

Forward Error Correction (FEC) and Scrambling

Settings for Pacific Crest radios used with Magellan receivers

DESCRIPTION:

Pacific Crest recommends that Forward Error Correction (FEC) and Scrambling should be enabled on their radios and these are the default settings. Magellan engineers believe that FEC and Scrambling add a significant amount of overhead to the broadcast (50% increase) and could cause problems when using narrow band radios (12.5 KHz channel spacing), RTCM 2.x corrections and the additional constellations of GLONASS and SBAS. A decision was taken by Magellan engineers to disable FEC and Scrambling due to these potential problems.

FEC provides improved noise immunity and range. Data is interleaved to provide burst error correction capabilities. FEC and Scrambling enabling may also be required for compatibility purposes with existing UHF broadcasting networks.

RECOMMENDATION:

Magellan dealers should consult with their customers to determine which settings are more appropriate for their intended use. These parameters can be programmed into the radios using the PDL-Conf (found on the Pacific Crest website) or ConfRadio which can be obtained from Magellan Technical Support or Regional Sales Manager.