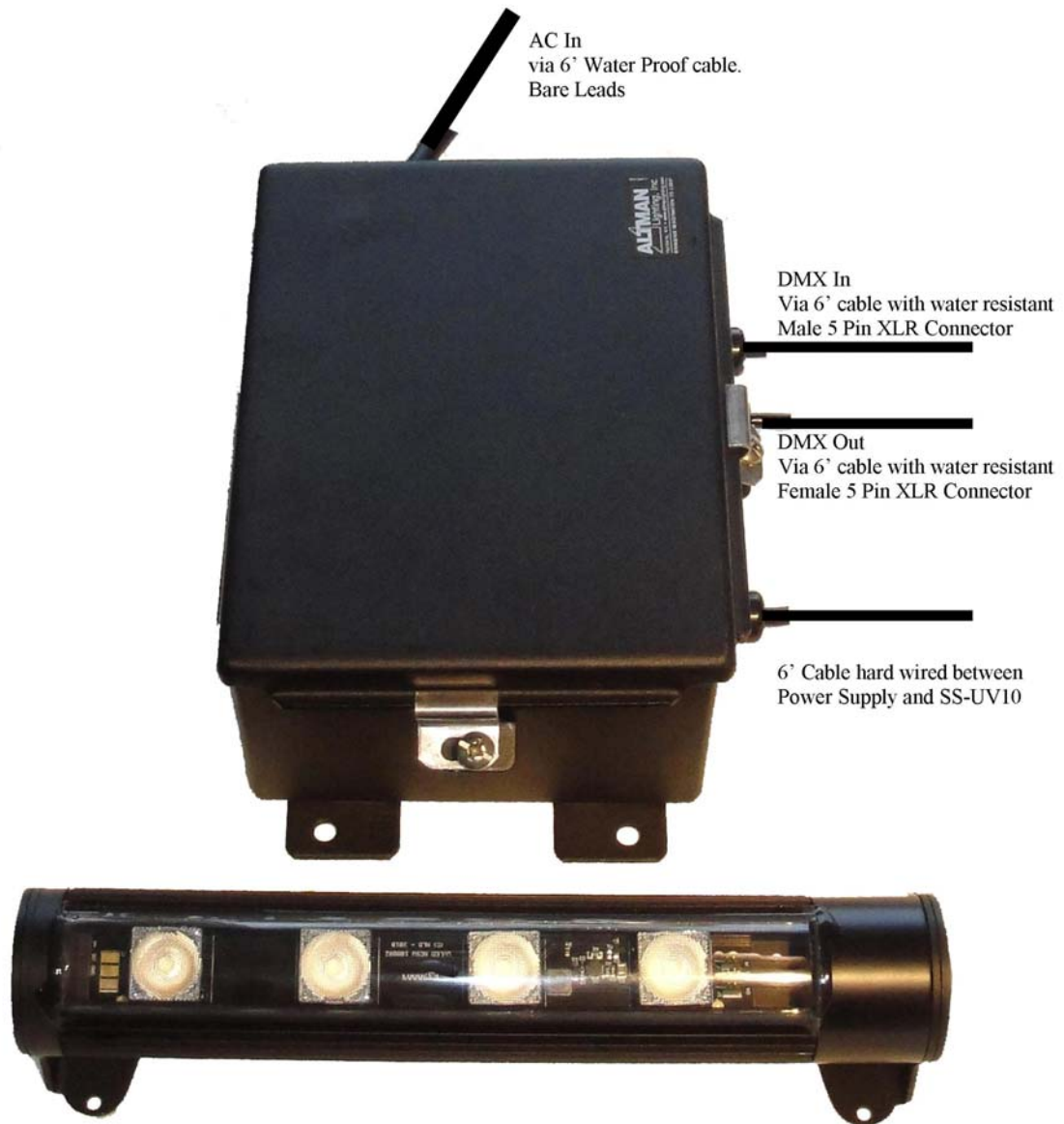

ALTMAN LIGHTING, INC.

