



# SELECON

## 80V DMX 1200W POWER SUPPLY

### OPERATION MANUAL

**There are important set-up / operational instructions which must be followed to ensure the safe and effective operation of your 80V power supply.**

**Read this manual carefully before installation.**

This manual covers the following models:  
18DMX80VPS

This manual concerns the operation of the 80V DMX Mains Input Power System only. For instructions on the operation of the Pacific or Rama luminaire fixture, please also refer to the additional instruction sheet.

THANK YOU FOR PURCHASING A SELECON PACIFIC LUMINAIRE.

WE HAVE DESIGNED THIS LUMINAIRE TO PROVIDE YOU WITH A SUPERIOR FITTING IN PERFORMANCE, DESIGN & ENGINEERING.

WE ARE CONFIDENT THAT IT WILL PERFORM TO YOUR EXPECTATIONS FOR MANY YEARS TO COME.



#### **Caution!**

***Installation is entirely at your risk. Read this manual from cover to cover before attempting installation. Do not attempt installation unless you are suitably qualified. If you do not understand a point in this manual, don't guess. Don't take short cuts. If in doubt, stop! Contact Selecon or one of its authorised distributors for advice. Don't be afraid to ask for help.***

**IMPORTANT NOTE: Before discarding the packaging, ensure you have the mounting bolt sets, and safety cable.**

## Important!

Read this manual from cover to cover before attempting to install, operate or maintain the luminaires to which it relates. It contains important installation, operating, maintenance and safety procedures. The customer must strictly comply with them.

Along with such procedures mentioned in this document, the customer should also observe such other procedures generally applicable to lighting equipment.

Follow the instructions in this manual carefully. Selecon accepts no responsibility if the customer fails to do so.

For each customer, operating conditions will vary, sometimes greatly. Such variations may affect the luminaires' performance. Selecon has no control over the customer's unique operating environment. Hence, Selecon makes no representations or warranties concerning the luminaires' performance under the customer's actual operating conditions. All operating parameters must be validated for each customer application by the customer's technical experts.

If the customer does not follow the installation, operating, maintenance and safety procedures in this manual, as well as those generally applicable to lighting equipment, the luminaire may not perform as expected. More seriously, it may cause property damage, personal injury or other losses.

Selecon accepts no liability for direct, indirect, incidental, special, or consequential damages resulting from the customer's failure to follow the installation, operating, maintenance and safety procedures in this manual or those generally applicable to lighting equipment. The foregoing limitation extends to damages for personal injury, property damage, loss of operations, loss of profits, loss of product or loss of time, whether incurred by the customer, the customer's employees or a third party.

Selecon used all due care in preparing this manual. However, Selecon accepts no liability for errors or omissions. Selecon reserves the right to change the specifications of its luminaires, or the information in this manual, without necessarily giving its customers notice thereof.

Installation, operation and maintenance are entirely at the customer's risk.

Selecon's luminaires should be installed, operated and maintained by suitably qualified personnel. Such personnel should have previous experience with lighting equipment as well as general electrical experience.

This manual is intended to provide general guidance to such suitably qualified personnel. For specific guidance and technical support, contact Selecon or its authorised representative.

Information in this manual shall not be deemed a warranty, representation or guarantee concerning a luminaires' suitability or fitness for a specific purpose.

Subject to the right to use its luminaires, Selecon does not convey any right, title or interest in its intellectual property, including, without limitation, its patents, copyrights and know-how.

**The Selecon 80V Power System is a new concept in tungsten halogen luminaires. Please read this information carefully to ensure that you are fully conversant with its operation.**

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## Safety Warnings



\_ 1.0m ≡

↕ = 90°

CAUTION: Hot Surfaces, Avoid contact by persons or materials.

The Pacific has some hot surfaces. Be careful to avoid burns. Take care with the Lamp house and Heat sink. We suggest the use of leather gloves when focusing these luminaires.

