

The actual dynamic reserves (in dB) for each sensitivity are listed below.

<u>Sensitivity</u>	<u>Low Noise</u>	<u>Normal</u>	<u>High Reserve</u>
1 V	0	0	0
500 mV	6	6	6
200 mV	4	14	14
100 mV	0	10	20
50 mV	6	16	26
20 mV	4	24	34
10 mV	0	20	40
5 mV	6	26	46
2 mV	4	34	54
1 mV	10	40	60
500 μ V	16	46	66
200 μ V	24	54	74
100 μ V	30	60	80
50 μ V	36	66	86
20 μ V	44	74	94
10 μ V	50	80	100
5 μ V	56	86	106
2 μ V	64	94	114
1 μ V	70	100	120
500 nV	76	106	126
200 nV	84	114	134
100 nV	90	120	140
50 nV	96	126	146
20 nV	104	134	154
10 nV	110	140	160
5 nV	116	146	166
2 nV	124	154	174

Do not use ultra high dynamic reserves above 120 dB unless absolutely necessary. It will be very likely that the noise floor of any interfering signal will obscure the signal at the reference and make detection difficult if not impossible. See the SR830 Basics section for more information.

Auto Reserve

Pressing [AUTO RESERVE] will change the reserve mode to the minimum reserve required. Auto Reserve will not work if there are low frequency noise sources which overload infrequently.

[Time Constant Up/Dn]

This key selects the time constant. The time constant may be set from 10 μ s to 30 s (detection freq. >200 Hz) or 30 ks (detection freq. <200 Hz). The detection frequency is the reference frequency times the harmonic detect number. The time constant is indicated by 1 or 3 times 1, 10 or 100 with the appropriate units.

The maximum time constant is 30 s if the detection frequency is above 200 Hz and 30 ks if the detection frequency is below 200 Hz. The actual range switches at 203.12 Hz when the frequency is increasing and at 199.21 Hz when the frequency is decreasing. The time constant may not be adjusted beyond the maximum for the present detection frequency. If