SS-UV10 Spectra-UV LED Series Installation and Instruction Manual



SAFETY INSTRUCTIONS

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRICAL SHOCK, OR INJURY TO PERSONS FOR SS-UV10 SERIES LED LIGHTING FIXTURES.

WARNING! - TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, FOLLOW THESE IMPORTANT SAFETY INSTRUCTIONS:

CAUTION: RISK OF ELECTRIC SHOCK, DO NOT USE EXTENSION CORD NEAR WATER OR WHERE WATER MAY ACCUMULATE. KEEP LAMP AT LEAST 16 FEET AWAY FROM POOLS AND SPAS. KEEP PLUGS AND RECEPTACLES DRY. FOR USE ONLY IN GFCI PROTECTED CIRCUITS.

- 1) Turn off power, and allow fixture to cool before cleaning or servicing.
- 2) Ensure that fixture is properly grounded.
- 3) Ensure that heat sink fins are not obstructed.
- 4) Do not look directly at lighted LEDs.
- 5) Keep away from flammable materials.
- 6) No user serviceable parts inside. Replace entire LED assembly.
- 7) Do not touch the LEDs at any time. Use a soft lint-free cloth to clean lens. Do not use solvents to clean. Use cloth dampened with water. Allow to dry completely before reenergizing.
- 8) Do not operate the unit with a missing or damaged lens.

-----**SAVE THESE INSTRUCTIONS!**-----

INSTRUCTIONS DE SÛRETÉ

LES INSTRUCTIONS AU SUJET D'UN RISQUE D'INCENDIE LE CHOC ÉLECTRIQUE, OU LA BLESSURE AUX PERSONNES POUR SS-UV10 APPAREILS D'ÉCLAIRAGE DE LED.

AVERTISSEMENT! - POUR RÉDUIRE LE RISQUE D'INCENDIE, LE CHOC ÉLECTRIQUE, OU LA BLESSURE AUX PERSONNES, SUIVRE CES INSTRUCTIONS DE SÉCURITÉ IMPORTANTES:

ATTENTION : LE RISQUE DE DÉCHARGE ÉLECTRIQUE, N'EMPLOIEZ PAS LA CORDE DE PROLONGATION PRÈS DE L'EAU OU OÙ L'EAU PEUT S'ACCUMULER. GARDEZ LA LAMPE AU MOINS 16 PIEDS À PARTIR DES PISCINES ET DES STATIONS THERMALES. MAINTENEZ LES FICHES ET LES DOUILLES SÈCHES. POUR L'USAGE SEULEMENT DANS DES CIRCUITS PROTÉGÉS PAR GFCI.

- 1) Éteignez, débranchez la puissance, et permettez au montage de se refroidir avant le nettoyage ou l'entretien.
- 2) Assurez-vous que le montage est correctement relié à la terre.
- 3) Assurez-vous que ailerons de radiateur ne sont pas obstrués.
- 4) Ne regardez pas directement la LED allumée.
- 5) S'éloigner des matériaux inflammables.
- 6) Aucune pièces utiles d'utilisateur à l'intérieur. Remplacez la LED entière.
- 7) Ne touchez pas la LED à tout moment. Employez un chiffon non pelucheux mou pour nettoyer l'objectif. N'employez pas les dissolvants pour nettoyer. peut employer le tissu humecté de l'eau. laissez sécher complètement avant de reenergizing.
- 8) Ne pas faire fonctionner l'appareil avec un diffuseur antérieur ou une lampe.

-----**GARDER CES INSTRUCTIONS!**-----

SS-UV10 Spectra-UV LED Series Solid State Lighting Outdoor Fixture

DESCRIPTION

The SS-UV10 LED lighting fixture is an outdoor unit coupled to an outdoor enclosure with a water resistant power supply cord and male and female DMX-512 data supply cords. The overall construction of the fixture includes corrosion protected aluminum sheet metal housing and allows for mounting brackets. The brackets on the LED module can be removed and repositioned if required. The outdoor box is a powder painted steel enclosure with a gasket hinged cover and mounting brackets. The mounting brackets can be used with the UV module oriented horizontally or vertically. Individual swivel adjustment of the separate UV module will allow for precise control of beam direction and overall coverage. The fixture is supplied with a state of the art microprocessor-controlled solid-state LED light engine incorporating four Nichia 365nm SMD LEDs and an on-board power supply. The LED substrate is coupled to a highly efficient circuit board and heat sink cooling system for prolonged life of the LEDs. All components and electrical devices are ETL or UL Listed or Recognized and most are VDE or TUV approved for CE compliance and are RoHs compliant as well.

