

Fig 2-1. FRONT PANEL

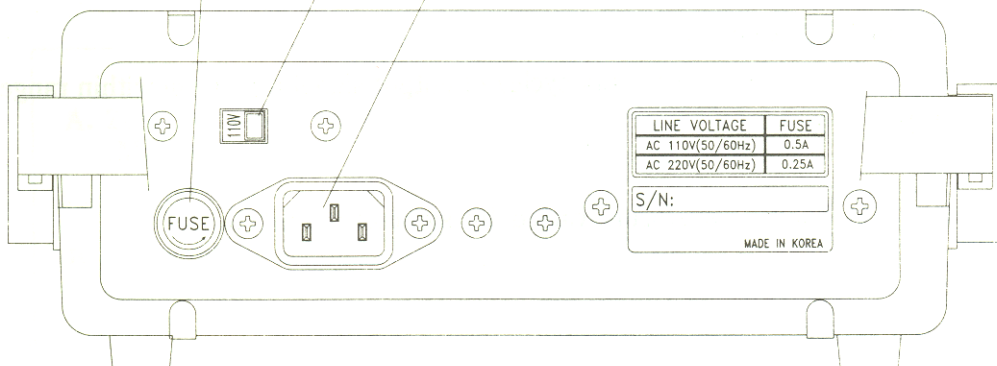


Fig 2-2. REAR PANEL

2. OPERATION INSTRUCTIONS

2-1. FRONT PANEL

① POWER Switch

Pressing this push switch turns on power.

② POWER Lamp

LED lights up when power is on.

③ Frequency Dial

This Variable potentiometer varies output frequency within the selected range with the frequency range selector.

④ SWEEP WIDTH/PULL ON Control

Pulling the knob selects internal sweep and Rotating it controls sweep width. Rotate it counterclockwise to get a minimum sweep width (1 : 1) and rotate it clockwise to get a maximum sweep width (100 : 1). To get a maximum sweep width, set the frequency dial to minimum scale (below 0.2 scale). Pushing the knob selects external sweep, which is implemented when external sweep voltage is applied to the VCF input connector.

⑤ SWEEP RATE Control

This controls sweep rate (sweep frequency) of internal sweep oscillator.

⑥ SYMMETRY Control

This controls symmetry (duty cycle) of output signal waveform within range of 10 : 1 to 1 : 10.

Fig 2-3. shows waveforms varied by symmetry control.

Knob position Waveform	PUSH	PULL		
		Center	Counter-clockwise	Clockwise
Square Wave				
Triangle Wave				
Sine Wave				
TTL Wave				

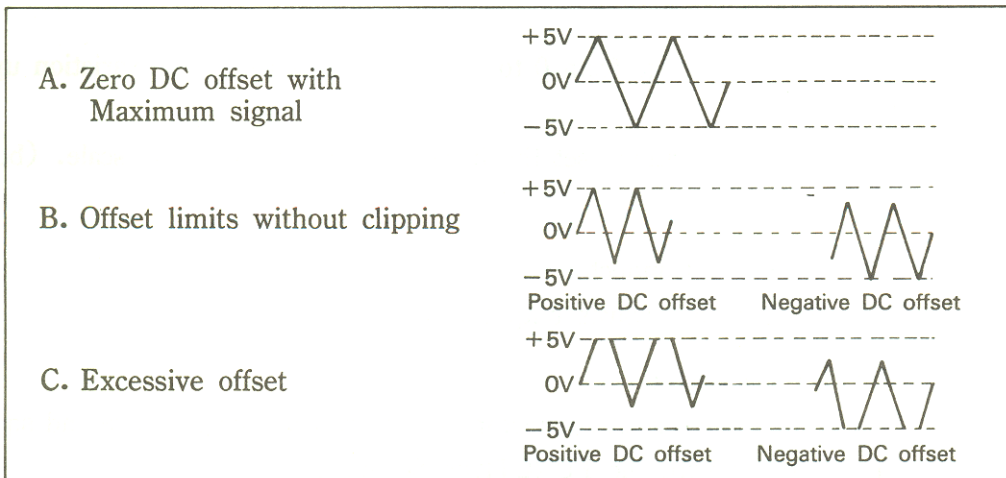
Fig 2-3. Symmetry control.

⑦ DC OFFSET Control

The DC offset control can provide up to $\pm 10V$ open circuit, or $\pm 5V$ into 50Ω .

Clockwise rotation admixes positive voltage and counter clockwise rotation admixes negative voltage.

Fig 2-4. shows the various operating conditions encountered when using DC offset.



All examples : Output terminated in 50Ω

Fig 2-4. DC offset control

⑧ AMPLITUDE/PULL -20dB Control

Amplitude of output signal can be controlled by this knob.

Maximum attenuation is more than 20dB when the knob is rotated fully counterclockwise.

Pulling this knob make attenuation of 20dB, so the output signal can be attenuated by 40dB when this is pulled and rotated fully counterclockwise.

