Sapphire Instruments Co., Ltd.

Calibration Procedure of SF-1200

This procedure is for use by qualified service personnel to adjust SF-1200A properly. The equipment required are listed in Table 1.

No	Item	Minimum Requirements
1	Power Supply	9VDC/90mA or 6VDC/70mA mains adaptor or 4xAA cells or power lead
2	DMM	DC Accuracy < 0.5%
3	Function Generator	Maximum Frequency > 10MHz Sine-wave Distortion < 1%
4	Oscilloscope	Bandwidth >= 20MHz Accuracy <= 2%

Table 1

This procedure is divided into following steps:

A. Prepare the probe for adjustment.

B. Adjust output offset voltage: VR2

C. Adjust square-wave compensation for +input: VC1.

A. Prepare the probe for adjustment.

A-1. Use a small flat screwdriver to peel the both panels off, referring to Fig. 1.

Fig. 1

A-2. Connect the power source.

A-3. Allow the probe and test equipments to warm up 20 minutes at an ambient temperature of 18 degree Celsius to 28 degree Celsius.

A-4. The Fig. 2 shows the location of adjustment (VR2 & VC1).

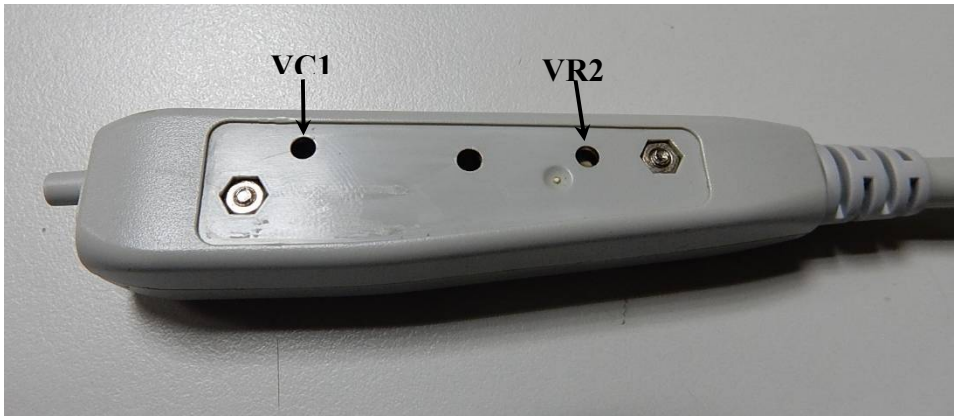

Fig. 2

B. Adjust output offset Voltage.

B-1. Connect the probe as shown in Fig. 3.

B-2. Adjust VR2 for minimum output offset voltage.

B-3. The criterion is -5mV <= Vout <= +5mV.

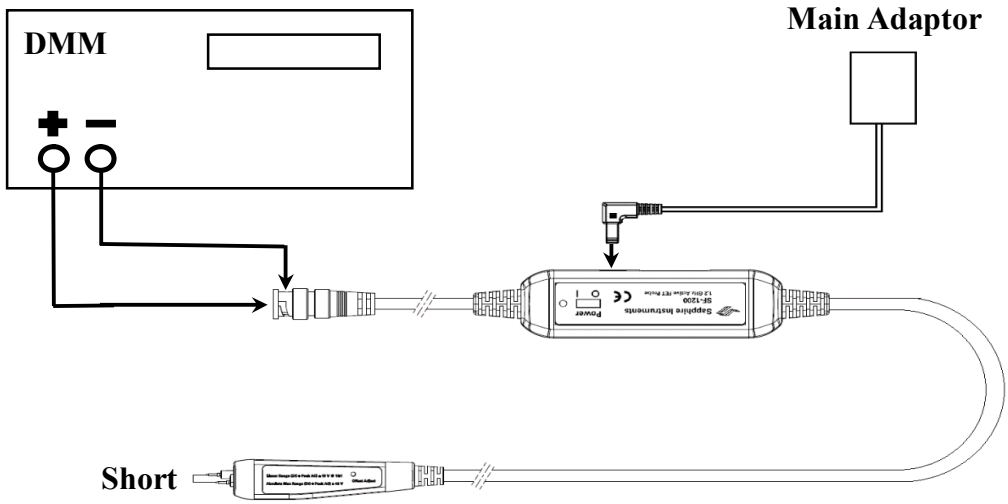

Fig. 3

C. Adjust square-wave compensation for +input.

C-1. Connect the probe as shown in Fig. 4.

