



Operator Manual

OSD2184P / PW

Micro 10/100/1000Base-T to 100/1000Base-X
3-Port Switch with IEEE802.3af/at/bt
& PoH PoE Source

INDEX 1

1	TECHNICAL SUMMARY	5
1.1	BRIEF DESCRIPTION	5
1.1.1	OVERVIEW	5
1.1.2	FEATURES AND BENEFITS	5
1.2	TYPICAL SYSTEM DESIGN	6
1.3	TECHNICAL SPECIFICATIONS	7
1.4	FRONT / REAR PANEL LAYOUT	10
2	INSTALLATION AND OPERATION	11
2.1	INTRODUCTION	11
2.2	INSTALLATION	11
2.2.1	WARNING AND PRECAUTIONS	11
2.2.2	DRAWINGS AND DIMENSIONS	12
2.2.3	LOCATION	13
2.2.4	POWER SUPPLY CONNECTIONS	13
2.2.5	LED INDICATORS	14
2.2.6	CONTROLS	15
2.2.7	FITTING SFP CONNECTORS	17
2.3	SINGLE/DUAL SIGNATURE PD OPERATION	18
2.3.1	SINGLE SIGNATURE PD	18
2.3.2	DUAL SIGNATURE PD	18
2.3.3	FIXED RJ45 COPPER PIN ASSIGNMENTS	19
2.4	OPERATION	20
2.4.1	CONNECTIONS	20
2.5	COMMAND LINE INTERFACE (CLI)	21
2.5.1	TERMINAL EMULATION SETUP	21
2.5.2	COMMAND LINE FUNCTIONS	22
2.6	WEB GUI	25
2.6.1	LOGGING ON TO THE SWITCH	26
2.6.2	GUI MENU	26
3	MAINTENANCE	34
3.1	INTRODUCTION	34
3.2	EXTERNAL INSPECTION	34
3.3	ROUTINE MAINTENANCE	34
4	WARRANTY	35
4.1	WARRANTY PERIOD	35
4.2	REPAIRS	35
4.2.1	WARRANTY REPAIRS	35
4.2.2	OUT-OF-WARRANTY REPAIRS	35
4.2.3	SITE REPAIRS	35
4.2.4	EXCLUSIONS	35
	FIGURE 1: TYPICAL SYSTEM DESIGN	6
	FIGURE 2: PANEL LAYOUT	10
	FIGURE 3: MOUNTING DIMENSIONS	12
	FIGURE 4: POWER SUPPLY CONNECTIONS	13
	FIGURE 5: PORT/LED	14
	FIGURE 6: CONTROLS	15
	FIGURE 7: 3-WAY DIP SWITCH	15
	FIGURE 8: FITTING/REMOVING SFP CONNECTORS	17
	FIGURE 9: SINGLE SIGNATURE PD	18
	FIGURE 10: DUAL SIGNATURE PD	18
	FIGURE 11: FIXED RJ45 ETHERNET CONNECTORS	19
	FIGURE 12: CLI PORT SETTINGS	21
	FIGURE 13: CLI “?” COMMAND	22
	FIGURE 14: CLI – VERSION CHECK	23
	FIGURE 15: CLI – POE DUMP	23
	FIGURE 16: CLI – IP CONFIGURATION	24
	FIGURE 17: CLI – DEFAULT SETTING	24

TABLE 1: TECHNICAL SPECIFICATIONS	7
TABLE 2: POWER CONNECTION.....	13
TABLE 3: LED FUNCTION.....	14
TABLE 4: 3-WAY DIP SWITCH SETTINGS.....	15
TABLE 5: POE MODE.....	16
TABLE 6: CLI COMMAND LIST	22

1 TECHNICAL SUMMARY

1.1 BRIEF DESCRIPTION

1.1.1 OVERVIEW

The OSD2184P is a 3-port industrial Ethernet switch offering Power over Ethernet meeting the latest IEEE802.3bt PoE specification with continued support for devices requiring IEEE802.3af/at and HDBase-T (PoH) PoE. Each of the two RJ45 ports is capable of providing 90W with a total power budget of 170W. This allows the latest PoE devices such as IP cameras, Wireless Access Points, microwave links and VOIP phones to be easily connected to your network. With a compact design the OSD2184P can easily be mounted inside a network enclosure or a Smart Pole using the DIN rail or wall mounting brackets provided. Additionally, the OSD2184PW version can be powered from a 12VDC to 57VDC supply. A rugged IP30 casing, fan-less design and wide operating temperature range from -40 to +75°C make this product ideally suited for use in a wide range of harsh industrial environments.

1.1.2 FEATURES AND BENEFITS

- ▲ Complies with IEEE802.3i/802.3u/ 802.3ab 10/100/1000Base-T, IEEE802.3u 100Base-Fx, IEEE802.3z 1000Base-Lx/Sx standards
- ▲ Has two fixed 10/100/1000Base-T copper ports and one 100Mbps/1000Mbps SFP port
- ▲ Auto MDI/MDIX on copper port (supports both straight through and crossover cables)
- ▲ Can be used with either singlemode or multimode fiber over a variety of link budgets
- ▲ Complies with IEEE802.3af/at/bt and HDBaseT (PoH) standards
- ▲ Provides up to 90W to each RJ45 port, up to 170W in total
- ▲ User selectable PoE mode setup via Push Button
- ▲ Integrates with third party NMS system via industry standard SNMP v1, v2c, v3
- ▲ Port based MAC address security to allow communication with approved products only
- ▲ Web browser based Graphical User Interface (GUI)
- ▲ Available for operation over 1 or 2 fibers
- ▲ Powered by non-critical 46 to 57V_{DC} supplies for OSD2184P or 12 to 57V_{DC} for OSD2184PW (voltage booster version)
- ▲ Operates over the temperature range of -40°C to +75°C
- ▲ Remote PoE on/off control and status monitoring
- ▲ Supports 10KB jumbo frames
- ▲ SFP module sold separately
- ▲ DIN rail or wall mounting

1.2 TYPICAL SYSTEM DESIGN

Figure 1 below indicates a possible set-up for an OSD2184P/PW system.

