

S6k Mastering Preset Specs sw 3.60

This section contains detailed descriptions of Mastering and Monitoring presets of System 6000 and Mastering 6000. From version 3.60, the Mastering sections contains 3 Banks:

- Mastering Stereo
- Mastering Surround
- Monitor & Format

Please note that much of the thinking behind a preset is reflected in what fader assignments have been made. **The most important parameters will appear on faders**, and are subject to instant adjustment once a recall has been performed. Therefore, the most important parameters are also always available from the E1-4 page view.

Remember that you can have presets with **fader assignments of your own choice** by using the Link key, and store attractive assignments with User Presets. If you don't want any parameters at all to appear on faders, this is possible too.

Engine Bank F9, decade 0: Static EQ's (identical with F10, decade 0)

0	Parametric EQ 5.1	EQ5.1	Six full range, four band parametric Eqs with analog modeling at fs/2 and 48 bit resolution. Filter possibility on Low and Hi band.			
	In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE
1	Parametric EQ 5.1 Linked	EQ5.1	Like preset 0, but with the 5 Main channels operating linked together.			
	In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE
2	MDW HiRes EQ	MDW HiRes EQ	George Massenburg upsampling, high resolution stereo Eq.			
	In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE

3	MDW HiRes EQ 5.1	MDW HiRes EQ 5.1	George Massenburg upsampling, high resolution six channel Eq.		
In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE

F9, decade 1: De-Esser and Dynamic EQ's

0	De-Ess Parametric	De-Esser	Stereo De-Esser using Parametric filters. For Dual Mono, unlink L/R on the Setup page. Check targeted frequency range by pressing Side Chain key.		
Threshold	Frequency	Curve	Ratio		
Low Threshold for more de-essing.	Target center frequency of parametric de-esser.	Width of freq. range affected by de-esser.	High ratio for more de-essing.		

1	De-Ess Shelving	De-Esser	Like preset 0, but using Shelving filter for de-essing.		
Threshold	Frequency	Curve	Ratio		
Low Threshold for more de-essing.	Freq. at which de-esser obtains half its cut.	Cut curve used by de-esser (Hi Shelf).	High ratio for more de-essing.		

2	De-Ess Parametric (MS)	De-Esser	De-Esser with individual operation on M and S components of a stereo signal. Set for parametric cut filters, 1.6 octave wide.		
Threshold M	Frequency M	Ratio M	Threshold S	Frequency S	Ratio S
Low Threshold for more de-essing on lead vocal and other LR center elements.	Target center frequency of M signal parametric de-esser.	High Ratio for more de-essing on mix center elements.	Low Threshold for more de-essing on LR panned elements (cymbals, choir etc).	Target center frequency of S signal parametric de-esser.	High Ratio for more de-essing on mix lateral elements.

3	De-Ess Shelving (MS)	De-Esser	De-Esser with individual operation on M and S components of a stereo signal. Set for shelving hi-cut filters.		
Threshold M	Frequency M	Ratio M	Threshold S	Frequency S	Ratio S
Low Threshold for more de-essing on lead vocal and other LR center elements.	Target center frequency of M signal parametric de-esser.	High Ratio for more de-essing on mix center elements.	Low Threshold for more de-essing on LR panned elements (cymbals, choir etc).	Target center frequency of S signal parametric de-esser.	High Ratio for more de-essing on mix lateral elements.

4	DynEQ	De-Esser	Dynamic, Parametric Cut filters for Stereo signals. For Dual Mono, unlink L/R on the Setup page. Check targeted frequency range by pressing Side Chain key.		
Threshold		Frequency	Curve	Ratio	
Low Threshold for more Cut.		Target center frequency of Cut filter.	Width of Cut filter.	High ratio for more Cut at selected frequency.	

5	DynEQ (MS)	De-Esser	Dynamic cut filters with individual operation on M and S components of a stereo signal. Set for Parametric cut filters, 1.6 octave wide.		
Threshold M		Frequency M	Curve M	Ratio M	Threshold S
Low Threshold for more Cut on center elements of a mix.		Target center frequency of Cut filter used on the M signal.	Width of Cut filter applied to the M signal.	High ratio for more Cut on mix center elements.	Low Threshold for more Cut on panned elements of a mix.
Frequency S					
Target center frequency of S signal cut filter.					

F9, decade 2: Upsampled Limiters

0	BrickWall Limit 0dBFS	BrickWall 2	Adaptive Limiter to protect end listeners from distortion. Without adjustments, this presets shows if a signal is offensive, and can be expected to generate unpredictable distortion. Watch the Input, Gain Reduction and bit transparency indicators. The preset preserves dither and input word length when bit shifted gain controls are used. Word length preservation is indicated with green signs in the display. As long as levels are safe, the output is a clone of the input. Consider linking L and R to process stereo material.		
Gain L		Gain R	Threshold	Profile	Soft Clip
Gain/Drive adjustment. First, set max output using Threshold, then decide the amount of limiting using the Gain controls. Bit shift at 6 dB intervals.		Gain/Drive adjustment. First, set max output using Threshold, then decide the amount of limiting using the Gain controls. Bit shift at 6 dB intervals.	Sets max output level. When Upsample is active, Threshold takes intersample peaks into account. For low bit rate coding, back off Threshold by 1-2 dB.	Select adaptive profile to match processing requirements. Use Dynamic or Soft to prioritize low distortion over loudness.	Reduces peaks but adds distortion. Use with caution, and don't allow peaks to exceed the soft clip threshold by more than 4-7 dB.

1	Limit SMPTE	BrickWall 2	Limiting preset conforming to SMPTE and NAB standards.		
Gain		Threshold	Profile	Delay	
Adjusts static gain. Use to increase or decrease overall loudness.		Sets max out level. Activate Upsample to take intersample peaks into account.	Select adaptive profile to match processing requirements. Use Voice to prioritize loudness of speech.	Add up to 9 frames of compensation delay. Parameter may be adjusted live.	

2	Limit EBU	BrickWall 2	Limiting preset conforming to EBU transmission and linking standards.		
	Gain	Threshold	Profile	Delay	
	Adjusts static gain. Use to increase or decrease overall loudness.	Sets max out level. Activate Upsample to take intersample peaks into account.	Select adaptive profile to match processing requirements. Use Voice to prioritize loudness of speech.	Add up to 7.5 frames of compensation delay. Parameter may be adjusted live.	