PACKING LIST

The SS-UV10 LED lighting fixture is shipped with the following:

SS-UV10 fixture coupled to an Outdoor rated enclosure.

Power Supply Cord and DMX input and output Data Cords.

Installation and Instruction Manual.

Integral mounting brackets on UV LED and enclosure.

WARNING:

ALL ELECTRICAL WIRING AND CONNECTIONS SHOULD BE PERFORMED BY A QUALIFIED ELECTRICIAN. UV EMISSION IS HARMFUL TO THE EYES, SKIN AND RETINA. DO NOT STARE INTO THE LEDS DIRECTLY. MINIMIZE DIRECT EXPOSURE TO THE UV LIGHT RAYS. UV FIXTURE SAFELY USED WITH MINIMUM 3-1/2 FEET DISTANCE FROM PERSONS AND OBJECTS.

SETUP AND INSTALLATION

Unpacking

Remove the SS-UV10 lighting fixture from its shipping container. Set the unit down on a flat surface before proceeding.

Lamping and Re-lamping

The SS-UV10 lighting fixture is provided with one UV LED light module. Under normal operating conditions, the UV LED light module should have a rated life expectancy of over 50,000 hours. There are no user serviceable parts inside. The entire UV LED assembly will need to be changed if defective.

Mounting the fixture and box

Mounting brackets are provided on the UV LED module for permanent mounting to a wall, floor or ceiling. Use proper length screws or bolts to mount the module in the desired location using all four mounting holes provided on the UV LED module brackets. Note that the brackets can be removed and reoriented for easier access to the mounting holes. Mounting brackets are also provided on the Electronics power and control box for permanent mounting to a wall, floor or ceiling. For wall mounting, the box should be oriented so that the hinge is on the top for proper access to the control board and for better resistance to water splashing. Use proper length screws or bolts to mount the box in the desired location using all four mounting holes provided on the outdoor enclosure.

Connecting power and data to the fixture

Wire the enclosure to a grounded source of power connected to a GFCI circuit breaker. Connect DMX signal to the fixture. The DMX signals can be daisy chained from one enclosure to an adjacent enclosure each with separate connections to a power source. Do not use the SS-UV10-BK on a dimmable circuit.

Focusing the fixture

Access the control board by loosening the three brackets holding down the top cover. With the fixture energized and Data connected (see following instructions), point the unit in the direction of the object to be illuminated by loosening the two screws at either end of the UV LED module. Adjust the UV LED module to the desired position and secure the fixture by tightening the two screw to lock down the UV LED light module.

Cleaning the fixture

Routine cleaning of the SS-UV10 lighting fixture will provide years of prolonged use. Use compressed air to blow off any dust and dirt from the lens, electronics and heat sink. For the lens, use a soft lint-free cloth dampened with water to clean the lens of dust and dirt. Dry off completely with compressed air or a dry lint-free cloth.

ETL FILE LISTING

The SS-UV10 lighting fixture is ETL and c-ETL pending under Altman File 9700680 for Portable Electric Luminaires (UL Standard 153), Luminaires (UL Standard 1598) LED Equipment (UL Standard 8750).

FEATURES

The SS-UV10 LED lighting fixture complements the Theatrical and Architectural Lighting Industry and adds to the expanding Spectra-LED™ family of solid state LED luminaires offered by Altman Lighting, Inc.