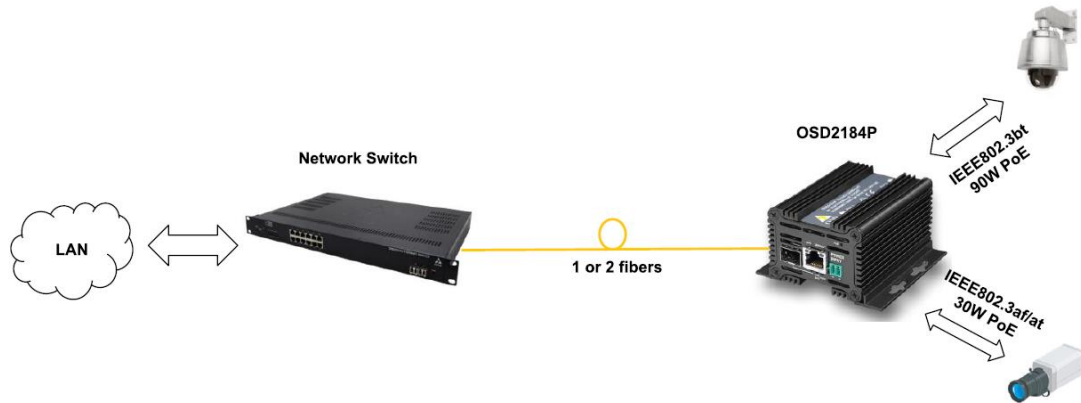


FIGURE 1: TYPICAL SYSTEM DESIGN

1.3 TECHNICAL SPECIFICATIONS

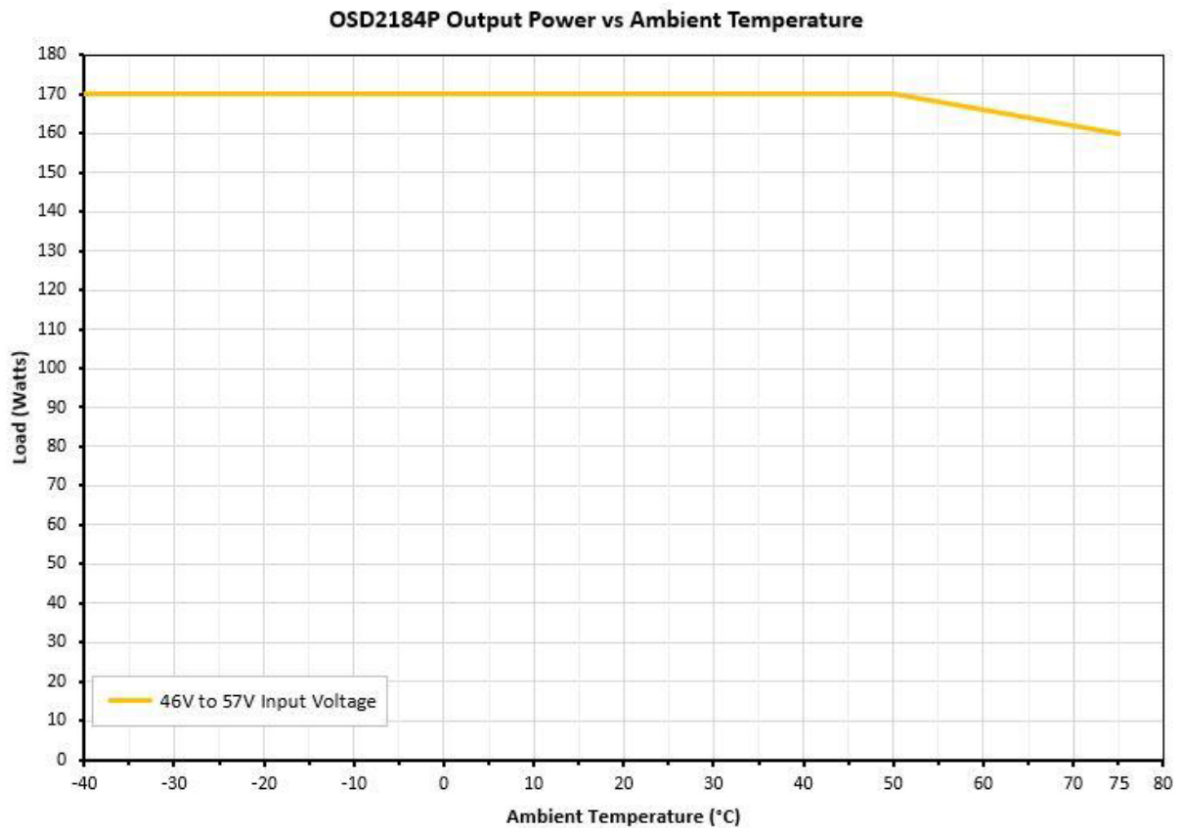
TABLE 1: TECHNICAL SPECIFICATIONS

Hardware	
Ethernet	2 x 10/100/1000Base-T RJ45, IEEE802.3i/802.3u/802.3ab
Jumbo Frame Support	10KB
SFP	1 x Gigabit SFP ports (100Mbps or 1000Mbps user selectable)
Optical Data Interface	IEEE802.3z 1000Base-Lx/Sx, IEEE802.3u 100Base-Fx
Four PoE modes (user configurable via push button or GUI)	IEEE802.3af/at, IEEE802.3bt, HDBase-T (PoH) Additional PoE modes available via Web-GUI (see below table)
Enclosure Protection Class	IP30
Installation	DIN rail, wall mount or desktop
DIP Switch	3 way DIP switch for configuration
Power Requirements OSD2184P	Input Voltage: +46V _{DC} to +57V _{DC} @ 8W +PoE output power for PD devices Output PoE Voltage: Vin - Vdrop
Power Requirements OSD2184PW	Input Voltage: +12V _{DC} to +57V _{DC} @ 15W +PoE output power for PD devices Output PoE Voltage: 56 to 57V - Vdrop
Output PoE Vdrop per port	PoE voltage drop per port <0.5V @ 30W, <1V @ 60W, <1.5V @ 90W
Power Connector	2 way 3.5mm terminal block
Indicators	2 x Copper Link/Activity on RJ45 2 x Copper Speed on RJ45 2 x PoE Power On/Off 4 x PoE Mode 1 x Power On/Off 1 x SFP Link/Speed on SFP
Environmental	-40 to +75°C
Relative Humidity	0 to 95% non-condensing
Dimensions	90W x 88D x 49H mm
Weight	400g
Management	
Interfaces	Command Line Interface (CLI mini USB) Web browser based Graphical User Interface (GUI) SNMP v1, v2c, v3
Port Configuration	Auto negotiation
Port Status	Speed, duplex mode, link status, auto negotiation status
Port Security	Individual port partner MAC address allocation (manual entry)
Warranty	
Warranty Period	5 Years
MTBF (Ground Benign Environment, 30°C)	455,000 hours for OSD2184P 402,000 hours for OSD2184PW

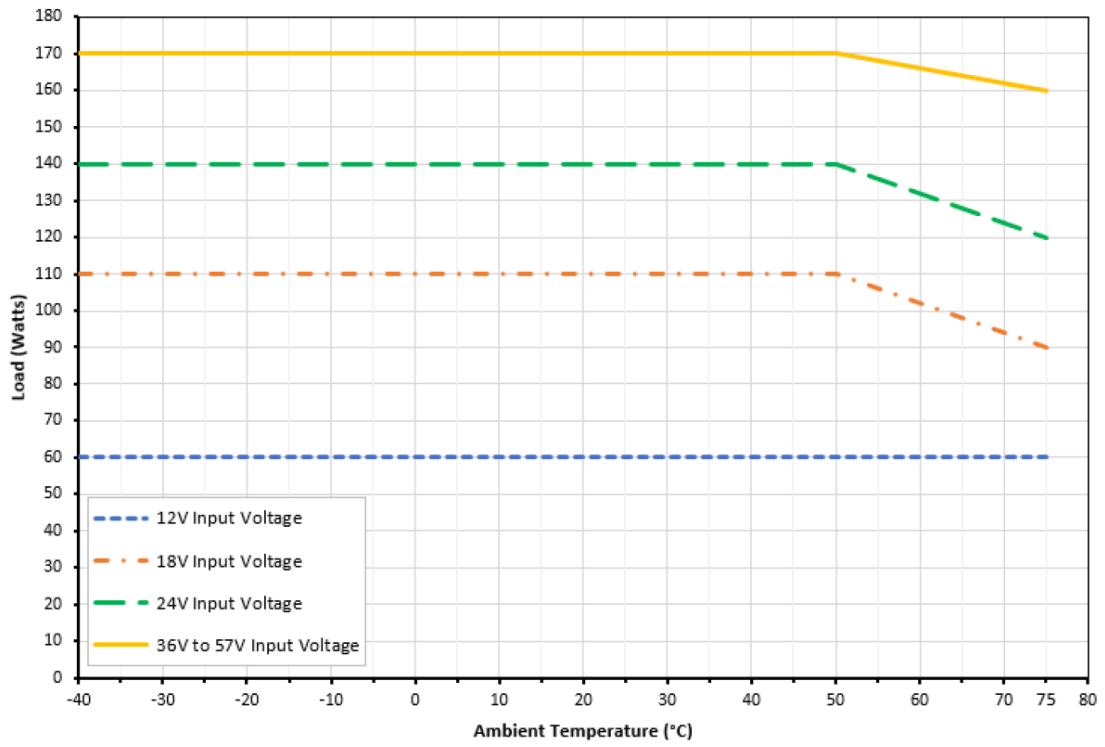
PoE			
Operating Mode	Legacy Detection Options	Pair Number Options	Maximum Power Options
BT	Enable, Disable	2	15W, 30W
		4	15W, 30W, 60W, 90W
PoH	Disable	2	45W
		4	90W
Pre-BT	Enable, Disable	2	30W
		4	60W
Mode 4P CDP	Enable	2	30W
		4	60W
BT Special	Enable	2	45W
BT Class0=Class4	Enable	2	30W
		4	60W, 90W
2P 3 Finger	Enable	2	30W
4P 4 Finger	Enable	4	60W
BT with PoH	Enable	2	45W
		4	90W
BT PoH Like on all Class	Enable	2	45W
		4	90W
BT Special Class 4	Enable	2	30W
		4	60W

*PoE Configurable parameters via Web-GUI

PoE Output Power Budget (Total Power of Two Copper Ports) with temperature derating



OSD2184PW Output Power vs Ambient Temperature at a range of Input Voltages



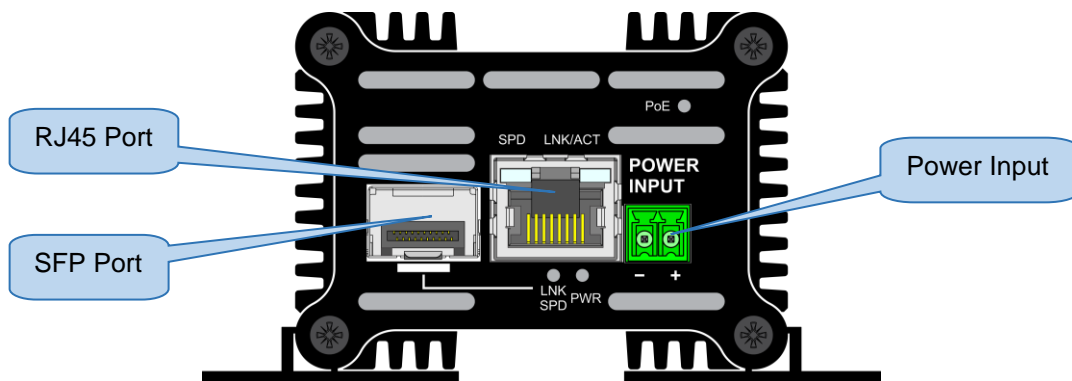
1.4 FRONT / REAR PANEL LAYOUT

Front Panel: The front panel consists of one fixed copper port for 10/100/1000Base-T, one SFP port and a 2-way terminal block power connector

Rear Panel: one fixed copper port for 10/100/1000Base-T, a 3-way DIP switch and a USB port.

