

Names _____

Objectives:

To investigate magnetic coupling and its mitigation.

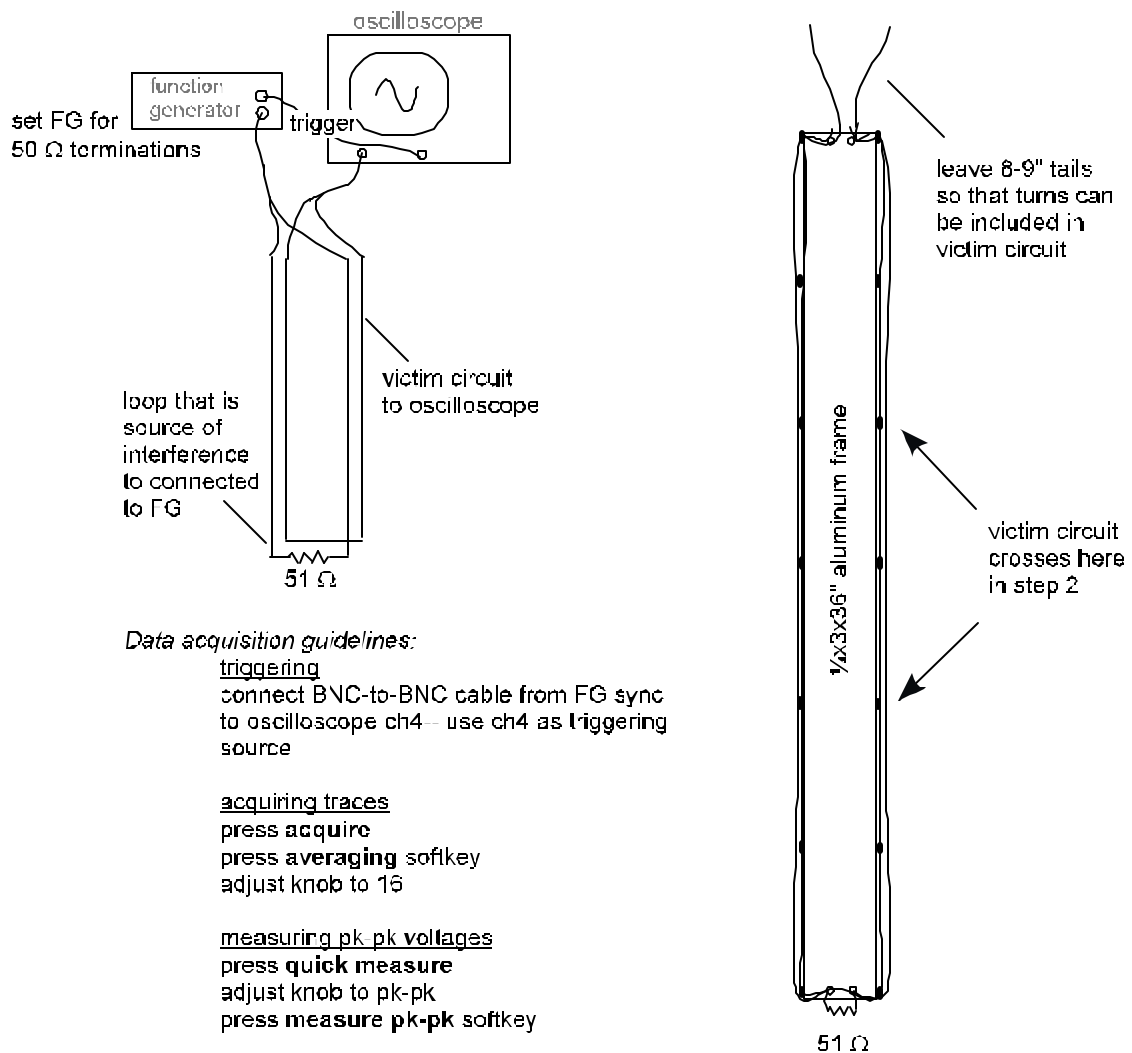
Deliverables

Completed procedure.

Procedure

1. Construct system shown below.

magnetic coupling laboratory setup



FG setting			observed magnetically coupled voltage (V_{pp})
V_{pp} (V)	f (kHz)	waveform	
4	500	sinusoid	
4	5000	sinusoid	
8	500	sinusoid	
8	5000	sinusoid	
5	1	square	(observe with oscilloscope adjusted to 200 μ s/div)
<u>show trace for square wave</u>			
explain trace shape			

2. Reconnect victim circuit for 3 loops

FG setting			observed magnetically coupled voltage
V_{pp} (V)	f (kHz)	waveform	
4	500	sinusoid	
4	5000	sinusoid	
8	500	sinusoid	
8	5000	sinusoid	
5	1	square	

3. From your observations with sinusoidal voltages, give correlations between source and voltage induced in victim circuit.

Instructor initials _____