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3.PRECAUTIONS BEFORE OPERATION

3-1.Unpacking the Instrument

The instrument has been fully inspected and tested before shipping from the factory. Upon receiving the instrument, please unpack and inspect it to check if there is any damages caused during transportation. If any sign of damage is found, notify the bearer and/or the dealer immediately.

3-2.Checking the Line Voltage

The instrument can be applied any kind of line voltage shown in the table below. Please check the line voltage indicated in the label attached on the real panel to replace correct fuses.



WARNING. To avoid electrical shock the power cord protective grounding conductor must be connected to ground.

When line voltages are changed, replace the required fuses shown as below:

Line voltage	Range	Fuse	Line voltage	Range	Fuse
100V	90-110V	T200mA	220V	198-242V	T100mA
120V	108-132V	250V	230V	207-253V	250V



WARNING. To avoid personal injury, disconnect the power cord before removing the fuse holder.

3-3.Equipment Installation, and Operation

Ensure there is proper ventilation for the vents in the case. If this equipment is used not according to the specification, the protection provided by the equipment may be impaired.

(4) LP FILTER

An unstable reading is caused from measuring noise of low frequency signals on channel A. The LP FILTER minimizes high frequency noise, permitting the counter to measure only the desired low frequency component.

For more stable reading, insert a 100kHz low pass filter into the channel A input circuit by pushing in the LP FILTER button.

(5) Attenuator

An attenuator is provided in the channel A input circuit for measuring large signals and for providing additional overload protection.

Reduce the input signal by 20 times by pushing in the ATT button. It is recommended that when measuring signals of unknown amplitude, this button should be pushed in for protection. If the amplitude is too low, the button can be released for greater sensitivity.

6. MAINTENENCE

The following instructions are executed by qualified personnel only. To avoid electrical shock, do not perform any servicing other than the operating instructions unless you are qualified to do so.

6-1. Standard method for calibration**(1) Input offset voltage adjustment**

Push the TRIG LEVEL knob and turn it to the central position.

Connect a 10MHz sine wave to channel A input BNC.

Adjust SVR102 and decrease amplitude of 10MHz sine (typically 20mVrms) to the minimum allowable to maintain display.

(2) Standard oscillator adjustment

Connect a standard reference frequency (10MHz, temperature stability < 0.2ppm) to channel A input.

Adjust the GATE TIME control for 8 digital display.

Adjust SVC201 for the most accurate display of the reference frequency.

(3) Hysteresis Bias voltage adjustment

Set the LP FILTER to ON and set the COUP to DC position. Push the TRIG LEVEL knob and turn it to the central position.

Connect a 1Hz sine wave 30mVrms to channel A input BNC. Adjust SVR103 to the minimum allowable to maintain display.

6-2.Cleaning

To clean the instrument, use a soft cloth dampened in a solution of mild detergent and water. Do not spray cleaner directly onto the instrument because it may leak into the cabinet and cause damage.

Do not use chemicals containing benzine, benzene, toluene, xylene, acetone, or similar solvents. Do not use abrasive cleaners on any portion of the instrument.