The SFP device is sold separately giving the user choice to use either one or two fiber communications with various optical power outputs depending on the distance required. Each section will be described further throughout this manual.

Front Panel



Rear Panel

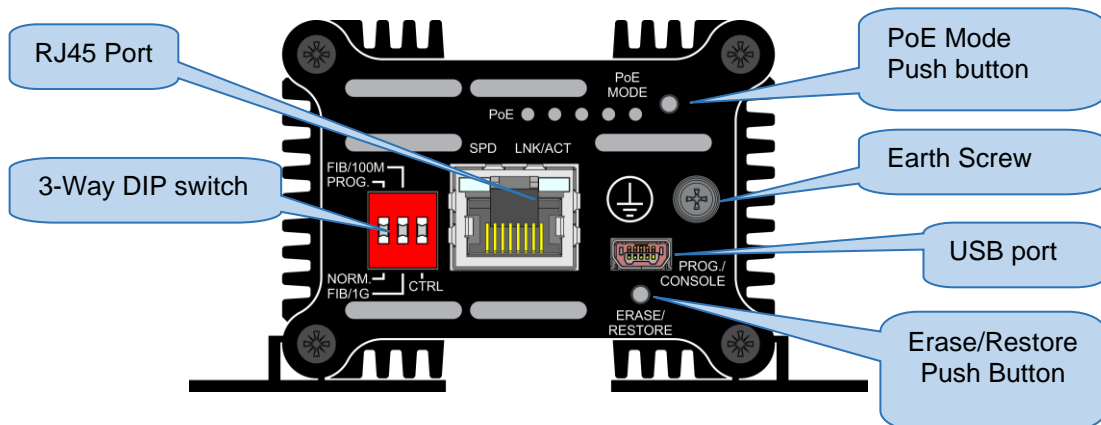


FIGURE 2: PANEL LAYOUT

2 INSTALLATION AND OPERATION

2.1 INTRODUCTION

This section outlines the methods required to install and operate the OSD2184P/PW successfully. It should be studied carefully if damage to the equipment or poor results are to be avoided.

This equipment has been fully tested prior to dispatch and is ready for immediate operation. However, it is advisable to check for external transportation damage before operation. If damage is evident, return the unit with the packaging to your supplier immediately.

2.2 INSTALLATION

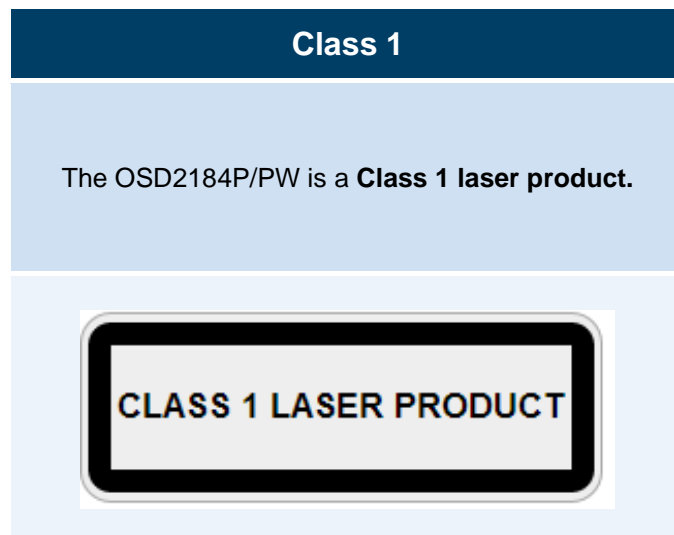
2.2.1 WARNING AND PRECAUTIONS

▲ ELECTROMAGNETIC COMPATIBILITY

WARNING: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

▲ OPTICAL OUTPUT OPERATION

WARNING: Laser Safety: Class 1 Laser Product per IEC/EN 60825-1:2014 standard.



PRECAUTIONS

- ▲ All service personnel should be provided training as to the hazards of direct viewing of laser radiation and of the precautionary measures during servicing of equipment
- ▲ Areas where laser products are installed should be restricted in access to trained service personnel only and appropriate warning signs posted in the work area.
- ▲ All laser apertures should be covered by protective covers when not connected to optical fibers. Never leave outputs uncovered.
- ▲ Laser equipment should be positioned above or below eye level where possible. Apertures should be positioned away from personnel.
- ▲ Protective eyewear should be worn in the vicinity of laser equipment.

2.2.2 DRAWINGS AND DIMENSIONS

The OSD2184P/PW is designed to be wall mounted onto a DIN-Rail (35mm top hat) fixture or by using 4 x M4 captivated screws (DIN Rail mount requires removal and flanges repositioned – see below). The unit dimensions (excluding connectors, SFPs, etc) is shown in below.

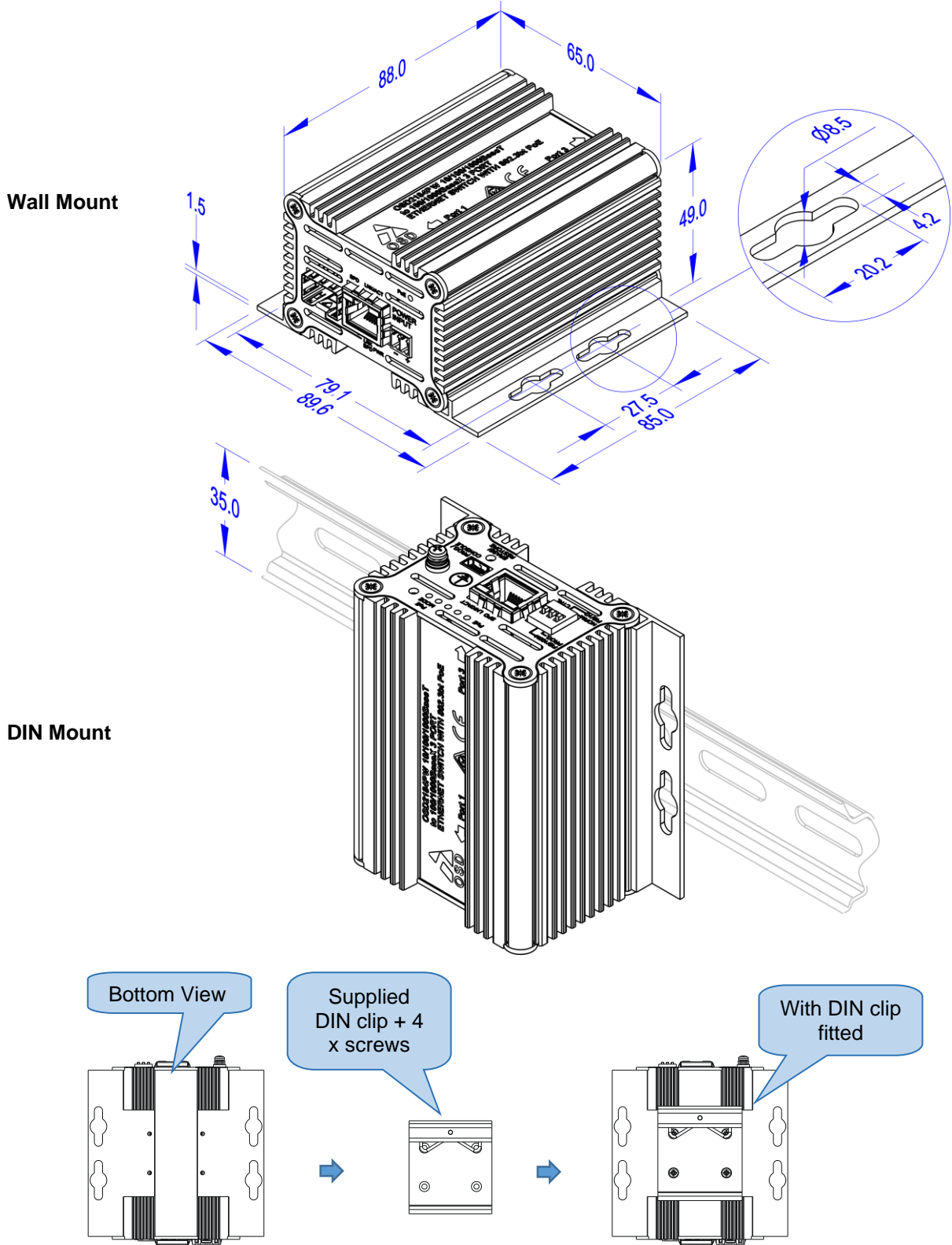


FIGURE 3: MOUNTING DIMENSIONS

2.2.3 LOCATION

As with any electrical device, the OSD2184P/PW should be placed where the switch will not be subjected to extreme temperatures, humidity, or electromagnetic interference. Specifically, the site selected should meet the following requirements:

- The ambient temperature should be between -40°C to 75°C.
- The relative humidity should be less than 95 percent, non-condensing.
- Surrounding electrical devices should not exceed the electromagnetic field (RFC) standards.
- Make sure that the switch receives adequate ventilation. Do not block the ventilation holes on any side of the switch.