3	Limit Pop/Rock	BrickWall 2	Preset for typical Pop/Rock requirements, but without adding severe and unpredictable end listener distortion. For connoisseurs who need loudness but have realized that sample counting should not be used for level restrictions. Consider linking L and R, especially if the threshold is exceeded regularly.		
	Gain L	Gain R	Threshold	Profile	Soft Clip
	Gain/Drive adjustment. Use to increase or decrease overall loudness.	Gain/Drive adjustment. Bit shift at 6 dB intervals.	Sets max output level. When Upsample is active, Threshold takes intersample peaks into account. For low bit rate coding, back off Threshold by 1-2 dB.	Select adaptive profile to match processing requirements.	Reduces peaks but adds distortion. Use with caution, and don't allow peaks to exceed the soft clip threshold by more than 4-7 dB.

4	Limit Voice	BrickWall 2	Preset for limiting of speak or lead vocal. May be used stand alone, or on the output of a compressor. Configured for dual mono operation. Press Link to operate channels in tandem.		
	Gain L	Gain R	Threshold	Profile	Soft Clip
	Gain/Drive adjustment. Use to increase or decrease overall loudness.	Gain/Drive adjustment. Bit shift at 6 dB intervals.	Sets max output level. When Upsample is active, Threshold takes intersample peaks into account. For low bit rate coding, back off Threshold by 1-2 dB.	Select adaptive profile to match processing requirements.	Reduces peaks but adds distortion. Use with caution, and don't allow peaks to exceed the soft clip threshold by more than 4-7 dB.

5	Limit Classical	BrickWall 2	Preset for use with Classical Music. Best possible preservation of transients with a minimum of distortion at low as well as high frequencies. Preset is bit transparent, and preserves dither and input word length when bit shifted gain controls are used. Word length preservation is indicated with green signs on the display.		
Gain		Threshold	Profile		
Gain adjustment. Use to increase or decrease overall loudness. Bit shift at 6 dB intervals to preserve dither and word length.		Sets max output level. When Upsample is active, Threshold takes intersample peaks into account.	The Dynamic profile offers perceptually based distortion prevention.		

Engine Bank F9, decade 3: Multiband Dynamics (MD3)

0	MD3 CD Master	MD3	Three band Expander/Compressor, Eq and Limiter. Auto Gain is on, so make-up gain automatically compensates lowered thresholds or higher ratios in the individual bands.		
Norm. Trim	Comp. Lo Thresh.	Comp. Mid Thresh.	Comp. Hi Thresh.	Limiter Softclip	Output Fader
Gain/Drive adjustment. Use to increase or decrease overall loudness.	Threshold of Lo Band relative to Reference Level.	Threshold of Mid Band relative to Reference Level.	Threshold of Hi Band relative to Reference Level.	Reduces peaks but adds distortion. Can be used to complement dynamic limiter.	Post limiter, pre dither output fader.

1	MD3 CD Master (MS)	MD3	As preset 0, but M and S components of the stereo signal can be treated separately with regards to Gain, Eq, Expansion and Compression.		
Norm. Trim M	Norm. Trim S	Limiter Softclip	Limiter Thresh.	Output Fader	
Gain/Drive adjustment for the center panned elements of a mix.	Gain/Drive adjustment for the off center elements. Can be used to increase or decrease the stereo width.	Reduces peaks but adds distortion. Can be used to complement dynamic limiter.	Dynamic output limiter threshold. Measured sample by sample, and relative to Full Scale.	Post limiter, pre dither output fader.	

2	Tape Sim 1 M5k	MD3	A classic preset from MD2 of TC M5000 emulating analog tape saturation and HF roll-off.		
Norm. Trim	Comp. Lo Thresh.	Comp. Mid Thresh.	Comp. Hi Thresh.	Limiter Softclip	Output Fader
Gain/Drive adjustment for saturation effect.	Threshold of Lo Band relative to Reference Level.	Threshold of Mid Band relative to Reference Level.	Threshold of Hi Band relative to Reference Level.	Reduces peaks but adds distortion.	Post limiter, pre dither output fader.

3	Tape Sim 2 M5k	MD3	A classic preset from MD2 of TC M5000 emulating analog tape saturation and HF roll-off.		
Norm. Trim	Comp. Lo Thresh.	Comp. Mid Thresh.	Comp. Hi Thresh.	Limiter Softclip	Output Fader
Gain/Drive adjustment for saturation effect.	Threshold of Lo Band relative to Reference Level.	Threshold of Mid Band relative to Reference Level.	Threshold of Hi Band relative to Reference Level.	Reduces peaks but adds distortion.	Post limiter, pre dither output fader.

4	SoftLim M5k	MD3	A classic preset from MD2 of TC M5000.		
Limiter Thresh.	Output Fader				
Dynamic output limiter threshold.	Post limiter, pre dither output fader.				

5	Music Thru 4:2:4 Matrix	MD3	A preset designed to prevent music from collapsing when played through a matrix decoder such as Dolby Prologic.		
Norm. Trim M	Norm. Trim S	Limiter Softclip	Limiter Thresh.	Output Fader	
Gain/Drive adjustment for the center panned elements of a mix.	Gain/Drive adjustment for the off center elements.	Reduces peaks but adds distortion.	Dynamic output limiter threshold. Measured sample by sample, and relative to Full Scale.	Post limiter, pre dither output fader.	

6	De-Compress	MD3	Excessive upstream compression or limiting cannot be removed, but this preset reinstates some dynamic differences for input signals between -20 and 0 dBFS.		
In Level L	In Level R	Reference Level	Limiter Thresh.	Output Fader	
Input attenuation to be used with overly hot signals.	Input attenuation to be used with overly hot signals.	Define level at which unity gain of preset occurs. Level below this value is reduced.	Dynamic output limiter threshold. Measured sample by sample, and relative to Full Scale.	Post limiter, pre dither output fader.	

7	Expander Noise Red	MD3	Multiband expansion with look-ahead capability may be a better choice than advanced, perceptually based algorithms such as BackDrop. Plain vanilla can be easier to dose, and never adds artefacts such as “birdies” or “space monkeys” that can be consequences of overdoing processing extensive on filtering.		
Exp. Lo Thresh.	Exp. Mid Thresh.	Exp. Hi Thresh.	Exp. All Ratio	Exp. All Attack	Exp. All Release
Level, relative to Reference, at which the band is fully open.	Level, relative to Reference, at which the band is fully open.	Level, relative to Reference, at which the band is fully open.	Expansion ratio when level falls below the threshold. Range of expanders may be adjusted on the Exp. page.	Time for the expander to open. Should normally be lower than the Nominal Delay.	Time required for expanders to close. Range of expanders may be adjusted on the Exp. page.

