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Note: Information contained in this document may not be duplicated in full or in part by any person without prior written approval of Altman Lighting. Its sole purpose is to provide the user with conceptual information on the equipment mentioned. The use of this document for all other purposes is specifically prohibited.

Document Number: 49-0230
Version as of: 20160815

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IMPORTANT INFORMATION

When using electrical equipment, basic safety precautions should always be followed including the following:

a. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
b. Do not use outdoors.
c. Do not mount near gas or electric heaters.
d. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
e. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
f. Do not use this equipment for other than intended use.
g. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING: Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel.

WARNING: This equipment is intended for installation in accordance with the National Electric Code® and local regulations. It is also intended for installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

WARNING: The Lighting Fixture IS NOT for residential installation or use.

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE QUI CONNAÎT BIEN LE PRODUIT ET SON FONCTIONNEMENT AINSI QUE LES RISQUES INHÉRENTS.
FCC NOTICE
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part
15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference
when the equipment is operated in a commercial environment. This equipment generates, uses, and can radi-
ate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause
harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user
will be required to correct the interference at his own expense.

DMX 512 ADDITIONAL RESOURCES
For more information on installing DMX512 control systems, the following publication is available for pur-
chase from the United States Institute for Theatre Technology (USITT), “Recommended Practice for DMX512:

USITT (United States Institute for Theater Technology)
315 South Crouse Avenue, Suite 200
Syracuse, NY 13210-1844
Phone: 1.800.938.7488 or 1.315.463.6463

ALTMAN LIGHTING STANDARD WARRANTY
Altman Lighting, Inc., a subsidiary of Altman Stage Lighting Company, Inc., herein referred to as Altman, war-
rants each new product (except for spare parts or products Altman does not manufacture) for a period of TWO
(2) years from date of shipment to correct by repair or replacement any part defect due to faulty material or
workmanship. Under these same terms, products with an LED light source shall be warranted for a period of
THREE (3) years. The customer must receive a Return Material Authorization (RMA) number prior to return.
Return shipments must be visibly marked with the RMA number; the product must be returned (shipping prepaid) to the factory at:

Altman Lighting Inc.
57 Alexander Street
Yonkers, NY 10701
www.altmanlighting.com

The return must be within THIRTY (30) days of receiving the RMA from Altman. Altman warrants for NINETY
(90) days any spare part it manufactures. On spare parts or products Altman does not manufacture, such as
lamps, sockets, lenses, roundels, electronics, ignitors, ballasts, etc.; Altman will grant the same warranty given
Altman by its vendors.

Altman assumes no responsibility for damage or faulty performance caused by misuse, improper installation,
careless handling or where repairs have been attempted by others.

This warranty is in lieu of all warranties or guarantees expressed or implied and no representative or person is
authorized to assume Altman any other liability with the sale of Altman’s products.
**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important Information</td>
<td>1</td>
</tr>
<tr>
<td>FCC Notice, DMX Resources, Altman Standard Warranty</td>
<td>2</td>
</tr>
<tr>
<td>Table of Contents - this page</td>
<td>3</td>
</tr>
<tr>
<td>About this Manual</td>
<td>4</td>
</tr>
<tr>
<td>Product Descriptions - Part Number Ordering</td>
<td>4</td>
</tr>
<tr>
<td>Accessories - Reflectors &amp; Mounting options</td>
<td>4</td>
</tr>
<tr>
<td>Typical Mounting - Canopy</td>
<td>5</td>
</tr>
<tr>
<td>Product Mounting - Air Craft Cable</td>
<td>6/7</td>
</tr>
<tr>
<td>Product Mounting - Yoke Mount / Wall Mount</td>
<td>8</td>
</tr>
<tr>
<td>Luminaire Wiring - Power / Data</td>
<td>9/10</td>
</tr>
<tr>
<td>Luminaire Controls</td>
<td>10</td>
</tr>
<tr>
<td>Operation and Programming</td>
<td>11/12</td>
</tr>
<tr>
<td>Display Information</td>
<td>13</td>
</tr>
<tr>
<td>Cleaning and Care</td>
<td>14</td>
</tr>
<tr>
<td>Trouble Shooting</td>
<td>15</td>
</tr>
<tr>
<td>Technical Specifications</td>
<td>16</td>
</tr>
<tr>
<td>Optical Specification</td>
<td>16</td>
</tr>
</tbody>
</table>
ABOUT THIS MANUAL