⑨ FREQUENCY RANGE Selector

Select one of the following seven ranges of oscillation frequency as desired.

Frequency Ranges	Desired Output Frequency
.1	0.02Hz~ 2Hz
10	2Hz~ 20Hz
100	20Hz~200Hz
1K	200Hz~ 2KHz
10K	2KHz~20KHz
100K	20 KHz~200KHz
1M	200KHz~ 2MHz

⑩ FUNCTION Selector

Push one of three knobs to get a desired waveform out of sine wave, triangle wave and square wave.

⑪ VCF IN Connector

Frequency of output signal can be varied by applying voltage to this connector.

Application of voltage from 0 to +10V provides frequency variation up to 100 : 1.

To maximum variation, set the frequency dial to minimum scale. (below 0.2 scale)

⑫ TTL-OUTPUT Connector

TTL-level square waves output from here.

⑬ OUTPUT Connector

This is the main output connector for sine wave, triangle wave and square wave selected with the FUNCTION Selector.

2-2. REAR PANEL

⑭ Voltage Selector

Select rated voltage 110V or 220V according to the power line voltage to be applied to the instrument.

⑮ Power Cord

Connect to a power connector for supplying AC power.

⑯ FUSE Holder

Fuse holder for AC power supply.

Use a specified fuse for safety of the instrument.

3. MAINTANANCE GUIDE

3-1. CLEANING

When the outside of the case is stained, remove the stain by wiping it lightly with cloth moistened with neutral washing agent and the wipe the surface with a dry cloth, Never use strong volatile agent such as benzine or thinner.

3-2. CALIBRATION

To maintain instrument accuracy, perform the calibration of FG-8002 at least every 1000 hours of operation, or every six months if used infrequently. Calibration should be done by a qualified personnel.

3-3. TROUBLE CHECK

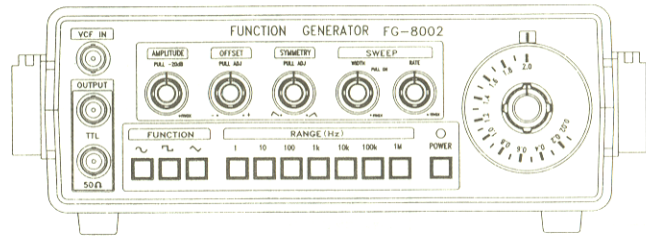
If trouble occurs in use, check the following items first.

- ① Voltage selector and power line voltage applied.
- ② Fuse specifications
- ③ Position of the Knobs
- ④ Cables connected to the instrument
- ⑤ Operation mistake.

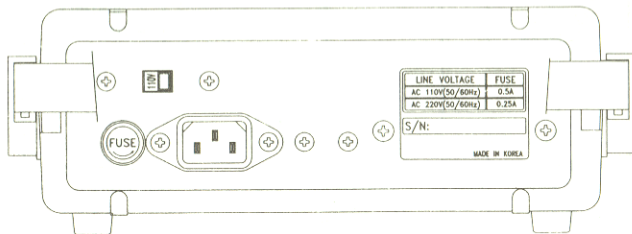
If the problem persists after checking all above,
Ask a service station or agent for service.