8	Expander Noise Red (MS)	MD3	Multiband expander with look-ahead capability and separate processing of the M and S components of a stereo signal. This preset offers more control than #7 and #9, when noise reduction is performed on a stereo source.		
Exp. All Thresh. M	Exp. All Range M	Exp. All Release M	Exp. All Thresh. S	Exp. All Range S	Exp. All Release S
Level, relative to Reference, at which the M part processor is fully open.	Max noise reduction performed on the center elements (M part) of a stereo signal.	Expander closing time for the M part of a stereo signal (for instance speak).	Level, relative to Reference, at which the S part processor is fully open.	Max noise reduction performed on the L/R elements (S part) of a stereo signal.	Expander closing time for the S part of a stereo signal (for instance ambience).

9	Cat43 Emulate	MD3	Multiband expander emulating processing and operation of the old Dolby Cat43. While originally designed to align analog noise reduction, the Cat43 is still used for dialog clean-up. Compare against preset 11-5-9, or for multichannel 10-8-9. This digital version offers look-ahead capability plus much lower distortion than what's possible in the analog world. The fader layout on Icon almost makes you want to paint it orange for a true retro experience.		
Reference Level		Exp. Lo Range	Exp. Mid Range	Exp. Hi Range	
Threshold for all bands allowing dynamic discrimination between signal and noise.		Max noise reduction on the low frequency material. -12 dB is a typical setting.	Max noise reduction on the mid frequency material. -6 dB is a typical setting.	Max noise reduction on the high frequency material. 0 dB (off) is a typical setting.	

Engine Bank F9, decade 4: Multiband Dynamics (MD4)

0	MD4 CD Master	MD4	Five band Compressor with integrated Eq and upsampled, adaptive BrickWall 2 Limiter. The preset provides a spectrally linear starting point for further adjustments. A reference tone at -20 dB will be subjected to a 3 dB increase in level, which may be easily adjusted on the Trim fader. Soft Clip at the Limiter is relative to the Limiter threshold, and the Profile of the Limiter may be adjusted for a particular type of operation. See details in the description of BrickWall 2 presets, Engine Bank F10, decade 2.		
Trim	Reference Level	All Thresh.	All Gain	Lim. Thresh. L	Lim. Thresh. R
Overall Gain/Drive adjustment. 48 bit processing allows boost without loosing resolution regardless of input level.	Reference level for the Thresholds of the five band processor.	Adjust to set master amount of dynamic processing.	Adjust master amount of gain make-up. After the compressor, but before the limiter, for instance when changing the Threshold.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.

1	MD4 CD Master (MS)	MD4	<p>Five band Compressor and DXP processor with integrated Eq and upsampled, adaptive BrickWall 2 Limiter. The preset provides a spectrally linear starting point for compression in the MS domain. A reference tone at -20 dB will be subjected to a 3 dB increase in level, which may be easily adjusted on the Trim M and Trim S faders.</p> <p>M and S components of a stereo signal can be subject to both static and dynamic adjustments. See additional descriptions at preset 0 above.</p>			
	Trim M	Trim S	All Thresh. M	All Thresh. S	Lim. Thresh. L	Lim. Thresh. R
	Overall Gain/Drive control for center elements of a stereo signal preset at +3 dB. 48 bit processing allows boost without loosing resolution regardless of input level.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at +3 dB. 48 bit processing allows boost without loosing resolution regardless of input level.	Adjust to set master amount of dynamic processing applied to M components. Apply post dynamics make-up gain on the 5Band page if needed.	Adjust to set master amount of dynamic processing applied to S components. Apply post dynamics make-up gain on the 5Band page if needed.	Output Limiter L threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.

2	MD4 Limit	MD4	<p>Five-band limiter with soft knee characteristics. The five-band section kicks in when long duration signals between -3 (Lo) and -12 dBFS (Hi) are detected. The output limiter additionally protects against ultra short peaks, and out of band signals close to its threshold.</p> <p>The preset is unity gain until soft knee/limiting action starts, and the output stays manageable even for low bandwidth perceptual coders. To apply gain, simply turn up the Trim parameter.</p>			
	Trim	Reference Level	All Thresh.	All Gain	Lim. Thresh. L	Lim. Thresh. R
	Overall Gain/Drive control preset at 0 dB. 48 bit processing allows boost without loosing resolution regardless of input level.	Reference level for the Thresholds of the five band processor.	Adjust to set master amount of soft knee pre-limiting of PPM duration peaks.	Adjust master amount of gain make-up. After the compressor, but before the limiter, for instance when changing the Threshold.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.

3	MD4 Limit (MS)	MD4	<p>Five-band limiter with soft knee characteristics applied individually to M and S components. The five-band section kicks in when long duration signals between 0 (Lo M) and -12 dBFS (Hi) are detected. The output limiter additionally protects against ultra short peaks, and out of band signals close to its threshold.</p> <p>The preset is unity gain until limiting action starts, and the output stays manageable even for low bandwidth perceptual coders. To apply gain to M or S components, simply turn up the Trim parameters.</p>
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Trim M	Trim S	All Thresh. M	All Thresh. S	Lim. Thresh. L	Lim. Thresh. R
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB. 48 bit processing allows boost without losing resolution regardless of input level.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB. 48 bit processing allows boost without losing resolution regardless of input level.	Adjust to set master amount of dynamic processing applied to M components. Apply post dynamics make-up gain on the 5Band page if needed.	Adjust to set master amount of dynamic processing applied to S components. Apply post dynamics make-up gain on the 5Band page if needed.	Output Limiter L threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.

4	Parallel Comp Slow	MD4	<p>Five-band parallel compressor with relative slow transient tracking and no look-ahead delay. The preset adds 3 dB gain to a -20 dBFS signal, and hits unity gain at -4 dBFS.</p>
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Trim	Reference Level	All Thresh.	All Gain	Lim. Thresh. L	Lim. Thresh. R
Overall Gain/Drive control affecting both the “dry” and the “wet” signal when parallel mode is selected.	Reference level for the Thresholds of the five band processor.	The point above which low level gain starts dropping off. The setting is relative to Reference Level.	Master “wet” level of the parallel processor.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.