This document provides installation and operation instructions for the following products: Chalice 150 single point Pendant Down Light (refer to “Product Descriptions” for individual product models). Please read all instructions before installing or using this product. Retain this manual for future reference. Additional product information and descriptions may be downloaded at www.altmanlighting.com.

PRODUCT DESCRIPTIONS

The Chalice 150 down light follows the Altman Lighting tradition of lighting quality. Designed specifically for the demands of theaters, churches and public venues, the Chalice 150 is a 145W White LED pendant fixture that is an energy-efficient solution to general lighting needs. The Chalice 150 addresses and alleviates the typical maintenance routines of changing lamps and ballasts in difficult-to-access locations. The Chalice 150 uses a single-point source for optimal beam control, and offers a variety of reflector options for ceiling heights from 15 to 50 feet. Its powerful and clean non-pixelated and non-granulated output blends to seamless coverage in the most elegant setting. Extremely smooth dimming reproduces the comfortable feel of traditional incandescent sources, at a fraction of the power consumption. Either Mains Dimmer or DMX control allows each fixture to be controlled independently or in groups, from an architectural control system and/or directly from a theatrical control console.

This Manual covers the following Chalice 150 Pendant Downlight Luminaire models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD<em>150...**...</em><em><strong>...</strong></em>**</td>
<td>Chalice 150 Single Point 145W LED Pendant Mount Downlight</td>
</tr>
</tbody>
</table>

* (Mounting Method)
Add the following code for Hanging Method: P=Pendant Mount or Aircraft Cable, Y=Yoke Mount, W=Wall Mount

** (LED Color Temp)
Add the following code for Emitter CCT: 2K, 3K, 4K, & 5K, (Nb.2K=2700 Kelvin)

*** (Body Color)
Add the following code for Body Color: B=Black, W=White, S=Silver, C=Custom

****(Intensity Control)
D=DMX, M=Mains Dim (120 or 220 only)

*****(Input Voltage)
120=120V, 220=220V, 277=277V.

* Mounting Method Note: Minimum length of Pendant =6” (152mm); Maximum length for Aircraft cable = 20’-0” (6096mm) Please consult your Regional Manager for additional mounting details.

ACCESSORIES

<table>
<thead>
<tr>
<th>Accessories - Reflectors</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-F13379</td>
<td>20 Degree Narrow Spot Reflector</td>
</tr>
<tr>
<td>19-F13380</td>
<td>29 Degree Spot Reflector</td>
</tr>
<tr>
<td>19-F13325</td>
<td>39 Degree Narrow Flood Reflector</td>
</tr>
<tr>
<td>19-F13381</td>
<td>46 Degree Medium Flood Reflector</td>
</tr>
<tr>
<td>19-F13401</td>
<td>51 Degree Wide Flood Reflector</td>
</tr>
<tr>
<td>19-F13402</td>
<td>64 Degree Very Wide Flood Reflector</td>
</tr>
<tr>
<td>19-F13838 **</td>
<td>91 Degree Extra Wide Flood Reflector</td>
</tr>
</tbody>
</table>

** NOTE: Some Clipping of the beam will occur with the use of this 91 Degree Extra Wide Flood Reflector. Please see Chalice 150 IES files for beam characteristics.
**ACCESSORIES**

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99-C545-S-*</td>
<td>Ball Mount Assembly (* Color) BL=BLack, WH =WHite, SL= SiLver</td>
</tr>
<tr>
<td>70-3980</td>
<td>Aircraft Cable Suspension Assembly (20'-0&quot;)</td>
</tr>
<tr>
<td>SS-8CDL-DMXTERM</td>
<td>DMX 120-Ohm Terminator Kit (note: Chalice 150 DMX model offers a built in DMX terminator.)</td>
</tr>
</tbody>
</table>

**TYPICAL MOUNTING - Canopy with Pendant**

To Ceiling Mounted junction box.  
Please note:  both junction box and junction box screws are not included with the Chalice 150.  
Chalice 150 must be installed by qualified professional installer.