C-2. Set the output of the function generator to 4Vp-p 3KHz square-wave. Connect the SF-1200A input to the function generator output.

C-3. Set the input impedance of the oscilloscope to 50ohm. (Add a feedthrough 50ohm terminator to the input, if the oscilloscope doesn't provide the 50ohm input impedance.) Connect the SF-1200A BNC output to the oscilloscope BNC input.

C-4. Adjust VC1 to make the front corner roll off or overshoot of the square-wave displayed on the oscilloscope less than 4 mV.

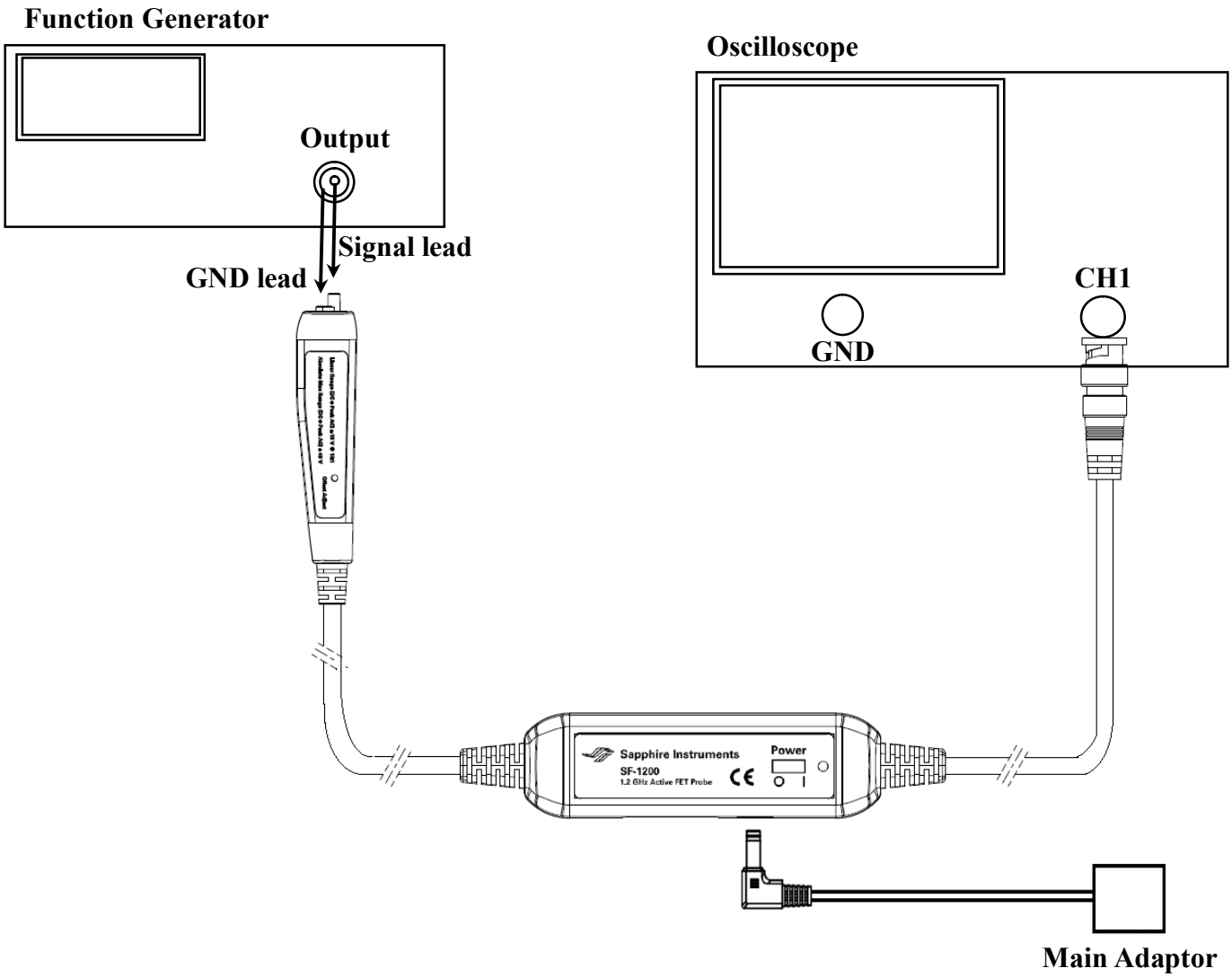

Fig. 4