5	Parallel Comp Fast	MD4	<p>Five-band parallel compressor with fast transient tracking including look-ahead delay. The preset adds 4 dB gain to a -20 dBFS signal, and hits unity gain at -9 dBFS.</p>
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Trim	Reference Level	All Thresh.	All Gain	Lim. Thresh. L	Lim. Thresh. R
Overall Gain/Drive control affecting both the “dry” and the “wet” signal when parallel mode is selected.	Reference level for the Thresholds of the five band processor.	The point above which low level gain starts dropping off. The setting is relative to Reference Level.	Master “wet” level of the parallel processor.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.

6	Parallel Comp (MS)	MD4	Five-band parallel M and S compressor with fast transient tracking including look-ahead delay. The preset adds 5.5 dB gain to a -20 dBFS signal, and hits unity gain at -7 dBFS.			
	Trim M	Trim S	All Thresh. M	All Thresh. S	Lim. Thresh. L	Lim. Thresh. R
	Overall Gain/Drive control affecting both the “dry” and the “wet” part of the M compo-nents of the signal.	Overall Gain/Drive control affecting both the “dry” and the “wet” part of the S compo-nents of the signal.	The point above which low level gain to the M elements starts dropping off. The setting is relative to Reference Level.	The point above which low level gain to the S elements starts dropping off. The setting is relative to Reference Level.	Output Limiter L threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.

Engine Bank F9, decade 5: DXP Processing (MD4)

0	MD4 DXP	MD4	<p>Five band DXP processor with integrated Eq and upsampled, adaptive BrickWall 2 Limiter. The preset provides a starting point suitable for most sources where detail enhancement is considered appropriate, and may be configured for dual mono operation instead of stereo on the Setup page.</p> <p>A reference tone at -20 dB will be subjected to a 4 dB increase in level. Further increase in low level may be obtained using higher Steer values in each band.</p> <p>Soft Clip at the Limiter is relative to the Limiter threshold, and the Profile of the Limiter may be adjusted for a particular type of operation. See details in the description of BrickWall 2 presets, Engine Bank F10, decade 2.</p>			
	Trim	Reference Level	All Thresh.	All Gain	Lim. Thresh. L	Lim. Thresh. R
	Overall Gain/Drive adjustment. 48 bit processing allows boost without loosing resolution regardless of input level.	Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Below this point, DXP gain is max. The setting is relative to Reference Level.	Offset DXP gain make-up. Individual Band Gains are available in the 5Band page.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.

1	MD4 DXP (MS)	MD4	<p>Five band DXP processor for stereo signals with separate processing of the M and S components, plus Eq and upsampled, adaptive BrickWall 2 Limiter. The preset provides a starting point for further adjustments.</p> <p>A reference tone at -20 dB will be subjected to a 3 dB increase in level. Unity gain is hit at Reference Level found on the Setup page. Further increase in low level may be obtained using higher Steer values in each band.</p>				
Trim M		Trim S		All Thresh. M	All Thresh. S	Lim. Thresh. L	Lim. Thresh. R
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB.		Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB.		Below this point, DXP gain to the M part of the signal is max. The setting is relative to Reference Level.	Below this point, DXP gain to the S part of the signal is max. The setting is relative to Reference Level.	Output Limiter L threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.

2	DXP Music	MD4	<p>Five band DXP processor with basic settings suitable for music. Use the Band Gain parameters on the 5Band page to adjust the spectral balance.</p> <p>A reference tone at -20 dB will be subjected to a 5 dB increase in level. Unity gain is hit at Reference Level found on the Setup page. Further increase in low level may be obtained using higher Steer values in each band.</p>				
Trim		Reference Level		All Thresh.	All Gain	Lim. Thresh. L	Lim. Thresh. R
Overall Gain/Drive adjustment preset at +1 dB.		Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.		Below this point, DXP gain is max. The setting is relative to Reference Level.	Offset DXP gain make-up. Individual Band Gains are available in the 5Band page.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.

3	DXP Music (MS)	MD4	<p>Five band DXP processor for stereo signals with basic settings suitable for music. Use the Band Gain parameters on the 5Band M and S pages to adjust the spectral balance on centered and wide elements of the mix.</p> <p>A reference tone at -20 dB will be subjected to a 4 dB increase in level. Unity gain is hit at Reference Level found on the Setup page. Further increase in low level may be obtained using higher Steer values in each band.</p>				
Trim M		Trim S		All Thresh. M	All Thresh. S	Lim. Thresh. L	Lim. Thresh. R
Overall Gain/Drive control for center elements of a stereo signal preset at +2 dB.		Overall Gain/Drive control for L/R panned elements of a stereo signal preset at +2 dB.		Below this point, DXP gain to the M part of the signal is max. The setting is relative to Reference Level.	Below this point, DXP gain to the S part of the signal is max. The setting is relative to Reference Level.	Output Limiter L threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.

4	DXP Cuba Libre (MS)	MD4	<p>Five band DXP processor for stereo signals with basic settings suitable for acoustic music. The preset is more mellow and focused on room detail than preset 3, and developed to make the most out recordings such as the wonderful Cuban music we're enjoying as an antidote to overly polished and controlled desktop music. Use the Band Gain parameters on the 5Band M and S pages to adjust the spectral balance on centered and wide elements of the mix. Low level gain is disabled 20 dB below the DXP threshold at a ratio of 1:1.25. This setting can be changed in the 5Band page.</p> <p>A reference tone at -20 dB will be subjected to a 3 dB increase in level. Unity gain is hit at Reference Level found on the Setup page. Further increase in low level may be obtained using higher Steer values in each band.</p>								
Trim M		Trim S		All Thresh. M		All Thresh. S		Lim. Thresh. L		Lim. Thresh. R	
Overall Gain/Drive control for center elements of a stereo signal preset at +1 dB.		Overall Gain/Drive control for L/R panned elements of a stereo signal preset at +1 dB.		Below this point, DXP gain to the M part of the signal is max. The setting is relative to Reference Level.		Below this point, DXP gain to the S part of the signal is max. The setting is relative to Reference Level.		Output Limiter L threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.		Output Limiter R threshold. Consider linking L and R. Soft Clip threshold is relative to this setting.	

