

Quick Klippel-QC Setup Guide



Use specification data, if available. Use this guide for missing parameters only.

1 Select the Template for your Driver

Template	fs Range [Hz]	Re Range [Ω] ¹	SPL limit range [Hz]	SPL time [s]
Subwoofer	10 – 50	2 – 8	20 – 200	2
Woofers	20 – 150	2 – 8	20 – 1000	1
Midrange	100 – 500	4 – 8	50 – 2000	1
Tweeter	400 – 3k	4 – 8	200 – 20k	0.5
Horn Driver	200 – 2k	4 – 16	400 – 20k	1
Microspeaker	200 – 2k	4 – 30	200 – 5k	0.5
Headphones	30 – 400	10 – 200 ²	20 – 20k	1

Start Klippel QC Engineer

Create new test (Ctrl-N), select Template, enter Test name and Start.

2 Configure Test

Measurements enabled?	Speaker + Mics Routing?	Use Serial Number?	Data Logging: All Results/ Summary?

3 Adjust Voltage

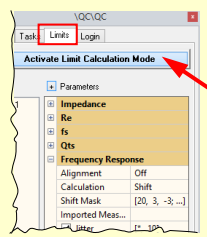
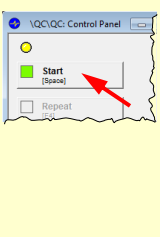
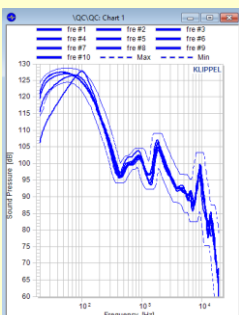
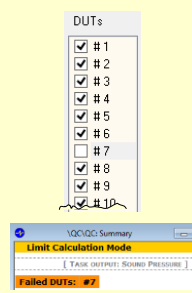
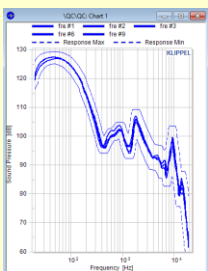
Set Sound Pressure Voltage	Press Start	Adjust Mic Headroom	Check Impedance
<p>According to specification</p>		<p>Adjust Input Gain until Headroom is in -10...-3 dB range.</p>	<p>Curve smooth? If not, adjust voltage.</p>

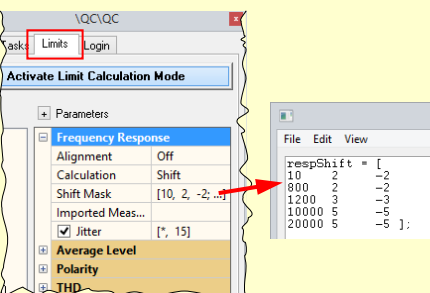
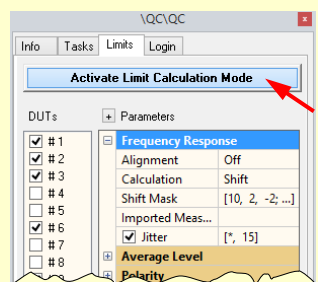
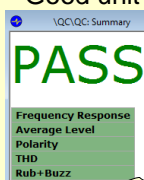
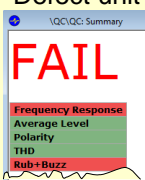

Now, the measurement setup is complete.

¹ If Re is outside this range, please scale level relative to the middle specified value of Re (the higher Re, the higher the level). See Manual section Optimizing Performance.
² For Re>30 Ohm, special hardware version required.

ENGINEER


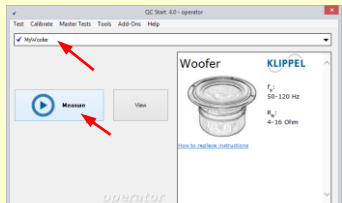
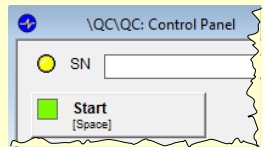
4 Setting Limits

<p>Activate Limit Mode</p>  <p>Press button Activate Limit Calculation Mode.</p>	<p>Measure Reference DUTs</p> 	<p>Calculate Limits</p>  <p>Press Calculate button</p>	<p>Remove strongly deviating DUTs</p>  <p>Deactivate Failed Reference DUTs (#7 in the example); Press Calculate button.</p>	<p>Check Limits</p>  <p>Are all Reference DUTs inside limits?</p>
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<p>Adjust Limits (only if required)</p>  <p>Edit Parameter Enlarge headroom or restrict frequency range.</p>	<p>Exit Limit Mode</p>  <p>Disable button Activate Limit Calculation Mode.</p>	<p>Trial Run</p> <p>Press Control Panel – Start button</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="1029 795 1189 1008"> <p>Good unit</p>  </div> <div data-bbox="1268 795 1428 1008"> <p>Defect unit</p>  </div> </div> <p>All bad drivers should be detected as FAIL.</p>  <p>Logout as Engineer; Exit QC-Start Engineer.</p>
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Now, the whole setup is complete and ready for production.

5 Run Production

<p>Launch Klippel QC Operator</p> 	<p>Select and start prepared Test</p> 	<p>Press Start or enter Serial Number to check production</p> 
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Links to Manual for more information:

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