

# Battery version PM2525

## Operation Manual

4822 872 30383

880311



# I&E

Industrial & Electro-acoustic Systems Division



**Industrial &  
Electro-acoustic Systems**

# PHILIPS

Battery version  
**PM2525**

# Operation Manual

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**ST5237**



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## 1. INTRODUCTION

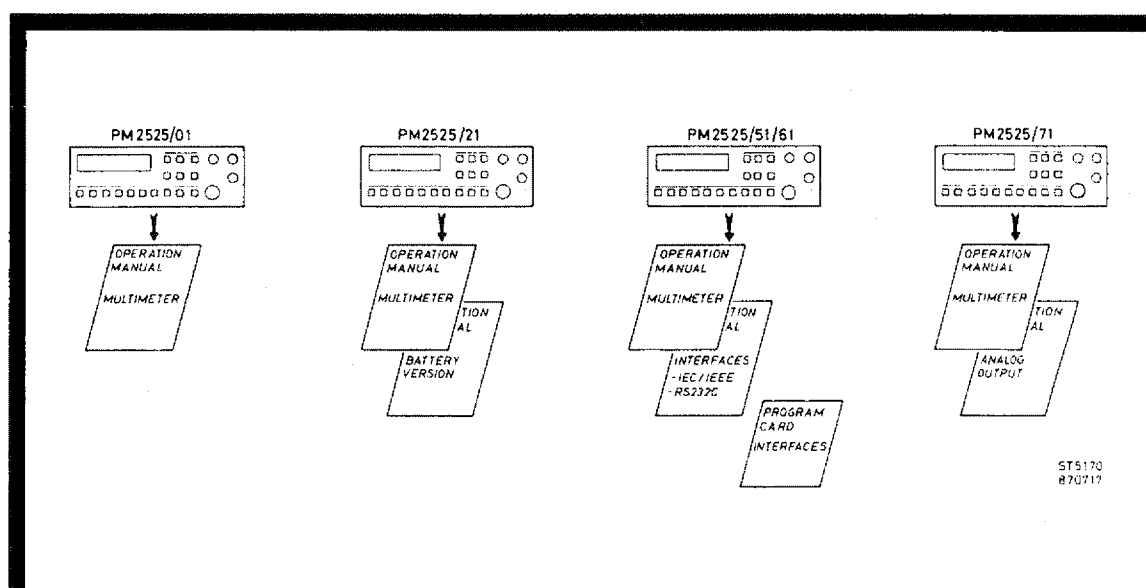
The PM2525/21 is the standard multimeter PM2525 equipped with a rechargeable battery power supply.

## 2. OPERATION MANUAL STRUCTURE FOR PM2525 FAMILY

The PM2525 family consists of different type numbers viz:

The standard multimeter version	PM2525/01
The battery operated version	PM2525/21
The IEC-625/IEEE-488 interface version	PM2525/51
The RS-232C/V24 interface version	PM2525/61
The analog output version	PM2525/71

The following operation manuals should be used.



### 3. ADDITIONAL CHARACTERISTICS

#### 3.1 GENERAL

The characteristics of the PM2525/01 is supposed to be part of this specification.

#### 3.2 ADDITIONAL SPECIFICATION POINTS AND LIMITATIONS

Operating time on battery : >6 hrs


Charing time : 15 Hrs

Power consumption : 20 VA

Storage temperature :  $-15^{\circ}\text{C} \dots +20^{\circ}\text{C}$

Limit range of operation :  $0^{\circ}\text{C} - 45^{\circ}\text{C}$

Low Battery voltage giving

" " in display : <5.85 V

Charging voltage : 7.4 V current limited to 250 mA

Standby charging voltage : 6.7 V

Battery power supply switches from high charging voltage to standby charging voltage if the charging current drops below 50 mA.

Temperature coefficient

of charging voltage :  $-10 \text{ mV}/^{\circ}\text{C}$

Battery : 1 x Pb cell (6 V)

## 4. SAFETY INSTRUCTIONS

### 4.1 EARTHING (GROUNDING)

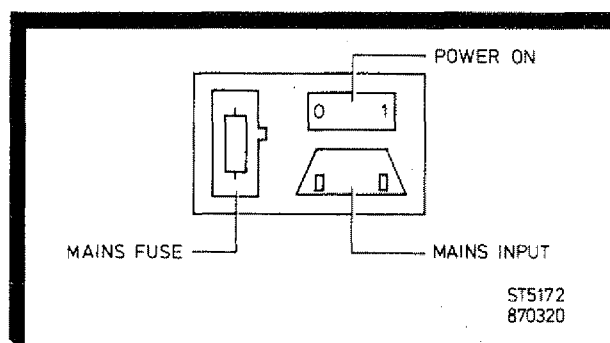
This instrument has a double-insulated power supply. In normal operation the need of a protective earth connection is obviated.

### 4.2 MAINS VOLTAGE SETTING AND FUSES

- Before inserting the mains plug into the mains socket, make sure that the instrument is set to the local mains voltage.

**NOTE:** *If the mains plug has to be adapted to the local situation it should only be done by a qualified person.*

**WARNING:** The instrument shall be disconnected from all voltage sources when a fuse is to be renewed, or when the instrument is to be adapted to a different mains voltage.



- The instrument shall be set to the local mains voltage only by a qualified person who is aware of the hazards involved.
- Make sure that only fuses of the required current rating, and specified type are used for renewal. The use of repaired fuses, and/or the short-circuiting of fuse holders, is prohibited.
- Fuses shall only be renewed by a qualified person who is aware of the hazard involved.

