digital lighting

# SATELLITE User Manual v1.0

# satellite

The I-pix Satellite unit is based on proven LED lighting techniques, but it incorporates substantial improvements due to the use of modern digital technology involving microprocessor base controls and PWM (pulse width modulation) switching. This gives the unit ultra smooth dimmer response, an easy-to-read LCD user interface, easy address and set up functionality, plus the added benefit that users can utilise the onboard software to create their own internal chase sequences when used in stand alone mode.

Good functional design ensures that the Satellite is a very versatile unit with features that make it easy to use and set-up. For ease of operation, compatibility and versatility the Satellite can be set into either 3,5 or 6 channel modes when it is to be controlled by an external DMX source, depending on the complexity, functionality and circumstances of the particular lighting situation.

* Even though the Satellite is extremely easy to set-up and use, as a product it is aimed at lighting professional. Thus for the purposes of this manual it is assumed that users of the Satellite have a basic understanding of lighting technologies like DMX etc.

## SAFETY ⚠ CAUTION

- **Avoid water entering the unit, it will increase the risk of electric shock and also may damage the unit.**
- **Do not operate this unit in explosive atmospheres, such as in the presence of flammable liquids, gasses or dust.**
- **When setting the unit avoid using too much force when pressing the units programming buttons or it may result in the unit malfunctioning or damage.**
- **Do not disassemble the unit there are no user serviceable parts inside and only trained technicians should attempt this.**
- **When cleaning the unit and accessories, do not use thinners, alcohol, and abrasive cleaning chemical or any similar chemicals that may damage the unit.**
- **When mounting the unit above ground height ensure a safety cable is attached to the unit and any detachable accessories in case its normal fixings loosen or fail.**

# INDEX

## SECTION 2.2 – General Unit Settings

In this section you will learn how to set-up the unit via the user interface to work with an external DMX source and how to access the different areas for the programming of a unit.




**DMX MODE MAIN SCREEN**

"MENU" & "STORE": press button for one sec changes menu

"ADDR": press button for one sec changes menu, but if within 2 seconds you have not pressed another button it returns back to dmx mode.

"MODE": press for one sec screen stops flashing next press changes channel mode, 1 second after last press or no presses it goes back to dmx mode.

DMX channel modes and order are:
3CH – RGB
5CH – master intensity, strobe, RGB
6CH – master intensity, strobe, RGB, Tv mode PWM frequency

NOTE: the screen back light flashers when in dmx mode when the unit is not connected to an external dmx source/controller.


**DMX ADDRESS CHANNEL PROGRAMING SCREEN**

"100s", "10s", "1s": each button press increments associated digit by 1 unit.

"ADDR ???": shows the address as you program it and when you press the address button it saves the unit address and returns to dmx screen


**STORE DMX COLOR**

Used to store a color set via an external dmx source into one of the units 20 memories, this screen appears when you press store button in dmx mode.

"UP", "DOWN": increments the store memory up or down each press.

"STORE": stores the present color programmed via dmx to the displayed unit memory and on the button release returns unit back to main dmx screen.


**UNIT MODE MAIN MENU**

"DMX": takes unit into dmx mode and displays dmx mode main screen.

"CHASE": used to run a sequence of internal memories sequentially to form a chase sequence.

"MAN": used to either program or display the contents of an internal memory.


**USE / PROGRAM MEMORY MENU**

"USE MEM": used to display/run an internal memory manually.

"PROG MEM": used to program an internal memory manually.

NOTE: to exit this screen back to dmx mode, go into use or program a memory and it will give you option to return back to dmx mode.