** WARNING:**

Supporting mechanism and structure must be capable of supporting the weight of the Chalice 150.

For product technical information (including weight), refer to "TECHNICAL SPECIFICATIONS" on the last page of this manual. Check applicable codes in your area for specific requirements.
PRODUCT MOUNTING - Air Craft Cable

**WARNING:**

Supporting mechanism and structure must be capable of supporting the weight of the Chalice 150. Part Number 70-3980 Aircraft Cable kit includes cables grippers above plus 20'-0" of 7x7 2.5mm (1/8") aircraft cable.

For product technical information (including weight), refer to "TECHNICAL SPECIFICATIONS"

**Special Note:** the two piece top cable coupler is designed for 0 to 90 degree installation. If the mounting of the Chalice 150 requires angled ceiling mounting please make sure the angle orientation slot is parallel with the angle of the sloped ceiling.
PRODUCT MOUNTING - Air Craft Cable - Parts Assembly

1/4-20 Flat Head Screw

99-158 Cross Bar

8/32 Mounting Screw NOT SUPPLIED

Grounding Screw

99-CC1/4-202P 2 Pc. Coupler

99-102 Hole Plug (2)

99-AC3/32-240G 2.5mm Aircraft Suspension Cable 20'-0" Max.
PRODUCT MOUNTING - Yoke & Wall Mount

**Yoke Mount**

**Wall Mount**

WARNING! To prevent injury or death, you must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

Note: The Chalice 150 Luminaire is intended for installation in accordance with the National Electric Code and local regulations. To assure full compliance with local codes and regulations, check with your local electrical inspector before installation. The Chalice 150 is not intended for residential use or installation.
LUMINAIRE WIRING

<table>
<thead>
<tr>
<th>DMX CONNECTION</th>
<th>WIRE COLOR</th>
<th>HARDWIRE CONNECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMX INPUT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Orange</td>
<td>Data In (+)</td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>Data In (-)</td>
<td></td>
</tr>
<tr>
<td>White/Brown</td>
<td>Data In Common</td>
<td></td>
</tr>
<tr>
<td>DMX OUTPUT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Green</td>
<td>Data Out (+)</td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>Data Out (-)</td>
<td></td>
</tr>
<tr>
<td>Brown</td>
<td>Data Out Common</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: (DMX Version) Chalice 150 utilizes One (1) piece of Category 5 Belden 1592A cable for all Data connectivity. Three (3) of the conductors are used for data input and three (3) conductors for data output. The White/Blue & Blue conductors are not used.

DMX 512 XLR and RJ45 Connections

<table>
<thead>
<tr>
<th>DMX 512 Signal</th>
<th>XLR Pin</th>
<th>RJ45 Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common (Drain)</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>DMX 512 Minus (-)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>DMX 512 Plus (+)</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Remaining pins on each connector are not used

<table>
<thead>
<tr>
<th>POWER CONNECTION</th>
<th>WIRE COLOR</th>
<th>HARD WIRE CONNECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>120VAC/60hz</td>
<td>Black</td>
<td>Hot / Mains</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>Common - Neutral</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td>Earth - Ground</td>
</tr>
<tr>
<td>100/240VAC /50hz</td>
<td>Brown</td>
<td>Hot / Mains</td>
</tr>
<tr>
<td></td>
<td>Blue</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Green/Yellow</td>
<td>Earth - Ground</td>
</tr>
</tbody>
</table>
LUMINAIRE WIRING - MAINS DIM MODEL

POWER CONNECTION - MAINS DIM MODEL: The Chalice 150 should be connected to a Phase cut dimmer either forward or reverse phase and set to the appropriate voltage. Typical Phase Cut dimmers include SCR’s (Silicon Controlled Rectifiers), IGBT’s (Insulated Gate Bipolar Transistors), and TRIAC dimmers.

