NOTICE

Safety Sign:

When using the optical power meter, always take bask safety precautions to reduce the harm for the testers, and injury to persons. All the safety sign may not mark in this manual.



Warning: Prohibited misconduct and operation, to prevent any improper conduct and operation of the damage.



Notice: notic the important information, notification, and referencs, thse notice information should be understand.

Safety sign on the instrument:



WEEE Sign: Users of electrical and electronic equipment from private households should have the possibility of returning WEEE at least free of charge.

Safety Advice

1. When the tester use Disposable alkaline batteries, do not charge it. Ensure the correct polarity installation, when replace the battery.

2. When the products are not in use, please remove the batteries and kept separate to avoid instrument damage caused by battery leakage. If leakage occurred, Please do not touch.

3. To prevent electric shock, do not open the product case, only the authorized qualified professionals can do the maintenance; Do not expose the testers to rain or wet conditions, to avoid the risk of fire or electric shock

4. Instruments used LCD screen. Do not fall the instrument. If the LCD are seriously hit, it may cause fluid leakage. And please do not touch.

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Chapter 1: Standard configuration

No.	name	qty
1	Optical Power Meter	1
2	User Manual	1
3	USB cable	1
4	CD	1
5	1.5V AA battery	3
6	Power Supply Unit	1
7	Cotton Swabs	1
8	Carry Bag	1

Chapter 2: Overall

Handheld Optical Power Meter is a newly designed fiber optic tester, which aims at the installation, engineering acceptance and maintenance of fiber network.

Compared with other usual power meters, the has more functions, like automatic wavelength identification, auto wavelength switching, intelligent backlight, data savage via USB port.

Combined with ITS MATCHED handheld optical light source, it offers a quick and accurate testing solution on both SM and MM fibers.

- Wave ID—Auto wavelength identification & switching
- Frequency ID ---Auto frequency identification
- 2 types of backlight modes, manual or outside light intensity, which indicated by LED light red or blue color.
- Intelligent backlight
- 1000 records storage or download via USB cable
- USB communication port for saved testing records download
- Reference power level can be set up and stored
- User self-calibrating function
- Auto-off function
- Up to 200hrs battery life

Chapter 3: Data Sheet

Model	A	С
Calibration Wavelength (nm)	850/1300/1310/1490/1550/1625	
Detector type	InGaAs	
Measurement Range (dBm)	-70~+6	-50~+26
Uncertainty (dB)	±0.1	5 (3.5%)
linearity (dB)		±0.02
Display resolution(dB)		0.01
Frequency ID (Hz)	270, 3	30, 1K, 2K
Wave ID (nm)	850,1300, 1310	,1490,1550,1625
Date Storage Capacity		1000
Communication Port		USB
Standard Connector	FC /2.5	mm universal
Optional Optical Connector	FC/SC/ST Interchangeable/2.5mm universal	
Optional Optical Connector	LC/FC/SC/ST Interchangeable	
Alkaline battery	3*AA, 1.5V	
Power Adapter(V)	V) 8.4	
Battery Operating time (h)	attery Operating time (h) 200 without backlight	
Operation Temperature($^{\circ}$ C)	-1	0~+60
Storage Temperature(°C)	-2	5~+70
Dimension(mm)	175*90*44.5	
Weight(g) 231		231

Remark: Battery operating time is based on the condition of the power off the backlight. If power on the backlight continuously, the operation time will be shorter.

Chapter 4: Function

4.1Front





ON/OFF the instrument

Power Saving setting: the unit will automatically shut off after 15 minutes idle time, whatever in the condition of battery power supply or AC power supply. Once choose this setting, the "auto-off" will display on the left bottom of the screen. This power saving is the default setting, once open the power meter, will enter into this mode. Short press the power key to off auto power saving mode.