SAFETY - Mains Power Isolation

The Pacific and Rama ranges are fitted with a micro-switch that automatically disconnects the mains power when the lamp is removed.

However, it is also recommended that the luminaire should always be electrically isolated from mains power before re-lamping, cleaning or servicing.

CAUTION: Risk of fire - Use with max 1200 watt 80V lamp

CAUTION: These luminaires are not suitable for mounting on a normally flammable surface

These luminaires are not suitable for outdoor use. They are rated at IP00

The luminaire should be at least 1.0 metres away from the nearest object it is lighting.

Not for residential use.

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## Introduction

The 80V DMX power supply is an innovation designed for use in our Pacific and Rama range of luminaires. It exploits the advantages of a lower voltage supply to increase efficiency with the additional benefit of a higher colour temperature, which increases the perceived brightness.

The 80V DMX power supply developed by Selecon is a switch mode power supply designed to deliver a maximum of 80V at the lamp. A mains supply input in the range of 220 – 240V is required. Do not connect the 80V DMX Power Supply to a dimmer. The response delay is as found with 2000w mains voltage luminaires.

The 1200W 80V lamp is a high performance lamp intended for 'non continuous' use i.e. as for a studio lamp / theatre lamp, a few hours of use at a time, regularly. It is not intended as a display type luminaire.

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## Important Operational Note

**CHECK THE MAINS VOLTAGE SUPPLY** before setting up the 80V power supply for your installation. The 80V DMX Supply exploits the advantages of LOW VOLTAGE lamp filament technology; it is **essential** that the mains supply is free from interference, and is in the designed operating range. Voltage losses affect all installations, it is not sufficient to rely on the 'quoted' voltage for the local territory.

**Do not connect the 80V DMX Power Supply to a dimmer.**

## Hook Clamp Mounting

The 80V DMX power supply has the option of a hook clamp mounting (order code 20HC). We recommend mounting the power supply separate from the luminaire as detailed below. Situations where the hook clamp option **MUST** be used are as follows:

- Installations with an ambient air temperature above 25°C and / or
- Installations where the luminaire will be run at full power for any extended length of time as per this manual.

The hook clamp is installed through the top of the power supply. 2 x M12 bolts, 2 x M12 spring washers, 4 x M12 washers, 2 x M\* washers and 2 x M8 bolts are supplied with the power supply.

When the 80V power supply is used with the hook clamp mounting, the safety chain supplied must be used. Bolt the mounting plate to the bottom of the power supply using the second M12 bolt, 2 x M12 washer, and M12 spring washer. Fix the other end around a secure independent fixed anchor point.



## Site Conditions

The 80V DMX Power System is designed for high performance applications such as entertainment and studio lighting. Angles of use of the luminaire are unrestricted i.e. - straight down is OK, however prolonged operation in the horizontal position is not recommended. The power supply and fixture yoke should always be pointing vertical.

## Using with a Pacific luminaire

After extended use some surface discolouration may be observed on the internal plastic surfaces of the Fortron gate material. This is non structural and can be likened to the degradation paint undergoes within a lamp house.

## Control Panel

It is possible to configure the power supply for different types of operation. The power supply has the following user adjustable features:

1. DMX Address for remote operation
2. Local control for stand alone operation
3. Display on/low/off
4. DMX termination switch on/off

## DMX Operation

The power supply accepts any DMX signal that adheres to DMX-512 USITT (1990). It is assumed that the user is familiar with this protocol. Information on the standard can be obtained from USITT ([www.usitt.org](http://www.usitt.org)).