The Chalice 150 Luminaire operates on 100 to 240 volts AC (+/- 10%, auto-ranging). Depending on supply voltage, each luminaire can draw up to 140 Watts. The maximum through current should not exceed 20 Amps.

NOTE MAINS DIM CONTROL MODE: DO NOT CONNECT MORE THAN FOUR (4) CHALICE 150’S TO THE SAME DIMMER. CONNECTING MORE THAN FOUR UNITS ON THE SAME DIMMER WILL RESULT UNDESIRABLE LOW END DIMMER RESPONSES.

NOTE: The Chalice 150 is shipped preset for your dimming voltage. 115 or 220 VAC internal jumper is preset for 115 VAC for 120VAC Models and 230 VAC for 230 VAC models.

Connecting to a DMX Network

Basic DMX512 installation consists of connecting multiple Chalice150 Luminaires together (up to 32 Total devices per DMX string) in “daisy-chain” fashion. A cable runs from the control console (or DMX512 control source) to the DMX INPUT connection on the first Chalice 150 Luminaire. From the DMX OUTPUT of this Chalice 150 another cable runs to the DMX IN connector on the next Chalice 150 Luminaire (or DMX512 device to be controlled). Special Note: at the end of each DMX Daisy chain, it is highly recommended that a SS-8CDL-DMXTERM 120 OHM resistor be utilized to properly terminate the DMX signal.

NOTE: When valid DMX is present the “Ones” decimal point will remain illuminated.

POWER CONNECTION - DMX MODEL: The Chalice 150 Luminaire should be connected to either a constant circuit or relay device. Note: Altman Lighting recommends that all Non-Dim circuits powering solid state luminaires are routinely powered down to both conserve energy and maximize luminaire performance.
LUMINAIRE CONTROLS - DMX MODEL

The Chalice 150 Single Point luminaire’s three digit control system provides set up and local control for accessing all of the luminaires menu options and settings.

Upon Power-up, the three digit display will sequence:

1. Firmware Version: (vXX) where XX = Version number Displays for 2 seconds,
2. Absence of DMX: (oFF, HLd, PrE, FuL) [ Default: oFF ] Displays for 2 seconds,
3. Preset Level(L01 ~ L99) [ Default: L99 ] Displays for 2 seconds,
4. Locked State (Loc, unL) [ Default: unL] Displays for 2 seconds,
5. Control / ReceiveState (Con, rEC) [ Default: rEC] Displays for 2 seconds,
6. DMX Termination: (I--I or -----) I--I = Termination on 120ohm resistor active for DMX end of line termination; ---- = DMX Termination OFF [Default: ----]
   999 = Termination OFF, 998 = Termination ON
7. Pxx Set: Personality (dimming curve)
   601 = Linear, 602 = Incandescent fade 1 (500 watt replication) , 603 = Incandescent fade 2 (1000 watt replication)
8. DMX address: (001~512)– This is the DMX channel number. [ Default: 001] Displays for 4 seconds ;

NOTE: When valid DMX is present the “Ones” decimal point will remain illuminated.
When Luminaire has DMX termination ON the “Hundreds” Decimal point will blink.

To initiate Info Display sequence, do the following button sequence: Wait a few seconds until the display goes blank,
1. press and hold the [ TENS ] button,
2. press and hold the [ HUNDREDS ] button,
3. release the [ TENS ] button,
4. release the [ HUNDREDS ] button.

Pressing any button in any mode activates display if it is blank, and shows appropriate display for the Operating mode.
OPERATION AND PROGRAMMING - DMX MODEL

There are two (2) main Operating modes:

1. **DMX mode:**
The Chalice 150’s dimming level is set via a DMX controller. This controller controls the luminaire via DMX 512a. This address can be from 001 - 512. To programming a different DMX address:
   1. Depress the Hundreds, Tens, and Ones, selection switches to the desired DMX address number (001 to 512).
   2. The display goes blank* and comes back again, confirming the new DMX address, displays it for 4 seconds, then display goes blank*.