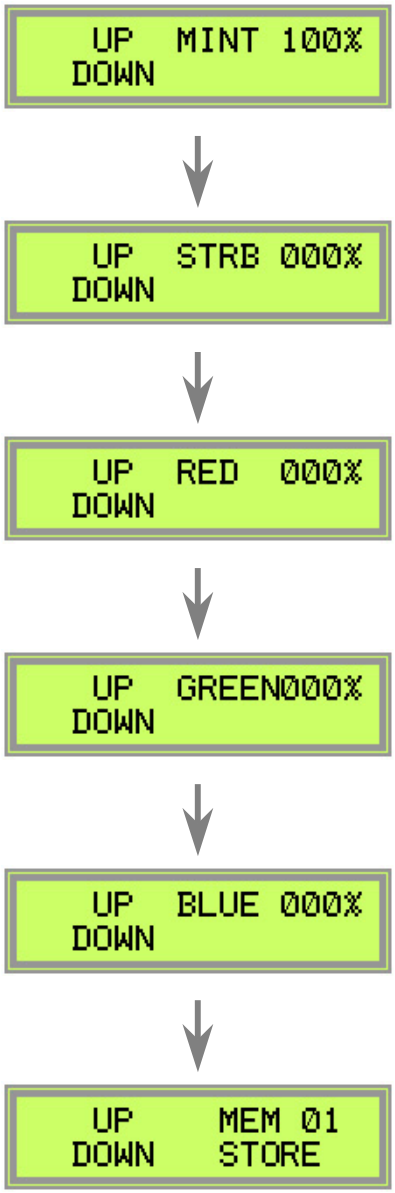

**USE MEMORY SCREEN**

"UP", "DOWN": increments the displayed memory the unit runs up or down each press between memories 1 to 20.

"DMX MODE": takes the unit into dmx mode and displays dmx mode main screen.

## SECTION 2.3 – Memory Programming

See *general unit settings 2.2* on how to get to the initial memory-programming screen then follow the instructions bellow to program the unit's internal memory manually.




**PROGRAM A MEMORY - MASTER INTENSITY**

"UP", "DOWN": increments the master intensity of 'RGB' light channels.

"MINT ???%": displays the current master intensity and once the associated button is pressed it remembers the value and moves onto the next screen.

**PROGRAM A MEMORY - STROBE**

"UP", "DOWN": increments the strobe rate of the light.

"STRB ???%": displays the current strobe rate and once the associated button is pressed it remembers the value and moves onto the next screen.

**PROGRAM A MEMORY - RED CHANEL INTENSITY**

"UP", "DOWN": increments the red LED's light intensity.

"RED ???%": displays the current red LED's light intensity and once the associated button is pressed it remembers the value and moves onto the next screen.

**PROGRAM A MEMORY - GREEN CHANEL INTENSITY**

"UP", "DOWN": increments the green LED's light intensity.

"GREEN???%": displays the current green LED's light intensity and once the associated button is pressed it remembers the value and moves onto the next screen.

**PROGRAM A MEMORY - BLUE CHANEL INTENSITY**

"UP", "DOWN": increments the blue LED's light intensity.

"BLUE ???%": displays the current blue LED's light intensity and once the associated button is pressed it remembers the value and moves onto the next screen.

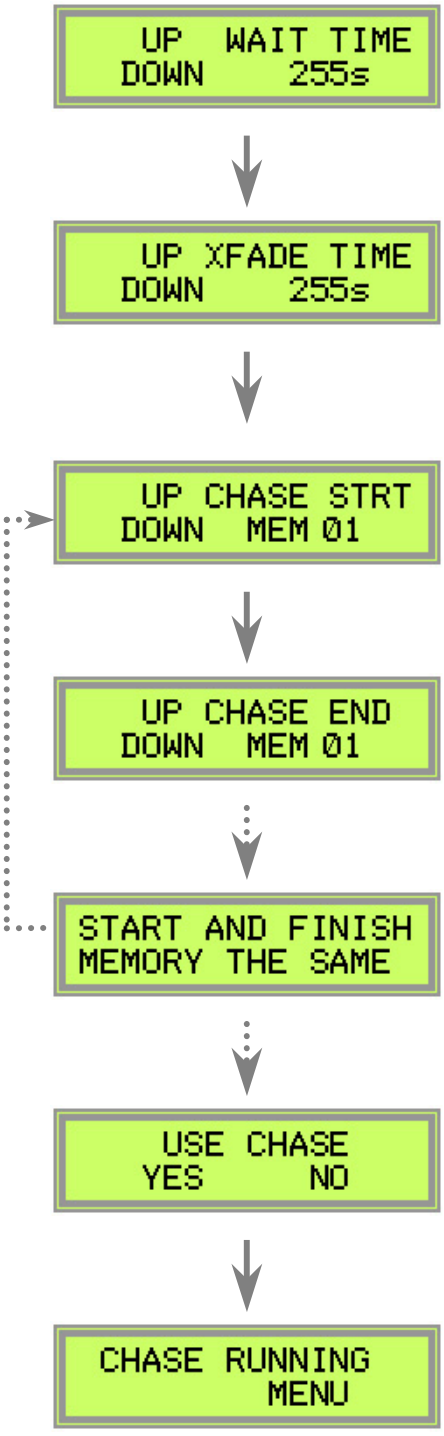
**PROGRAM A MEMORY - STORE**

"UP", "DOWN": increments the store memory up or down.

