How to Adjust the Probe Compensation

Frequency Compensation

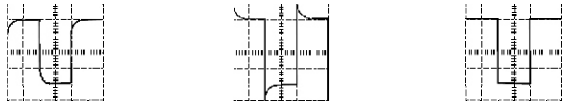
You are suggested to compensate the probe to match with the oscilloscope. The probes can be adjusted for both low-frequency compensation and high-frequency compensation. Low-frequency compensation is required at its first connection with the oscilloscope and high-frequency compensation can be performed regularly.

Low-frequency compensation

1 Connect the probe to the calibration signal output terminal and signal input terminal at the front panel of the oscilloscope.

2 Set the probe attenuation ratio to 10X and press **Auto** at the front panel of the oscilloscope. A 1 kHz square waveform is displayed on the screen.

3 Use the adjustment tool to adjust the low-frequency compensation adjustment hole to obtain the most flattest pulse (As figures below).



Incorrect Incorrect Correct

High-frequency compensation

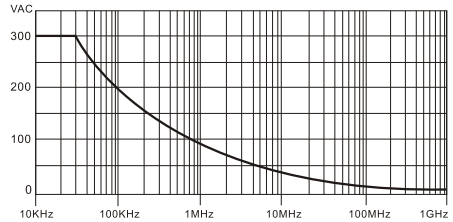
1 Connect the probe to a signal generator with fast edge signal through a 50Ω feedthrough (Use the ground spring to ground the probe).

2 Output a fast edge signal lower than 500ps from the generator.

3 Set the probe attenuation ratio to 10X and press **Auto** at the front panel of the oscilloscope.

4 Use the adjustment tool to adjust the high-frequency compensation adjustment hole in small increments until the displayed waveform has flat tops and steep rising edges.

Voltage vs Frequency Rating Curve



CAT II: IEC Measurement Category II. Inputs may be connected to mains (up to 300V AC) under Category II overvoltage conditions.

Equipment protected throughout by DOUBLE INSULATION or REINFORCE INSULATION.

⚠ Review this user manual carefully to avoid injury and prevent damage to this product or any products connected to it. To avoid potential hazards, use this product only as specified.

⚠ The measurement category of a combination of a PROBE ASSEMBLY and an accessory is the lower of the measurement categories of the PROBE ASSEMBLY and of the accessory.

⚠ If the PROBE ASSEMBLY is used in a manner not specified by the manufacturer, the protection provided by the PROBE ASSEMBLY may be impaired.

探 头 参 数 (Probe Characteristics)		
操作环境	Operation Environment	0~50℃，0~80%RH
存放环境	Storage Environment	-20~60℃，0~90%RH
探头尺寸	Cable Length	140±2cm
探头重量	Weight	About 56g
带 宽	Bandwidth	1X： DC~8MHz 10X：DC~350MHz
上升时间	Rise time	1X： 40ns 10X：900ps
衰 减 率	Attenuation Ratio	10:1 or 1:1 Switchable
输入阻抗	Input Resistance	1X： 1MΩ ±2% 10X：10MΩ ±2%
输入电容	Input Capacitance	1X： 100pF±20pF 10X：16pF±5pF
最大输入	Maximum Input	1X： CAT II 150V AC 10X：CAT II 300V AC
补偿范围	Compensation Range	5pF～29pF

探 头 零 件 清 单(Accessory Kit)			
Item	名称描述	Description	Quantity
1	探头	Probe	1
2	探头钩	Hook Tip	1
3	补偿调节棒	Adjustment Tool	1
4	绝缘保护帽	Locating Sleeve	1
5	标识环（黄, 粉, 浅蓝, 深蓝）	Maker Rings(yellow, Pink, light blue and dark blue)	8
6	接地鳄鱼夹	Ground Alligator Clip	1
7	接地弹簧	Ground Spring	1

