

Yaesu FT-991 HF/VHF/UHF Multimode Transceiver Tx Equalizer and Menu settings



Zygmunt Szumski SP5ELA
Virtual Field Division of PZK
Warsaw Dx Club SP5PBE
E-mail: sp5ela@rf.pl

Yaesu company unified in most modern transceivers produced Tx audio correction system (Tx equalizer). This applies to such transceivers as the FT-950, FT-991, FT-1200, FT-2000E/D, FTDX-3000, FTDX-5000.

Menu cell numbers description and equalizer default data - excerpt from FT-991 Manual - version EH057M202.

Menu	Description	Parameter range	Factory default	SP5ELA Narrow	SP5ELA Standard	SP5ELA	SP5ELA
112	SSB TX BPF		300-2700	400-2600	300-2700	200-2800	100-2900
121	PRMTRC EQ1 FREQ	OFF/100-700 (100/step)	OFF	200	200	200	100
122	PRMTRC EQ1 LEVEL	-20 – 0 – 10	5	-8	-8	-8	-10/-8/-6
123	PRMTRC EQ1 BWTH	1 – 10	10	2	2	2	2
124	PRMTRC EQ2 FREQ	OFF/700 – 1500 (100/step)	OFF	1100	1100	1100	1100
125	PRMTRC EQ2 LEVEL	-20 – 0 - 10	5	5	5	5	5
126	PRMTRC EQ2 BWTH	1 - 10	10	2	2	2	2
127	PRMTRC EQ3 FREQ	OFF/1500 – 3200 (100/step)	OFF	2300	2300	2300	2300
128	PRMTRC EQ3 LEVEL	-20 – 0 - 10	5	7	7	7	7
129	PRMTRC EQ3 BWTH	1 - 10	10	4	4	4	4
130	P-PRMTRC EQ1 FREQ	OFF/100 – 700 (100/step)	200	200	200	200	100
131	P-PRMTRC EQ1 LEVEL	-20 – 0 - 10	0	-8	-8	-8	-10
132	P-PRMTRC EQ1 BWTH	1 - 10	2	2	2	2	2
133	P-PRMTRC EQ2 FREQ	OFF/700 – 1500 (100/step)	800	1100	1100	1100	1100
134	P-PRMTRC EQ2 LEVEL	-20 – 0 - 10	0	5	5	5	5
135	P-PRMTRC EQ2 BWTH	1.10.2016	1	2	2	2	2
136	P-PRMTRC EQ3 FREQ	OFF/1500 – 3200 (100/step)	2100	2300	2300	2300	2300
137	P-PRMTRC EQ3 LEVEL	-20 – 0 - 10	0	7	7	7	7
138	P-PRMTRC EQ3 BWTH	1 - 10	1	4	4	4	4

Table 1. Yaesu FT-991 equalizer parameters for different TX audio bandwidth.

Menu items 121 – 129. *Menu cell numbers 121 to 129 are responsible for setting the microphone amplifier circuit without dynamic compressor.*

Menu items 130 – 138. *Menu cell numbers 130 to 138 are responsible for setting the microphone amplifier circuit with active dynamic compressor.*

Microphone: Stock hand microphone (standard MH-31). Microphone rear switch position 1 or 2. TRX FT-991 gain aprox. 30-50. Compression level: 50.