Power Saving(Auto-off)-

(2) λ Wavelength Selection/Wavelength identify Short press this key to switch the wavelength and display it on the top left of the

LCD screen, 1310nm is the default wavelength



Press the λ for 2 seconds, enter into wavelength auto-identify, on the upper right of screen have "AU", and also long press this key to quite this function.



Wavelength auto-identify

(3) backlight control(two mode of back light control, press this key to choose one mode):
"LDR" the intelligent backlight control mode. Power meter will off/on the backside in t 15second based on the outside light condition, and this is the default mode

Back light control key mode. Press 🐼 to on/off the back light

(4) Saving/data-view key.

Data-saving can saving not less than 1000 data. Press (SAVE), the screen will display the data saving

No, tip saving the data, doubel press the (SAVE) confirm the saving.





(6) unit switch key

Press this key to switch between the absolute measurement(dBm) and relative measurement(dB) and xW of the optical power.

mW、dBm conversion: 10 log(mW)=(dBm)

mW、uW、nW conversion: 1mW=103uW=106nW







To store the current power value as the reference value which will be displayed on the top right of the LCD screen, at the same time the "Ref" also display on the right top. It will compare the current power with the reference power and show the relative power value in dB.

The relationship between relative value(dB), absolute value(dBm), and Ref value: relative value= | absolute value | - | Ref |



(8) "B/L SET" backlight indicator

Indicate backlight control mode. Green light indicate that "LDR" intelligent backlight control mode, Red light indicate that key-control mode



(9) "LDR" Intelligent backlight controller

In the intelligent backlight control mode, the controller will automatically adjust the backlight with the outside light, which to save the power.

(10) Screen

Display the data and the instrument working mode.

4.2 Two sides



Notice: Please use only the power supply unit supplied with the tester, use other kind of PSU may cause damage for the instruments.

(2) USB Port.

Use the USB cable supplied to connect the Optical Power Meter to The USB port on PC pic. 4-5.



4.3 Top





(1) Dust Cap

In order to protect the optical connector, avoid damage on the connector, so when not in use make sure that you place the dust cap over the connectors.

(2) Optical Connector.

The standard of this power meter connector is PC & Φ 2.5mm universal connector.pic. 4-7&4-8. Screw off the FC connector, it will turn to & Φ 2.5mm universal connector.





4-7 FC connector

4-8 Φ2.5mm universal connector

Notice: When change the optical connector, take care for the connector and the end-face. FC connector can connect with FC adaptor, Φ2.5mm universal connector can connect with FC, SC, ST adaptor. Pic 4-9

8





Notice: the tinny dust on the connector will effect the accurate of the measurement value, so please clean the connector and the patch cord end-face before do the test.

Use the alcohol and the cotton swab to clean the connector. Dip the cotton swab with alcohol, insert the cotton swab in the connector, slightly rotating the cotton swab, after that change a dry cotton swab and clean it again. Pic. $4-10_{\,\circ}$



4-10

4.4 Backside



4 - 11

(1) Label

Content include the function, and the instrument information

(2) bracket

Collapsible metal bracket, 0~90 degree can be adjusted.

(2) Battery Pack

Can insert 3 1.5AA batteries.



Notice: When insert the batteries, take a note of their positive (+) and negative (-) connector orientation, the negative battery connector should be against the spring. And do recycle the battery, do not throw the battery to the dustbin, or that will happen the dangerous.

Chapter 5: Software

5.1Install the device

Run the software in the PC, find the "CH341SER-CH340T" as show in the below



Double click that "exe" program, will pop up 5-1.

Select INF File :	CH341SER.INF
INSTALL	WCH.CN
UNINSTALL	I 06/03/2009, 3.1.2009.06
HELP	

5-1

click "INSTALL" after seconds, pup up 5-2.



