

TABLE OF CONTENTS

PAGE

1. SAFETY SUMMARY.....	1
2. INTRODUCTION.....	5
3. SPECIFICATION.....	6
4. PANEL INTRODUCTION & WIRING.....	8
5. USAGE DESCRIPTION.....	16
6. RS232 COMMUNICATION INTERFACE.....	18
7. MAINTENANCE.....	21

1.SAFETY TERMS AND SYMBOLS

Please take a moment to review these safety terms and symbols which may appear in this manual or on Equipment to prevent damage to the Power Meter.



WARNING. Warning statements identify condition or practices that could result in injury or loss of life.



CAUTION. Caution statements identify conditions or practices that could result in damage to this product or other property.



DANGER High Voltage



ATTENTION refer to Manual



Protective Conductor Terminal



(ground) Earth Terminal



Frame or Chassis Terminal

FOR UNITED KINGDOM ONLY

NOTE: This lead/appliance must only be wired by competent persons

WARNING: THIS APPLIANCE MUST BE EARTHED

IMPORTANT: The wires in this lead are coloured in accordance with the following code:

Green/ Yellow: Earth
Blue: Neutral
Brown: Live(Phase)



As the colours of the wires in main leads may not correspond with the colours marking identified in your plug/appliance, proceed as follows:

The wire which is coloured Green & Yellow must be connected to the Earth terminal marked with the letter E or by the earth symbol



or coloured Green or Green & Yellow.

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Blue or

Black.

The wire which is coloured Brown must be connected to the terminal marked with the letter L or P or coloured Brown or Red.

If in doubt, consult the instructions provided with the equipment or contact the supplier.

This cable/appliance should be protected by a suitably rated and approved HBC mains fuse : refer to the rating information on the equipment and/or user instructions for details. As a guide, cable of 0.75mm² should be protected by a 3A or 5A fuse. Larger conductors would normally require 13A types, depending on the connection method used.

Any moulded mains connector that requires removal /replacement must be destroyed by removal of any fuse & fuse carrier and disposed of immediately, as a plug with bared wires is hazardous if engaged in live socket. Any re-wiring must be carried out in accordance with the information detailed on this label.

- **Communication command**

COMMAND	DESCRIPTION	EXAMPLE
F00	Data hold enable	
F01	Data hold disable	
F02	Set in maximum status	
F03	Set in minimum status	
F04	Set in normal status	
R00	V Range=640.0V	
R01	V Range=320.0V	
R02	V Range=160.0V	
R03	V Range=80.00V	
R04	V Range=40.00V	
R05	V Range=20.00V	
R06	V Range=10.00V	
R07	V Range=5.000V	
R08	A Range=20.48A	
R09	A Range=10.24A	
R10	A Range=5.120A	
R11	A Range=2.560A	
R12	A Range=1.280A	
R13	A Range=640.0mA	
R14	A Range=320.0mA	
R15	A Range=160.0mA	
R16	V Range=Autorange	
R17	A Range=Autorange	
S00	Set Voltage Ratio(PT)	S00:1
S01	Set Current Ratio(CT)	S01:1
V00	Read Voltage	
V01	Read Current	
V02	Read Watt	
V03	Read PF	
V04	Read Hz	

- **DEMO Program**

```
; Demo program language: BASIC
; Computer set Baudrate equal 9600, and use COM2
; The GPM -8212 set Baudrate equal 9600
; Command define in CMD$
```

```
10CMD$= "V00"
20VALUE$= " "
30OPEN "COM2:9600,N,8,,CS,DS,CD" FOR RANDOM AS#2 LEN=1
40FOR I= 1 TO 100
50PRINT #2, CMD$
60INPUT #2, VALUE$
70PRINT VALUE$
80NEXT I
90CLOSE #2
100END
```

7. MAINTENANCE

The following instructions are used by qualified person only to avoid electrical shock, do not perform any service other than contained in the operation instructions unless you are qualified to do so.