   [Default DMX address 001]
   
   NOTE: When valid DMX is present the “Ones” decimal point will remain illuminated.

2. **Standalone mode:**
When in Standalone mode, the Chalice 150 does not require a DMX control signal. To enter Standalone mode (or exit back to DMX mode):
   Wait a few seconds until the display goes blank*, then do the following button sequence:
   1. press and hold the [ ONES ] button,
   2. press and hold the [ TENS ] button,
   3. release the [ ONES ] button,
   4. release the [ TENS ] button. When in Standalone mode the unit will ignore DMX input, once in Standalone mode the ONES and TENS indicator will remain lit.
   5. Unit Preset level is set (0 to 100%) using [TENS] and [ONES] buttons : (00 to 99) (L00=0%), (L99=100% full).
   6. IMPORTANT NOTE: Unit must be in Control State (below) inorder for above output to take effect.

   A. **Control / Receive State:**
   
   Note: Only one unit per DMX string should be set to Control State to avoid data conflict.
   When in Standalone Mode the Chalice 150 can also enter into a Control State. The Luminaire will transmit its Preset level on DMX channel 1, so that it acts like a console to control the other units that are connected via DMX cable. If unit is in DMX mode, Control State will do nothing.

   When in Receive State, Unit only receives DMX, and if set to DMX channel 1, it will imitate the other unit that is set to Control State, if connected.
   To Toggle between Control and Receive state, do the following button sequence:
   Wait a few seconds until the display goes blank,
   1. press and hold the [HUNDREDS ] button,
   2. press and hold the [ONES ] button,
   3. release the [HUNDREDS ] button,
   4. release the [ONES ] button;
   
   Once in Con State the ONES, TENS, & HUNDREDS Indicator will remain Lit.
   Display will blink and show Con (or rEC) for 4 seconds and then go to current mode display.
   [Default is Receive State]
OPERATION AND PROGRAMMING - DMX MODEL

Absence of DMX:
When connected to a DMX network, if there is a loss of signal the following settings will effect the behavior of the Chalice 150 upon signal loss. This mode can be programmed by entering a number greater than 900. There are four (4) different options upon the loss of signal.

<table>
<thead>
<tr>
<th>SETTING</th>
<th>DISPLAY [RDM]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>901</td>
<td>oFF [00]</td>
<td>off (dimmed to 0%) [Default]</td>
</tr>
<tr>
<td>902</td>
<td>HLd [01]</td>
<td>hold last look (retains last DMX level)</td>
</tr>
<tr>
<td>903</td>
<td>PrE [02]</td>
<td>preset (Standalone Preset level)</td>
</tr>
<tr>
<td>904</td>
<td>FuL [03]</td>
<td>full on (100%)</td>
</tr>
</tbody>
</table>

NOTE: upon loss of valid DMX setting 904 will initiate an instant change in the light output from the DMX setting to FULL ON (100%)
When this is done, after 2 sec, the display will change the [ HUNDREDS ] digit to [P], asking for confirmation of personality change. This is confirmed with a press of [ ONES ] button. Pressing any other button reverts back to 90X series display so that modification can be made.

Once confirmation is made:
Display blinks and shows new Absence of DMX setting (oFF, HLd, PrE, FuL) for 4 sec, then goes to current mode display.

Locked State:
When in Locked State, Buttons will have no effect until they are unlocked. To Lock (or unlock) the buttons, do the following button sequence:
Wait a few seconds until the display goes blank,
1. press and hold the [ ONES ] button,
2. press and hold the [ HUNDREDS ] button,
3. release the [ ONES ] button,
4. release the [ HUNDREDS ] button.