Press "OK", exit this install interface. However the driver still haven't install yet, continuo the following operation:

Use USB cable connect with power meter and the PC, switch on the instrument, pop up 5-3

Found New Hardware Wiz	ard
	This wizard helps you install software for: USB-SERIAL CH340 If your hardware came with an installation CD or floppy disk, insert it now. What do you want the wizard to do?
	 Install from a list or specific location (Advanced) Click Next to continue.
	< <u>B</u> ack <u>N</u> ext > Cancel

5-3

Press "NEXT", Pop up 5-4.

Please wait while the wizard searc	hes
USB-SERIAL CH340	Q
	< Back Next > Cancel

5 - 4

Wait for a second, pop up 5--5.

Found New Hardware Wiz	ard
	Completing the Found New Hardware Wizard The wizard has finished installing the software for: USB-SERIAL CH340
	Click Finish to close the wizard.
	K <u>B</u> ack, Finish Cancel

Press Finish, complete the deriver installing.

Please check if the installing is complete or not, to avoid the communication problem when power meter connect with the PC. Open the "Device Manager" (right click "My computer" choose "property", pop up the

property interface, choose "hardware option", click "Device Manager"), find the "Port(COM 和 LPT)"if your interface is the same as the following pic 5-6, means the install success. If the interface do not have "USB-SERIAL CH340" which the same as 5-7, means the failure install, so need to re-install the devices.

B. Device Manager	
Eile Action View Help	
	~
E Sisk drives	
🖅 舅 Display adapters	
II 😃 DVD/CD-ROM drives	
🗄 🚍 Floppy disk controllers	
E S Floppy disk drives	
IDE ATA/ATAPI controllers Imaging devices	
Keyboards	
F Mice and other pointing devices	
🔁 🚽 Monitors	
🖅 🕮 Network adapters	
🗄 🚱 Other devices	
E y Ports (COM & LPT)	
Brother MFC-7220 USB Remote Setup Port (COM3)	
Communications Port (COM1)	
USB_SEDIAL CH340 (COM4)	
Brocessors	
T 🐨 Sound, video and game controllers	-
	-

5-6

Eile Action View Help	
HICROSOF-DF127C	*
E S Computer	
I + Contraction of the last of	
I Usplay adapters	
Hoppy alsk controllers	
Monitors	
T B Network adapters	
Ŧ 🤗 Other devices	
Ports (COM & LPT)	
Brother MFC-7220 USB Remote Setup Port (COM3)	
Communications Port (COM1)	
ECP Printer Port (LPT1)	
🖅 🜨 Processors	_
표 🧐 Sound, video and game controllers	
🕂 🥪 Storage volumes	5

After success install the devices, can switch off the power meter, disconnect the USB.

5.2 Install the application software

Run the CD in the PC, find the "setup" file



Double click this icon, pop up 5-8

2	4
1	Destination Directory Select the primary installation directory.
1	All software will be installed in the following location(s). To install software into a different location(s), click the Browse button and select another directory.
	Directory for OPM C:\Program Files\ OPM\
	Directory for OPM C:\Program Files\ OPM\ Browse
	Directory for OPM C:\Program Files\ OPM\ Directory for National Instruments products

Press "Next", Pop up 5-9.

S OPM	3
License Agreement You must accept the license(s) displayed below to proceed.	
NATIONAL INSTRUMENTS SOFTWARE LICENSE AGREEMENT	ī
INSTALLATION NOTICE: THIS IS A CONTRACT. BEFORE YOU DOWNLOAD THE SOFTWARE AND/OR COMPLETE THE INSTALLATION PROCESS, CAREFULLY READ THIS AGREEMENT. BY DOWNLOADING THE SOFTWARE AND/OR CLICKING THE APPLICABLE BUTTON TO COMPLETE THE INSTALLATION PROCESS, YOU CONSENT TO THE TERMS OF THIS AGREEMENT AND YOU AGREE TO BE BOUND BY THIS AGREEMENT. IF YOU DO NOT WISH TO BECOME A PARTY TO THIS AGREEMENT AND BE BOUND BY ALL OF ITS TERMS AND CONDITIONS, CLICK THE APPROPRIATE BUTTON TO CANCEL THE INSTALLATION PROCESS, DO NOT INSTALL OR USE THE SOFTWARE, AND RETURN THE SOFTWARE WITHIN THIRTY (30) DAYS OF RECEIPT OF THE SOFTWARE (INCLUDING ALL ACCOMPANYING WRITTEN MATERIALS, ALONG WITH THEIR CONTAINERS) TO THE PLACE YOU OBTAINED THEM. ALL RETURNS SHALL BE SUBJECT TO NI'S THEN CURRENT RETURN POLICY.	
1. <u>Definitions.</u> As used in this Agreement, the following terms have the following meanings:	8
I accept the License Agreement	1
OI do not accept the License Agreement.	
<< <u>B</u> ack. <u>N</u> ext>> <u>Cancel</u>	Ī

