

HIGH FREQUENCY HIGH VOLTAGE PROBE

高壓測試棒

INSTRUCTION MANUAL

使用說明書

For model:

***HVP-10R / HVP-18HF /
HVP-28HF / HVP-39pro***



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TABLE OF CONTENTS

1. SPECIFICATIONS	1
2. SAFETY PRECAUTIONS	2
3. OPERATION	2
4. COMPENSATION ADJUSTMENT	3
4-1 HVP-10R	3
4-2 HVP-18HF/ HVP-28HF/ HVP-39pro	4
5. WARNING	6
6. CLEANING	6
7. VOLTAGE DERATING CURVE	7
8. ACCESSORIES	9

目錄

1. 規格	11
2. 簡述與安全須知	12
3. 操作說明	12
4. 匹配電容調整	13
4-1 HVP-10R	13
4-2 HVP-18HF/ HVP-28HF/ HVP-39pro	14
5. 注意事項	16
6. 清潔	16
7. 電壓測試臨界曲線	17
8. 附件	19

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INSTRUCTION MANUAL

***HVP-10R / HVP-18HF /
HVP-28HF / HVP-39pro***

1. SPECIFICATIONS

Model	HVP-10R	HVP-18HF	HVP-28HF	HVP-39pro
Division Ratio	100:1	1000:1	1000:1	1000:1
Read Out	○	—	—	—
Input Resistance	100MΩ	200MΩ	500MΩ	900MΩ
Input Capacitor	2.0 PF	1.5 PF	1.7 PF	2.0 PF
Max. DC+AC peak	10KV CAT II	18KV CAT II	28KV CAT II	39KV CAT II
Max. AC RMS.	7KV CAT II	12KV CAT II	20KV CAT II	27KV CAT II
Max. Loading Current	100uA	90uA	56uA	45uA
Band Width	DC~120MHz	DC~150MHz	DC~200MHz	DC~220MHz
Rise Time	3.0 nS	2.4 nS	1.8 nS	1.6 nS
Signal / Noise	>60dB at 1KHz ; >50dB at 1MHz			
DCV Accuracy	≅3% Full Range			≅3% (0~35KV)
ACV Accuracy	≅3% at 1 KHz			
Temp. Coefficient	≅200 PPM/°C			
Compensation Range	10PF~35PF			
Safety	Meets EN61010-031 CAT II			
Cable Length	2M±0.2M			
Operation Temp.	-10~55 °C			
Humidity	85% RH or less(at 35°C)			
Storage Temp.	-20~70 °C			
Color: Handel/Body	Black/Milk Gray	Black/Yellow	Black/Dark Gray	Black/Red
Weight / Volume	460g /80(W) x 80(H) X 320(L) mm			

2.SAFETY PRECAUTIONS

This high voltage probe only for the person who are trained, experienced, or otherwise qualified to recognize hazardous situations and who trained in the safety precautions that necessary to avoid possible injury when using such a device.

Do not work alone when working with high voltage circuits.

For your own safety, inspect the probes for cracks and frayed or broken leads before each use. If defects are noted, **DO NOT USE** the probe.

Hands, shoes, floor and work bench must be dry. Avoid making measurements under humid, damp or other environmental conditions that might affect the safety of the measurement situation.

If possible, always turn the high voltage source off before connection or disconnection the probe.

The probe body should be kept clean and free of any conductive contamination.

The probe is for indoor use only.

3.OPERATION

Connect the divider probe common lead(alligator clip) to a good earth ground or reliable ground.

Connect the BNC connector to the BNC input of your oscilloscope.

Select the desired range of your oscilloscope. Whenever possible, turn the high voltage source off before making any connections.

4.COMPENSATION ADJUSTMENT

4-1 HVP-10R:

The following adjustment is required whenever the probe is transferred from one oscilloscope or input channel to another.

Connect the probe to the oscilloscope, apply a 1KHz square wave to the probe tip and adjust the oscilloscope controls to display a few cycles of the waveform. Adjust the trimmer located in the BNC plug for a flat topped square wave.

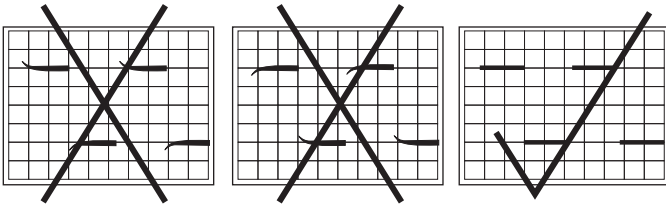
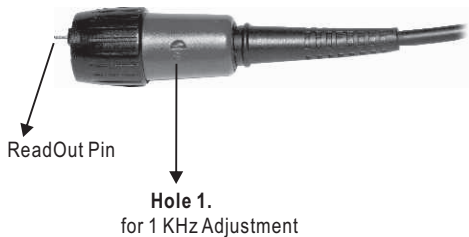


Illustration of 1KHz square wave adjustment.

