

Raymarine sounder controls explained

Control / alternate name	What does it do?	How should I use it?															
Gain / Sensitivity	A filter which controls what 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/Right															
Colour Gain / Intensity / Contrast	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															
Time Variable Gain (TVG) / Surface Filter / Noise Filter	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 ONLY 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 0%</td> </tr> <tr> <td>All sounders after CP300/CP450C</td> <td>All</td> <td>Start at 0%</td> </tr> <tr> <td>CP450C, CP300</td> <td>v3 and earlier</td> <td>Start at 100%</td> </tr> <tr> <td>CP450C, CP300</td> <td>v4 and later</td> <td>Start at 31% and increase</td> </tr> </tbody> </table>	Sounder	Software	TVG	DSMs	All	Start at 0%	All sounders after CP300/CP450C	All	Start at 0%	CP450C, CP300	v3 and earlier	Start at 100%	CP450C, CP300	v4 and later	Start at 31% 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**
- On modern sounders, **Auto will do better than Manual**
- **If you do use Manual**, adjust Gain down, Colour Gain up repeatedly until only a little clutter is left, then adjust TVG last of all

Frequency	Beam width	Resolution
200kHz	Narrow	Moderate
50kHz	Wide	Low
High Chirp	Narrow or Wide depending on transducer	Extremely high
Medium Chirp	Medium	Very high
Low Chirp	Wide	High