5	DXP Dialog (Dual)	MD4	<p>Five band DXP processor for dual mono signals with basic settings suitable for dialog, voice over, lead vocal and human voice in general.</p> <p>The preset is aimed at speech and vocal clarity. Voice details may be further dynamically magnified by turning up the Steer parameter on the HiMid and Hi bands. Low level gain can be disabled by bringing up the Defeat Ratio. This parameter can be found in the 5Band page.</p> <p>The static spectrum may be conveniently adjusted in the 48 bit domain prior to dynamics processing by using the EQ pages. A reference tone at -20 dB will be subjected to a 6 dB increase in level. Unity gain is hit at Reference Level found on the Setup page.</p>								
Trim A		Trim B		All Thresh. A		All Thresh. B		Lim. Thresh. A		Lim. Thresh. B	
Overall Gain/Drive control for the A channel preset at +2 dB.		Overall Gain/Drive control for the B channel preset at +2 dB.		Below this point, DXP gain to the A channel is max. The setting is relative to Reference Level.		Below this point, DXP gain to the B channel is max. The setting is relative to Reference Level.		Output Limiter A threshold. Soft Clip threshold is relative to this setting.		Output Limiter B threshold. Soft Clip threshold is relative to this setting.	

6	DXP Classical	MD4	<p>Five band DXP processor with basic settings suitable for classical music, and other types of sensitive music. The preset is spectrally flat, and uses the Dynamic limiter profile for lowest perceivable transient distortion. Low level gain is disabled 20 dB below the DXP threshold at a ratio of 1:1.25. This setting can be changed in the 5Band page.</p> <p>A reference tone at -20 dB will be subjected to a 5 dB increase in level. Unity gain is hit at Reference Level found on the Setup page. Further increase in low level may be obtained using higher Steer values in each band.</p>			
Trim		Reference Level	All Thresh.	All Gain	Lim. Thresh.	Fader
Overall Gain/Drive adjustment preset at +3 dB.		Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Below this point, DXP gain is max. The setting is relative to Reference Level.	Offset DXP gain make-up. Individual Band Gains are available in the 5Band page.	Threshold of the linked output limiter. Soft Clip threshold is relative to this setting, but turned off in this preset.	Post limiter, pre dither output fader.

7	DXP Classical (MS)	MD4	<p>Five band DXP processor with basic settings suitable for classical music, and other types of sensitive music, where additional stereo enhancement or width control is of importance. The preset is spectrally flat, and uses the Dynamic limiter profile for lowest perceivable transient distortion.</p> <p>A reference tone at -20 dB will be subjected to a 4 dB increase in level. Unity gain is hit at Reference Level found on the Setup page. Further increase in low level may be obtained using higher Steer values in each band.</p>			
Trim M		Trim S	All Thresh. M	All Thresh. S	Lim. Thresh.	Fader
Overall Gain/Drive control for center elements of a stereo signal preset at +3 dB.		Overall Gain/Drive control for L/R panned elements of a stereo signal preset at +3 dB.	Below this point, DXP gain to the M part of the signal is max. The setting is relative to Reference Level.	Below this point, DXP gain to the S part of the signal is max. The setting is relative to Reference Level.	Threshold of the linked output limiter. Soft Clip threshold is relative to this setting, but turned off in this preset.	Post limiter, pre dither output fader.

Engine Bank F9, decade 6: DXP Processing (MD4)

0	Madison 03	MD4	<p>Famed preset suitable for preserving the low level space detail in music tending to get lost when data reduction is used. Note that Madison presets do not offset the general M/S balance unless the M and S Trim faders are used.</p> <p>The Madison 03 preset adds 3 dB boost to low levels signals. Unity gain is hit at Reference Level.</p>			
Trim M	Trim S	Reference Level	Profile	Lim. Thresh. L	Lim. Thresh. R	
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB.	Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Limiter profiles can be optimized for different program material. Default setting is Universal profile.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	

1	Madison 06	MD4	<p>Famed preset suitable for preserving the low level space detail in music tending to get lost when data reduction is used. Note that Madison presets do not offset the general M/S balance unless the M and S Trim faders are used.</p> <p>The Madison 06 preset adds 6 dB boost to low levels signals. Unity gain is hit at Reference Level.</p>			
Trim M	Trim S	Reference Level	Profile	Lim. Thresh. L	Lim. Thresh. R	
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB.	Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Limiter profiles can be optimized for different program material. Default setting is Universal profile.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	

2	Madison 09	MD4	<p>Famed presets suitable for preserving the low level space detail in music tending to get lost when data reduction is used. Note that Madison presets do not offset the general M/S balance unless the M and S Trim faders are used.</p> <p>The Madison 09 preset adds 9 dB boost to low levels signals. Unity gain is hit at Reference Level.</p>			
Trim M	Trim S	Reference Level	Profile	Lim. Thresh. L	Lim. Thresh. R	
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB.	Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Limiter profiles can be optimized for different program material. Default setting is Universal profile.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	

3	Madison Acoustic 03	MD4	<p>Famed preset suitable for preserving the low level space detail in acoustic music tending to get lost when data reduction is used. Note that Madison presets do not offset the general M/S balance unless the M and S Trim faders are used.</p> <p>The Madison Acoustic 03 preset adds 3 dB boost to low levels signals. Unity gain is hit at Reference Level.</p>			
Trim M	Trim S	Reference Level	Profile	Lim. Thresh. L	Lim. Thresh. R	
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB.	Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Limiter profile. Default setting is Universal. Set to Soft or Dynamic if the source is fragile.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	
4	Madison Acoustic 06	MD4	<p>Famed preset suitable for preserving the low level space detail in acoustic music tending to get lost when data reduction is used. Note that Madison presets do not offset the general M/S balance unless the M and S Trim faders are used.</p> <p>The Madison Acoustic 06 preset adds 6 dB boost to low levels signals. Unity gain is hit at Reference Level.</p>			
Trim M	Trim S	Reference Level	Profile	Lim. Thresh. L	Lim. Thresh. R	
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB.	Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Limiter profile. Default setting is Universal. Set to Soft or Dynamic if the source is fragile.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	
5	Madison Acoustic 09	MD4	<p>Famed preset suitable for preserving the low level space detail in acoustic music tending to get lost when data reduction is used. Note that Madison presets do not offset the general M/S balance unless the M and S Trim faders are used.</p> <p>The Madison Acoustic 09 preset adds 9 dB boost to low levels signals. Unity gain is hit at Reference Level.</p>			
Trim M	Trim S	Reference Level	Profile	Lim. Thresh. L	Lim. Thresh. R	
Overall Gain/Drive control for center elements of a stereo signal preset at 0 dB.	Overall Gain/Drive control for L/R panned elements of a stereo signal preset at 0 dB.	Reference level at which the DXP processor hits unity gain, unless Band Gains or Trim are offset.	Limiter profile. Default setting is Dynamic. Set to Soft or Universal if the source is not fragile.	Output Limiter L threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	Output Limiter R threshold. Consider linking L and R when used on stereo signals. Soft Clip threshold is relative to this setting.	

