PHILIPS Selecon

PLFRESNEL1 MKII LED Luminaire



QuickStart Guide

For PLFR1MKII-03

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IMPORTANT INFORMATION

Warnings and Notices

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.

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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.

Additional Resources for DMX512

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), "Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition" (ISBN: 9780955703522). USITT Contact Information:

USITT 315 South Crouse Avenue, Suite 200 Syracuse, NY 13210-1844 Phone: 1.800.938.7488 or 1.315.463.6463 www.usitt.org

Philips Selecon Limited Three-Year Warranty

Philips Selecon offers a three-year limited warranty of its luminaires against defects in materials or workmanship from the date of delivery. A copy of Philips Selecon three-year limited warranty containing specific terms and conditions can be obtained from the Philips Selecon web site at www.seleconlight.com or by contacting your local Philips Selecon office.

PREFACE

:

1. About this Guide

This Quickstart Guide is intended for a knowledgeable user to unpack, install, and use the PLFRESNEL1 MKII LED Luminaire in a short time period. For the complete manual in PDF format, please visit our web site at: www.seleconlight.com and click the user manual download link on the product page. The complete manual provides you all information related to accessories, menu structures, DMX channel mapping/modes, and care for your new luminaire.

Please read all instructions before installing or using this product. *Retain this guide for future reference*. Additional product information and descriptions may be downloaded at www.seleconlight.com.

2. Product Descriptions

The document provides installation and operation instructions for the following products:

• PLFRESNEL1 MKII LED Luminaire (PLFR1MKII-03)

Note: All PLFRESNEL1 MKII LED Luminaires are universal voltage (100VAC to 240VAC, Auto-ranging).





INSTALLATION AND SET UP

1. Top Box Connections

All PLFRESNEL1 MKII LED Luminaires are supplied with a "Top Box" for AC Input/Output and DMX512 Input/ Output Connections. **Figure 1** shows the AC and DMX512 Input and Output (Thru) Connections.



Figure 1: PLFRESNEL1 MKII LED Luminaire Top Box Connections

2. Power Requirements

WARNING! The PLFRESNEL1 MKII LED Luminaire should be connected to a constant circuit or a relay device. It should never be connected to a dimmer or circuit controlled by a dimmer.

The PLFRESNEL1 MKII LED Luminaire operates on 100 to 240 volts AC (+/- 10%, auto-ranging). The luminaire contains an auto-ranging power supply. Depending on supply voltage, each luminaire can draw up to 140 Watts. The maximum through current should not exceed 20 Amps*.



WARNING! *Maximum Allowable Input Current of 20 Amps (maximum power supply limit of 140 Watts). Do not overload circuits! Must be supplied by a branch circuit protected by a maximum 20 Amp circuit protector. Doit être alimenté par un circuit de dérivation protégé par un maximum de 20 ampères circuit protecteur. Do not overload circuits!



IMPORTANT AC POWER CONNECTION NOTES:



a. Must be supplied by a branch circuit protected by a maximum 20 Amp circuit protector. Doit être alimenté par un circuit de dérivation protégé par un maximum de 20 ampères circuit protecteur.

- b. When using the daisy-chain connection method, ONLY connect PLFRESNEL1 MKII LED Luminaires to AC Output Connection of PLFRESNEL1 MKII LED Luminaires. DO NOT CONNECT OTHER TYPES OF LUMINAIRES OR DEVICES!
- c. Use only approved cable types.
- d. Do not overload circuits!

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- e. Do not connect PLFRESNEL1 MKII LED Luminaires to dimmed circuits.
- f. The MAXIMUM allowable number of PLFRESNEL1 MKII LED Luminaires which can be 'daisychained' on one power feed should not exceed ratings. DO NOT EXCEED!

3. Connecting Power

Note: Refer to Figure 1 on page 4 for AC Input and Output connections.

If the unit is supplied with an AC input cable, **Table 1** describes how to connect power to your PLFRESNEL1 MKII LED Luminaire . Field wiring of the PLFRESNEL1 MKII LED Luminaire is straight forward. A total of 3 wires/ conductors need to be brought to the unit. The following wiring scheme is required:

 Table 1: PLFRESNEL1 MKII LED Luminaire AC Input Connections

Wire Color	Purpose
Brown	Main / Line (100 to 240VAC)
Blue	Neutral
Green/Yellow	Ground



4. Connecting to the DMX512 Network

Note: Refer to Figure 1 on page 4 for DMX512 Input and Output/Thru connections.

