One Systems high performance loudspeaker systems are factory-configured for and are nearly always used in passive full range mode. In this configuration, the systems can still benefit from selective parametric or 1/3-octave equalization and high-pass filtering (low-cut).

The equalization and filter settings listed below are recommendations based on the far field frequency response data for each model. For most One Systems models, 1/3-octave parametric filters have been recommended. This allows for comparable equalization to be applied to each system when using a conventional (non-parametric) 1/3-octave equalizer with ISO standard frequencies. When bandwidths greater than 1/3 octave are recommended, these bandwidths can be easily approximated by using multiple 1/3-octave filters with appropriate gain settings.

In all cases, high pass filters should be used with each model to provide additional low frequency system protection, increased reliability, and additional amplifier headroom. High-pass filters are highly recommended for use with all professional sound reinforcement systems. The recommended high pass filters are 4th order (24 dB-per-octave) Butterworth filters but 2nd order (12 dB-per-octave) may also be used. In almost all cases the addition of a high pass filter with the appropriate corner frequency will produce audibly superior system performance and enhanced reliability.

**104/HTH**

**103IM**

<table>
<thead>
<tr>
<th>Param</th>
<th>Frequency</th>
<th>Bandwidth</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEQ1</td>
<td>4 kHz</td>
<td>0.33 octave</td>
<td>-2 dB</td>
</tr>
<tr>
<td>PEQ 2</td>
<td>2.5 kHz</td>
<td>0.33 octave</td>
<td>-2 dB</td>
</tr>
<tr>
<td>Low Shelf</td>
<td>12 dB / octave</td>
<td>150 Hz</td>
<td>+3 dB</td>
</tr>
<tr>
<td>HPF</td>
<td>70 Hz</td>
<td>24 dB/octave Butterworth</td>
<td></td>
</tr>
</tbody>
</table>
### 106/HTH

**106IM (Discontinued)**

| PEQ1: Frequency 800 Hz | Bandwidth: 0.33 octave | Gain: -2.0 Db |
| PEQ2: Frequency 1,000 Hz | Bandwidth: 0.33 octave | Gain: -2.0 Db |
| PEQ3: Frequency 1,250 Hz | Bandwidth: 0.33 octave | Gain: -2.0 Db |
| Low Shelf: (12 dB / octave) | Frequency 125 Hz |
| HPF: Frequency 70 Hz | 24 dB/octave Butterworth |

### 108/HTC

**108CIM (Discontinued)**

| PEQ1: Frequency 100 Hz | Bandwidth: 0.33 octave | Gain: +3.0 dB |
| PEQ2: Frequency 125 Hz | Bandwidth: 0.33 octave | Gain: +3.0 dB |
| PEQ3: Frequency 160 Hz | Bandwidth: 0.33 octave | Gain: +3.0 dB |
| PEQ4: Frequency 4,000 Hz | Bandwidth: 0.33 octave | Gain: -3.0 Db |
| HPF: Frequency 70 Hz | 24 dB/octave Butterworth |

### 108/HTH

**108IM (Discontinued)**

**for 105 x 60**

| PEQ1: Frequency 1,250 Hz | Bandwidth: 0.33 octave | Gain: -2.5 dB |
| PEQ2: Frequency 100 Hz | Bandwidth: 0.50 octave | Gain: +2.0 Db |
| HPF: Frequency 65 Hz | 24 dB/octave Butterworth |

### 108/HTH

**108IM (Discontinued)**

**for 60 x 40**

| PEQ1: Frequency 1,600 Hz | Bandwidth: 0.33 octave | Gain: -2.0 dB |
| PEQ2: Frequency 100 Hz | Bandwidth: 0.50 octave | Gain: +2.0 Db |
| HPF: Frequency 65 Hz | 24 dB/octave Butterworth |

