



## Low Frequency Attenuation Filter and Monitor Zone Programming

Strategic programming of ICDs requires balancing risk and benefit. Over the years, programming patterns have shifted towards use of higher cut-off rates, longer detection times and use of features intended to optimize VT/VF detection. The intent of this Technical Insight is to provide information pertaining to device behavior when Low Frequency Attenuation (LFA) is active and how Abbott devices operate when a monitor zone is used.

### Low Frequency Attenuation (LFA) Filter

The LFA filter provides an option for reducing the risk of inappropriate therapy due to post sensed T-wave oversensing (PSTWOS). As with any filter, LFA will alter the sensed signal. Since LFA attenuates low frequency signals, it may decrease the ability to detect low signal amplitude VF. The following information should be noted with respect to LFA programming:

- When LFA is “ON”, nominal Maximum Sensitivity for R-wave detection is 0.5 mV. When LFA is “OFF”, nominal Maximum Sensitivity for R-wave detection is 0.3 mV.
- For patients who are paced (e.g. CRT-D patients) where PSTWOS is not of concern, consider programming the LFA filter “OFF”.

### Monitor and Therapy Zone

The following should be noted with respect to monitor zone programming:

- A monitor zone is a non-therapy zone and tachyarrhythmias detected in this zone are not counted towards detection in a therapy zone.
- Programming a monitor zone automatically adjusts the slowest therapy zone cut-off to a faster rate. This cut-off can be programmed depending on patient need and physician preference.
- If tachyarrhythmia detection begins in a therapy zone, the device will consider the episode ended if/when the arrhythmia slows into a monitor zone.

In summary, programming of LFA and monitor zone should be optimized based on patient need and professional medical judgement.

If you have any questions about this communication, please contact Abbott Technical Services.

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#### Technical Services (U.S.)

Phone Number 800.722.3774

Email [CRMtechnicalservices@abbott.com](mailto:CRMtechnicalservices@abbott.com)

#### Technical Services (International)

Phone Number +46.8.474.4147

Email [CRMtechnicalsupport@abbott.com](mailto:CRMtechnicalsupport@abbott.com)