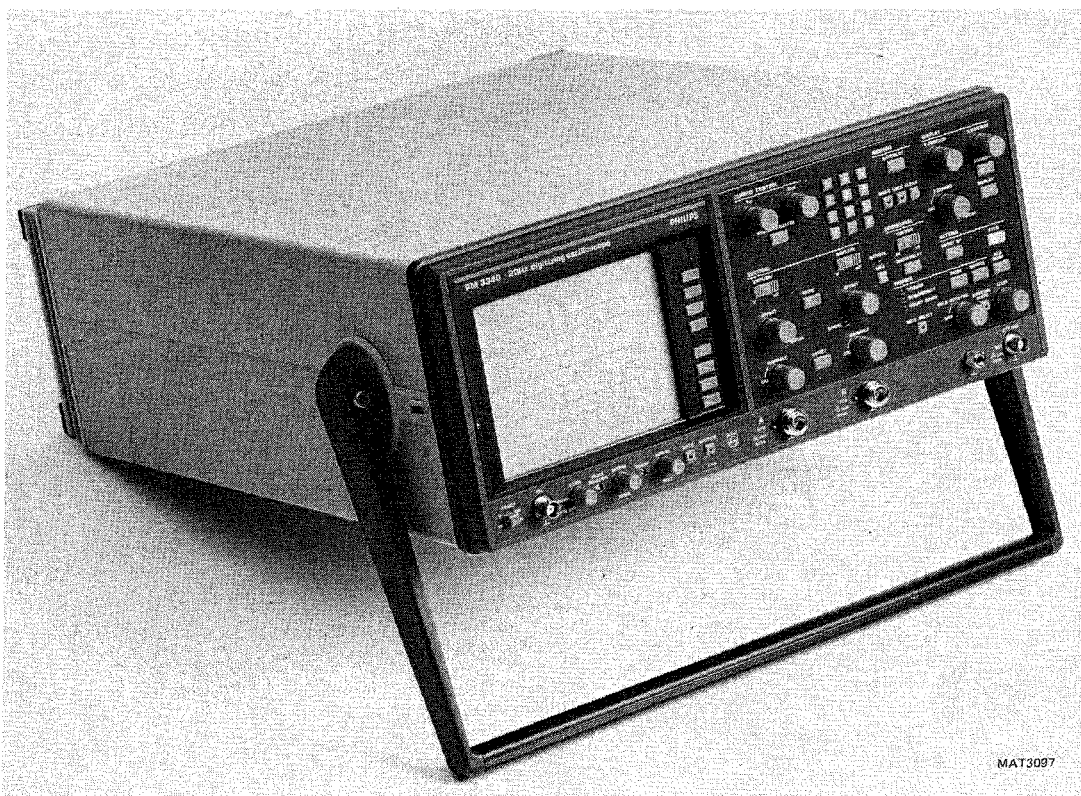


2 GHz Digitizing Oscilloscope PM3340

Service Manual

4822 872 05325
880601



WARNING: These servicing instructions are for use by qualified personnel only. To avoid electric shock do not perform any servicing other than that contained in the Operating Instructions unless you are fully qualified to do so.



PHILIPS

IMPORTANT

In correspondence concerning this instrument please quote the typenumber and serial number as given on the type plate.

NOTE:

The design of this instrument is subject to continuous development and improvement. Consequently, this instrument may incorporate minor changes in detail from the information contained in this manual.

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SAFETY INSTRUCTIONS

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SAFETY INSTRUCTIONS

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1.0 SAFETY INSTRUCTIONS

Read these pages carefully before installation and use of the instrument.

1.1 INTRODUCTION

The following clauses contain information, cautions and warnings which must be followed to ensure safe operation and to retain the instrument in a safe condition.

Adjustment, maintenance and repair of the instrument shall be carried out only by qualified personnel.

1.2 SAFETY PRECAUTIONS

For the correct and safe use of this instrument it is essential that both operating and servicing personnel follow generally-accepted safety procedures in addition to the safety precautions specified in this manual.

Specific warning and caution statements, where they apply, will be found throughout the manual.

Where necessary, the warning and caution statements and/or symbols are marked on the apparatus.

1.3 CAUTION AND WARNING STATEMENTS

CAUTION: Is used to indicate correct operating or maintenance procedures in order to prevent damage to or destruction of the equipment or other property.

WARNING: Calls attention to a potential danger that requires correct procedures or practices in order to prevent personal injury.

1.4 SYMBOLS



High voltage ≥ 1000 V (red)



Live part (black/yellow)



Read the operating instructions



Protective earth (grounding) terminal (black)

1.5 IMPAIRED SAFETY PROTECTION

Whenever it is likely that safety-protection has been impaired, the instrument must be made inoperative and be secured against any unintended operation. The matter should then be referred to qualified technicians.