- ◆ Single channel control of UV LED light module.
- ◆ Compatible with DMX-512 and RDM protocols including Wybron Responder System.
- ◆ 8/16 bit DMX-512 control for smoother UV dimming and UV fades.
- ◆ Strobe Effect of UV LEDs.
- ◆ Long life UV LEDs with no ballast or short-life lamp changes.
- ◆ On board power supply, microprocessor controller, and current drivers.
- ◆ Feed thru DMX/RDM data with a maximum total run of 1000 feet.
- ◆ Push button addressing.
- ◆ Stand-Alone Pre-Programmed Operational Modes.
- ◆ Built-in flicker-free TV mode.
- ◆ Keypad Lock functions to prevent accidental Re-Programming.
- ◆ Efficient cooling system offering Silent Operation with No Fans.

OPERATION

(Firmware Version: V2.3.1 Date: 2010-10)

SETTINGS

There are 3 buttons below the 3 digit LED display on the side of the unit. The buttons are : (From left to right) [HUNDREDS] , [TENS] , [ONES] .

All settings for Modes, DMX address, Personalities, etc., can be made by using the three buttons on the back of the unit while power is on. . (Note: Display goes out after no activity for approx 4 sec. Touch any button once to bring it back on.)

There are 3 main operating Modes: **Normal**, **Fixed Color**, and **Locked**.

Normal Mode:

Normal Mode is used for Setting DMX address, Personalities, and Stand-alone Effects.

This is the default mode for a new unit

DMX address To set, press the buttons repeatedly (or hold) to count up until the desired DMX address (1-512), appears on the display. Wait a few seconds, the display will blink once quickly, and the address is set live and retained in memory, even if you remove power. **(RDM** addressing sent from a remote unit will overwrite local DMX setting.)

PERSONALITIES:

There are 8 different personalities.

Each personality is made up of 3 settings: RESOLUTION (8 Bit /16 Bit), MASTER (On /Off), and SMOOTHING (On/Off) which are explained in greater detail below.

The current active Personality # is displayed for about 1 second during power up. The format is Pxx where xx is replaced by the active personality #01-08.

To set the desired Personality, you must be in Normal mode (not Fixed Color mode).

To select the personality:

- > Press the buttons until the desired personality address (01-08) appears in the display (see list below).
- > Wait a few seconds, and a confirmation display will appear that shows a question mark? on the left, followed by the personality #. This gives you an opportunity to either accept or reject the new setting.
 - To accept the personality, press the [ONES] button.
 - To reject the personality, press the [HUNDREDS] button (below the²).

Once the new personality is accepted, it is entered into memory and retained even if power is disconnected. Once personality is either accepted or rejected, the display will go back to the current DMX address. The default personality for a new unit is #02.

EXAMPLE: Let's say that we want to select personality #05. We enter 605 on the display. After a few seconds the display will show? 05. Since we want this, we press the [ONES] button (below the 5), and that enters personality #05 into memory.

PERSONALITY ADDRESS SETTINGS LIST (601-608) 4-COLOR CHANNELS:

601 = Personality #01 (uses 4 DMX channels)	8 Bit , Channel order is UV1,N/A,N/A, N/A	Master OFF,	Smoothing OFF
602 = Personality #02 (uses 4 DMX channels)	8 Bit , Channel order is UV1, N/A, N/A, N/A	Master OFF,	Smoothing ON
603 = Personality #03 (uses 5 DMX channels)	8 Bit, Channel order is UV1, N/A, N/A, N/A, M	Master ON,	Smoothing OFF
604 = Personality #04 (uses 5 DMX channels)	8 Bit, Channel order is UV1, N/A, N/A, N/A, M	Master ON,	Smoothing ON
605 = Personality #05 (uses 8 DMX channels)	16 Bit, Channel order is UV1,n/a, N/A, n/a, N/A, n/a, N/A, n/a	Master OFF,	Smoothing OFF
606 = Personality #06 (uses 8 DMX channels)	16 Bit, Channel order is UV1, n/a, N/A, n/a, N/A, n/a, N/A, n/a	Master OFF,	Smoothing ON
607 = Personality #07 (uses 10 DMX channels)	16 Bit, Channel order is UV1, n/a, N/A, n/a, N/A, n/a, N/A, n/a,Mm	Master ON,	Smoothing OFF
608 = Personality #08 (uses 10 DMX channels)	16 Bit, Channel order is UV1, n/a, N/A, n/a, N/A, n/a, N/A, n/a,Mm	Master ON,	Smoothing ON