Basic DMX512 installation consists of connecting multiple PLFRESNEL1 MKII LED Luminaires together (up to 30 luminaires) in "daisy-chain" fashion. A cable runs from the control console (or DMX512 control source) to the DMX connector on the first PLFRESNEL1 MKII LED Luminaire. Another cable runs from the other DMX connector on the first unit to a DMX connector on the next PLFRESNEL1 MKII LED Luminaire (or DMX512 device to be controlled).

- Continued Next Page -

Note: For more information on DMX512 networking and systems, refer to "Additional Resources for DMX512" on page 2. For PLFRESNEL1 MKII LED Luminaire DMX Mapping, refer to the product user's manual.





DMX512 Connections						
Data Thru	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Data In Cable Pinout
	Common (Drain)	Data (-)	Data (+)	Not Used	Not Used	$5 \bigcirc \bigcirc \bigcirc \bigcirc \\ 4 & \bigcirc 2 \\ 3 \end{bmatrix} 1$
Male Conn						Female Conn



5. Mounting

WARNING! Before attempting any installation or service, disconnect all power at power source. Dimming the luminaire does not disconnect power. Installation and service should only be performed by a trained and qualified professional.

Using Supplied C-Clamp

As illustrated in **Figure 3 on page 7**, at yoke assembly, thread clamp mounting bolt (with washers installed) through center clamp mounting hole at top of yoke, through Top Box Assembly, and thread bolt into C-Clamp. Securely tighten bolt (by hand) into clamp (but do not over-tighten).

Note: Top box will be able to swivel once bolt is tightened by design. DO NOT OVER-TIGHTEN!



Figure 3: Luminaire Mounting

To mount on a telescopic stand, reverse the yoke under the luminaire and bolt to stand. Please note luminaire orientation (see note in **Figure 3**) for proper cooling.

Note: After installing Clamp and Top Box assembly, connect luminaire cable assembly to Top Box Assembly before mounting luminaire. Please note that the cable connector is keyed.

The supplied safety cable MUST always be used when rigging luminaires on bars, truss, etc. (as shown in **Figure 4 on page 8**). The supplied safety cable is recommended for all hanging installation and may be required by national and local codes. Loop or attach safety cable to luminaire safety cable anchor point as shown and attach to structure. You should always consult and follow all local and national codes and regulations for mounting and installation of luminaire.

6. Pan and Tilt Adjustments

Pan Adjustment

The pan adjustment of a PLFRESNEL1 MKII LED Luminaire is achieved by loosening the yoke bolt of the securing clamp attached to the luminaire's yoke assembly. Loosen the bolt, set the luminaire to the desired position and re-tighten.



Tilt Adjustment

PLFRESNEL1 MKII LED Luminaires offer variable tilt settings. The unit can be set at a specific angle (in relation to its mounting position) or at an angle between 0 to 90 degrees. When the yoke is in the position shown in **Figure 4**, you have full range access to luminaire adjustments.



Figure 4: Luminaire Tilt Adjustment

To adjust and set tilt angle of the luminaire:

- Step 1. Mount luminaire in desired location (see "Mounting" on page 6 for more information).
- Step 2. Loosen, but do not remove, T-Handle Tilt Lock at base of yoke assembly as shown in Figure 4.
- Step 3. Position luminaire to desired tilt position.
- Step 4. Re-tighten T-Handle Tilt Lock to set position.

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BEAM ADJUSTMENTS

1. Beam Adjustments

To adjust the beam:

- Step 1. As shown in Figure 5, loosen Beam Adjustment Knob
- Step 2. Slide beam adjustment back (for spot) or forward (for flood) as desired.
- Step 3. Hand-tighten Beam Adjustment Knob to lock position.





2. Barndoor Assembly

Philips Selecon offers as an optional accessory, a four-leaf barndoor assembly. This assembly is sold separately and available from your Authorized Philips Selecon Authorized Dealer.

OPERATION AND PROGRAMMING

1. LCD Menu Operation

The PLFRESNEL1 MKII LED Luminaire's LCD Display and Menu System provides local control for accessing all the fixture's status information, menu options, and settings.

Note: If there are multiple luminaires in a system, changes would need to be made at each LCD Menu as desired.

Upon power up, the LCD will display the main screen showing the product type/name.



