the *Preset 10 Architectural Two* will stop sending DMX. By going off-line, many moving lights and dimming systems will detect the loss of DMX512 and begin their shut down routine.

RECORDING PRESET CROSSFADE TIME

A crossfade is a fade where the new preset levels entirely replace the previous levels. Each of the ten presets can have its own unique crossfade time. Crossfade times default to two seconds.

> **Note:**
> - Crossfade times range from a minimum of 0 second to as maximum of 999 seconds (16 Min., 39 Sec.).
> - Crossfade times cannot be set while the *Preset 10 Architectural Two* is locked out (red LED is illuminated).

To enter a different crossfade time:

1. Disconnect the *Preset 10 Architectural Two* from any DMX512 source.

2. Press the button of the preset you wish to edit. The GREEN preset indicator LED will illuminate.

3. Using a small blunt object (e.g. paper clip), depress the TIME SETTING MODE recessed button located adjacent to the yellow LED indicator. The green indicator LED, adjacent to the preset you selected to edit and yellow time will now flash. You will have ten seconds to set the crossfade time. If you decide after depressing the TIME SETTING MODE button that you do not wish to make an edit simply wait 10 seconds, or depress the TIME SETTING MODE button a second time. No changes will have been made.

4. Enter the time in seconds using the PRESET SELECT buttons. Use PRESET SELECT button 10(OFF) to enter a zero. (e.g. 120 seconds is entered by pressing PRESET SELECT button 1 followed by 2 then OFF). The time setting command is completed by one of three methods:

   a. Enter a three-digit time. The TIME SETTING MODE will exit upon the entry of the third digit. The GREEN preset indicator LED will illuminate steadily and the yellow LED will go off indicating success. A one or two digit time may be entered with leading zeros (e.g. five seconds as 005 or OFF, OFF, 5).

   b. Enter a one or two digit time followed by pressing the TIME SETTING MODE button. The GREEN preset indicator LED will illuminate steadily and the yellow LED will go off indicating success.

   c. Enter a one or two digit time and wait for ten seconds for the time setting mode to exit automatically. The GREEN preset indicator LED will illuminate steadily and the yellow LED will go off indicating success.

PLAYBACK OF PRESETS

Presets can be played back in one of two ways by "radio button" or "push on, push off" (POPO) mode. Selection of the preset button mode is made via JP6. In "radio button" mode selecting a different preset releases the current active preset. The result is a crossfade from the current preset to the newly selected one. The time taken to fade from the current preset to the new preset is taken from the newly selected preset. Once the fade has completed it will remain at that current preset (static) until another preset is selected. In "push on, push off" mode the presets pile on to each other in Highest Takes Precedence (HTP). Each preset will fade in or fade out in the time assigned to the activated or deactivated preset.

In "push on, push off" mode pressing preset number 10(OFF) will release presets 1 through 9. Preset 10(OFF) is just like presets 1 through 9 in that it can store a preset and have a fade time.

In "radio button" mode is possible to create an autofollow of all ten presets or less. To begin autofollow of all ten presets press and hold the preset select button of preset number 1 (approximately 5 seconds) until all the LEDs flash once. Once the fade time of a preset is complete the next preset will be selected automatically. When preset number 10(OFF) has been reached the next preset to be selected will be preset number 1. To exit autofollow momentarily press any preset select button.

Note:
- If a static preset is playing at the time power is lost *Preset 10 Architectural Two* will return to that preset when power is restored. The fade will begin with all 512 channels at 0% and fade up in the time recorded to that preset.

- If the *Preset 10 Architectural Two* was in autofollow playback at the time power was lost, the *Preset 10 Architectural Two* will resume autofollow playback beginning with preset number 1.

- To bypass unused presets In autofollow enter the time as 999 seconds. This means the longest autofollow fade time is 998 seconds.

GRAND MASTER

The grand master up and down buttons allow proportional control of the currently active preset. When the grand master is at full (100%) the yellow LED adjacent to the GRAND MASTER UP button is illuminated. When the grand master is down (0%) the yellow LED adjacent to the GRAND MASTER DOWN button is illuminated. Pressing the GRAND MASTER UP or GRAND MASTER DOWN button once makes the grand master take one step. The grand master has a range of 254 steps. Pressing and holding the GRAND MASTER UP or GRAND MASTER DOWN button will result in a continuous fade. It takes 5 seconds to fade the grand master fully up or down.

The grand master remains at its set level as long as the *Preset 10 Architectural Two* remains powered.

The grand master only affects the levels of the active preset and not the levels from the console.

FACE PANEL LOCKOUT

An optional face panel lockout feature can be enabled in the factory prior to shipment. This feature is not enabled by default. If the feature has been enabled, it operates as described below:

To prevent misuse of the *Preset 10 Architectural Two* it can be locked out from accepting any button pushes. To lock the face panel press the currently active preset button three times within one second. At the end of the third press all the green preset LEDs will flash once to confirm the lock. The *Preset 10 Architectural Two* is now locked from accepting any button pushes. To unlock the face panel press the currently active preset button three times within one second. At the end of the third press there will be no confirming flash of the green preset LEDs.

LIMITED MANUFACTURER'S WARRANTY

Products manufactured by Doug Fleenor Design (DFD) carry a five-year parts and labor warranty against manufacturing defects. It is the customer's responsibility to return the product to DFD at the customer's expense. If covered under warranty, DFD will repair the unit and pay for return ground shipping. If a trip is necessary to the customer's site to solve a problem, the expenses of the trip must be paid by the customer.

This warranty covers manufacturing defects. It does not cover damage due to abuse, misuse, negligence, accident, alteration, or repair by other than by Doug Fleenor Design.

Most non-warranty repairs are made for a fixed $50.00 fee, plus shipping.

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