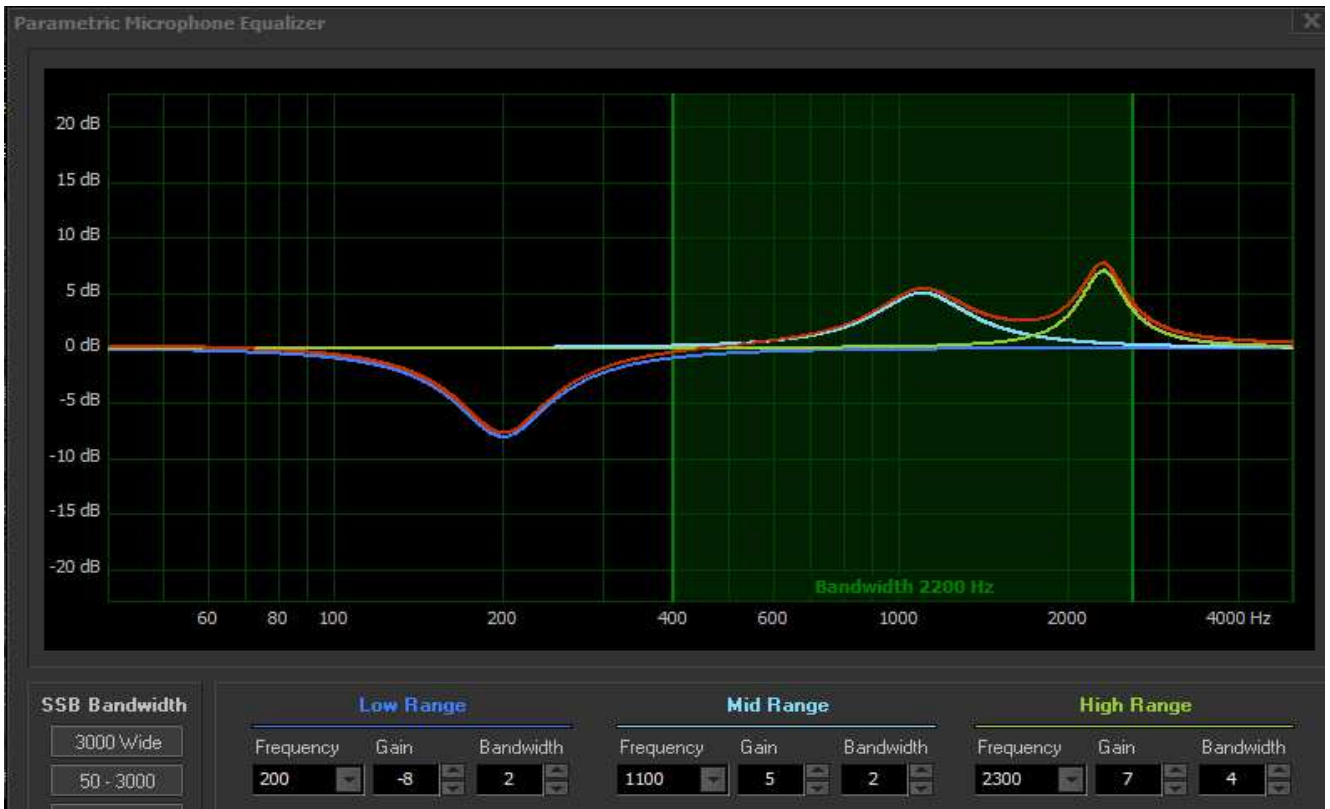


Photo 1. Parametric microphone equalizer. TX bandwidth: 2200Hz (400-2600Hz). Red line – superposition of characteristics of the microphone equalizer/amplifier. FT-991-SP5ELA settings.