7-1.Fuse Rating and type

If the fuse is ruptured, the Power METER will not operate. Try to determine and correct the cause of the blown fuse, then replace the fuse with correct rating and type shown as below:

MODEL	FUSE Rating and Type	Rating Input	
		Watts	VA
GPM-8212	T0.5A 250V	22	28

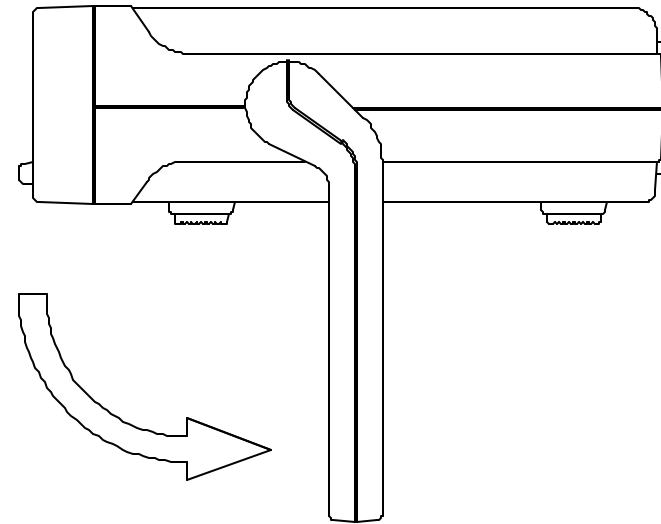


WARNING: For continued fire protection, replace only with 250V fuse of the specified type and rating, and disconnect the power cord before proceeding fuse replacement.

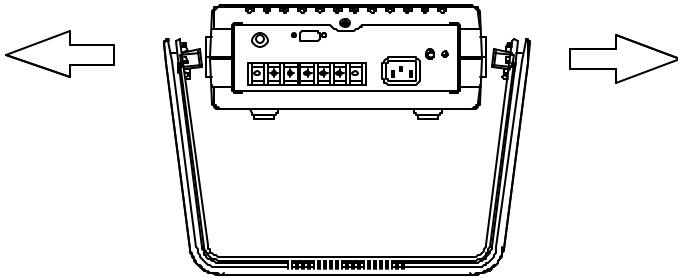
7-2.Fuse Replacement Procedure

When you proceed calibration or maintenance of the Power Meter, if you want to replace the fuse, the upper cover must be removed according to the following steps:

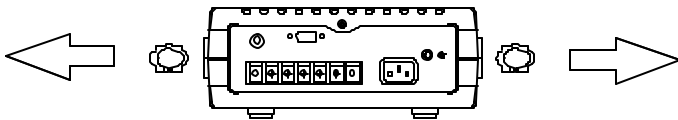
- 1).The handle must be turned downward 90 degrees first.



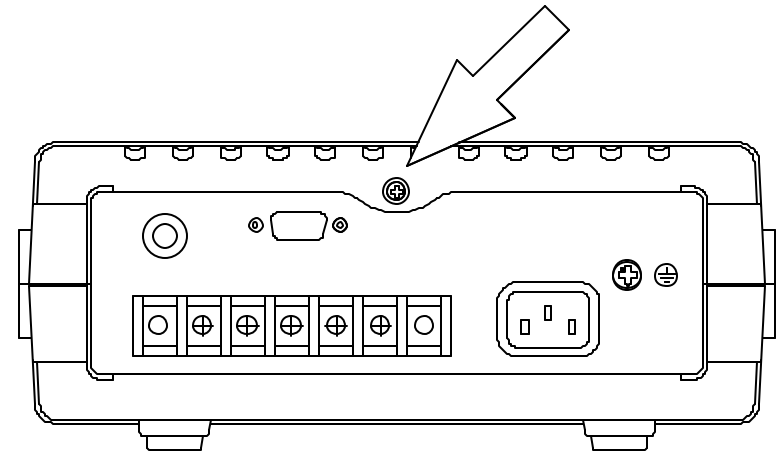
- 2). Pull apart the handle from the Power Meter. Please turn the handle left and right side slightly, that will make it easier to pull off the handle.



- 3). There are two washers inside of two holes (the joints of handle and case) respectively. Please use a screwdriver to pry open these washers.



- 4). Please use a screwdriver to open the screw located at upper side of rear panel. Therefore, the upper cover can pull toward the backside. In the meantime, the upper cover is moved.



Note: If you want to install the upper cover, please reverse above steps.

7-3. Cleaning

To keep the instrument clean, wipe the case with a damp cloth and detergent. Do not use abrasives or solvents.