Choose "I accept .. "Click" Next" ,pop up 5-10.

I OPM	
License Agreement You must accept the license(s) displayed below to proceed.	
LICENSE AGREEMENT	
BEFORE YOU CLICK ON THE ACCEPT BUTTON AT THE END OF THIS DOCUMENT, CAREFULLY READ ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT. BY CLICKING ON THE ACCEPT BUTTON, YOU ARE CONSENTING TO BE BOUND BY AND ARE BECOMING A PARTY TO THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS AGREEMENT, CLICK THE "DO NOT ACCEPT" BUTTON AND DO NOT DOWNLOAD AND/OR USE THIS INTELLECTUAL PROPERTY.	A au
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I accept the License Agreement I do not accept the License Agreement.	
<< <u>B</u> ack. <u>Next>></u> Cancel	

5-10

Choose "I accept", click "Next", pop up 5-11.

1	OPM	
	Start Installation Review the following summary before continuing.	
	Adding or Changing • OPM Files • NI-VISA 4.5 Run Time Support	
0	lick the Next button to begin installation. Click the Back button to change the installation settings.	
	Save File << <u>B</u> ack <u>N</u> ext >>	Cancel

5-11

Click "Next", pop up5-12.

-	OPM	
	Overall Progress	
	Currently installing NI Trace Engine. Part 10 of 25.	
		_
	≪< <u>B</u> ack. <u>N</u> ext>>	Cancel

5-12

Wait for a seconds, Pop up 5-13 $_{\circ}$

I OPM					
Installation Complete					
The installer has finished updating your system.					
	1	≪s <u>B</u> ack	1	<u>N</u> ext>>	Einish

5-13

Click "Finish" Complete the installing.

5.3 Software function instruction

This software has two functions: data processing, and the instrument setting After finished the software, find the short cuts icon for this software.



Double click this icon, open the software, pop up the software interface, pic 5-14, data processing is the default interface once open the software.

5.3.1 Data Processing

OPM- vi				
	<u>%</u>	Connect Da	nglish -> 简体中文 💌 [ata Processing 🕑 🚺	Save Exit
Test Operator Company	r: Instr	rument Serial Number: Instrument Model: Notes:		Vpload data Delete One Delete All
No.	Tavelength	Power value	Date / Time	Notes
			-	
				-

Data Processing interface include 4 parts.

(1) Manual

 $\textcircled{1}\$ Port Option $_{\circ}\,$ Drop down the manual, choose the right port, which the same port that the PC connect with the power meter.

OPM	6 1
-	COM1
	COM3
	COM4
	LPT1
	Refresh

②Connect icon, make the PC connect with the power meter, and communicate.



③Language option, Drop-down the manual, Find the right language for the user prefer, Chinese/ English.

English -> 简体中文	1
✓ English → 简体中	文
简体中文 -> Engl	i sh

④Function interface option: Two functions for option--data processing and the instrument setting, drop-down the manual to choose.



⑤Save button, save the current measurement data as the EXCEL file, convenience for user to view and analysis the data on the PC.