Safety protection is likely to be impaired if, for example, the instrument fails to perform the intended measurements or shows visible damage.

1.6 GENERAL CLAUSES

- 1.6.1 WARNING: The opening of covers or removal of parts, except those to which access can be gained by hand, is likely to expose live parts and accessible terminals which can be dangerous to live.
- 1.6.2 The instrument shall be disconnected from all voltage sources before it is opened.
- 1.6.3 Bear in mind that capacitors inside the instrument can hold their charge even if the instrument has been separated from all voltage sources.
- 1.6.4 WARNING: Any interruption of the protective earth conductor inside or outside the instrument, or disconnection of the protective earth terminal, is likely to make the instrument dangerous.
Intentional interruption is prohibited.
- 1.6.5 Components which are important for the safety of the instrument may only be renewed by components obtained through your local PHILIPS organisation. (See also chapter 12).
- 1.6.6 After repair and maintenance in the primary circuit, safety inspection and tests, as mentioned in chapter 14 have to be performed.

INTRODUCTION **2**

INTRODUCTION

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2.0

INTRODUCTION

This dual channel digitizing storage oscilloscope features sampling techniques that allow display of signals with a frequency up to 2 GHz. The sampling system can operate in normal and in high resolution eye pattern mode.

The instrument is extremely easy to use because of the AUTO-SET pushbutton, which automatically sets the various controls of the instrument to suit the input signal value.

The brightness is independent of the time base settings.

The M68000 microprocessor gives a wide choice of measurement and display possibilities, which can be selected via the ergonomic designed front panel.

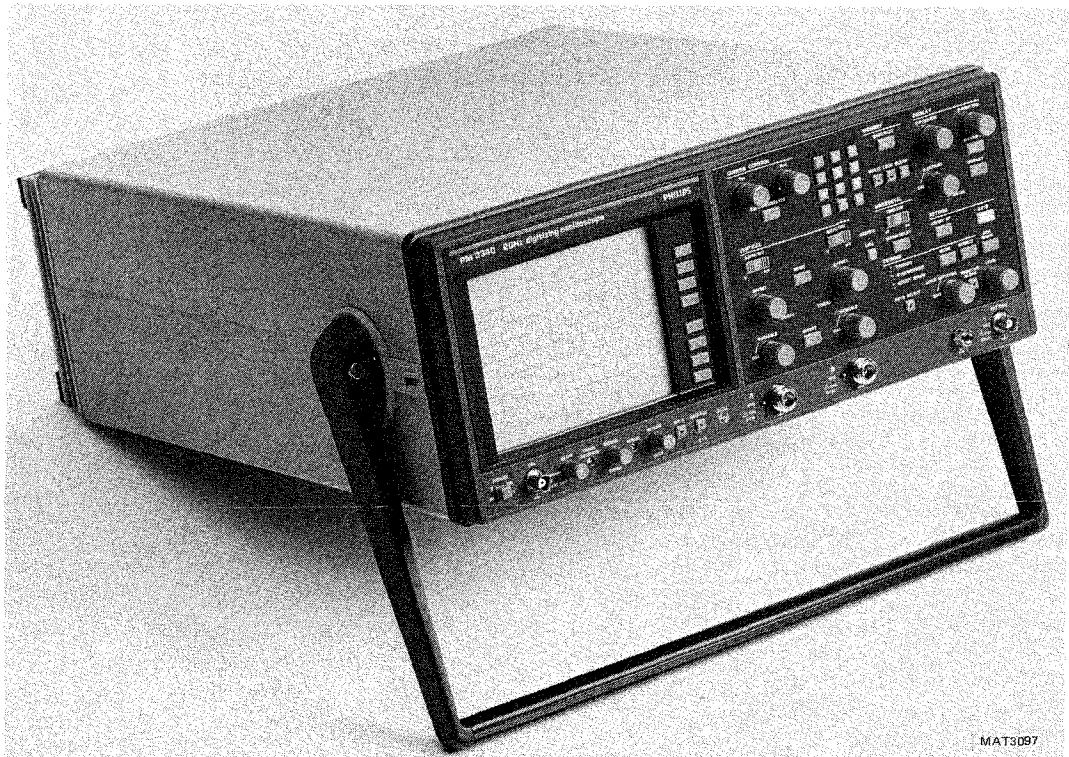


Figure 2.1 2 GHz digitizing oscilloscope.

The oscilloscope is provided with integrated circuits, which guarantee highly-stable operation.

Furthermore, connection to the local mains is simplified by a tapless switched-mode power supply that covers most voltage ranges in use: 90 V...264 V a.c.

All these features make this oscilloscope suitable for a wide range of high-frequency measuring applications, such as in telecommunications, component testing and development of fast computers.