Battery version
PM2525

Operation Manual

4822 872 30383
880311

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CONTENTS

1. INTRODUCTION

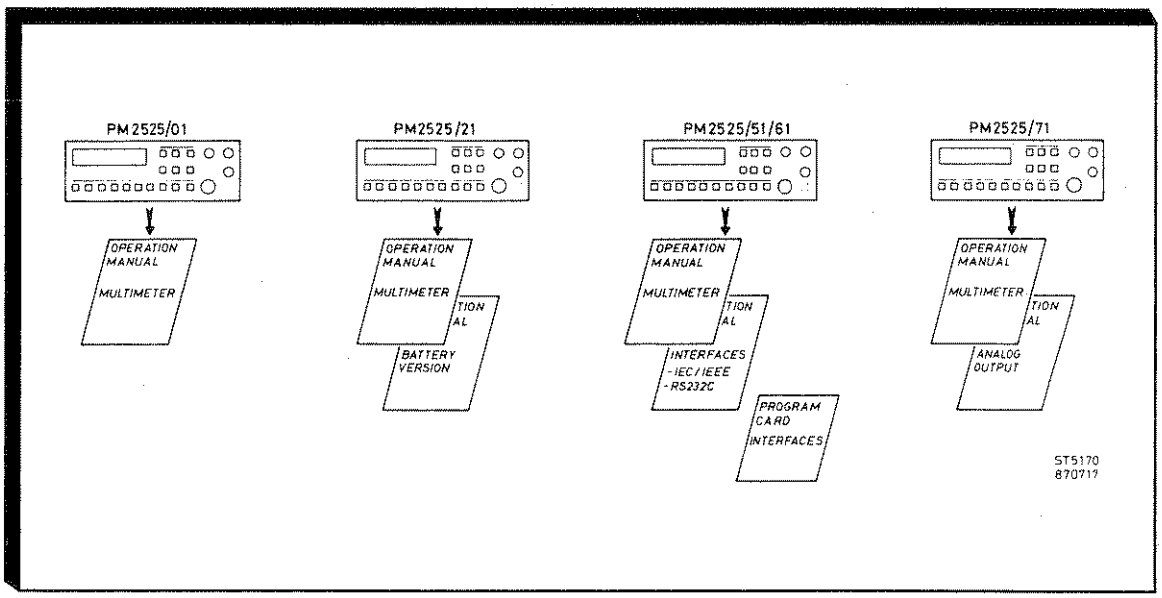
The PM2525/21 is the standard multimeter PM2525 equipped with a rechargeable battery power supply.

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 charateristics 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°C ... +20°C
Limit range of operation	:	0°C - 45°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 coëfficient of charging voltage	:	−10 mV/°C
Battery	:	1 x Pb cell (6 V)

4. SAFETY INSTRUCTIONS

4.1 EARTHING (GROUNDING)

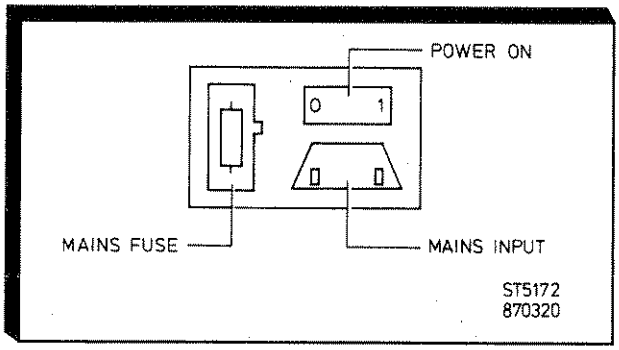
This instrument has a double-insulated power supply. In normal operation the need of a protective earth connection is obviated.

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 $-15°C$ and $+20°C$.
  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.

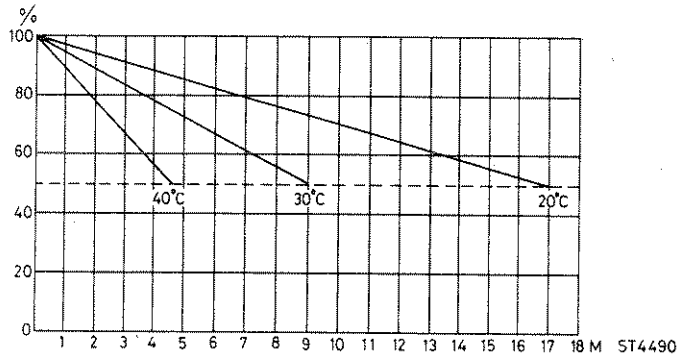
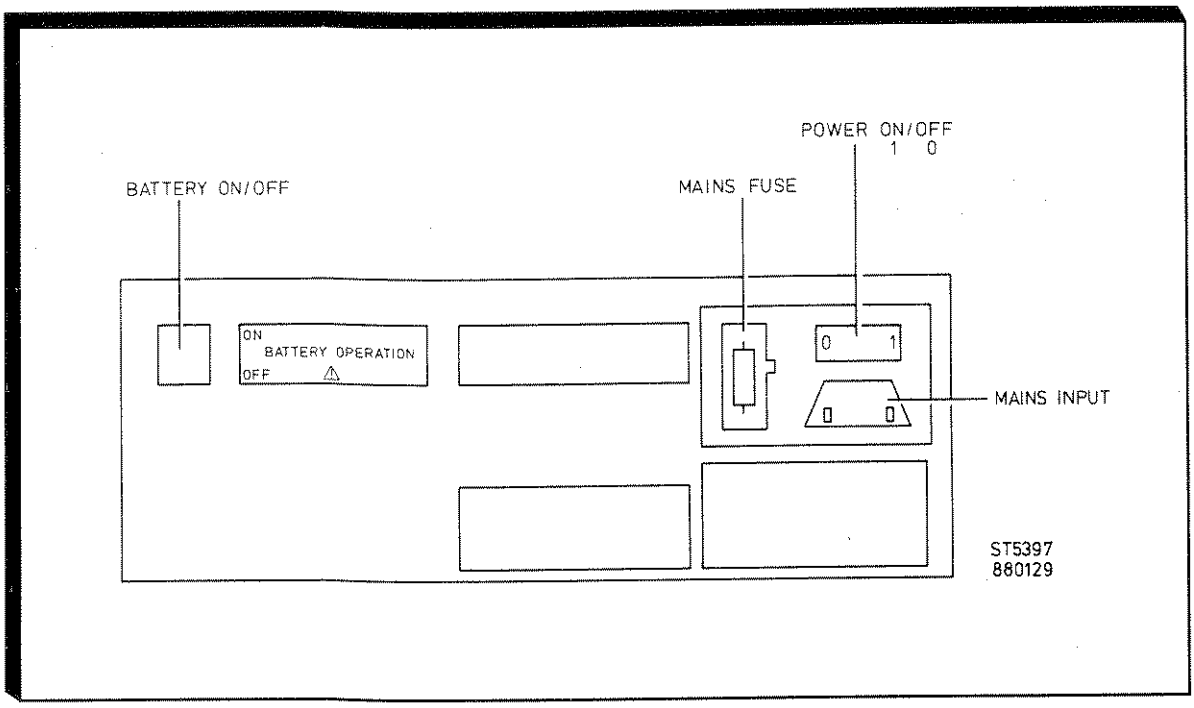


Fig. 1. Self-discharging of the battery
(charge in % of maximum charge as a function of time in months).

- 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 neutralyzing agent for the electrolyte is sodium carbonate (Na_2CO_3).
  If the latter is not available, hands and cloth must be throughly 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

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