Engine Bank F10, decade 0: Static EQ's (identical with F9, decade 0)

0	Parametric EQ 5.1	EQ5.1	Six full range, four band parametric Eqs with analog modeling at fs/2 and 48 bit resolution. Filter possibility on Low and Hi band.			
In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE	

1	Parametric EQ 5.1 Linked	EQ5.1	Like preset 0, but with the 5 Main channels operating linked together.			
In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE	

2	MDW HiRes EQ	MDW HiRes EQ	George Massenburg upsampling, high resolution stereo Eq.			
In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE	

3	MDW HiRes EQ 5.1	MDW HiRes EQ 5.1	George Massenburg upsampling, high resolution six channel Eq.			
In Level L	In Level C	In Level R	In Level SL	In Level SR	In Level LFE	

F10, decade 1: DXP Processing for Multichannel (MDX5.1)

0	MDX5.1 Film Master	MDX5.1	<p>48 bit dynamics processor for 5.1 Film Mastering. Limiting points are set to avoid distortion in data reduction codecs such as DTS and Dolby AC3. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 3 dB. If more gain is needed, adjust Fader #1 and #2 and/or use higher Steer settings. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	DXP Defeat Level	Lo Xover	Hi Xover
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Relative level below band Thresholds at which DXP gain is disabled.	Low cross-over point for Main channel processing.	High cross-over point for Main channel processing.
1	Film Xtra Srnd Lift	MDX5.1	<p>48 bit dynamics processor for 5.1 Film Mastering. Limiting points are set to avoid distortion in data reduction codecs such as DTS and Dolby AC3. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 6 dB on Ls and Rs, and 3 dB on other channels. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

2	Film Xtra Cnt Lift	MDX5.1	<p>48 bit dynamics processor for 5.1 Film Mastering. Limiting points are set to avoid distortion in data reduction codecs such as DTS and Dolby AC3. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 6 dB on Center channel, and 3 dB on other channels. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

3	MDX5.1 Music Master	MDX5.1	<p>48 bit dynamics processor for 5.1 Music Mastering. Limiting points are set to avoid distortion in data reduction codecs such as DTS and Dolby AC3. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 5 dB. If more gain is needed, adjust Fader #1 and #2 and/or use higher Steer settings. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

4	Music Xtra Srnd Lift	MDX5.1	<p>48 bit dynamics processor for 5.1 Music Mastering. Limiting points are set to avoid distortion in data reduction codecs such as DTS and Dolby AC3. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 8 dB on Ls and Rs, and 5 dB on other channels. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

5	Music Xtra Cnt Lift	MDX5.1	<p>48 bit dynamics processor for 5.1 Music Mastering. Limiting points are set to avoid distortion in data reduction codecs such as DTS and Dolby AC3. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 8 dB on Center channel, and 5 dB on other channels. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

F10, decade 2: Dynamic Range Conversion for Multichannel (MDX5.1)

0	Film Remap Curve A3	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted, normal level input is untouched, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 3 dB for all channels, output limiting at -3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

1	Film Remap Curve A6	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted, normal level input is untouched, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 6 dB for all channels, output limiting at -3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

2	Film Remap Curve A9	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted, normal level input is untouched, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 9 dB for all channels, output limiting at –3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

3	Film Remap Curve A12	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted, normal level input is untouched, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 12 dB for all channels, output limiting at –3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

4	Film Remap Curve B6	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted, normal level input is boosted less, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 6 dB on all channels, normal level gain is set to 4 dB, output limiting at –3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

5	Film Remap Curve B9	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted, normal level input is boosted less, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 9 dB on all channels, normal level gain is set to 4 dB, output limiting at -3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

6	Film Remap Curve B12	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted, normal level input is boosted less, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 12 dB on all channels, normal level gain is set to 4 dB, output limiting at -3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

7	Film Remap Curve C6	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted - especially on the C channel to preserve speech intelligibility - normal level input is boosted less, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 8 dB on the C channel and 6 dB on other channels, normal level gain is set to 4 dB, output limiting at -3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

8	Film Remap Curve C9	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted - especially on the C channel to preserve speech intelligibility - normal level input is boosted less, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 11 dB on the C channel and 9 dB on other channels, normal level gain is set to 4 dB, output limiting at -3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

9	Film Remap Curve C12	MDX5.1	<p>48 bit dynamics processor for converting 5.1 Film to Domestic listening. Low level input is boosted - especially on the C channel to preserve speech intelligibility - normal level input is boosted less, overly hot input is limited. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>Low level gain is set to 14 dB on the C channel and 12 dB on other channels, normal level gain is set to 4 dB, output limiting at -3 dBFS. Channel linking is L-R, Ls-Rs, Center by itself and LFE by itself. The linking setup can be changed on the Link page.</p>		
Main Channels	LFE Channel	Reference level	FullRng Thresh.	Limit LFE Thresh.	
Adjusts input gain of the five Main channels without sacrificing resolution.	Adjusts input gain of the LFE channel without sacrificing resolution.	Level above which the processor approximates unity gain, and reference for DXP Threshold settings.	Limit Threshold for the five Main channel limiters.	Limit Threshold for the LFE channel limiter.	