"MEM ??": displays the selected memory where to store your settings to. If you need to edit the setting before storing them press the "MEM ??" button and it takes you back to the start of the programming sequence so you can enter new values before storing them.

"STORE": stores the color program you just set up to the unit memory displayed and on the button release returns unit back to main dmx screen.

See *general unit settings 2.2* on how to get to the initial chase sequence screen then follow the instructions bellow:




**PROGRAM & USE A CHASE SEQUENCE - TRANSITION DWEL TIME**

"UP", "DOWN": increments the transition dwell time in seconds between 2s to 255s.

"WAIT TIME": set the value required and press this button and the unit remembers the value and moves onto the next screen.

**PROGRAM & USE A CHASE SEQUENCE - CROSS FADE TIME**

"UP", "DOWN": increments the cross fade time in seconds between 2s to 255s.

"XFADE TIME": set the value required and press this button and the unit remembers the value and moves onto the next screen.

**PROGRAM & USE A CHASE SEQUENCE – CHASE START MEMORY**

"UP", "DOWN": increments the memory from which the chase sequence will start.

"CHASE STRT": set the memory required press this button and the unit remembers the value and moves onto the next screen.

**PROGRAM & USE A CHASE SEQUENCE – CHASE END MEMORY**

"UP", "DOWN": increments the memory that the chase sequence will end at.

"CHASE STRT": set the memory required press this button and the unit remembers the value and moves onto the next screen.

**PROGRAM & USE A CHASE SEQUENCE – ERROR SCREEN**

This screen will be displayed for one second before returning back to the chase start memory screen if you have set the start and end memories the same. Once the screen returns back to the chase start screen you can adjust the values to prevent the error.

**PROGRAM & USE A CHASE SEQUENCE – RUN CHASE SEQUENCE**

"YES": runs the chase sequence you have just programmed into the unit.
"NO": exits the chase mode and returns back to dmx mode.

**PROGRAM & USE A CHASE SEQUENCE – CHASE RUNNING**

"MENU": exits the chase mode and returns back to dmx mode.

NOTE: the chase sequence will lock up if you select a memory to run in the sequence that users a strobe function in it.

When running a chase sequence the unit outputs the chase sequence via the dmx out socket and any unit set in dmx mode with a dmx address of 001 (slave units) connected to the output of this unit (master unit) will run the chase sequence in synchronisation with this unit.

## SECTION 3.2 – Technical specifications

| | |
|---|---|
| Input Voltage | 90-264 VAC |
| Input Frequency | 47-63 Hz |
| Input Current constant | 0.4 A max at 230 VAC |
| Inrush Current | 40 A max at 230 VAC |
| Earth Leakage Current | <100 µA at 115 VAC <200 µA at 230 VAC |
| Input Protection | 1A anti sure fuse, 5x20mm |
| Mains input socket | Neutrik NAC3MPA chassis socket type A |
| Mains output socket | Neutrik NAC3MPB chassis socket type B |
| DMX input socket | Neutrik NC5MDL1 XLR 5 pole chassis socket |
| DMX output socket | Neutrik NC5FDL1 XLR 5 pole chassis socket |
| Mains in/out sockets current | 16 A max at 240 VAC |
| Light Output beam angle | six degrees in a circular dispersion |
| DMX data specification | DMX 512 |
| Red LED's | 6 x Philips LUXEON® I Emitters |
| Blue LED's | 6 x Philips LUXEON® III Emitters |
| Green LED's | 6 x Philips LUXEON® III Emitters |
| Unit ingress rating | IP20 |
| Operating Temperature | 0 °C to 50 °C |
| Storage Temperature | -20 °C to 60 °C |
| Weight | Kg ( lds) |

**The specification and design are subject to change without notice.