Figure 6: LCD Display and Menu System

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2. LCD Menu System

The LCD Display Menu system consists of several categories. Use the four arrow buttons as required (refer to **Figure 6 on page 10**) to access and make changes to the menu items. When the desired menu item is reached, press [OK] to display the menu options. Use navigation and [OK] buttons to view status and configure the LCD Menu as required.

To navigate and access menu settings/selections:

Step 1. At Main Menu, press [ESC] / [MENU] button once. Another window will appear with sub-menu categories:

- Save a Preset
- · Edit a Preset
- Color Mixer
- · Settings
- Lock Fixture
- Fixture Status
- Normalize Colors
- Step 2. Press [OK] at desired menu item to access and make changes.
- Step 3. Make changes as desired.

Note: When DMX512 signal is present, Edit Preset and Color Mixer options will not appear in menu structure.

To navigate fixture status menus:

- Step 1. At default screen, press LEFT or RIGHT arrow button once. The default menu screen will change to allow for quick reference to the following items (note, depending on which arrow button is pressed, status screens may appear in reverse order):
 - a. DMX Address (note, if fixture is UNLOCKED, hit [OK] to change DMX address).
 - b. Fixture Hours (displays fixture operating hours since last reset).
 - c. Fixture Power (displays Max Power Limit setting (in Watts), Present Power consumed by fixture (in Watts), and Hours of Use).
 - d. Fixture Status (displays current operational temperature, LED status, and fan speed setting).
- Step 2. Press LEFT or RIGHT arrow buttons to scroll through status screens.
- Step 3. Press [ESC] at anytime to access Main Menu.

Note: When DMX512 signal is present, Edit Preset and Color Mixer options will not appear in menu structure.

3. Security

Unwanted changes to the Fixture's Configuration or Setting can be controlled by locking the fixture's menu.

PLFRESNEL1 MKII LED Luminaires are shipped with a default numeric PIN code of "0000" (four zeros). Users may set their own PIN code (four-digit number) via **Settings > General > Set PIN**. When setting a PIN code, write it down and keep it in a secure location. Note, Philips Selecon does not have records of PIN codes established by users or owners.

Note: Contact Philips Selecon technical support if a unit is locked and the PIN code is lost for instructions on how to reset luminaire.

Note: If the Fixture is locked when it is powered down the fixture will remain in the locked state when powered up.

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Locking Fixture

To lock the fixture:

- Step 1. At Main Menu, press [MENU] and scroll to Lock Fixture. Note, default PIN is "0000" (four zeros).
- Step 2. Press [OK].
- Step 3. Enter four-digit, user-selectable, PIN code. Press [OK].
- Step 4. Use [LEFT ARROW] or [RIGHT ARROW] keys to highlight "YES", press [OK] or [ESC] twice to cancel action.
- Step 5. Fixture is now locked if locking process was not canceled as described in previous step.

Note: When the Fixture is Locked only the [ESC]/[MENU] key is functional. Pressing this key will display a request a PIN code to be entered. When a valid PIN code is entered the fixture is unlocked.

4. Presets

Presets are Color Mixes that are stored in the Fixture, they can be recalled to reproduce a specific output from the fixture. Presets are made up of a Color Mix; Red, Green, Blue, and White. They also have Intensity associated with them.

Presets can be recalled via the User interface or by a DMX channel, when under DMX control. The Preset's Intensity is applied if the User Interface is used; if DMX, the DMX Intensity channel is used for Intensity.

If the fixture is locked, Presets cannot be changed at the menu.

- Locked Presets are factory Calibrated, and their Color Mix cannot be changed by the user. Their Intensity can be changed. Three Presets (2-4), "Warm White', "Cool White", and "Day Light", are Locked.
- Preset 0, the "off" preset is also Locked to the OFF value.
- If the fixture is unlocked, User Presets can have their Color Mix and Intensity changed without restriction.

Note: If the Color Mix of a Factory Calibrated Preset is changed, by turning protection Off, an '*' is appended to the end of the Preset's Name to indicate that the Calibrated values have been changed.

Note: DMX will take priority over any menu selected preset.

Editing Preset Names

On the Edit Preset screen, the option is available to edit the name of a preset, via Screen button. However, the names of Presets 0, 2, 3, and 4 cannot be edited. Scratch Pad, preset 1, can be changed but retains its original functionality.