The HVP-10R is compatible with readout function oscilloscopes that automatically detect and display the attenuation factor of the probe.



CAUTION:

When the measuring frequency was 40MHz up, you must change to the shortest earth lead and connected to the Alligator Clip(BP-276N-D) to obtained a best earth and the best frequency response.

4-2 HVP-18HF/ HVP-28HF/ HVP-39pro:

The following adjustment is required whenever the probe is transferred from one oscilloscope or input channel to another.

Connect the probe to the oscilloscope, apply a 200Hz square wave to the probe tip and adjust the oscilloscope controls to display a few cycles of the waveform. Adjust the trimmer located in the BNC plug for a flat topped square wave.

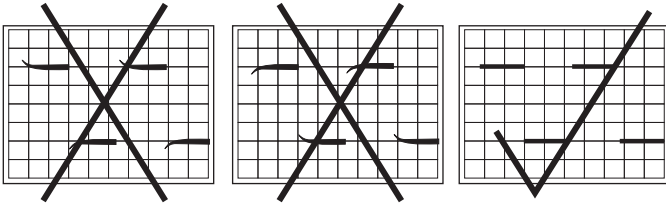
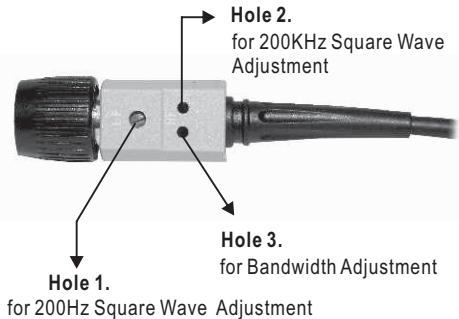


Illustration of 200Hz square wave adjustment.

Adjust the frequency response of the probe to match your oscilloscope by the adjust bar attached only.



CAUTION!

1. The HVP-18HF/ HVP-28HF/ HVP-39pro adjust Hole 2 and Hole 3 are for the qualified engineer only.
2. The HVP-10R adjusts Hole 1 only.

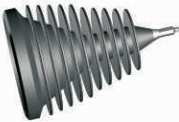
3. Before adjusting Hole 2 and hole 3, please move off the plastic cover at first.
4. Use the adjust bar attached only.
5. When the measuring frequency was 40MHz up, or to adjust Bandwidth(Hole 3.), you must changed to the shortest earth lead and connected to the Alligator Clip(BP-276N-D) to obtained a best earth and thee best frequency response.

BP-276N-D
(For 40MHz up
Measuring Frequency)



6. When the measuring voltage are 25KV up(HVP-28HF and HVP-39pro only), please connect HI-25 to the probe and that to meet the regulation of 2006/95 /EC Directive IEC/EN 61010-31:2002 .

HI-25 High Voltage Isolation Head



(connect the HI-25 & HVP-39pro)



5. WARNING

Do not attempt to take measurements from the sources when the chassis or return lead is not ground.

The ground connection is critical to the safety operation of the probe. Failure to make this connection may result in personal injury or damage to the probe or voltmeter. This connection must be made before the probe tip comes into contact with the high voltage and must not be removed until after the probe tip has been removed.

Do not connect the ground clip to the high voltage source or the probe tip to the ground for any reason.

BEFORE turning the high voltage on, make sure that no part of your body is in contact with the device.

Remembering that the voltage being measured is 1000 times(HVP-10R is 100 times) greater than the voltmeter reading.

Disconnect the probe tip from the high voltage source **BEFORE** removing the ground clip lead.

6. CLEANING

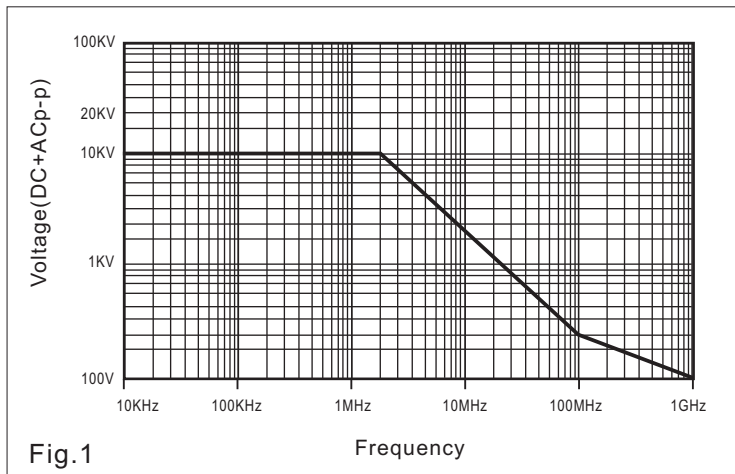
Clean only the exterior probe body and cables. Use a soft cotton cloth lightly moistened with a mild solution of detergent and water. Do not allow any portion of the probe to be submerged at any time.