Note: Without proper cooling and control (lowering) of ambient temperature, the components within the OSD2184P/PW can be subject to increased heat shortening the longevity and reliability. It is thus good engineering practice to ensure the unit is installed in a well-ventilated area.

2.2.4 POWER SUPPLY CONNECTIONS

IMPORTANT! There are two options available for the OSD2184P: The OSD2184P and OSD2184PW. The Table below (Table 2) indicates the power requirements for each. They both require external DC power which is connected via the 2-way terminal block located on the front panel as shown in Figure 4.



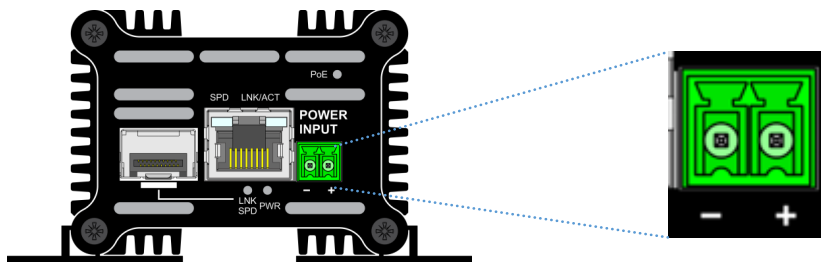
	<p>CAUTION It is highly recommended to wait about 30 seconds before reconnecting the PD after the PD has been disconnected from the unit. This will prevent a high inrush current being applied to the unit. Although the OSD2184P/PW has a high inrush current tolerance (400mA for 50 to 75ms as per the IEEE802.3at standard), inrush currents higher than 1.5A may damage the device.</p>
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TABLE 2: POWER CONNECTION

OSD Version	External Power Pin	Specification
OSD2184P	+	+46V _{DC} to +57V _{DC} @ 8W
OSD2184PW	+	+12V _{DC} to +57V _{DC} @ 15W
	-	0V
		Chassis Ground connection point

*≥52V_{DC} recommended for PoE+ or ≥ 55V_{DC} for 60W PoE



Front Panel

FIGURE 4: POWER SUPPLY CONNECTIONS

2.2.5 LED INDICATORS

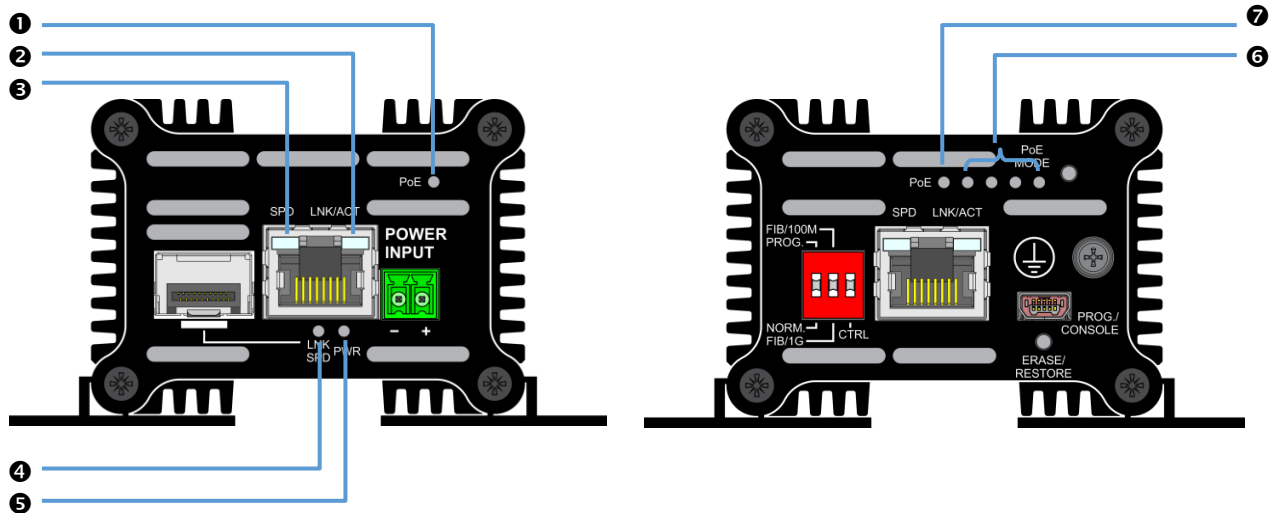


FIGURE 5: PORT/LED

TABLE 3: LED FUNCTION

No	FUNCTION					
	Indicator	LED Colour	On		Off	Blinking
①	PoE	Green ⁽¹⁾	PoE Enable		No PoE	Invalid Device ⁽²⁾
②	LNK/ACT	Amber	Copper Link Activity		No Copper Link	Activity ⁽³⁾
③	SPD	Green	Copper Speed	1Gbps	10/100Mbps	-
④	LNK SPD	Amber	Fiber Speed	100Mbps	No Optical Link	-
		Green		1Gbps		
⑤	PWR	Green	Power On		Power Off	-
⑥	PoE Mode	Green	See Table 5		See Table 5	-
⑦	PoE	Green ⁽¹⁾	PoE Enable		No PoE	Invalid Device ⁽²⁾

Notes: (1) When PoE LED is on it indicates that the unit is supplying power to the PSE

(2) Invalid device – No PoE output

(3) Activity indicates traffic for copper port

2.2.6 CONTROLS

The OSD2184P/PW has a number of control functions: a 3-Way DIP Switch and a PoE Mode push button and Erase/Restore push button

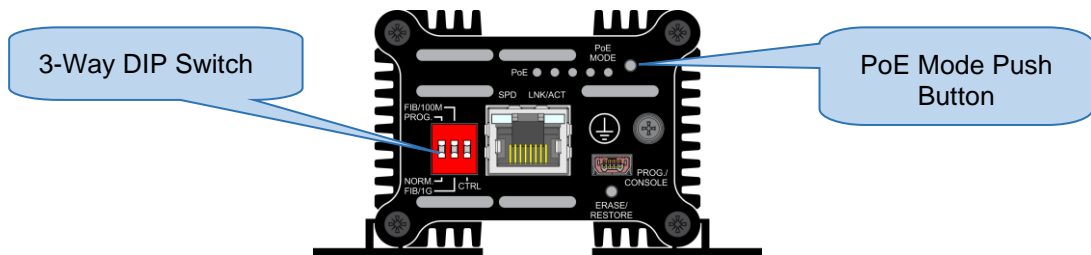


FIGURE 6: CONTROLS

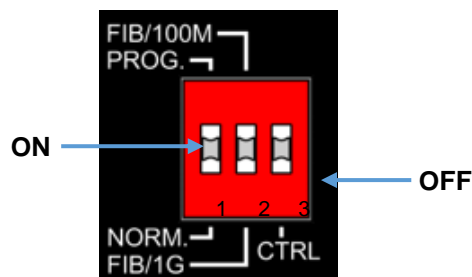


FIGURE 7: 3-WAY DIP SWITCH

TABLE 4: 3-WAY DIP SWITCH SETTINGS

SWITCH NUMBER	DESCRIPTION	SWITCH POSITION	FUNCTION
1	Function	OFF	User Mode*
		ON	Programming Mode
2	Optical Port Speed	OFF	1000BASE-X*
		ON	100BASE-X
3	CTRL	OFF	PoE Disabled
		ON	PoE Enabled*

* Default settings.

CTRL - PoE Enable/Disable Switch

In Disable mode, PoE is disabled to both ports regardless of the GUI settings

In Enable mode, PoE is enabled to both ports in default settings. If the user configured the PoE port settings via the GUI, the previous setting will be 'remembered' with either toggling of the switch and/or cycling the power to the unit.