### 208/HTC

**208CIM (Discontinued)**

| PEQ1: Frequency 100 Hz | Bandwidth: 0.50 octave | Gain: +2.5 dB |
| HPF: Frequency 65 Hz | 24 dB/octave Butterworth |
### 112/HTH

**112IM (Discontinued)**

**for 105 x 60**

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Bandwidth</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEQ1</td>
<td>1,000 Hz</td>
<td>0.40 octave</td>
<td>-2.0 dB</td>
</tr>
<tr>
<td>PEQ2</td>
<td>65 Hz</td>
<td>0.33 octave</td>
<td>+3.0 dB</td>
</tr>
<tr>
<td>HPF</td>
<td>50 Hz</td>
<td>24 dB/octave</td>
<td></td>
</tr>
</tbody>
</table>

**for 60 x 40**

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Bandwidth</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEQ1</td>
<td>1,000 Hz</td>
<td>0.50 octave</td>
<td>-2.0 dB</td>
</tr>
<tr>
<td>PEQ2</td>
<td>65 Hz</td>
<td>0.33 octave</td>
<td>+3.0 dB</td>
</tr>
<tr>
<td>HPF</td>
<td>50 Hz</td>
<td>24 dB/octave</td>
<td></td>
</tr>
</tbody>
</table>

### 115TW (Discontinued)

**for 105 x 60**

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Bandwidth</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEQ1</td>
<td>1,250 Hz</td>
<td>0.33 octave</td>
<td>-2.5 dB</td>
</tr>
<tr>
<td>PEQ2</td>
<td>55 Hz</td>
<td>0.33 octave</td>
<td>+3.0 dB</td>
</tr>
<tr>
<td>PEQ3</td>
<td>2,500 Hz</td>
<td>0.33 octave</td>
<td>-2.0 dB</td>
</tr>
<tr>
<td>HPF</td>
<td>40 Hz</td>
<td>24 dB/octave</td>
<td></td>
</tr>
</tbody>
</table>

**for 60 x 40**

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Bandwidth</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEQ1</td>
<td>1,250 Hz</td>
<td>0.33 octave</td>
<td>-2.5 dB</td>
</tr>
<tr>
<td>PEQ2</td>
<td>55 Hz</td>
<td>0.33 octave</td>
<td>+3.0 dB</td>
</tr>
<tr>
<td>PEQ3</td>
<td>2,500 Hz</td>
<td>0.33 octave</td>
<td>-2.0 dB</td>
</tr>
<tr>
<td>HPF</td>
<td>40 Hz</td>
<td>24 dB/octave</td>
<td></td>
</tr>
</tbody>
</table>

### 115RW (Discontinued)

**for 105 x 60**

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Bandwidth</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEQ1</td>
<td>1,250 Hz</td>
<td>0.33 octave</td>
<td>-2.5 dB</td>
</tr>
<tr>
<td>PEQ2</td>
<td>55 Hz</td>
<td>0.33 octave</td>
<td>+2.0 dB</td>
</tr>
<tr>
<td>PEQ3</td>
<td>2,500 Hz</td>
<td>0.33 octave</td>
<td>-2.0 dB</td>
</tr>
<tr>
<td>HPF</td>
<td>40 Hz</td>
<td>24 dB/octave</td>
<td></td>
</tr>
</tbody>
</table>
**115RW** *(Discontinued)*