6 Exit button, disconnect the communication, close the software.

Exit

(3) Testing information formFill the information in blank

Test Operator:	Instrument Serial Number:	
Company:	Instrument Model:	
	Notes:	

(3)Printing button to print the measurement value.

(4)Data process button

2 Delete the choose data.

①Upload the data to the PC, display the data on PC, for the user view.



③Delete all the data that saved in the instrument.

🗙 Delete All	
--------------	--

(5) Data display area

To display the saved data of the instrument

5.3.2 Power Meter setting

M-vi						
3	216 <u>k</u>	Connect	English ->	简体中文 💌 Set 💌		Save Exit
	Power calibratio	n: 0	-	Calibrat	e	
	2010 🗢 Y	5 💌 m 8 18 💌 H 44	ed M	Set Set		
				🗘 Reset		

Power Meter setting interface, pic. 5.3.2, which include 4 parts: (1)Manu bar (Please refer description in data process interface)

(2)Calibration, the user can do the self-calibration.

Power calibration:					0				🖟 Calibrate
3Time Setting.。			1			1.			
2010 🤤 Y	5	×	m	8	Y	d	Γ	Д	Set
	18	V	H	44	×	M	6	~	Det

(4)Recover the factory default setting. Power meter calibration recover the factory default setting.



Chapter 6: Operation Instruction and Notes

6.1 Powering the Optical Power Meter

The optical power meter can be either battery powered or AC adaptor powered, giving total flexibility for most testing sites and situations

6.1.1 AA battery

When use AA battery, 🗐 will display on the left top of the screen, 6-1.

图 6-1

Power Grade:

- left 70%~100% electricity
- left 40%~70% electricity



left 20%~30% electricity。

not enough electricity, left less than 20%, the power meter will be forced power off

Fit the battery, 6-2



6-2

Press the clip fastener on the battery compartment cover down. Remove the battery compartment cover, remove all three batteries making a note of their positive and negative connector orientation.

The negative battery connector should be against the spring. Insert 3 new 1.5VV AA battery. Refit the battery compartment cover. The clip fastener should click shut.



Notice: Make sure that you insert the batteries with their positive and negative connectors correctly aligned.

6.1.2 Power Supply Unit

When the battery is used out, can use the power supply unit, and at this time on the left top of the screen, there will be a (6-3). When the battery in the power meter, and still have enough electricity, the tester will choose AC power supply as the priority.



6-3

When use the AC adaptor, connect the power plug as pic, and insert to the AC socket.



Notice: Please use only the power supply unit supplied with the tester, use other kind of PSU may cause damage for the instruments.

6.2 Power On the optical power meter

First of all insert the battery or the PSU, do not have any laser in, press to open the tester, 6-5 is the opening interface
Electricity indicate
Power saving mode
(Auto-off)
6-5

When the tester is standby, press (b) key can cancel or choos auto-off function. If auto-off function are choosed, the "Auto-off" will display on the left bottom of the screen.

6.3 Backlight setting

After open the optical power meter, long press (*), choose backlight control mode.

6.3.1 "LDR" Intelligent backlight control mode

Long press, "B/L SET" is green (6-6), after 10 seconds, the green indicate off, the LDR the controller will automatically adjust the backlight within 15 seconds with the outside light, which to save the power.

OFTICAL POWER METER	
LDR BL SET	indicator(Green)

6-6

6.3.2 Choose the key control backlight mode.

Long press (*), "B/L SET" indicator turns to red (6-7), enter into key control backlight mode, after 10

seconds the indicator off, short press (can ON/OFF the backlight.



6-7

6.4 Output power measurement

6.4.1 Take off the dust cap, connect with the patch cord.

Notice: Make sure the connector and the end-face of the patch cord is clean, and take notice on the type of the patch cord, make sure the correct patch cord are connected.

