Digital watt meter user manual

DIGITAL WATT METER Model : 1000 & 1500



User Manual

CONTENTS

1. Installation and Measurement

2.1 Installation

Connect the Watt meter to transmitter and load into 50 Ohm. Then, connect DC cable to DC IN (DC input requirement 15-24VDC)



2.2 LCD display

When the transmitter and Watt Meter are turn on, the LED "ON" will illuminated and LCD display will show as following:

Fwd:	1000 W	SWR
R f I:	10 W	1.2

Fwd : 1000 W (The value of output from your transmitter delivery to load.)Rfl :10 W (The value of feedback from load to your transmitter.)SWR :1.2 (The value of ratio between forward and reflect your load.)

If you would like to change the menu display, You can push the MENU on Watt meter, and then the menu screen will be change the display as following:



2.3 Measurement

2.3.1 Forward power, Reflect power and SWR

Fwd:	1000 W	SWR
R f I:	10 W	1.2

Fwd : 1000 W (The value of output from your transmitter delivery to load.)Rfl :10 W (The value of feedback from load to your transmitter.)SWR :1.2 (The value of ratio between forward and reflect your load.)

Accuracy of measurement: (refer from BIRD43 Thruline watt meter, Element 1000B)

- Forward (Fwd)
 Forward (Fwd)
 Forward (Fwd)
 Forward (Fwd)
 Forward (Fwd)
 Forward (Fwd)
 Reflect (Rfl)
 Reflect (Rfl)
 Reflect (Rfl)
 Contemposities
 <l
 - Reflect (Rfl) 500 1500 watt : Measurement accurate +- 10%

*** % of accurate depends on frequency ***

2.3.2 VSWR alarm



You can set VSWR value by using the windows program setting on your computer (1:1.5 is from factory setting). The value on screen is means, whenever the value of SWR ratio between forward and

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reflect with measure from your load more than the SWR setting. The LED ALARM on Watt meter will illuminate.

2. RS232 Interface

Connect the Watt meter to your computer via RS232 interface cable. The Interface will push into the Watt meter D-type connector, and then you can break out the other signals via push/snap terminals.

You can read value from Watt meter to your computer by using Hyper Terminal program. You can turn on the Watt meter and do by following step:



2.1 Click start >> All program >> Accessories >> Communications >> Hyper Terminal

New Connection - HyperTerminal		_ 🗆 🗙
File Edit View Call Transfer Help		
	Connection Description ? × Image: Sector of the connection: Name: Digital Watt Mete! Icon: Image: Sector of the connection: Image: DK Image: Connection: Image: Connection:<	
Disconnected Auto detect	Auto detect SCROLL CAPS NUM Capture Print echo	

2.2 You can set Name: as you're requested. Then click OK

2.3 Set comports to use. Then click OK

Digital Watt Meter - HyperTermin File Edit View Call Transfer Help	nal	<u>-D×</u>
	Connect To ? × Sevent State Phone number that you want to dial: Country/region: Thailand (66) Area code: 02 Phone number:	
Disconnected Auto detect	Auto detect SCROLL CAPS NUM Capture Print echo	

Cigital Watt Meter - HyperTerminal	_ _ ×
COMI Properties ? × Port Settings • Bits per second. 9600 • Data bits: 8 Parity: None Yearity: None Stop bits: 1 Flow control: Xon / Xoff Restore Defaults 0K	
Disconnected Auto detect Auto detect SCROLL CAPS NUM Capture Print echo	

2.4 Set Bits per second to 9600 and Flow control to Xon/Xoff. Then click OK to completed set up.

2.5 Then you can read value from Watt meter.

🍓 Digital Watt Meter - HyperTermina		IX
File Edit View Call Transfer Help		
Digital Watt Meter Forward Power Reflect Power SWR setting Enter SWR (Press 'S'	= 1004 = 3 = 1.500000 ' and then 10 to 99) =	
Connected 0:33:16 Auto detect	9600 8-N-1 SCROLL CAPS NUM Capture Print echo	<u>ר</u>

All value that showing on Hyper Terminal is the same on LCD display. If you would like to change SWR alarm value, you can change by your computer. After program is turn on and then the program will show you as below:

🏀 Digital Watt Meter - HyperTermin	al 📕	×
File Edit View Call Transfer Help		
D 🚅 🚿 🖉 🖆		
Digital Watt Meter Forward Power Reflect Power SWR setting Enter SWR (Press 'S	= 1004 = 3 = 1.500000 ' and then 10 to 99) =	
Connected 0:33:16 Auto detect	9600 8-N-1 SCROLL CAPS NUM Capture Print echo	

You can write "S" and value of SWR on keyboard. (SWR value range setting is 1.0 to 9.9)

🇞 Digital Watt Meter - HyperTerminal	
File Edit View Call Transfer Help	
Digital Watt Meter Forward Power = 1004 Reflect Power = 2 SWR setting = 9,500000 Enter SWR (Press 'S' and then 10 to 99) = 15_	
Connected 0:34:57 Auto detect 9600 8-N-1 SCROLL CAPS NUM Capture Print echo	

Example: You would like to set SWR alarm to 2.0, so you have to write '**S20**' You would like to set SWR alarm to 1.2, so you have to write '**S12**' You would to set SWR alarm to 1.5, so you have to write '**S15**' The value will be saved into memory on MCU of Watt meter and automatically update both of Hyper Terminal program and LCD display.