Display will blink and show Loc (or unL) for 4 sec and then go to current mode display.
[ Default is unlocked]

*Display Notes:
Display goes completely blank after 4 seconds, except:
1. If in DMX Mode and DMX signal is detected; then: [ONES] decimal point will stay lit
2. If in Standalone Mode, and Receive State; then: [TENS] and [ONES] decimal point will stay lit;
3. If in Standalone Mode, and Control State; then: [HUNDREDS], [TENS] and [ONES] decimal point will stay lit.
**OPERATION AND PROGRAMMING - DIMMING CURVE AND DMX TERMINATION**

**DIMMING CURVE:**
The CDP150 DMX Model will replicate one of three programmed dimming curves replicating linear and incandescent dimming.

<table>
<thead>
<tr>
<th>SETTING</th>
<th>DISPLAY [RDM]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>601</td>
<td>P01 [0]</td>
<td>Linear</td>
</tr>
<tr>
<td>602</td>
<td>P02 [1]</td>
<td>Incandescent Fade 1</td>
</tr>
<tr>
<td>604</td>
<td>P03 [2]</td>
<td>Incandescent Fade 2 (fast Bottom)</td>
</tr>
</tbody>
</table>

**SETTING DIM CURVE:**
1. Wait for Display to go blank (decimal points may still be active depending upon termination and DMX presence.
2. Using the programming buttons set the desired DIMMING CURVE setting
3. Wait 2 seconds, the display will then will change the [ HUNDREDS ] digit to a [P], asking for confirmation of personality change.
4. Depress the [ ONES ] button to confirm personality change Pressing any other button reverts back to 60X series display so that modification can be made.
5. Depress the [ONES] button a second time to return out of programming mode.

**DMX TERMINATION -DMX MODEL**

**DMX TERMINATION:**
The CDP150 DMX Model is supplied with a programmable DMX terminator built into the luminaire. In a DMX system it is recommended that the luminaire that is at the end of the DMX Daisy-chain is terminated using a 120 OHM resistor which the CDP 150 offers in the settings below.

<table>
<thead>
<tr>
<th>SETTING</th>
<th>DISPLAY [RDM]</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>998</td>
<td>I---I [0]</td>
<td>Termination ON</td>
</tr>
<tr>
<td>999</td>
<td>---- [1]</td>
<td>Termination OFF</td>
</tr>
</tbody>
</table>

**SETTING DMX TERMINATION:**
1. Wait for Display to go blank (decimal points may still be active depending upon termination and DMX presence.
2. Using the programming buttons set the desired DMX TERMINATION setting
3. Wait 2 seconds, the display will then will change the [ HUNDREDS ] digit to a [P], asking for confirmation of personality change.
4. Depress the [ ONES ] button to confirm personality change Pressing any other button reverts back to 90X series display so that modification can be made.
5. Depress the [ONES] button a second time to return out of programming mode.
CLEANING AND CARE

**WARNING!** All cleaning should be performed with power completely removed from the luminaire. Never remove protective covers when luminaire is powered. Wear appropriate protective eye wear and gloves when cleaning the fixture. All service and maintenance, other than described herein, should be performed by a qualified technician or Authorized Service Center.

1. Special Cleaning and Care Instructions
Being a solid-state fixture, and unlike most fixtures, the Chalice 150 Luminaire requires very little routine maintenance by the user. This section covers portions of the luminaire that can be removed for cleaning.

The Chalice 150 Luminaire requires special care when it comes to cleaning the front reflector assembly. Additional care needs to be taken with the plastic components because they are much easier to scratch or damage than glass.

The following is a list of cleaning materials required to care for your Chalice 150 Luminaire:
- Lint free lens tissue
- Lint or powder free gloves
- Reagent grade isopropyl alcohol*
- A mild soap solution.

**Note:** *Reagent grade isopropyl alcohol is good to use on the Chalice 150 Luminaire plastic optics with anti-reflection coatings.*

If the lens is still dirty after using isopropyl alcohol, for instance if fingerprints or oil is just redistributed and not cleaned off the optic, then a mild soap and water solution can be used to gently wash the lens. Repeat the cleaning with isopropyl alcohol to eliminate streaks and soap residue.