4. ILLUSTRATIONS

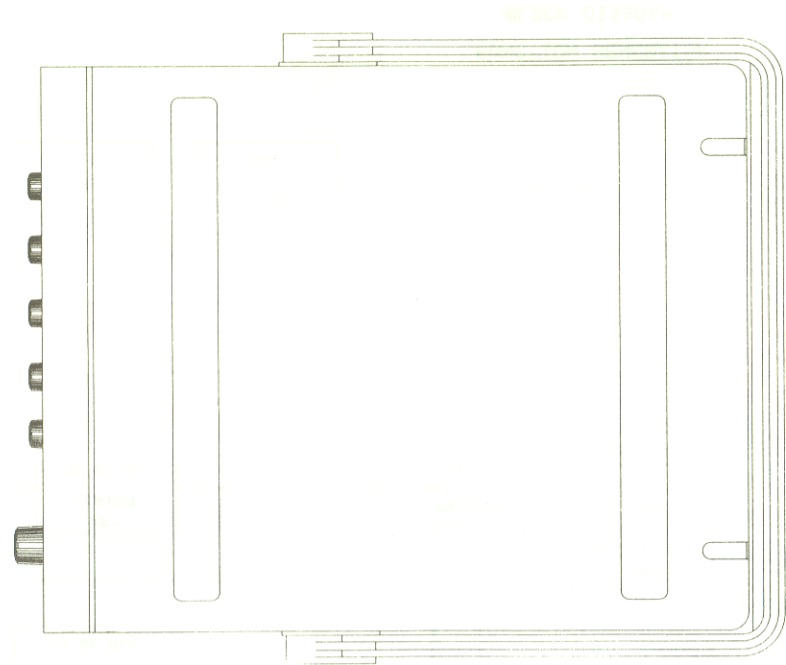
4-1. EXTERNAL VIEWS



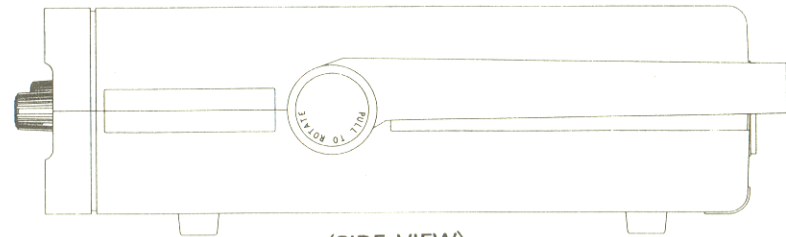
<FRONT VIEW>



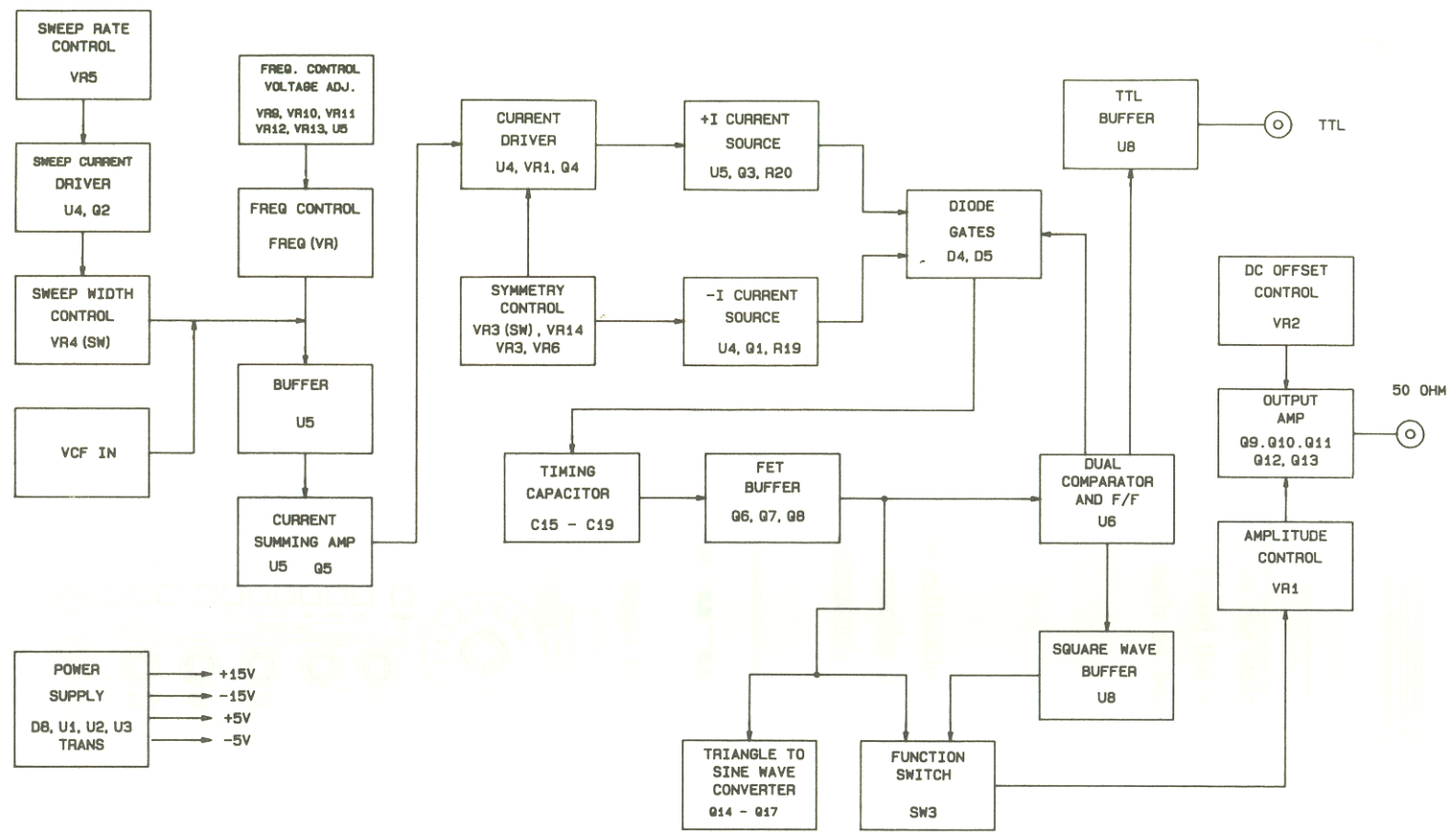
<REAR VIEW>



<UPPER VIEW>



<SIDE VIEW>



FUNCTION GENERATOR
BLOCK DIAGRAM