

# Raymarine sounder controls explained

Control	What does it do?	How should I use it?															
<b>Gain</b> ( <i>Sensitivity</i> on a CP100 or Dragonfly)	A filter which controls <b>what</b> signals are displayed: signals weaker than the threshold are not visible	Start High (100%). Reduce until unwanted signals are no longer visible on A-Scope Mode 2															
<b>Colour Gain</b> ( <i>Contrast</i> on a CP100 or Dragonfly)	Controls the amplitude (colour) of displayed signals; has no effect on what signals are displayed	Start Low (<=10%). After adjusting Gain, increase CG until bottom return just shows in red															
<b>Time Variable Gain</b> ( <i>Noise Filter</i> on a CP100 or Dragonfly)	Selectively suppresses close-in signals because of the stronger echo at short range. TVG controls how strong and how deep this effect operates	Adjust last. Use to remove clutter that is <b>ONLY</b> visible in the upper part of water column (if clutter is visible throughout you should use Gain instead). Adjust as follows:															
		<table border="1"> <thead> <tr> <th>Sounder</th> <th>Software</th> <th>TVG</th> </tr> </thead> <tbody> <tr> <td>DSMs</td> <td>All</td> <td>Start at <b>0%</b></td> </tr> <tr> <td>CP100, CP200, Dragonfly</td> <td>All</td> <td>Start at <b>0%</b></td> </tr> <tr> <td>CP450C, CP300</td> <td>v3 and earlier</td> <td>Start at <b>100%</b></td> </tr> <tr> <td>CP450C, CP300</td> <td>v4 and later</td> <td>Start at <b>31%</b> and increase</td> </tr> </tbody> </table>	Sounder	Software	TVG	DSMs	All	Start at <b>0%</b>	CP100, CP200, Dragonfly	All	Start at <b>0%</b>	CP450C, CP300	v3 and earlier	Start at <b>100%</b>	CP450C, CP300	v4 and later	Start at <b>31%</b> and increase
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# Raymarine Sounder hints and tips

- Run a Single frequency for **fastest scroll rate** (frequency in brackets means that frequency is running but hidden, which will slow scrolling)
- What you see on the sounder display are real signals: if you see clutter, it's either noise from your own vessel's systems or it's in the water, but **if you reduce Gain to hide it then you risk hiding other, valuable echoes of similar or lower signal strength. It's better to leave Gain high and reduce Colour Gain.**
- Choose your frequency based on the beam width you need as well as water depth and resolution required. Lower frequencies produce a wider beam: **a wider beam will see more fish**

Frequency	Beam width	Resolution
<b>200kHz</b>	Narrow	High
<b>50kHz</b>	Wide	Low
<b>High Chirp</b> (CP450C, CP100, Dragonfly)	Narrow (CP450C), Wide (CP100, Dragonfly)	Extremely high
<b>Medium Chirp</b> (CP450C)	Medium	Very high
<b>Low Chirp</b> (CP450C)	Wide	High