Engine Bank F10, decade 7: Multichannel Limiters and Soft Clip (MD5.1)

0	5.1 Limit 0dBFS	MD5.1	<p>5.1 wideband Limiter with Soft Clip functionality. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>The preset is unity gain until limiting action starts. To apply gain, turn up the Comp All Gain and Comp LFE Gain parameters.</p>		
Comp. All Gain	FullRng. Thresh.	FullRng. Softclip	Comp. LFE Gain	LFE Thresh.	Output Fader
Master amount of gain make-up to the 5 Main channels. After the multiband sections, but before the limiters.	Threshold of the 5 Main output limiters expressed in dBFS.	Threshold of soft clip applied to the 5 Main channels expressed in dBFS.	Master amount of gain make-up to the LFE channel.	Threshold of the LFE output limiter expressed in dBFS.	Post limiter, pre dither output fader for all 5.1 channels.
1	5.1 SoftKnee Lim 0dBFS	MD5.1	<p>Three-band 5.1 Soft Knee Limiter. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>The multiband section kicks in when long duration signals above -8 dBFS are detected, and are linked LFr-RFr, LSr-RSr and Center by itself. Linking can be changed on the Setup page. The output limiters protects against short peaks on a sample by sample basis.</p> <p>The preset is unity gain until soft knee/limiting action starts. To apply gain, turn up the Comp All Gain and Comp LFE Gain parameters.</p>		
Comp. All Gain	FullRng. Thresh.	FullRng. Softclip	Comp. LFE Gain	LFE Thresh.	Output Fader
Master amount of gain make-up to the 5 Main channels. After the multiband sections, but before the limiters.	Threshold of the 5 Main output limiters expressed in dBFS.	Threshold of soft clip applied to the 5 Main channels expressed in dBFS.	Master amount of gain make-up to the LFE channel.	Threshold of the LFE output limiter expressed in dBFS.	Post limiter, pre dither output fader for all 5.1 channels.
2	5.1 NAB Limit	MD5.1	<p>Three-band 5.1 NAB broadcast Soft Knee Limiter with 3 ms look-ahead delay. For low latency applications the delay may be as low as 0.5 ms without compromising the sound. Use the Nominal Delay parameter to adjust.</p> <p>The multiband section kicks in when long duration signals above -10 dBFS are detected, and are linked LFr-RFr-LSr-RSr with Center by itself. Linking can be changed on the Setup page. The output limiters protects against short peaks above -6 dBFS on a sample by sample basis.</p>		
FullRng. Thresh.	LFE Thresh.				
Threshold of the 5 Main output limiters preset at -6 dBFS.	Threshold of the LFE output limiter preset at -6 dBFS.				

3	5.1 EBU Limit	MD5.1	<p>Three-band 5.1 EBU broadcast Soft Knee Limiter with 3 ms look-ahead delay. For low latency applications the delay may be as low as 0.5 ms without compromising the sound. Use the Nominal Delay parameter to adjust.</p> <p>The multiband section kicks in when long duration signals above -12 dBFS are detected, and are linked LFr-RFr-LSr-RSr with Center by itself. Linking can be changed on the Setup page. The output limiters protects against short peaks above -9 dBFS on a sample by sample basis.</p>			
FullRng. Thresh.		LFE Thresh.				
Threshold of the 5 Main output limiters preset at -9 dBFS.		Threshold of the LFE output limiter preset at -9 dBFS.				

4	5.1 SoftClip	MD5.1	<p>5.1 Soft Clip Limiter preset adding 4 dB gain to a 5.1 signal.</p> <p>Look-ahead delay is preset to 3 ms. For low latency applications the delay may be as low as 0.5 ms without compromising the sound. Use the Nominal Delay parameter to adjust.</p>								
Comp. All Gain		FullRng. Softclip		FullRng. Thresh.		Comp. LFE Gain		LFE Softclip		LFE Thresh.	
Master amount of gain applied to the 5 Main channels.		Threshold of soft clip applied to the 5 Main channels expressed in dBFS.		Threshold of the 5 Main output limiters expressed in dBFS.		Amount of gain applied to the LFE channel.		Threshold of soft clip applied to the LFE channel expressed in dBFS.		Threshold of the LFE output limiter expressed in dBFS.	

Engine Bank F10, decade 8: Multichannel Dynamics Processing (MD5.1)

0	5.1 DVD Master	MD5.1	<p>Multichannel, multiband dynamics processor for optimization of level on DVD film releases. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>The preset adds 3 dB of gain to an input of -20 dBFS, with the multiband section linked LFr-RFr, LSr-RSr, Center and LFE separate. Center additionally adds steering to LFr and RFr for max speech intelligibility. Linking can be changed on the Setup page.</p> <p>The output limiters protects against short peaks on a sample by sample basis. Look-ahead delay is preset to 3 ms. For low latency applications the delay may be as low as 0.5 ms without compromising the sound. Use the Nominal Delay parameter to adjust.</p>									
Comp. All Thresh.			FullRng. Thresh.			Comp. LFE Thresh.			LFE Thresh.		Output Fader	
Master threshold of the 5 Main channel, 3-band compressors. Setting is relative to Reference Level.			Threshold of the 5 Main channel output limiters expressed in dBFS.			Threshold of the LFE compressor. Setting is relative to Reference Level.			Threshold of the LFE output limiter expressed in dBFS.		Post limiter, pre dither output fader for all 5.1 channels.	

1	5.1 Classical Master	MD5.1	<p>Multichannel, multiband dynamics processor for optimization of level on DVD classical and acoustic music releases. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats.</p> <p>The preset adds 4.5 dB of gain to an input of -20 dBFS, with the multiband section linked LFr-RFr, LSr-RSr, Center and LFE separate. Linking can be changed on the Setup page.</p> <p>The output limiters protects against short peaks on a sample by sample basis.</p>		
Comp. All Thresh.	FullRng. Thresh.	Comp. LFE Thresh.	LFE Thresh.	Output Fader	
Master threshold of the 5 Main channel, 3-band compressors. Setting is relative to Reference Level.	Threshold of the 5 Main channel output limiters expressed in dBFS.	Threshold of the LFE compressor. Setting is relative to Reference Level.	Threshold of the LFE output limiter expressed in dBFS.	Post limiter, pre dither output fader for all 5.1 channels.	