## Important Operational Note

**The Power supply must have a luminaire with a working 80V 1200w Lamp connected before it will energise.**

### DMX Address Setting

The DMX address setting is adjusted on the control panel. To change the DMX address setting, press and hold the [ENTER] button until the LED display goes blank. Three digits will flash on the LED display showing the current DMX address setting. Press the [+] or [-] buttons to change the DMX address. To save the setting, press and hold the [ENTER] button for 2 seconds. **Please note that the local level must be set to {00} to enable DMX control.**

### Local Level Control

It is possible to control the power supply in stand alone mode if there is no remote control. The user can set a default level for the power supply. The power supply will move to this level on start up. To adjust the local level, press and hold the [ENTER] button until the LED display goes blank. Three digits will flash on the LED Display showing the current DMX Address Setting. Press the [ENTER] button. Two digits will flash on the LED display showing the current local level setting. Press the [+] or [-] buttons to change the local level setting. To save the setting, press and hold the [ENTER] button for two seconds. **Please note that the local level must be set to {00} to enable DMX control.**

### Display Setting

It is possible to adjust the brightness of the LED display. The display can be set to on, low, and off. To adjust the LED display, press and hold the [ENTER] button until the LED display goes blank. Three digits will flash on the LED Display showing the current DMX Address Setting. Press the [ENTER] button. Two digits will flash on the LED display showing the current local level setting. Press the [ENTER] button. Press the [+] or [-] buttons to toggle between {On}, {Lo}, and {OFF}. To save the setting, press and hold the [ENTER] button for two seconds.

### DMX STATUS (Green LED)

If the DMX Status LED is on, then the power supply is receiving a DMX signal, and is under DMX control (local level is set to {00}). If the DMX Status LED is off, then the power supply is not receiving a DMX signal OR is under local control.

### Termination Switch

This switch provides an onboard method of terminating the DMX line. In accordance with DMX standard practices, if the unit is at the end of a DMX chain, it should be terminated with a 120-ohm resistance to prevent line reflections, which could cause data errors. By turning this switch on, a 120-ohm load is added to the DMX line to terminate it. Only use this at the end of a DMX chain.

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### **Lamp Replacement & adjustment:**

**Isolate electrically before re-lamping the luminaire. Also be aware that the lamp or luminaire may still be hot, so exercise necessary caution to avoid burns.**

### Powercon Connector

The 80V lamp module (Pacific version) and the Rama 80V luminaire come supplied with a Powercon connector. This connector is plugged into the Powercon socket that is fitted on the 80V power supply.

The Powercon Connector codes are as follows:

1431 Connector and plug-and socket-devices Neutrik AG, Im alten Riet 34, FL-9494 SCHAAN 20  
Connector type: NAC3FCA

Female part, NAC3FCA, NAC3FCB Female part, NAC3FCB Female part, NAC3MM Male part, NAC3MPA, NAC3MPA-WOT Male part, NAC3MPB, NAC3MPB-WOT

The 80V Cable Conductor colour codes are as follows:

<b>Black</b> Pin Number: 4-Circuit:	<b>Phase /microswitch</b>
<b>Brown</b> Pin Number: 4+4+ Circuit:	<b>Phase to lamp</b>
<b>Green/Yellow</b> Pin Number:	<b>3-Circuit: Earth</b>
<b>Grey</b> Pin Number: 2-Circuit:	<b>Phase / microswitch</b>
<b>Blue</b> Pin number: 2+2+Circuit:	<b>Neutral to lamp</b>

The mains input Cable Conductor colour codes are as follows:

<b>Brown</b>	- <b>Phase, Live</b>
<b>Blue</b>	- <b>Neutral</b>
<b>Green/Yellow</b>	- <b>Earth</b>

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## **Lamps**

The Selecon 2000 Power System is designed for use with either –

Philips - 6980Z	Osram 110 80V 93723
GE - OC1200	

**Important Note:** *The quoted performance figures are achieved with Philips lamps. Other manufacturers lamps can be used, but no assumptions should be made as to relative performance.*

*Please refer to the instructions of the lamp manufacturer when disposing of failed lamps.*

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## **Safe Practice**

### **Heat**

Selecon luminaires incorporate an innovative design to effectively remove the heat out of the luminaire, away from the critical heat-sensitive components such as the lamp base and wiring. The components that form part of the heat removal system, will operate at temperatures which can burn you!!! Take care in handling the luminaire. We recommend the use of gloves when focusing.