PERSONALITY ADDRESS SETTINGS LIST (609-612) 1-COLOR CHANNELS:

609 = Personality #09 (uses 1 DMX channel)	8 Bit,	Smoothing OFF
610 = Personality #10 (uses 1 DMX channel)	8 Bit,	Smoothing ON
611 = Personality #11 (uses 1 DMX channel)	16 Bit,	Smoothing OFF
612 = Personality #12 (uses 1 DMX channel)	16 Bit,	Smoothing ON

RESOLUTION is selectable as either:

8 Bit (one DMX channel per color) this is normal resolution,
or

16 Bit (two DMX channels per color Coarse+Fine high resolution similar to moving lights).

MASTER is selectable as **ON** or **OFF** and provides a Master fade channel that dims the UV pod proportionally at the same time in order to maintain the color.

SMOOTHING is selectable as **ON** or **OFF** and provides a smooth transition ramp from one level to another in a similar way to how an incandescent lamp behaves. This helps to eliminate the "steppiness" associated with LED fixtures that is caused by the instantaneous response of LEDs.

STAND-ALONE EFFECTS (does not require a control console):

Note: stand-alone effects from a single unit will control other units connected via DMX cable to all synchronize. Set other units to DMX Channel 001.

Note: (Do not use the Stand-Alone Effects while connected to a control console or a conflict will result. Unless the Master-Slave mode has been disabled. See instructions below.)

Key: 1 = UV1 - UV LED Module One
2 = N/A - Not Available or Dark.
3 = N/A - Not Available or Dark.
4 = N/A - Not Available or Dark.
A = UV LED Module UV1 will come on.

UV Fades (700-799):

700 - 709 = 1>4>2>3 fade	700 = faster	709 = slower
740 - 749 = 3>2>4>1 fade	740 = faster	749 = slower
780 - 789 = 1>4>2>3>A fade	780 = faster	789 = slower
790 - 799 = A>3>2>4>1 fade	790 = faster	799 = slower

UV Strobes (800-879):

800 - 809 = ALL STROBE	800 = faster	809 = slower
810 - 819 = 1 STROBE	810 = faster	819 = slower
820 - 829 = (Reserved)	820 = faster	829 = slower
830 - 839 = 2 STROBE	830 = faster	839 = slower
840 - 849 = 3 STROBE	840 = faster	849 = slower
850 - 858 = 1-4-2-3 RAINBOW STROBE	850 = faster	859 = slower
870 - 879 = 3-2-4-1 RAINBOW STROBE	870 = faster	879 = slower

STAND-ALONE FIXED UV INTENSITY MODE

While in stand-alone mode, the hundreds button cycles through 'r', 'G', 'b', and 'A'. colors . (r = UV1; G = N/A; b = N/A; A = N/A). The tens and ones digits select 0-99 values. 99 is actually full. The 0-255 scale is spread evenly over the 0-99 display range.

NOTE: when you go in or out of fixed intensity mode, the display will go blank. Touch any button to turn on display.

Locked Mode

To Lock (or unlock) the buttons:

- > Wait a few seconds until the display goes blank,
- > press and hold the [ONES] button
- > press and hold the [HUNDREDS] button
- > release the [ONES] button
- > release the [HUNDREDS] button.

Display will show **LOC** for a moment and then blink.
Buttons will have no effect until they are unlocked.

Master and Slave Mode

To Turn On (or Off) the MASTER:

- > Wait a few seconds until the display goes blank,
- > press and hold the [HUNDREDS] button
- > press and hold the [ONES] button
- > release the [HUNDREDS] button
- > release the [ONES] button.

Display will show **ON or OFF** for a moment and then blink.

INSTALLATION AND INSTRUCTION MANUAL

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