ERASE/RESTORE Push Button





The ERASE/RESTORE push button erases most recent IP configuration settings and resets the unit to Factory Default Setting

- Ensure DIP switch 1 is in “Default” mode (OFF position) and the unit is off (not powered) when performing reset.
- Press and hold the Reset button for 10 seconds and power up the unit.
- Wait for unit to restart.
- The factory default setting is now restored. The IP address is set to 192.168.0.99.

PoE Mode Push Button

The PoE Mode push button is used to control the PoE settings. Pressing the push button will cycle through the different modes as set out in the table below.

TABLE 5: POE MODE

LED NUMBER	DESCRIPTION	MODE	FUNCTION
1		BT Mode	4 Pair power output, 90W Max, High Inrush Current Mode off
2		PoH Mode	4 Pair power output, 90W Max, High Inrush Current Mode off
3		BT Mode	2 Pair power output, 30W Max, High Inrush Current Mode off
4		Custom Mode	There are no customized settings - this mode will be skipped.

2.2.7 FITTING SFP CONNECTORS

Care should be taken when inserting/removing the SFP connectors from SFP port as SFP modules are Electrostatic (ES) sensitive and Electrostatic Discharge (ESD) precautions should be taken when installing. Ensure that the SFP is fully engaged and latched into position.

Inserting SFP – Ensure that the SFP lever is in the locked position and insert into appropriate SFP port. Gently push the SFP until it locks into place. Remove plastic/rubber dust cap and fit fiber cable or RJ45 plug.

Removing SFP – Remove fiber connector or RJ45 plug. Pull the SFP lever down to unlock SFP from housing. Using the lever, gently pull the SFP out.

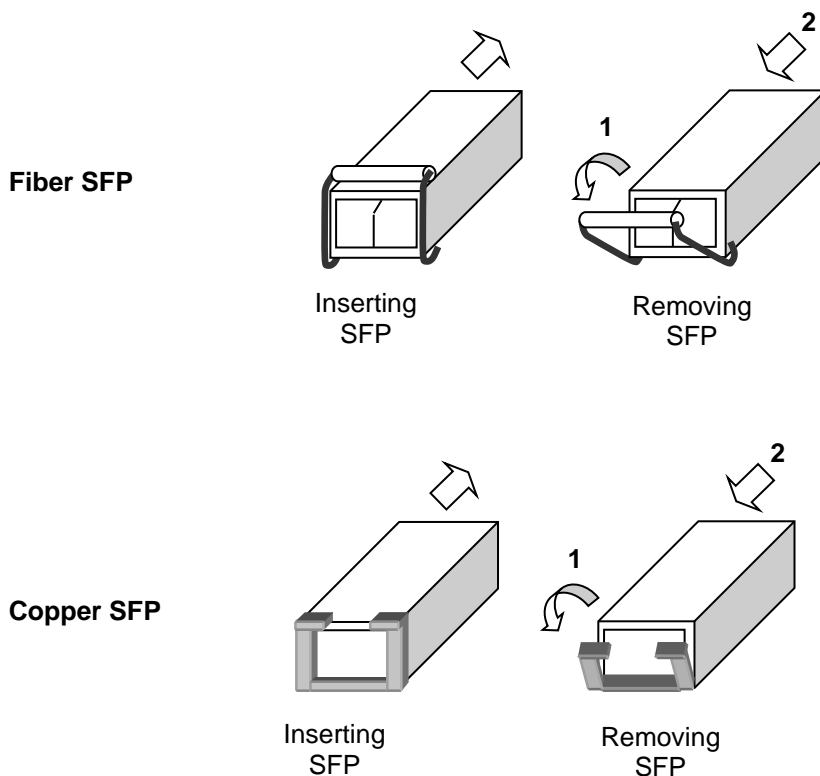


FIGURE 8: FITTING/REMOVING SFP CONNECTORS

2.3 SINGLE/DUAL SIGNATURE PD OPERATION

The OSD2184P/PW supports single, dual or either single/dual signature PD by automatically detecting the user PD signature.

2.3.1 SINGLE SIGNATURE PD

A “single signature PD” shares the same detection signature, classification signature, and maintains power signature between both pair sets.

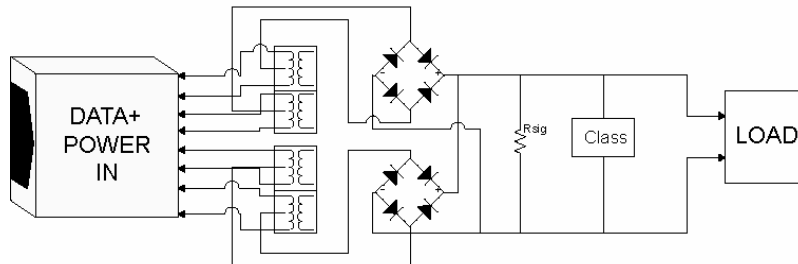


FIGURE 9: SINGLE SIGNATURE PD

2.3.2 DUAL SIGNATURE PD

A “dual signature PD” has independent detection signatures, classification signatures, and maintains power signatures on each pair set. It enables the load to work with two pair PSEs eg. A surveillance camera built with dual signature PD can have one pair connected to the camera and the other pair to a fan or heater. Note that dual signature PDs require two parallel PD interfaces, one for each pair set, where the power from the two PSEs are summed after each PD interface ie Camera (25W) + fan (10W) = 35W from one port.

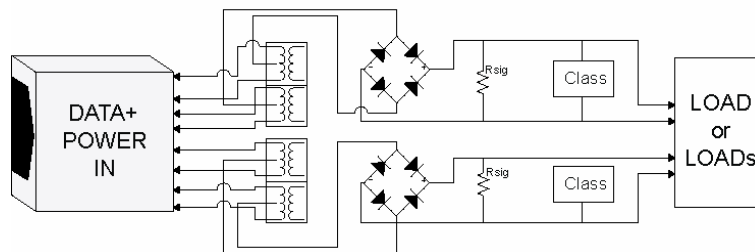


FIGURE 10: DUAL SIGNATURE PD

2.3.3 FIXED RJ45 COPPER PIN ASSIGNMENTS

The OSD2184P/PW complies with IEEE802.3af/at and IEEE802.3bt HDBaseT standards, and is capable of supplying up to 90W of PoE per RJ45 port. The OSD2184P supports Alternative A & B (pins 1/2, 3/6 & 4/5, 7/8). Four pair output mode transmits power over all 8 pins. Bidirectional data as well as power terminate on all 8 pins. Both or either ports can optionally support dual signature PD.

Figure 11 shows the pin configuration for the fixed RJ45 copper port.

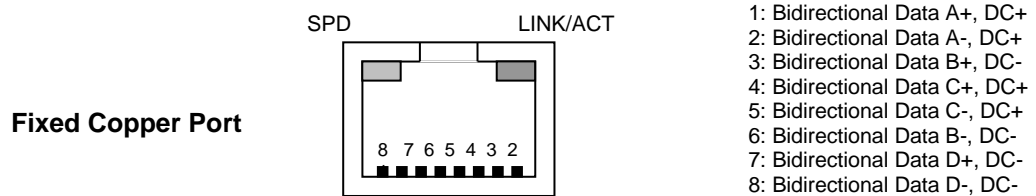


FIGURE 11: FIXED RJ45 ETHERNET CONNECTORS

2.4 OPERATION

When using the OSD2184P/PW for the first time, check that the unit is in good condition with no visible damage.

Upon power up check that the indicators illuminate accordingly on power up (see Table 3).

2.4.1 CONNECTIONS

For RJ45 connection use Category 5 (CAT5) or higher. Length should be no more than 100 meters.

For singlemode fiber connections, fiber used must be 9/125 μ m singlemode fiber.

For multimode fiber connections, fiber used must be 50/125 μ m or 62/125 μ m multimode fiber.

Plug in the appropriate connectors for system configuration;

- RJ45 cable to fixed copper ports (port 1 and 2) and copper SFP modules
- LC or SC fiber cable to fiber SFP modules.

2.5 COMMAND LINE INTERFACE (CLI)

The Command Line Interface (CLI) is a useful tool for checking link status and debugging link connections. To enable the use of CLI, the OSD2184P must be connected to a PC with a USB port via a Mini USB to (typically) USB Type A cable. Using a terminal emulation program such as hyperterminal or SSCOM, a number of command lines specific to the OSD2184P can be implemented.

2.5.1 TERMINAL EMULATION SETUP

Using a terminal emulation program such as hyperterminal, the following parameters should be set up for correct command line operation. Select the appropriate “COM port” set up for the serial port.

