



How to adjust phases on a single DG arbitrary waveform generator

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Solution:

The Rigol DG series of arbitrary waveform generators all have a phase alignment feature. This allows you to align the phases of the outputs and then adjust the phase of one of the channels relative to the other.

In this example, we will use a DG4000 series, but the process is similar across the DG product line.

1) Set up each channel (select amplitude, waveform type, and frequency)

NOTE: Phase alignment on the DG series requires that the outputs are enabled **before** phase alignment can be used. If your device or circuit is sensitive to input signal amplitude, use a low amplitude setting like 10mV for both channels before alignment then adjust the amplitudes to the proper outputs after alignment.

2) Enable the output channel 1 (or 2)

3) Enable the output for the other channel

4) Press "Align Phase" to get phase alignment (0 degree offset)



Figure 1: DG4000 display. Note Align Phase label.

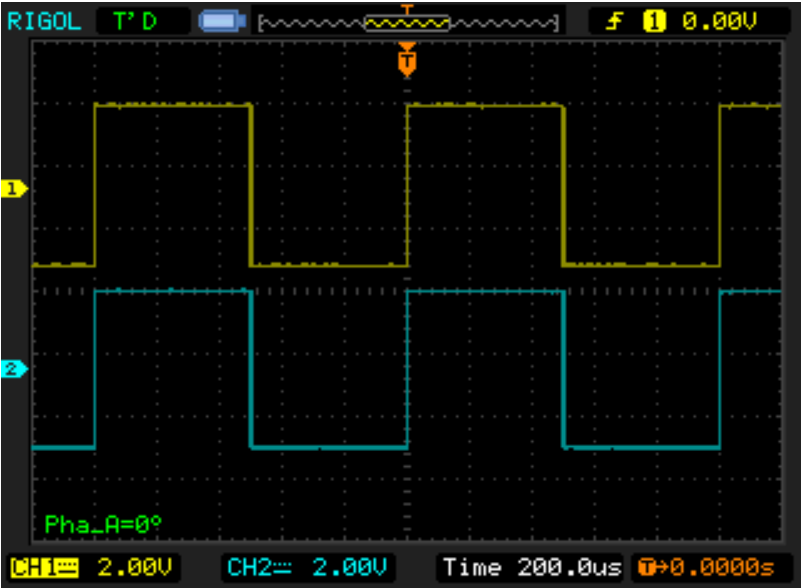


Figure 2: Output of channel 1 and channel 2 after pressing Align Phase.

5) Select "Start Phase" menu item and use scroll wheel or keypad to change phase offset



Figure 3: Channel 2 start phase changed to 66 degrees.

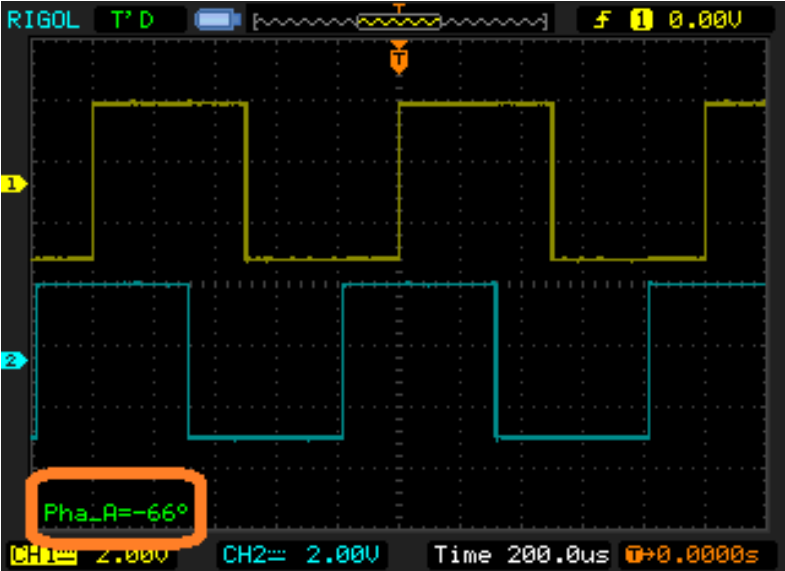


Figure 4: Output of channel 1 and 2 on a scope.



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