1.0 GENERAL INTRODUCTION

The **LM21** is designed for the precise monitoring and recording of disturbances and fluctuations in electrical power supplies.

Modem electronic equipment requires high quality power supplies. The LM21 can be used to make assessments of the quality of a power supply system for either auditing or troubleshooting purposes. lie unit enables the operator to record fluctuations in power supply quality by translating out-of-limits events into easy-to-interpret printed messages.

The **LM21** has been designed in accordance with IEC Publication 348 (BS4743), Safety Requirements for Electronic Measuring Apparatus and has been supplied in a safe condition. This instruction manual contains information and warnings which must be followed by the user to ensure the safe operation and to maintain the unit in a safe condition.

The unit meets the requirements of Safety Class I and has been designed for indoor use. It may occasionally be subjected to temperatures between + 5°C and –10°C without degradation of its safety. It is recommended that the contents of this manual are read and understood before attempting to install or operate the unit.

9.0 OPERATING RANGE: ACCURACY AND SPECIFICATIONS

Instrument supply

single phase. 110V or 220/240V

Supply Voltage Range

110V nominal:	99V to 132V / 45Hz to 65Hz
220/240V nominal:	198V to 264V / 45Hz to 65Hz

Measurement supply

Up to 4.50V RMS either on one, two or three phases with frequencies between 45Hz to 65Hz or 360Hz to 520Hz. All measurement inputs (including earth) have a 1MOhm impedance.

Voltage measurement range

AC sinusoidal:	0V to 450V RMS
AC peak:	0V to 630V
Accuracy:	45Hz to 65Hz: ±0.5% ±0.5V

Frequency measurement range

Range:	37.5Hz to 99.99Hz or 300Hz to 999.9Hz
Accuracy:	±0.5% / ±0.0lHz or ±0.5% / ±0.1Hz
Resolution:	0.0lHz or 0.1Hz

Impulse voltage measurement range

Impulse range:	0kV to 2.0kV
Accuracy:	±5% / ±0.01kV
Resolution:	0.01kV
HF response:	6dB down for 100ns impulse width
LF response:	Down by IV per microsecond of rise time (to a maximum of 650V low)

D.C. channel

Range:	0Vdc to 60Vdc
Accuracy:	±0.5% / ±0.1v

The stated accuracies are applicable to operating temperatures between 15°C to 25°C.