### **Mains Isolation**

The Pacific and Rama ranges are fitted with a micro-switch that automatically disconnects the mains power when the lamp is removed. However, it is also recommended that the luminaire should always be electrically isolated from mains power before re-lamping, cleaning or servicing.

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## **Maintenance**

**There are no user serviceable parts inside the 80V DMX Power Supply.**

**Replacing the lamp and cleaning the exterior of the 80V DMX Power Supply are the only maintenance tasks that can be safely carried out by non-approved personnel. Refer below - Safety note.**

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## **Safety**

Selecon have manufactured this luminaire in accordance with recognised best practices to recommended international safety standards. It is your responsibility to maintain this luminaire in good & safe working condition.

Repairs should only be carried out by suitably qualified persons. Do not operate the luminaire with cracked lens, damaged cable, etc. Consult your Selecon distributor for assistance. Only replace damaged parts with authorised Selecon spares.

**N.B.** Luminaire Cable - Your Selecon luminaire is fitted with special heat resistant flexible cable, replace with genuine Selecon spare part cable kit only - refer to your Selecon distributor. (Replacement cables are supplied complete with necessary terminal connectors).

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## **Limited Warranty**

**Selecon New Zealand Ltd. (“Selecon”) warrants its luminaires against defects in materials or workmanship. The term of this warranty is based on the product usage and is from the date of delivery.**

### **Usage – Entertainment, Theatre      Term - Three Years**

Entertainment, Theatre relates to the typical conditions found in a theatre performance venue viz:

4 – 6 hrs per day, six days per week.

This warranty is void in any of the following circumstances: (a) The luminaire has been misused, neglected, damaged or abused. (b) The luminaire has been improperly installed, operated, repaired or maintained. (c) The luminaire has been modified. (d) The luminaire has been connected to other equipment with which it is not compatible. (e) The luminaire has been used or stored in conditions outside its electrical or environmental specifications. (f) The luminaire has been used for purposes other than for which it was designed. (g) The luminaire has been used outside its stated specifications and operating parameters.

Correct installation of the luminaire is the owner's responsibility.

To assert a warranty claim, complete Selecon's return authorisation form (available from Selecon). Return the luminaire to Selecon or its authorised agent.

If Selecon accepts the warranty claim, Selecon will provide, or arrange for, service, repair or replacement as Selecon shall determine in its sole discretion. Selecon shall bear the cost of such service, repair or replacement. However, the owner shall bear the cost of freight and insurance on the luminaire, both ways. If Selecon does not wish to service, repair or replace the defective luminaire, it shall refund the purchase price.

Selecon's sole responsibility is to repair, replace or service a luminaire subject to a valid warranty claim. Under no circumstance will Selecon be liable for direct, indirect, incidental, special or consequential costs or damages, including dismantling and re-installation costs, loss of operations or profits, to the maximum extent permitted by law.

Selecon accepts no liability for personal injury or property damage resulting from failure to heed relevant operating and safety procedures specified by Selecon or imposed by law.

This is an express warranty. Selecon disclaims any other express or implied warranties, including warranties of merchantability or fitness for purpose, to the maximum extent permitted by law.

Some jurisdictions do not allow limitations or disclaimers of implied or statutory warranties. Some jurisdictions do not allow disclaimers or exclusions of consequential or incidental damages. Therefore, the above disclaimers, limitations and exclusions may not apply in all jurisdictions in which Selecon sells its luminaires.

This warranty gives the owner specific legal rights. The owner may have other rights or remedies pursuant to the laws in its territory. Nothing in this limited warranty should be construed as limiting or restricting any other statutory right or remedy of the owner, except for such limitations or restrictions herein as may be allowed by the law of the territory.

Selecon has a policy of continual product improvement and specifications are subject to change without notice.

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### Contacting Selecon

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Please contact Selecon, or check our web site to find the Selecon distributor nearest to you.