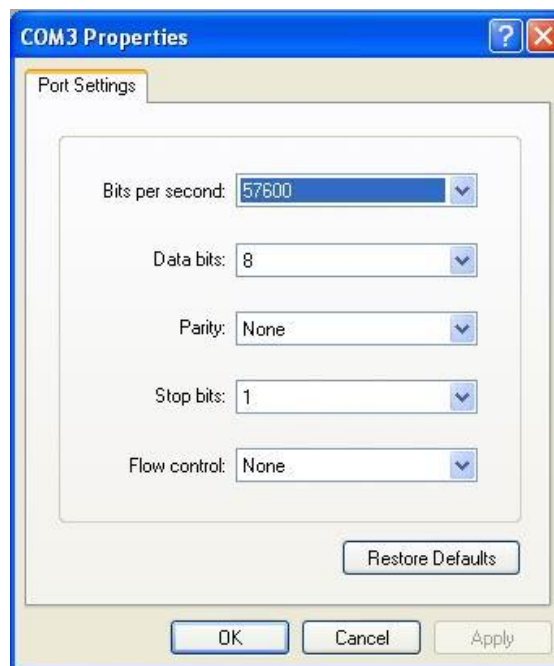


FIGURE 12: CLI PORT SETTINGS

2.5.2 COMMAND LINE FUNCTIONS

There are a number of command line functions that enables the user to obtain limited information or reset the unit to factory default configuration.

Once the terminal emulation has been set up typing the “?” command will bring up a list of available CLI commands.

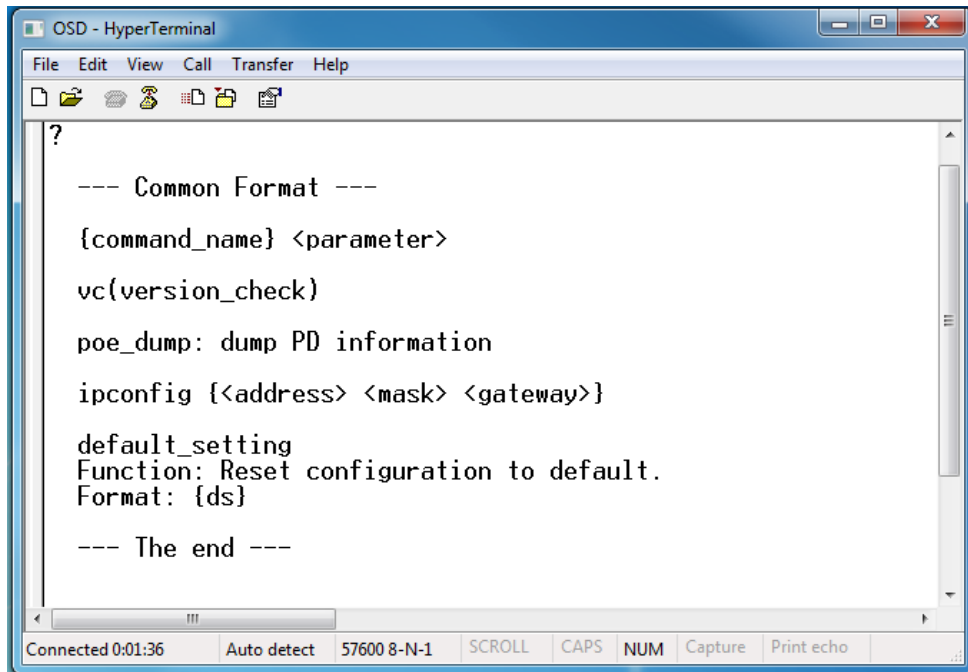


FIGURE 13: CLI “?” COMMAND

The following table outlines the user available command line commands and their functions.

TABLE 6: CLI COMMAND LIST

TERMINAL COMMAND LINE	SPECIFICATION	FUNCTION	FIGURE
?	help	Displays all user available CLI commands	Figure 13
vc	Version Check	Displays the current software version and revision installed on the unit	Figure 14
poe_dump	Dump PD Information	Displays the running PoE Information for each Port/Channel	Figure 15
ipconfig	IP Configuration	Displays current IP, Mask and Gateway. Provides ability to change the IP settings.	Figure 16
ds	Default Setting	Allows the user to reset the unit to factory default.	Figure 17

VERSION CHECK - <vc>

Note: Software version in below screen is for illustrative purpose.

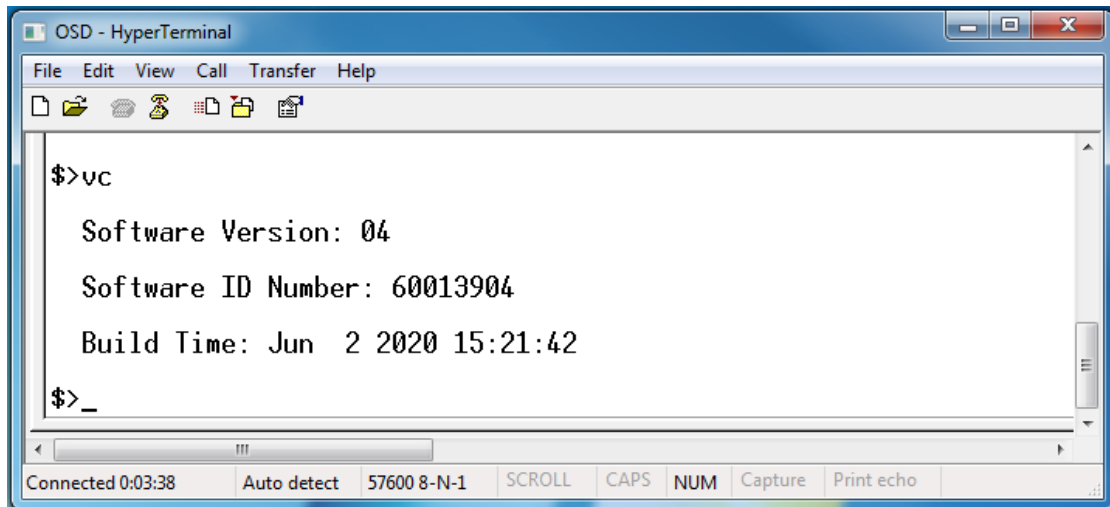


FIGURE 14: CLI – VERSION CHECK

Displays a number of quick reference information about the product.

- Software Version Number
- Software ID Number
- Build Time

PoE Dump - <poe_dump>

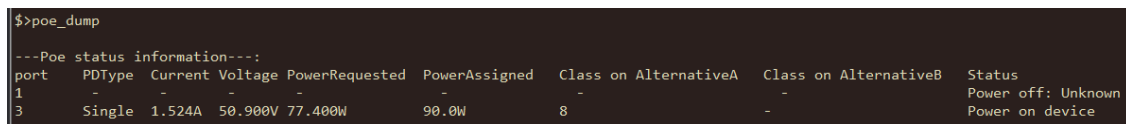
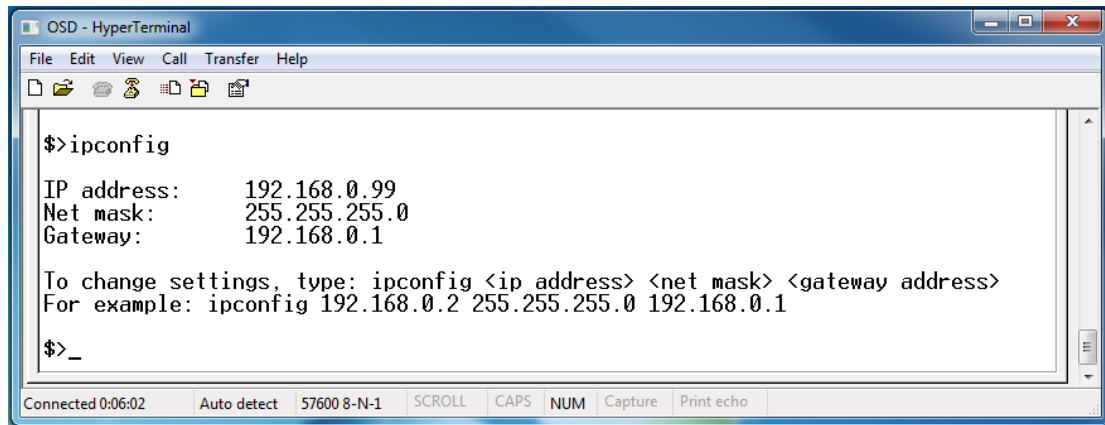


FIGURE 15: CLI – POE DUMP

Displays the current PoE output status of the following;

- Port
- PS Type
- Current
- Voltage
- Power Requested
- Power Assigned
- Class on AlternativeA
- Class on AlternativeB
- Status