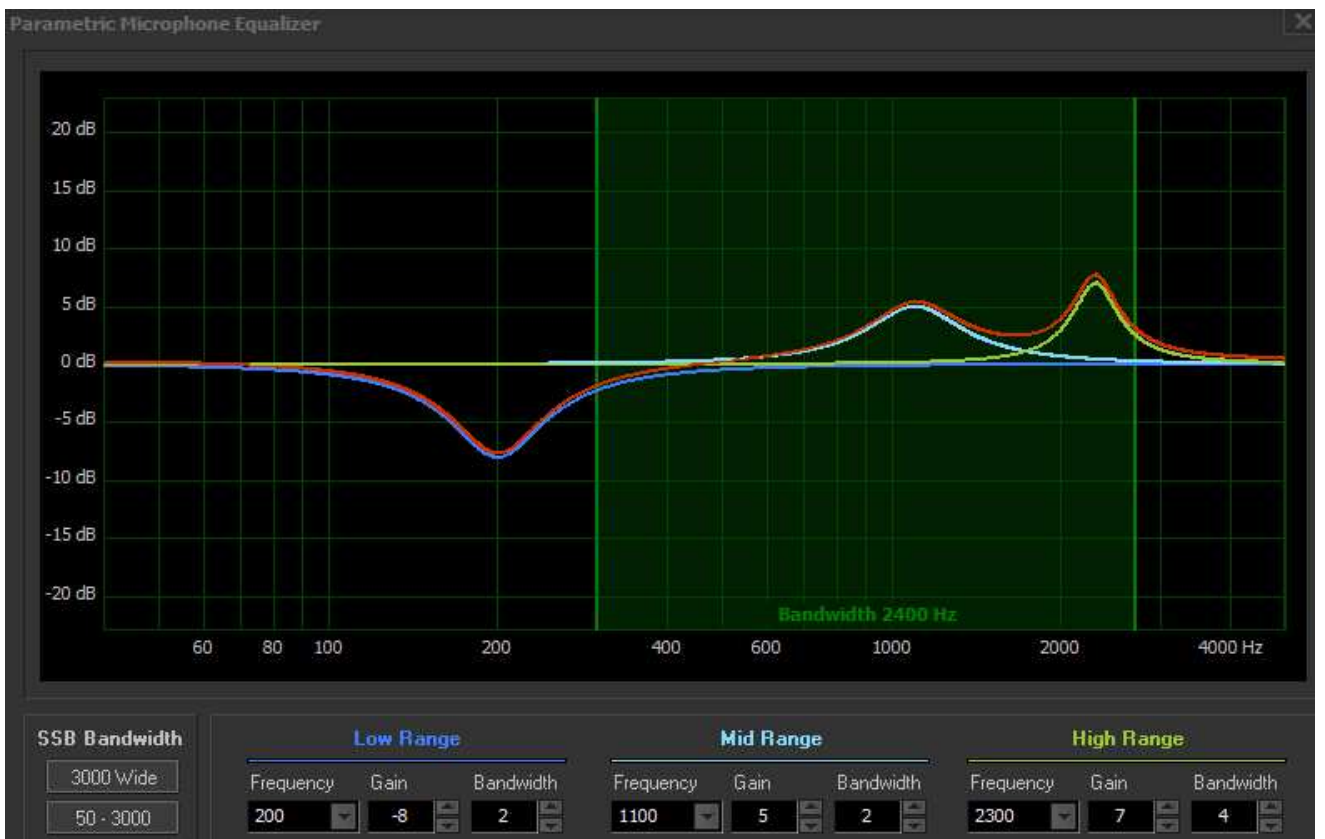


Photo 2. Parametric Microphone Equalizer. Standard TX Bandwidth 2400Hz (300-2700Hz). Red line – superposition of characteristics of the microphone equalizer/amplifier. FT-991-SP5ELA settings.