## 5. OPERATING INSTRUCTIOND

### 5.1 PRECAUTIONS TO BE TAKEN WHEN USING, CHARGING AND STORING THE PM2525/21

- Charge the PM2525/21 immediately after use. The best way to keep the battery in the PM2525/21 in a good condition is to keep it fully charged.
- Store the PM2525/21 preferably at an ambient temperature between  $-15^{\circ}\text{C}$  and  $+20^{\circ}\text{C}$ .  
At a higher temperature, the chemical reaction in the electrolyte of the battery and thus the self-discharging is accelerated.  
At a lower temperature, when the battery is not fully charged, the battery can freeze and be damaged.

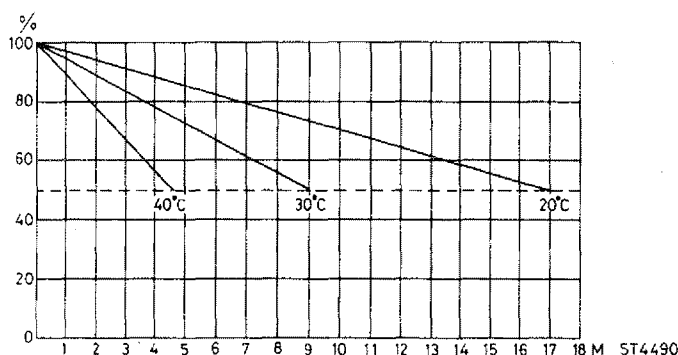
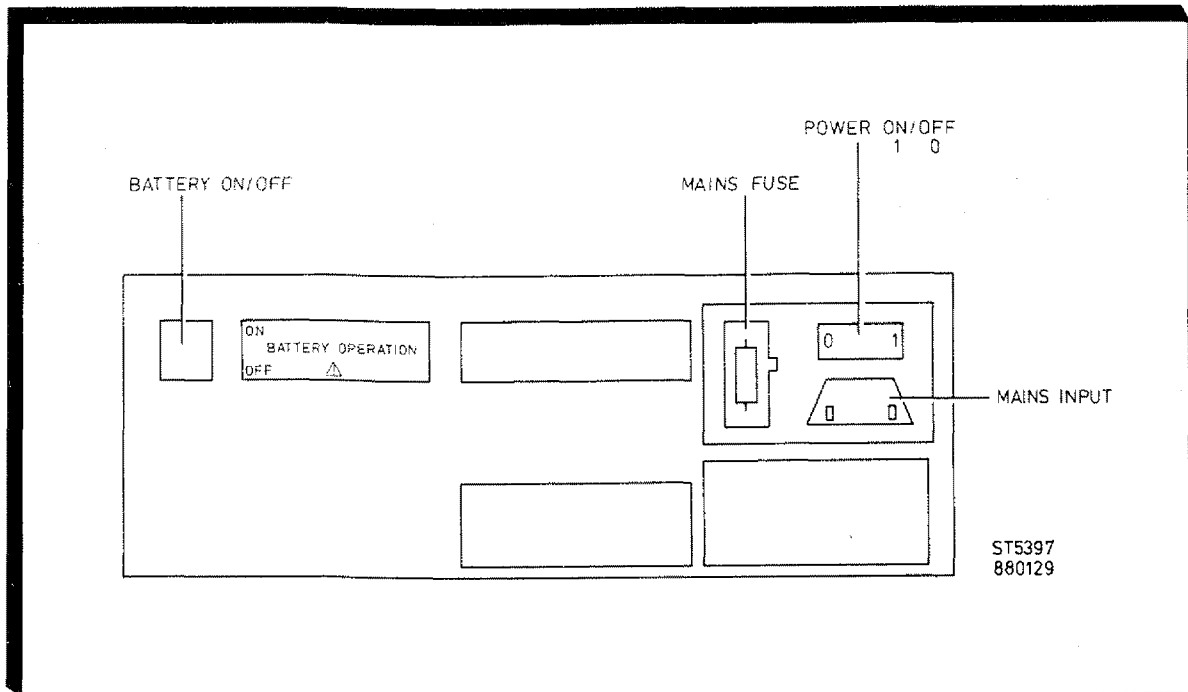


Fig. 1. Self-discharging of the battery  
(charge in % of maximum charge as a function of time in months).

- During extended storage, it is recommended to charge stored batteries every three months.
- If the battery terminals are shortcircuited a current of over 100A will flow and the terminal will be burned. In such a case recently charged batteries may explode due to the oxygen and hydrogen produced in the charging process.
- If the battery case is broken, hands and cloth may come into contact with the electrolyte. The best neutralizing agent for the electrolyte is sodium carbonate ( $\text{Na}_2\text{CO}_3$ ).  
If the latter is not available, hands and cloth must be thoroughly washed with water and soap.
- Never use paraffin oil or thinner to clean the battery case. Always use a soft cloth dampened with denatured alcohol or water. Afterwards wipe the case with a dry cloth.

## 5.2 OPERATION



For charging the battery and powering the PM2525 proceed as follows:

POWER SWITCH	BATTERY SWICH	OPERATION
OFF	OFF	No operation
ON	OFF	Mains operation
OFF	ON	Battery operation
ON	ON	Charging battery *

\* Without mains card the battery will power the PM2525

## 5.3 ORDERING INFORMATION OF THE RECHARGEABLE BATTERY

Battery : 6 V Pb-cell (lead)  
 Dimensions : length 134 mm  
                   width 34 mm  
                   height 60 ... 70 mm

The 6 V Pb-cell has no service ordering number due to deep unloading in stock. The deep unloading damages the cell.

The following manufacturer types may be used:

Standard in PM2525/21  
 YUASSA NP 2.6-6 6 V 2.6Ah  
 Substitutes  
 SAFT PA601 6 V 4Ah  
 VARTA 56030703063 6 V 3Ah

*Handwritten signatures and date:*  
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