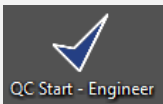
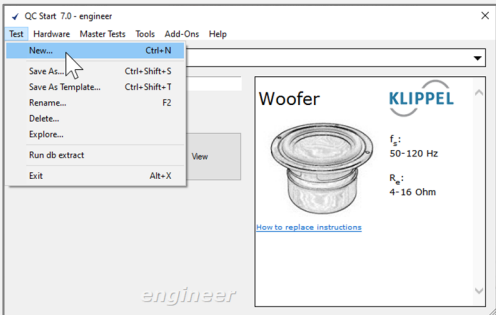



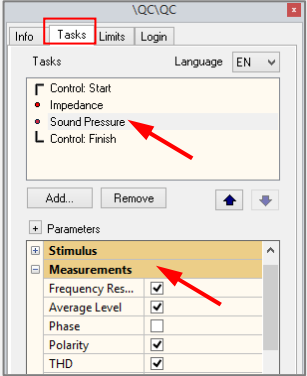
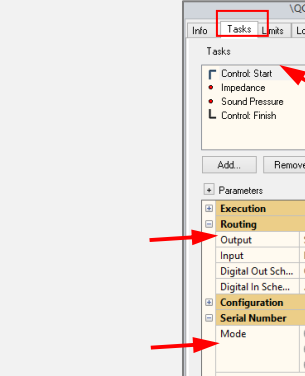
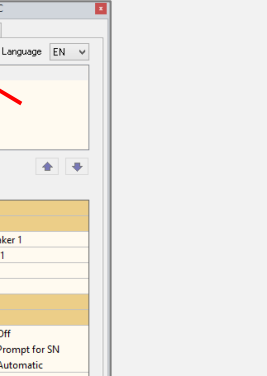
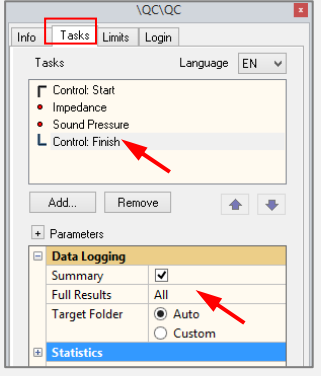
Klippel QC - Quick Setup Guide



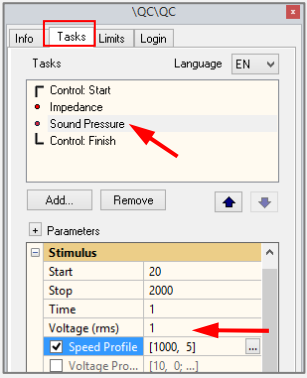

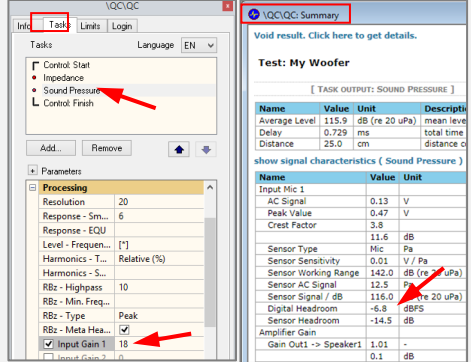
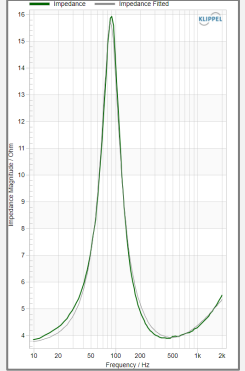
1 Select the Template for Your Test

<p>Run QC Start - Engineer</p> 	<p>Create new test (Ctrl-N)</p> <p>Select Template, enter Test Name</p>  <p>Press Measure</p> 	<p>Templates are available for</p> <ul style="list-style-type: none"> • Transducers • Active / Bluetooth / Passive Audio Systems • Headphones • Integrated Audio Devices (Smart Speaker) • Transducer Components • Microphones • ...
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2 Configure Test

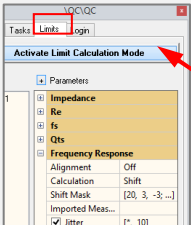

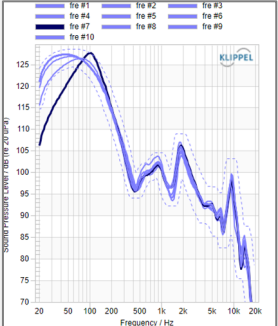
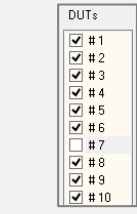
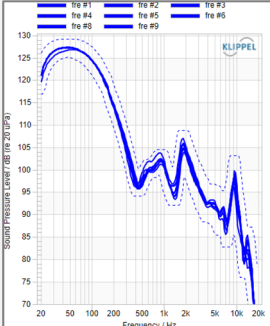
Relevant Results enabled?	Speaker + Mic Routing?	Use Serial Number?	Data Logging: All Results / Summary?
			