6.4.2 Select the wavelength

Short press λ , select the calibrated wavelength, notice that if the selected wavelength has not the same with the laser source wavelength, that will cause the error of the measurement value. There are 6 calibration wavelength for selection. (6-8)



Calibration wavelength

6-8

6.4.3 Unit switch

Press (UNITS) to switch between the absolute measurement(dBm) and relative measurement(dB) and xW

of the optical power (6-9)





6.4.4 Relative value measurement

Each wavelength can set the Ref value, Press (REF), set the current value as the ref value, and automatically calculate out the relative value. (Right top of the screen display the "ref" and setting dBm value 6-10)



图 6-10



Data saving and deleting. The power meter has 1000 data saving memory. When do the output



Data view & delete. Long press (SAVE), can view the saving record, the screen will display the last



图 6-12

6.5 Data Communication

Note: Before proceeding the data communication, make sure the driver and application software are installed successfully (Details of installation please refer to chapter 5)

6.5.1 Open the software



Double click J#3216 icon to open the software, user can choose the language on request (Chinese or English), shown as figure 6-13.

OPM- vi				
	1/2 💽 🕨	Connect Data	ish -> 简体中文 💌 🕞 Processing 🕑 📕	Save Exit
Test Operato Compan	ay:	rument Serial Number:		Jpload data Delete One Delete All
No.	Tavelength	Power value	Date / Time	Notes
1				

Connect Optical power meter with computer via USB cable, turns on the power meter.

From the Device Manager: "Port (COM<P), We can see that power meter port is "COM4", (6-14)





Therefore, choose "COM4" port shown as below figure (6-15)





Next click "Connect" as shown in below figure 6-16, will pup up a successful connection window shown as 6-17, click "OK" to finish the connection, the unit can be communicated with computer properly.





6-17

6.5.2 Data edit

Firstly, input the following basic information as shown on figure 6-18.

Test Operator:	Instrument Serial Number:
Company:	Instrument Model:
	Notes:

图 6-18

Then click "Upload data", the saved data in the unit will be uploaded into computer and shown as on below figure (6-19).

OPM. vi) I
	OPM ¹ / ₂ Com4	Connect	English -> 简体中文 💌 Data Processing 💽	Save Exit	
Test Operato	or: xxx Inst:	rument Serial Number:	OPM123456	TVpload data	1
Compan	лу: хххххх	Instrument Model:	OPM	🗙 Delete One	
6		Notes:	xxxx	X Delete All	
Ro	Tavelength	Power value	Date / Tiu	ne Notes	-
10.	1300	-70.00	10-4-22.22	ls	1
2	1310	-51.61	10-4-23 15:	14	
3	1310	-51.63	10-4-23 15:	14	1
4	1310	-51.53	10-4-23 15:	14	1
5	1490	-53.19	10-4-23 15:	14	t
6	1550	-52.79	10-4-23 15:	14	t
7	1625	-53.18	10-4-23 15:	14	t
8	850	-44.10	10-4-23 15:	14	Ť
					Ī
					1
		1			-
					1
		-			+
					+
					+
					+
					+
					+
					+
1		÷	1		+_
1					_

6-19

Data edit at data display area, including data delete, data save and data printing.

Select the required data click "delete one" to delete it from the sheet, as shown on figure 6-20 and figure 6-21, in addition the corresponding data from the power meter also will be cleared accordingly.

	OPM%com4	Connect	English -> 简 Data Processi	体中文 💌 ng 💌		Save Ixit
est Operat	tor: xxx Inst	rument Serial Number:	OPM123456		1 Uplo	ad data
Compa	any: xxxxxx	Instrument Model:	OPM		🗙 Dele	ete One
6		Notes:	****		🗙 Dele	ete All
No.	Tavelength	Power value	1	Date / Time		Notes
1	1300	-70.00		10-4-22 22:15	5	
2	1310	-51.61		10-4-23 15:14	1	
3	1310	-51.63		10-4-23 15:14	1	
4	1310	-51.53		10-4-23 15:14	1	-
5	1490	-53, 19	_	10-4-23 15:14	1	
6	1550	-52.79		10-4-23 15:14	1	
7	1625	-53, 18		10-4-23 15:14	1	
	850	-44, 1D		10-4-23 15:14	-	
_						
		-				
						-