*for 60 x 40*

PEQ1: Frequency 600 Hz  
Bandwidth: 0.50 octave  
Gain: -2.0 dB

PEQ 2: Frequency 55 Hz  
Bandwidth: 0.33 octave  
Gain: +2.0 dB

PEQ 3: Frequency 2,500 Hz  
Bandwidth: 0.33 octave  
Gain: -2.5 dB

HPF: Frequency 40 Hz  
24 dB/octave Butterworth

**112UM** *(Discontinued)*

PEQ1: Frequency 2,500 Hz  
Bandwidth: 0.33 octave  
Gain: -2.5 dB

HPF: Frequency 65 Hz  
24 dB/octave Butterworth

**115UM** *(Discontinued)*

PEQ1: Frequency 2,500 Hz  
Bandwidth: 0.33 octave  
Gain: -2.5 dB

HPF: Frequency 60 Hz  
24 dB/octave Butterworth

**212/HC**

**212CIM** *(Discontinued)*

PEQ1: Frequency 1,000 Hz  
Bandwidth: 0.33 octave  
Gain: -2.5 dB

PEQ 2: Frequency 70 Hz  
Bandwidth: 0.33 octave  
Gain: +2.0 dB

PEQ 3: Frequency 3,000 Hz  
Bandwidth: 0.33 octave  
Gain: -2.5 dB

HPF: Frequency 55 Hz  
24 dB/octave Butterworth

**212IM** *(Discontinued)*

PEQ1: Frequency 900 Hz  
Bandwidth: 0.33 octave  
Gain: -2.5 dB

HPF: Frequency 50 Hz  
24 dB/octave Butterworth

**312/HC**

**312CIM** *(Discontinued)*

PEQ1: Frequency 3,000 Hz  
Bandwidth: 0.33 octave  
Gain: -2.5 dB

PEQ 2: Frequency 60 Hz  
Bandwidth: 0.33 octave  
Gain: +2.0 dB

PEQ 3: Frequency 11,500 Hz  
Bandwidth: 0.33 octave  
Gain: -3.0 dB

HPF: Frequency 50 Hz  
24 dB/octave Butterworth

**CrossField Array** *(Discontinued)*

PEQ1: Frequency 800 Hz  
Bandwidth: 0.50 octave  
Gain: +2.0 dB

PEQ 2: Frequency 125 Hz  
Bandwidth: 1.00 octave  
Gain: +2.0 dB

PEQ 3: Frequency 4,000 Hz  
Bandwidth: 0.33 octave  
Gain: -2.0 dB

HPF: Frequency 70 Hz  
24 dB/octave Butterworth
CFA-2/HTH
CrossField Array-2

PEQ1: Frequency 125 Hz  Bandwidth: 0.50 octave  Gain:+3.0 dB
PEQ2: Frequency 800 Hz  Bandwidth: 0.50 octave  Gain:+2.0 dB
PEQ3: Frequency 4,000 Hz Bandwidth: 0.33 octave  Gain: -2.0 dB
HPF: Frequency 80 Hz    24 dB/octave Butterworth

118/HSB
118Sub-W (Discontinued)

PEQ1: Frequency 40 Hz  Bandwidth: 0.50 octave  Gain:+3.5 dB
HPF: Frequency 35 Hz   24 dB/octave Butterworth
LPF: Frequency 80 Hz   24 dB/octave Linkwitz-Riley
Gain: Set to match high frequency enclosure and acoustic requirements

218/Sub-W (Discontinued)

PEQ1: Frequency 40 Hz  Bandwidth: 0.50 octave  Gain:+3.5 dB
HPF: Frequency 35 Hz   24 dB/octave Butterworth
LPF: Frequency 80 Hz   24 dB/octave Linkwitz-Riley
Gain: Set to match high frequency enclosure and acoustic requirements

212/Sub-W (Discontinued)

PEQ1: Frequency 50 Hz  Bandwidth: 0.50 octave  Gain:+3.5 dB
HPF: Frequency 45 Hz   24 dB/octave Butterworth
LPF: Frequency 80 – 120 Hz  24 dB/octave Linkwitz-Riley
Gain: Set to match high frequency enclosure and acoustic requirements

112/HSB
112IM-Sub (Discontinued)

PEQ1: Frequency 65 Hz  Bandwidth: 0.50 octave  Gain:+3.5 dB
HPF: Frequency 35 Hz   24 dB/octave Butterworth
LPF: Frequency 80 Hz   24 dB/octave Linkwitz-Riley
Gain: Set to match high frequency enclosure and acoustic requirements