Dry the probe thoroughly before attempting to make voltage measurement.

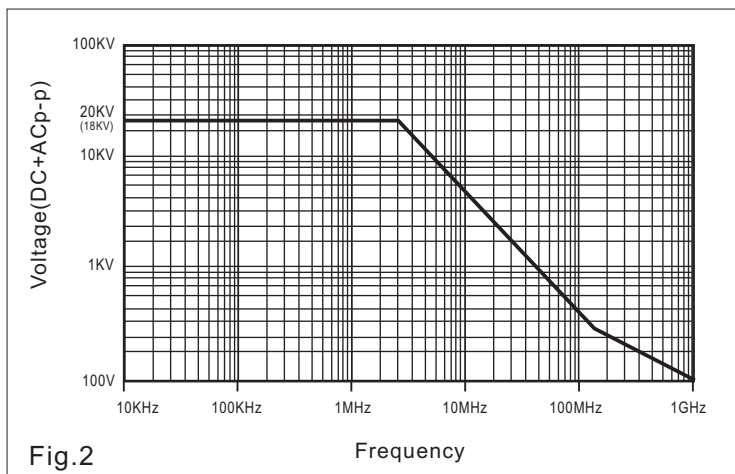
Do not subject the probe to solvents or solvent fumes as these can cause deterioration of the probe body and cables.

7.VOLTAGE DERATING CURVE

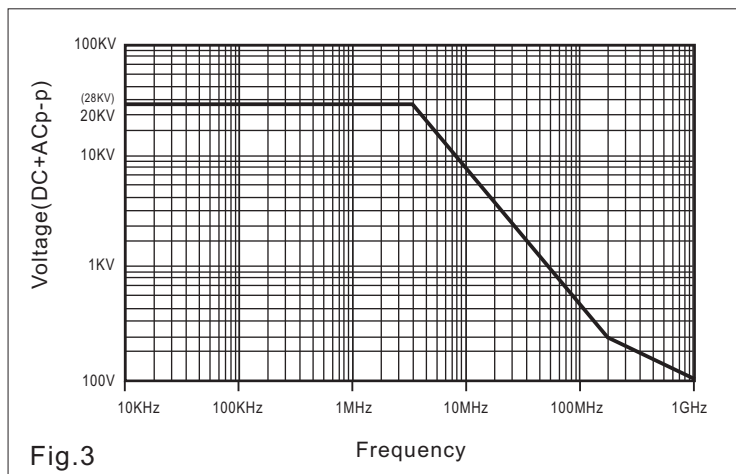
7-1 HVP-10R (10KV:2MHz / 300V:100MHz / 100V:1GHz)



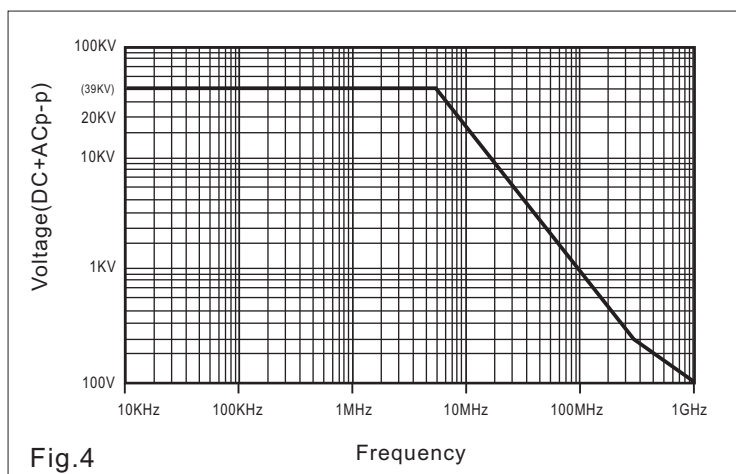
7-2 HVP-18HF (18KV:3MHz / 300V:150MHz / 100V:1GHz)



7-3 HVP-28HF (28KV:4MHz / 300V:200MHz / 100V:1GHz)



7-4 HVP-39pro (39KV:5MHz / 300V:250MHz / 100V:1GHz)



8.ACCESSORIES



Test CRT
for H.V.

ROD-ADJ-002
Adjust bar



PX-503
Carry Box



PL-10(Optional)
To Connect With
Digital DMM.