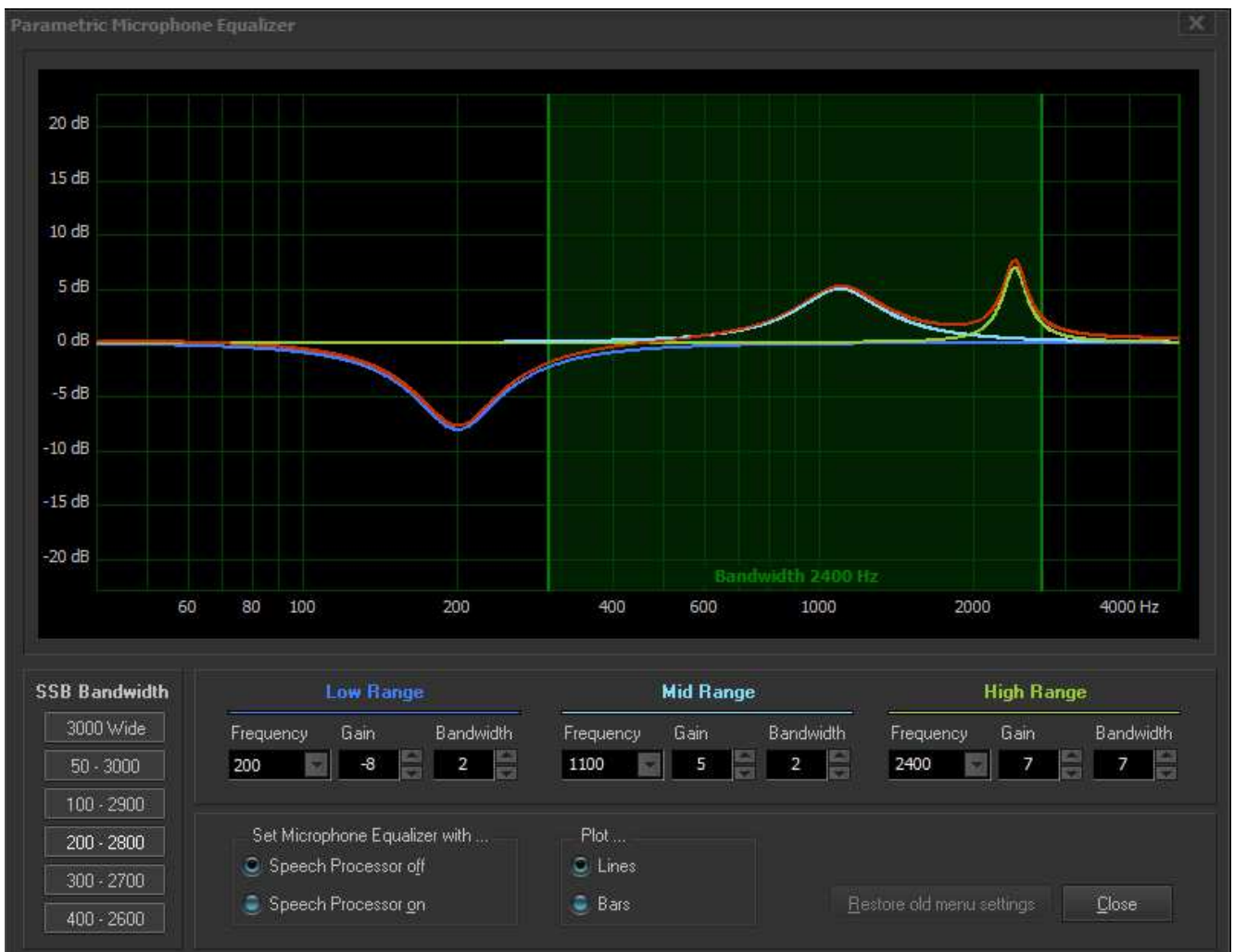


Photo 3. Parametric Microphone Equalizer. TX Bandwidth 2600Hz (200-2800Hz). Red line – superposition of characteristics of the microphone equalizer/amplifier. FT-991-SP5ELA settings.

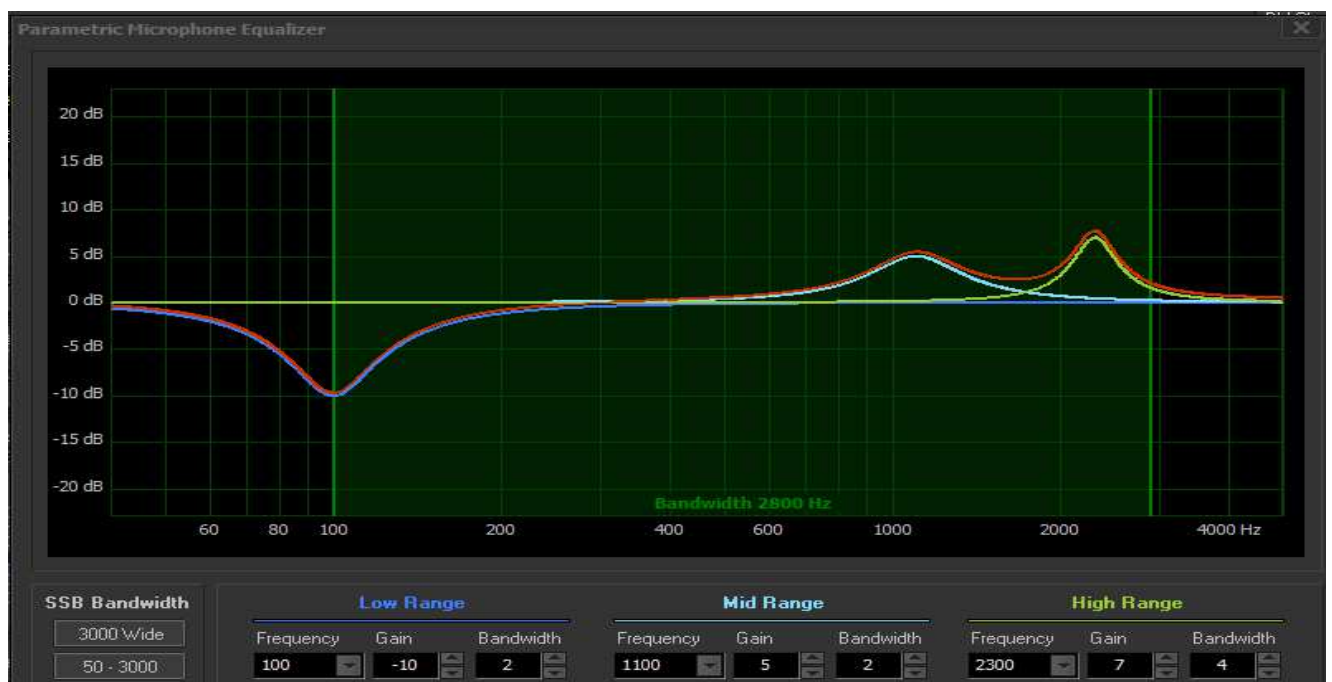


Photo 4. Parametric Microphone Equalizer. TX Bandwidth 2800Hz (100-2900Hz). Red line – superposition of characteristics of the microphone equalizer/amplifier. FT-991-SP5ELA settings.

*Screen-shots above (Photo 1-4) are taken from the FT2000RC Yaesu FT-2000D CAT & Remote Control, version 2.7 program by Berndt Koch DF3CB. "FT2000RC YAESU HF Transceiver CAT & Remote Control Software. Remote control your FT-2000, FT-950 or FT DX 5000 over the Internet".