PM- vi					
			English -> 简体中文		Save
	OPM ¹ /COM4	Connect	Data Processing	× 🔳	Exit
: Operat	or: XXX	Instrument Serial Number:	OPM123456	িրո	load data
Compa	пу: хххххх	Instrument Model:	OPM	X D	elete One
1		Notes:	****	× D	elete All
o.	Tavelength	Power value	Date /	Time	Notes
0.	1300	-70.00	10-4-22	22:15	1
2	1310	-51.61	10-4-23	15:14	
3	1310	-51.63	10-4-23	15:14	

Tes 1310 -51.53 10-4-23 15:14 4 -53, 19 10-4-23 15:14 5 1490 1550 -52.79 10-4-23 15:14 6 7 1625 -53.18 10-4-23 15:14

6-21

Click "Delete all" pop up a window shown as figure 6-22, click "OK" to delete all data, also will clear all saved data from the unit.



6-22

Click "Save" pop up a window shown as figure 6-23, input the file name, choose the save path and press "ok" for storage. File will be with EXCEL format and will pop up testing report automatically shown as figure 6-24.

Choose or Enter	r Path of File				? 🛛
Save jn:	My Docume	ents	•	+ 🖻 💣 🖩	
My Recent Documents Desktop My Documents My Computer	My Music My PageMan My Pictures	ager			
My Network Places	File <u>n</u> ame:	OPM TEST		•	ОК
1 10000	Save as type:	Custom Pattern (.xls)		-	Cancel

0.	2		OPM TES	T [兼容模式] - Microsoft B	Excel			- = x
	开始 插	入 页面布局	公式 数据 南	阀 视图 开发工具	加载项			0 - = x
12 私初 * 剪別	→ よ → 山 は → 」 ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・	* 12 虹 * <u>□</u> * 39 * . 李体	- A A A = = = = = = = = = = = = = = = =	■ 副 日 ■ 国 日 ● ● ■ 国 - ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	会件格式 該套用表格相 。 单元格样式 样式	· 급☆插 名式 · 計・删 式 · 詳 問 相	込* Σ* 除* 』 * 武* 2* 諸	加加 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一
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3	3 Instrument Model:		OPM	Notes:	XXXX			
4	Instrument	Serial Number:	OPM123456					
5		-						
6	No.	Wavelength	Power value	Date / Time	Notes	-		
7	1	1300	-70	10-4-22 22:15				
8	2	1310	-51.61	10-4-23 15:14		-		
9	3	1310	-51.63	10-4-23 15:14				
10	4	1310	-51.53	10-4-23 15:14		1		
11	5	1490	-53.19	10-4-23 15:14		-		
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Click on the software, you can print testing report directly, you can also print the testing report from Excel.

6.5.3 Function setting on the unit

Under function setting mode to switch the interface as shown on figure 6-25 and figure 6-26:



6-25

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		6-26			
are there items can be set on the (1) Optical Power Calibration	e unit:				
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er calibration:	0			2	7 Calibr
		7			

Input the corresponding optical power and click "calibration", users can recalibrate the optical power by themselves.



6-28

Input the corresponding date and time, and then click "Set" to modify the time and date accordingly.

(3) Back to factory mode



Click "Reset", the unit will be back to default setting (factory mode setting).