IP CONFIGURATION - <ipconfig>



```

OSD - HyperTerminal
File Edit View Call Transfer Help
$>ipconfig

IP address:    192.168.0.99
Net mask:     255.255.255.0
Gateway:      192.168.0.1

To change settings, type: ipconfig <ip address> <net mask> <gateway address>
For example: ipconfig 192.168.0.2 255.255.255.0 192.168.0.1

$>_
Connected 0:06:02  Auto detect  57600 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo

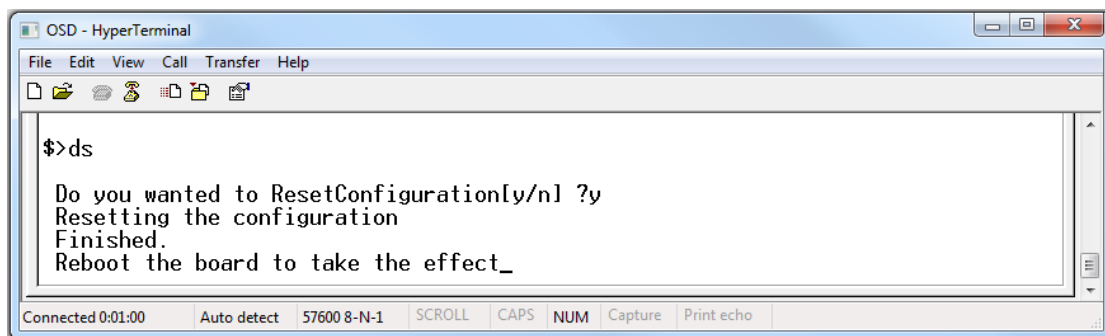
```

FIGURE 16: CLI – IP CONFIGURATION

Displays the current IP address, Net mask and Gateway settings.
To make changes to the IP address, Net mask and Gateway, at the prompt enter the new details in the following format;

ipconfig <ip address> <netmask> <gateway address>

DEFAULT SETTING - <ds>



```

OSD - HyperTerminal
File Edit View Call Transfer Help
$>ds

Do you want to ResetConfiguration[y/n] ?y
Resetting the configuration
Finished.
Reboot the board to take the effect_
Connected 0:01:00  Auto detect  57600 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo

```

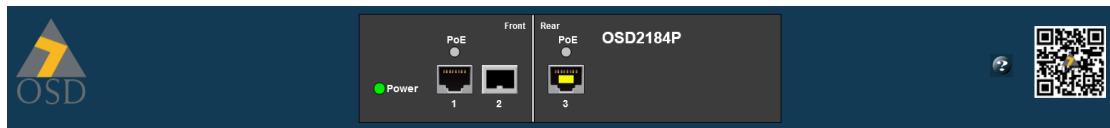
FIGURE 17: CLI – DEFAULT SETTING

Resets the unit to its default factory setting. A prompt question will appear “Do you want to Reset Configuration [y/n]?”

- n** – Exits the default configuration setting and returns to the home prompt.
- y** – Resets to default configuration sequence.

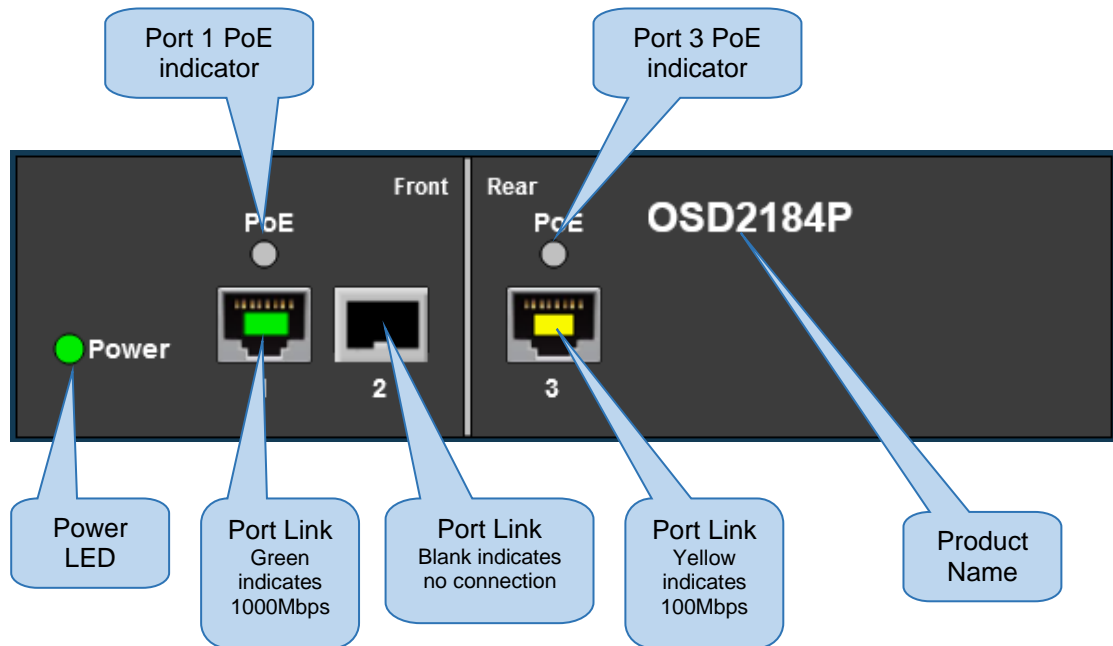
The unit will require a reboot (see Page 33) for changes to take effect.

2.6 WEB GUI



The OSD2184P/PW provides a web-based browser interface for configuring and monitoring the unit. This interface allows you to access the switch using any preferred web browser.

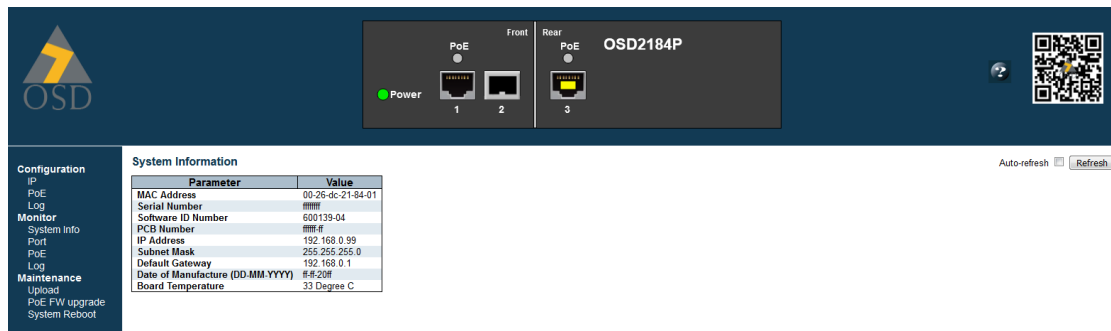
This chapter describes how to configure the switch using its web-based browser interface.



2.6.1 LOGGING ON TO THE SWITCH

SWITCH IP ADDRESS

In your web browser, specify the IP address of the switch. Default IP address is 192.168.0.99



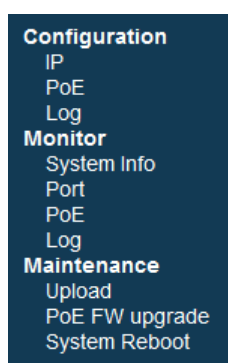
Upon connecting to the unit, the home screen will display some useful information. Green lighted ports, Power and PoE indicate connection to relevant port and active state of Power and PoE Port1 and Port3.

A table displaying system information is also displayed containing MAC address, Serial Number, Software, IP address, etc.

System Information

Parameter	Value
MAC Address	00-26-dc-21-84-01
Serial Number	#####
Software ID Number	600139-04
PCB Number	#####
IP Address	192.168.0.99
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
Date of Manufacture (DD-MM-YYYY)	ff-ff-20ff
Board Temperature	33 Degree C

2.6.2 GUI MENU



The user has access to Configure, Monitor or Maintain the OSD2184P/PW. Each section will be explained within this manual.

CONFIGURATION → IP

IP Configuration

	Configured	Current
IP Address	192.168.0.99	192.168.0.99
Subnet Mask	255.255.255.0	255.255.255.0
Default Gateway	192.168.0.1	192.168.0.1

IP ADDRESS

Configured: The IP address can be changed by modifying this window.

Current: Displays the current saved IP address

SUBNET MASK

Configured: The Subnet Mask can be changed by modifying this window.

Current: Displays the current saved Subnet Mask

DEFAULT GATEWAY

Configured: The Default Gateway can be changed by modifying this window.