**WARNING!** Under no circumstances should ammonia-based cleaners, acetone, or other harsh solvents be used on or near the Chalice 150. These types of cleaners or solvents can permanently damage the optics or housings of the fixture. If you have any questions regarding the use or care of your Chalice 150 LED Luminaire, please contact Altman Lighting technical support or your local Authorized Dealer.

2. Front Lens / Reflector Cleaning
To clean the front lens and reflector:
Step 1. Turn off luminaire and allow to cool completely.
Step 2. Apply a small amount of reagent grade isopropyl alcohol to lint-free lens tissue.
Step 3. Wipe all debris, dirt, fingerprints, etc. from lens and reflector.
Step 4. Using a second lint-free lens tissue, wipe off any alcohol residue.

3. Service and Maintenance
For all other service and maintenance issues, please contact your local Altman Lighting offices or an Authorized Service Center.
TROUBLE SHOOTING -DMX / MAINS DIM MODEL

WARNING! Any service and maintenance (including troubleshooting), other than described herein should be performed by an Authorized Altman Lighting Dealer or Service Center.

<table>
<thead>
<tr>
<th>Description</th>
<th>Symptom</th>
<th>Possible Cause / Remedy</th>
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| No Light Output - DMX MODEL        | Fixture will not produce Light output but has power. Display is illuminated or internal LED is illuminated. | Unit Setting is at 0% Local control  
Unit Setting is at 0% DMX control  
Set Level above 0% or adjust to a higher intensity. |
| No Power at Luminaire - DMX / MAINS MODEL | Luminaire does not power up.                                             | Circuit is not energized, Verify circuit power and circuit breaker has been turned on.  
Not Plugged in, ensure viable power source and unit is plugged in. Verify power cabling is wired correctly (see page 9 for details) |
| DMX Data Control - DMX MODEL       | Fixture will not respond to DMX Commands.                               | Not detecting DMX data, Disconnect and reconnect DMX input cable.  
Unit is set in Stand Alone mode. DMX Connection not wired properly see page 9 for details. DMX address is different than that of the DMX controller. |
| LED is not Responding - DMX / MAINS MODEL | Fixture is powered but no light output.                                | Luminaire is in an Overtemperature condition. Remove power from the luminaire and allow unit to cool before re-energerization. |
| Luminaire not coming to full intensity - MAINS MODEL | When the Dimmer is at full unit only shows 1/2 intensity. | 120/230 VAC jumper is in the wrong location. Move jumper to proper jumper location for appropriate dimming voltages. See page 10 for details |
| Local Programming - DMX MODEL       | Unit will not allow programming changes                                  | See page 11 - 13 for step by step on setting up DMX and stand alone control.          |
TECHNICAL SPECIFICATIONS.

Source: 145 Watt Fixed White LED emitter
Light Output: > 10,000 Lumens ** interdepdant upon reflector choice
Lumens/Watt 74.0 **
CRI > 90
Color Temperature: Choice of 2700, 3000, 4000, & 5000 Kelvin White
Input Voltage: 100 -277 VAC 50/60hz - DMX MODEL
100 -240 VAC 50/60hz - MAINS DIM MODEL
Current DMX MODEL: 1.2Amps (@120VAC)
0.68Amps (@220VAC)
0.58Amps (@277VAC)
Current (MAINS DIM MODEL): 1.01A @ 120 VAC
0.50A @240 VAC
Power Factor (MAINS DIM MODEL): >.92 full load
Current Inrush (MAINS DIM MODEL):15Apk Max 1/2 cycle @230VAC.
Quiescent Load: 3.1 Watts (DMX MODEL ONLY)
Ambient Temperature: 0 to 40 degrees C (32 to 104 degrees F)
Humidity: 5%-95% Non condensing
Cooling DMX model Fully Convection Cooled
Mains Model: Convection Cooling Light Source
Weight: 17.6 pounds (8kg) luminarie only.
Compliance: ETL / cETL Listed