6.5.4 Close software

Click exit, pop up a window shown as below (figure 6-30):

quit the system?
Cancel

6.6 Wavelength Automatic Identification

- Connect power meter with its same serials light source JW3116.
- Enable light source be Under "Wave ID" operation mode: press ^(\lambda) of light source to emerge light output from light source. Hold down for few seconds, light source will be enter into Wave ID mode, also "--AU" will be shown on the upper right of LCD for a indication.
- Enable power meter be under "Wave ID" operation mode: Hold down hold for few seconds, power meter will be enter into Wave ID mode, also "--AU" will be shown on the upper right of LCD for a indication.
- Once the ID information is changed from light source (press to 5 seconds later, the detected information on optical power meter also will be changed automatically according to light source. Please refer to below figure (6-31) for easy understanding.
- Exit Wave ID mode: Hold down ^(k) again to exit Wave ID mode from light source.



6.7 Frequency detection

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When use tone detection function, following requirements have to be taken into account: For A: Tone detection will be effective only with measurement range between $+6\sim-40$ dBm.

For C: Tone detection can be worked only with measurement range between +26 \sim -20dB, because the detected frequency will be unstable when the power is weak.

How to act tone detection on Power Meter?

- Connect power meter with its same serials light source JW3116.

press for very short second, MATCHED light source will output frequencies of 270Hz, 330Hz, 1KHz, 2KHz accordingly, which will be shown on the upper right of the LCD in MATCHED light source. In the meantime, the power meter will detect the corresponding frequency automatically from MATCHED light source. Please refer to below figure (6-32) for better understanding:





Frequency ID and wave ID cannot be operated at the same time.

To avoid risk of serious eye damage, please do not look into the optical port of laser source at any time.

6.8 Power off

Automatic power off: When auto-off function is activated, the unit will turn itself off automatically after 10minutes idle time, whatever the power supply is with alkaline batteries or is with power supply adaptor directly.

Manual power off: Under any operation mode, hold down **b** for a few seconds to turn the unit off.

Note: With either power off operation, the unit will store the last calibration wavelength and backlight control mode automatically, which will be the default setting when user turns unit on next time.

Chapter 7: Troubleshooting

Problems	Possible cause	Solution	
Faint display on the LCD	1. Power is off	(b).	
screen	2. The battery power is	1. Press 🕑 key.	
Scieen	too low	2. Change the batteries	
	1. Optical connector is not	1. Clean optical connectors	
Incourate macauremente	clean.	2. Re-connect the fiber	
maccurate measurements	2. incorrect fiber		
	connection		

Chapter 8: General Maintenance

8.1 Always keep the connector ports of your power meter are clean.

8.2 Do not use bad quality optical fiber connectors/adaptors, otherwise, it will damage the interface of detector that will greatly affect the performance of the unit.

8.3 Try to use only the adaptor supplied.

8.4 Once not in use, make sure dust-proof cap is placed properly over the optical ports.

8.5 Carefully plug in/out for fiber connectors/adapters to avoid scratches on the port of the power meter.

8.6 Keep regular cleanings on optical port of power meter, please clean with cotton swabs supplied using alcohol properly.

Chapter 9: Quality Warranty

Details of warranty terms and conditions are given as below:

- The company. warrants that Optical Power Meter will be free from defects in material and workmanship for a period of 18 months. The date will be started from the date of goods shipment.
- 2) If any defectives happened due to quality problems of the product during the warranty period, The company. promises to repair or replace free of charge. But the freight cost and related taxes will be shared by both parties. The company. will pay the shipping cost from customer side to our factory. and pay the import taxes related. Customer will pay the shipping cost from our factory to customer side and its local import taxes accordingly.
- 3) This warranty **is limited to** defects in workmanship and materials and does not cover damages from accident, acts of god, neglect, wrong usage or abnormal conditions of operation.
- 4) The company. will charge corresponding fees for the cost of materials, repair and shipping in conditions of below:
 - Defects occurred under normal use and service but out of the warranty period.
 - Failures and damages occurred do not because of defects in material and workmanship of products.
 - Failures and damages occurred because of failing to comply with the Operation Instruction and necessary attention.
 - abnormal conditions of operation or handling:

Such as artificial damage, or operating in abnormal conditions of like high temperature high voltage, humidity and etc. we will charge depend on the actual failure rating.