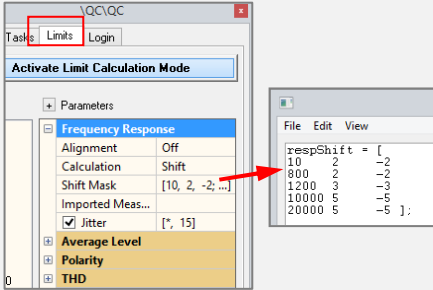
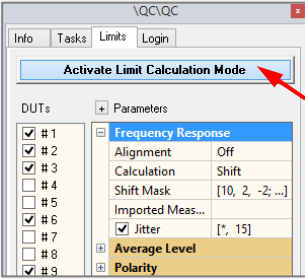

3 Adjust Voltage

Set Sound Pressure Voltage	Press Start	Adjust Mic Headroom	Check Impedance
 <p>According to specification</p>		 <p>If possible, adjust Input Gain until Headroom is within -10 dB ... -3 dB range.</p>	 <p>Curve smooth? If not, adjust voltage.</p>

Now the measurement setup is complete.

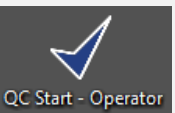
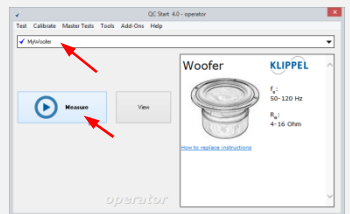
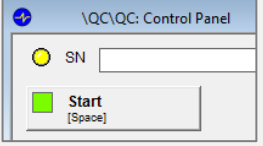
4 Limit Setup

Activate Limit Mode	Measure Reference DUTs	Calculate Limits	Remove strongly deviating DUTs	Check Limits
 <p>Press button Activate Limit Calculation Mode.</p>		 <p>Press Calculate button</p>	 <p>Deactivate Failed Reference DUTs (#7 in the example); Press Calculate button.</p>	 <p>Are all reference DUTs inside limits?</p>

Adjust Limits (only if required)	Exit Limit Mode	Trial Run																																						
<div><table border="1"><caption>respShift =</caption><thead><tr><th></th><th></th><th></th></tr></thead><tbody><tr><td>10</td><td>2</td><td>-2</td></tr><tr><td>800</td><td></td><td></td></tr><tr><td>1200</td><td>3</td><td>-3</td></tr><tr><td>10000</td><td>5</td><td>-5</td></tr><tr><td>20000</td><td>5</td><td>-5</td></tr></tbody></table></div> <p>Edit Parameters</p> <p>Enlarge headroom and restrict frequency range.</p>				10	2	-2	800			1200	3	-3	10000	5	-5	20000	5	-5	<div></div> <p>Disable button Activate Limit Calculation Mode.</p>	<div><p>Press Control Panel – Start button</p><div><div><p>Good unit</p><div><p>PASS</p><table><tr><td>Frequency Response</td><td>100%</td></tr><tr><td>Average Level</td><td>100%</td></tr><tr><td>Polarity</td><td>100%</td></tr><tr><td>THD</td><td>100%</td></tr><tr><td>Rub + Buzz</td><td>100%</td></tr></table></div></div><div><p>Defective unit</p><div><p>FAIL</p><table><tr><td>Frequency Response</td><td>100%</td></tr><tr><td>Average Level</td><td>100%</td></tr><tr><td>Polarity</td><td>100%</td></tr><tr><td>THD</td><td>100%</td></tr><tr><td>Rub + Buzz</td><td>50%</td></tr></table></div></div></div><p>All bad units should be detected as FAIL.</p><div><div> Logout [F8]</div><p>Logout to exit QC Engineer mode</p></div></div>	Frequency Response	100%	Average Level	100%	Polarity	100%	THD	100%	Rub + Buzz	100%	Frequency Response	100%	Average Level	100%	Polarity	100%	THD	100%	Rub + Buzz	50%
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800																																								
1200	3	-3																																						
10000	5	-5																																						
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Rub + Buzz	50%																																							

Now everything is set for production testing.

5 Run Production Testing

Run QC Start - Operator	Select and start prepared test	Press Start or enter Serial Number to check production
		

Find more information in the following QC User Manual chapters:

Commented version of this guide	Getting Started / First Measurement
Select the Template	Test Configuration / Test Templates
Configure Test	Test Configuration
Adjust Level	Optimizing Performance
Settings Limits	Test Configuration / Limit Calculation
Run Production	User Modes / Operator