Use the [LEFT ARROW] and [RIGHT ARROW] keys to select the character to be changed and use the [UP ARROW] and [DOWN ARROW] keys to change that character. The Character Scroll order is A-Z, space, 0-9. If you are scrolling up the Alpha character displays as Upper Case; if you are scrolling down the Alpha character displays as Lower Case. Stop on the character you want, ignoring case, then press the opposite [UP ARROW] or [DOWN ARROW] key if you want to change the case. [OK] to save changes, [ESC] to cancel changes.

5. Settings

Table 2, "Settings Menu User-Settable Parameters," on page 13 shows the user-settable parameters available in the Settings menu section.

To edit a value on the Setting Screen, use the [UP ARROW] or [DOWN ARROW] keys to move the highlight to the settings value you wish to change. Press [OK] to begin editing that value. Use the [UP ARROW], [DOWN ARROW], [LEFT ARROW] or [RIGHT ARROW] keys to make changes to the value. Press [OK] when complete to save changes, or [ESC] to cancel changes to that value.

When done making changes on the Settings Screen press [ESC] to re-boot fixture and implement changes. Fixture will not re-boot if nothing was changed.

Parameter	Values	Default	Description	
General				
Power, Fan	Normal Mode (120W), Studio Mode (80W), or Quiet Mode (60W)	Normal Mode	Sets the luminaire's output mode - Normal Mode (120W), Studio Mode (80W) or Quiet Mode (60W).	
Power-Up	All presets	Cool White	Users can set what the default preset is when the unit is powered up. Factory default is Cool White.	
Reset Hours	No, Yes	No	Resets luminaire's operational hours.	
Set PIN	####	0 0 0 0 (for zeros)	A four-digit user-settable PIN code to lock the fixture.	
Presets				
Protected	No, 5 - 25	5 - 25	Determines if the factory Presets' Color Mix is protected from changes.	
Load Factory	No, Yes	No	Reload Factory Presets, Intensity changes will also be reloaded.	
DMX				
Address	001 to 512	001	DMX512 address. Note, it can be set if displayed.	
Мар	8-bit, 16-bit, or 5-Chan	16-bit	Defines size/precision of DMX map. Color Mixing/Intensity in 16-bit provides higher resolution for precision control. 5-Chan provides minimal channel usage.	
When no DMX	Off, Hold, Hold 8Hr (8 hours), or No Output	Hold	If DMX is detected and then goes away, this defines what will happen to the output. At end of 8Hr hold Fixture goes to No Output setting.	
Display				
Flip Display	No, Yes	No	Flips (inverts) Display and Keypad Arrows.	
Adj Contrast	0 - 100%	50%	Use left or right arrow keys to adjust display contrast as desired.	
Fixture				
Fixture ID	****	N/A	Shows luminaire ID number.	

Table 2: Settings Menu User-Settable Parameters

Note: To Exit the Settings screen, use the [ESC] key. [ESC] and [OK] can be used to cancel or save changes to an individual parameter. However, once a parameter has been accepted, by pressing [OK] that change cannot be undone/ canceled by pressing the [ESC] key.

TROUBLESHOOTING

1. Troubleshooting Guide

The chart below provides possible causes and remedies for various error messages and/or symptoms.



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

Description	Symptom	Possible Cause/Remedy
No light output.	Fixture will not produce or output light	Unit is set to Preset Off Make sure unit is set to proper Preset. DMX command to 0 intensity Adjust intensity to higher level.
No power at luminaire.	Luminaire does not power up	Circuit not energized verify circuit breaker is turned on. Not plugged in ensure A/C cable is connected to power source. Power cable wired incorrectly verify power cable and connector are wired correctly. See "Connecting Power" on page 5 for more information.
DMX Data Control.	Fixture will not respond to DMX commands.	Not detecting DMX data Disconnect and reconnect DMX input cable. Check all DMX connections (at control source and luminaire). DMX data cable not wired correctly or has a broken conductor check DMX data cable for proper wiring. See "Connecting to the DMX512 Network" on page 5 for more information.
LED (light) is getting dimmer.	Fixture appears not to be operating at full brightness.	Luminaire has detected an over temperature condition The luminaire will reduce power to its LEDs if it senses that the LEDs are operating over the specified temperature. LED temperature is read and recorded through a thermistor embedded in the LED chip. Fan is not operating. Listen for fan operation or adjust settings to increase fan speed. On luminaires with a display check system status menu for status of fans and LED operation.
Local programming.	Unit will not allow local programming or changes.	Password protection is on (locked) Input proper password to allow local programming and/or adjustments. Unit is controlled by DMX Disconnect input cables to check issue.

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