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RIGOL®

用户手册

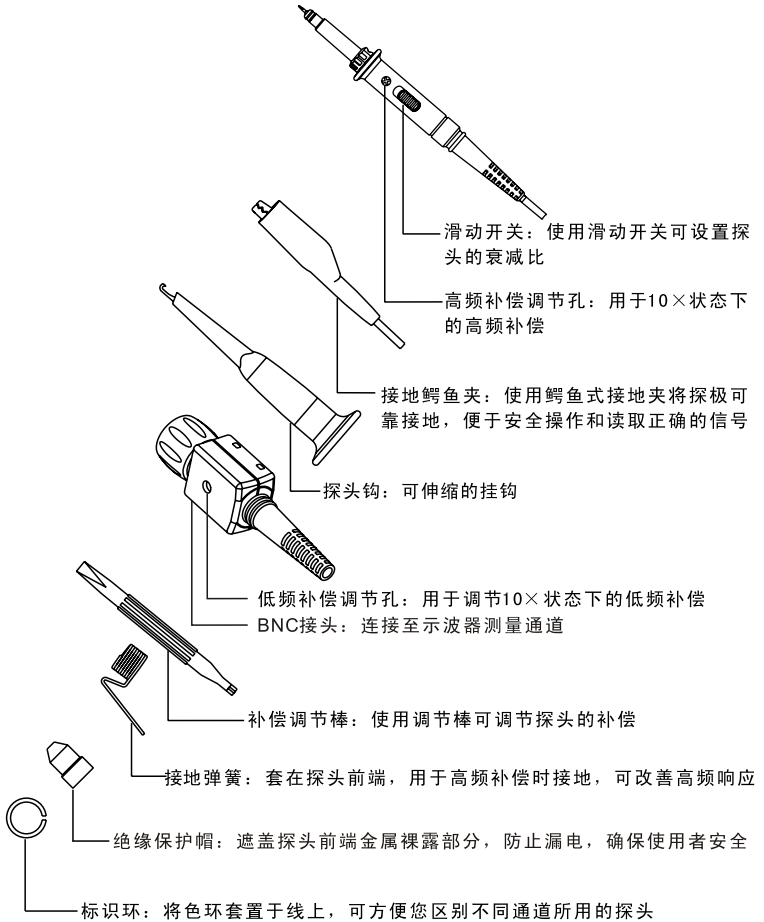
User's Guide

RP3300型无源示波器探头

RP3300 Passive Oscilloscope Probe

附件说明

RP3300系列探头配有附件，使测试更为方便。请在使用前尽量熟悉下列说明，以便更好地使用。



调节探头补偿

探头频率补偿

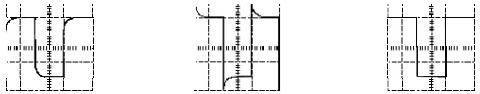
您需对探头进行补偿使其特性与示波器匹配。探头可进行低频补偿和高频补偿，首次与示波器相连需进行低频补偿，高频补偿可定期进行。

低频补偿

1 将探头连接到示波器前面板的校准信号输出端和信号输入端。

2 将探头衰减比设为10X，按下示波器前面板上的**Auto**键，屏幕将显示1kHz的方波。

3 使用调节棒调节低频补偿调节孔，直到得到如下图所示的方波。



高频补偿

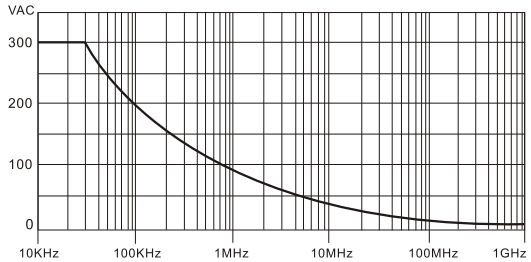
1 将探头通过50Ω匹配连接到一个快沿信号发生器（此时探头要用接地弹簧接地）。

2 从信号发生器输出小于500ps的快沿信号。

3 将探头衰减比设为10X，按下示波器前面板上的**Auto**键，观察示波器上波形。

4 使用调节棒以微小增量调节探头的高频补偿调节孔，直到显示的波形呈现出平坦的顶部和陡峭的上升沿。

最大输入电压-频率特征图



CAT II：IEC测量类别II。在类别II过压情况下，输入可能连接到的电力干线（高达300V AC）。

回 设备通过双重绝缘或加强绝缘保护。

⚠ 使用前请仔细阅读用户手册以避免人员损伤和设备及其所连接设备的损害。为避免危险，请按说明正确使用。

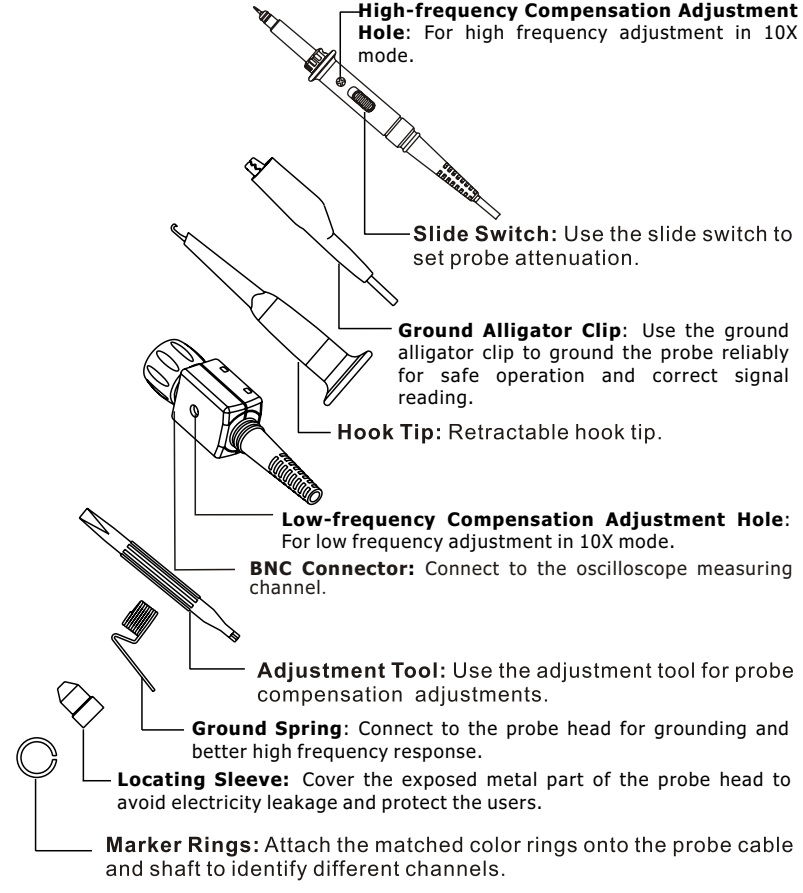
⚠ 探头与（辅助测试的）附件组合的测量等级是它们组合的较低者。

⚠ 如果用户不按照说明书使用探头，那么探头所提供的保护将会降低或消失。

注：产品规格如有变更，恕不另行通知。

Accessories and Features

RP3300 is provided with several accessories designed to make probing and measurement simpler. Please take a moment to familiarize yourself with these accessories and their uses.



Note: Contents of this document are subject to change without notice.