The New Low Frequency Accelerating Systems for the CERN PS Booster, A. KRUSCHE, M. PAOLUZZI, CERN - A set of four ferrite loaded low frequency RF cavities equipped with local RF feedback has been built and installed in the CERN PS Booster rings. Together with the modified existing RF systems they now serve for acceleration as well as RF gymnastics of protons and heavy ions up to the highest beam intensities. The systems specifications with a frequency range of about 0.6 to 1.8 MHz and a nominal RF peak voltage of 8 kV satisfy specifically the requirements of acceleration on harmonic 1 of the future proton beam for the LHC. The system design has been guided by the request for safety margins for high beam intensity operation and ease of maintenance and repair. Some design aspects are presented as well as the performance achieved.