Excerpt from Yaesu FT-991 manual – version EH057M202. Factory default equalizer parameters.

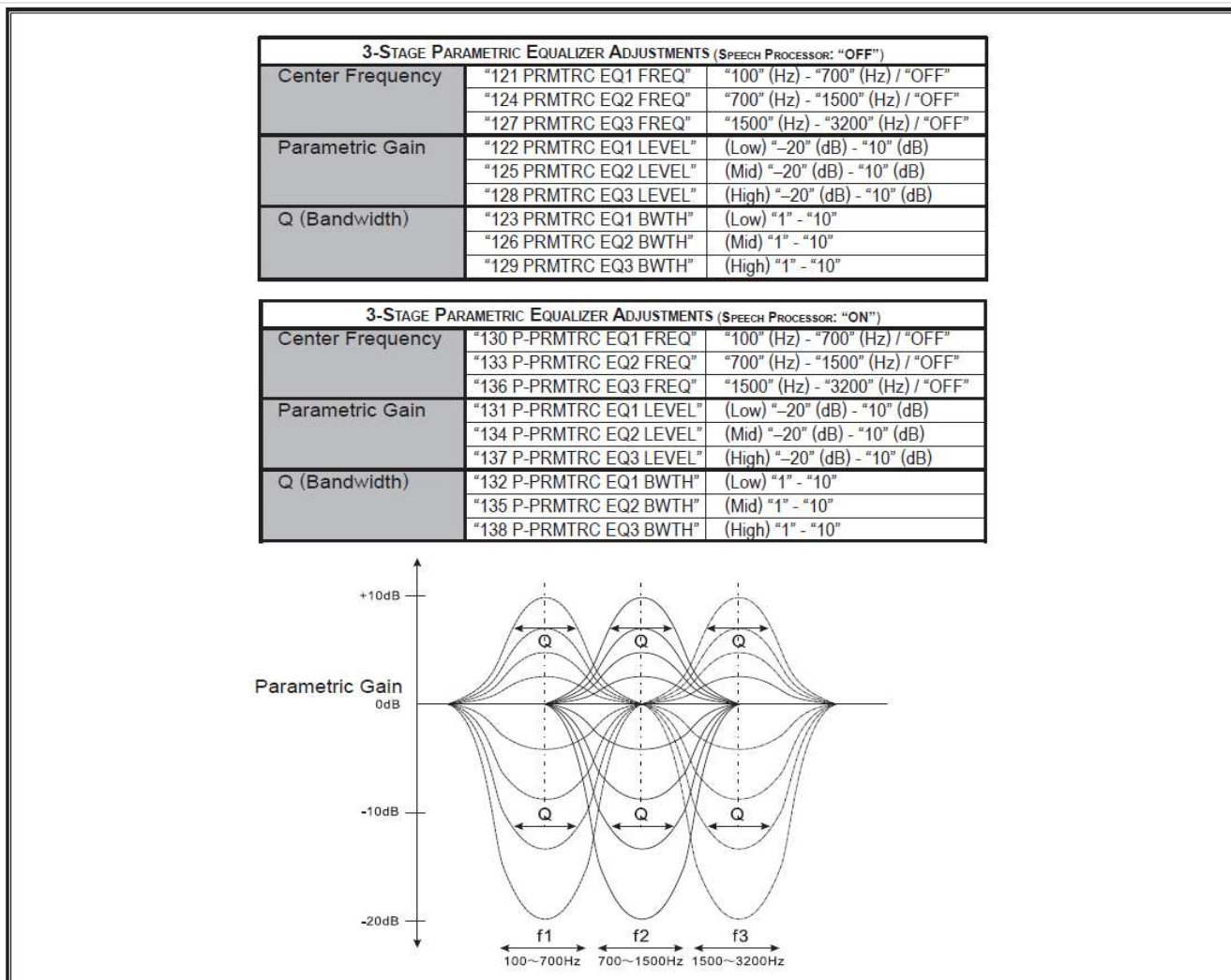


Figure 5. 3-Stage parametric equalizer parameters adjustments.

Appendix.

FTRestore - FT-991 Menu parameter table.

FTRestore is a Windows desktop application developed by VK2BYI to upload, download and compare memory channels and menu settings in the Yaesu FTDX1200 and FT-991 model transceivers.

<http://www.vk2byi.com.au/ftrestore/>

Zygmunt Szumski SP5ELA, Warsaw, Poland. Dec 19, 2016. Rev. Jan 3, 2017.