Current: Displays the current saved Default Gateway

Buttons

: saves the new settings

: resets any changes made

CONFIGURATION → PoE

PoE Configuration

Port	Enable	Operating Mode	Legacy	Pair	Maximum Power	High Inrush Current Mode
1	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> BT <input type="radio"/> PoH <input type="radio"/> Pre-BT <input type="radio"/> Mode 4P CDP <input type="radio"/> BT Special <input type="radio"/> BT Class0=Class4 <input type="radio"/> 2P 3Finger <input type="radio"/> 4P 4Finger <input type="radio"/> BT with PoH <input type="radio"/> BT PoH Like on Class <input type="radio"/> BT Special Class 4	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	<input type="radio"/> 2 <input checked="" type="radio"/> 4	<input checked="" type="radio"/> 90 <input type="radio"/> 60 <input type="radio"/> 30 <input type="radio"/> 15	<input type="checkbox"/>
3	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> BT <input type="radio"/> PoH <input type="radio"/> Pre-BT <input type="radio"/> Mode 4P CDP <input type="radio"/> BT Special <input type="radio"/> BT Class0=Class4 <input type="radio"/> 2P 3Finger <input type="radio"/> 4P 4Finger <input type="radio"/> BT with PoH <input type="radio"/> BT PoH Like on Class <input type="radio"/> BT Special Class 4	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	<input type="radio"/> 2 <input checked="" type="radio"/> 4	<input checked="" type="radio"/> 90 <input type="radio"/> 60 <input type="radio"/> 30 <input type="radio"/> 15	<input type="checkbox"/>

PORT

Indicates port number per row.

POE ENABLED

A tick indicates the PoE is enabled for the port.

OPERATING MODE

Allows the user to manually set the operating mode/class to each individual port. A blue button indicates the set operating mode.

LEGACY DEVICE

The OSD2184P provides legacy PoE support. A blue button indicates the Enable/Disable setting.

PAIR

The OSD2184P provides the user to select 2 pair or 4 pair. A blue button indicates the setting.

MAXIMUM POWER

The user can set the output maximum power to each port. A blue button indicates the setting.

HIGH INRUSH CURRENT MODE

Some PDs require very high inrush current (up to 1.6A). The OSD2184P/PW can support PDs with high inrush current. A tick indicates that high inrush current mode is enabled

Buttons

: saves the new settings

: resets any changes made

CONFIGURATION → LOG

Event Log Settings

ID	Module	Log Level
1	PoE	Info ▼
2	SYS	Info ▼

ID

Indicates the sequential log event number.

MODULE

Indicates the log event.

- **PoE**: PoE related information such as powering of PoE device, disconnection of PoE device, reason for powering failure, etc.
- **SYS**: General information of the system such as changing of IP, Port link up and link down, high temperature alarm, etc

LOG LEVEL

A drop down window allows the user to select the desired log event setting.

- **Disable**: No information is logged from that module
- **Info**: Some basic information is logged
- **Debug**: Diagnostic information logged

Buttons

: saves the new settings

MONITOR → SYSTEM INFO

System Information

Parameter	Value
MAC Address	00-26-dc-21-84-01
Serial Number	ffffff
Software ID Number	600139-04
PCB Number	fffff-ff
IP Address	192.168.0.99
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
Date of Manufacture (DD-MM-YYYY)	ff-ff-20ff
Board Temperature	33 Degree C

See Section 2.6.1

MONITOR → PORT

Port Status

Port	Copper_SFP	Link	Speed	Duplex
1	Copper	Up	1000	Full
2	SFP	Down	-	-
3	Copper	Down	-	-

PORT

Monitors each port activity.

COPPER_SFP

Indicates the port connection: Either Copper or SFP

LINK

Up: Connection established

Down: No Connection detected

SPEED

Indicates the port connection speed in Mbps.

- **10:** 10Mbps
- **100:** 100Mbps
- **1000:** 1000Mbps (1Gbps)

DUPLEX

Indicates port connection type. Full, Half

MONITOR → PoE

PoE Port Status

PortNo	PDType	Current	Voltage	Power Requested	Power Assigned	Class on AlternativeA	Class On AlternativeB	Status
1	-	-	-	-	-	-	-	Not connected
3	-	-	-	-	-	-	-	Power off: Unknown

Global Status

Description	Status
PoE Output Voltage	52.0V
PoE Manager Temperature	50
PoE Controller Software Version	3.4.9

PORT

Indicates port number per row.

PD TYPE

Indicates the Power Device Type detected;

- Single Signature
- Dual Signature

CURRENT

Indicates the current drawn from the relevant PoE port/channel

VOLTAGE

Indicates the voltage from the relevant PoE port/channel

POWER REQUESTED

Indicates the power drawn from the relevant PoE port/channel

POWER ASSIGNED

Indicates the power assigned to the relevant PoE port/channel

CLASS ON ALTERNATIVEA

Indicates the class type on Alternative A from the relevant PoE port/channel

CLASS ON ALTERNATIVEB

Indicates the class type on Alternative B from the relevant PoE port/channel

STATUS

Indicates the detected PD class on the relevant port/channel

MONITOR → LOG

Log Information

ID Time Logs

Monitors and logs activity

ID
Indicates the event log identification

TIME
Displays the event log time

LOGS
Displays the brief event type

MAINTANANCE → UPLOAD

Software Upload

No file selected.

Use this section to upload OSD released software update.

Click the Browse (or Choose File) button and navigate to the folder where the updated software has been saved. Select the software file (usual format [file name]_fur.bin) example 60007611_fur.bin.

Click the Upload button. The software will be uploaded to the unit. Please wait until software has been uploaded completely as shown below and wait until the system has rebooted.

This process takes several seconds. The webpage will redirect to the “System Information” page. Please check this page to ensure that the Software ID Number has been uploaded by the new software.

Buttons

: Browse file location

: Upload software

MAINTENANCE → POE FW UPGRADE

PoE chip(PD69200) Firmware Upgrade

No file selected.

Use this section to upload OSD released firmware update.

Click the Browse (or Choose File) button and navigate to the folder where the updated firmware has been saved. Select the firmware file.

Click the Upload button. The firmware will be uploaded to the unit. Please wait until firmware has been uploaded completely as shown below and wait until the system has rebooted.

MAINTENANCE → SYSTEM REBOOT

System Reboot

Use this section to reboot the unit

Buttons

: Reboots the unit

3 MAINTENANCE

3.1 INTRODUCTION

The following section outlines the fault-finding procedure for the OSD2184P/PW modems. Please take note of the following:

- ▲ Personnel without appropriate training should not attempt any maintenance except that outlined below.
- ▲ If further maintenance is attempted you are warned that every care should be taken to ensure that internal measurements made while the equipment is operational are taken carefully as some components within the unit are expensive and may be damaged by failure of any portion of their support circuitry.
- ▲ Some components within the unit are Electrostatic (ES) sensitive and Electrostatic Discharge (ESD) precautions should be taken when performing maintenance upon the unit.

3.2 EXTERNAL INSPECTION

Visually check for the following:

- ▲ Check that the correct power source is connected to the power socket.
- ▲ Check that the Ethernet cables are connected to the modem correctly and that the distant OSD2184P/PW modem has been connected correctly to any external equipment.
- ▲ Inspect the optical connectors (for fiber SFP option) for any contamination and clean using isopropyl alcohol and a lint free tissue if any contamination is detected.

3.3 ROUTINE MAINTENANCE

- ▲ There is no routine maintenance required with the OSD2184P/PW.

4 WARRANTY

Thank you for purchasing equipment designed, manufactured and serviced by Optical Systems Design (OSD). OSD warrants that at the time of shipment, its products are free from defects in material and workmanship and conforms to specifications. Our Warranty conditions are outlined below:

4.1 WARRANTY PERIOD

For warranty period, please contact your local OSD distributor.

4.2 REPAIRS

Optical Systems Design reserves the right to repair or replace faulty modules/units. Please obtain a "Return Material Authorisation" (RMA) form and number before returning goods. Goods must be returned in adequate packing material to Optical Systems Design, Warriewood or its nominated authorised representative, for all repairs.

4.2.1 WARRANTY REPAIRS

Return shipments to OSD shall be at customer's expense and freight back to the customer will be at OSD expense.

4.2.2 OUT-OF-WARRANTY REPAIRS

OSD reserves the right to repair or replace any faulty goods. Freight costs and insurance for both journeys are met by the user. All equipment repaired by OSD will have a 3-Month Warranty from the date of dispatch.

4.2.3 SITE REPAIRS

By agreement site repairs may be undertaken for which out of pocket, hotel and travel expenses will be charged.

4.2.4 EXCLUSIONS

This warranty does not apply to defects caused by unauthorized modifications, misuse, abuse or transport damage to the equipment. All modifications to OSD's standard product will need written authorization and will be charged at normal repair rates. All modifications are to be carried out by OSD Technicians. Warranty is void if unauthorized removal and/or tampering with serial number and/or repair labels is evident.



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