2	5.1 Film to DVD	MD5.1	<p>Multichannel, multiband dynamics processor for transcoding the dynamic range of feature film to domestic use. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats. <i>Note: Presets based on MDX5.1 provide more flexibility for this application.</i></p> <p>The preset adds 5 dB of gain to an input of -20 dBFS, with the multiband section linked LFr-RFr-LSr-RSr, Center and LFE separate. Linking can be changed on the Setup page.</p> <p>The output limiters protects against short peaks on a sample by sample basis. Look-ahead delay is preset to 3 ms. For low latency applications the delay may be as low as 0.5 ms without compromising the sound. Use the Nominal Delay parameter to adjust.</p>		
Comp. All Thresh.	FullRng. Thresh.	Comp. LFE Thresh.	LFE Thresh.	Output Fader	
Master threshold of the 5 Main channel, 3-band compressors. Setting is relative to Reference Level.	Threshold of the 5 Main channel output limiters expressed in dBFS.	Threshold of the LFE compressor. Setting is relative to Reference Level.	Threshold of the LFE output limiter expressed in dBFS.	Post limiter, pre dither output fader for all 5.1 channels.	

3	5.1 Film to B'Cast	MD5.1	<p>Multichannel, multiband dynamics processor for transcoding the dynamic range of feature film to broadcast use. More engines can be loaded with the preset for processing of e.g. 6.1, 7.1 or 10.2 channel formats. <i>Note: Presets based on MDX5.1 provide more flexibility for this application.</i></p> <p>The preset adds 2.5 dB of gain to an input of -20 dBFS, with the multiband section linked LFr-RFr-LSr-RSr, Center and LFE separate. Linking can be changed on the Setup page.</p> <p>The output limiters protects against short peaks on a sample by sample basis. Look-ahead delay is preset to 3 ms. For low latency applications the delay may be as low as 0.5 ms without compromising the sound. Use the Nominal Delay parameter to adjust.</p>		
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Comp. All Thresh.	FullRng. Thresh.	Comp. LFE Thresh.	LFE Thresh.	Output Fader	
Master threshold of the 5 Main channel, 3-band compressors. Setting is relative to Reference Level.	Threshold of the 5 Main channel output limiters expressed in dBFS.	Threshold of the LFE compressor. Setting is relative to Reference Level.	Threshold of the LFE output limiter expressed in dBFS.	Post limiter, pre dither output fader for all 5.1 channels.	

7	5.1 De-Compress	MD5.1	Excessive upstream compression or limiting cannot be removed, but this preset reinstates some dynamic differences for input signals between -22 and 0 dBFS.		
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Reference Level	Exp. LFE Range	Exp. Lo Range	Exp. Mid Range	Exp. Hi Range	Output Fader
Define level at which unity gain of preset occurs. Level below this value is reduced.	Max range of de-compression of the LFE channel.	Max range of de-compression of the Low bands of the 5 Main channels.	Max range of de-compression of the Mid bands of the 5 Main channels.	Max range of de-compression of the High bands of the 5 Main channels.	Post limiter, pre dither output fader for all 5.1 channels.

8	5.1 Noise Reduction	MD5.1	<p>Multiband expansion with look-ahead capability is ideal for subtle noise reduction on multichannel signals.</p> <p>The preset provides an example of MD5.1 used for that purpose. Channels are linked LFr-RFr, LSr-RSr, Center and LFE separate. . Linking can be changed on the Setup page. Look-ahead delay is set to 3 ms.</p>		
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Reference Level		Exp. LFE Range	Exp. Lo Range	Exp. Mid Range	Exp. Hi Range
Threshold for all bands, all channels allowing dynamic discrimination between signal and noise.		Max noise reduction on the LFE channel.	Max noise reduction on the Low frequency bands of the 5 Main channels.	Max noise reduction on the Mid frequency bands of the 5 Main channels.	Max noise reduction on the High frequency bands of the 5 Main channels.

9	5.1 Cat43 Emulate	MD5.1	<p>Multiband 5.1 expander emulating processing and operation of the old two channel Dolby Cat43. The preset is an example of a realtime Cat43 for multichannel signals, with a fader layout resembling that of the orange predecessor.</p> <p>For single channel or stereo work, compare against preset 10-3-9 and 11-5-9.</p> <p>Channels are linked LFr-RFr-LSr-RSr, Center and LFE separate. Linking can be changed on the Setup page. Look-ahead delay is set to 3 ms.</p>			
Reference Level			Exp. LFE Range	Exp. Lo Range	Exp. Mid Range	Exp. Hi Range
Threshold for all bands, all channels allowing dynamic discrimination between signal and noise.			Max noise reduction on the LFE channel.	Max noise reduction on the low frequency material. -12 dB is a typical setting.	Max noise reduction on the mid frequency material. -6 dB is a typical setting.	Max noise reduction on the high frequency material. 0 dB (off) is a typical setting.

Engine Bank F11, decade 0: Monitoring

0	Monitor Matrix *	Toolbox 5.1	<p>Monitor Matrix with Calibrated Loudness listening, and handling any input format from mono to 5.1. The preset is set for a 20 dB attenuation upon recall, so you don't harm your ears or speakers. Move fader 6 to change that, or consider using an integrated monitoring-metering approach as suggested by SMPTE and EBU. The loudness loop may be closed further when processing is also taken into account. More details can be found in the Tech Library on the TC site, and in mastering engineer Bob Katz' writing about a "K-meter" standard. Programming and selection of speaker calibration levels are performed on the Level page.</p> <p>The combination of a high digital resolution, analog gain scaling pre and post conversion, precision converters with custom downsampling filters, a qualified analog signalpath with relays etc., makes the 6000 with the Monitor Matrix one of the only critical listening solutions for a user working with any audio format in the analog or digital domain.</p> <p>This algorithm's resolution is 48 bit fixed point, and when no special functions are turned on, it is bit transparent. For a bit transparent bypass of all 5.1 channels, move the Fader to 0.0 dB. Downmix and Bass Management may be invoked to judge material under different reproduction conditions. Bypass is disabled in this preset, but can be enabled on the Level page.</p> <p>Downmix coefficients can be adjusted, and summing points set to normal Mono (0 degree) or 90 degree Mono. 90 degree mono preserves out of phase elements in the mono signal, and attenuates fully correlated elements by 3 dB. Both characteristics are useful in film, DVD and post production.</p> <p>Trimming in timing (ms and samples) can be found in the Trim page, and may be added if speaker placement or signal correction calls for it.</p> <p>The algorithm includes precision test signal generators for calibration of speakers, distribution of test tones etc., as well as solo/mute functions for realtime inspection of various signals.</p> <p>Note: In the Monitoring preset descriptions, the ".1" input is referred to as "LFE", while the output of this channel is called "Sub/LFE", because of its relation to a particular speaker.</p>		
<p>Output Format</p> <p>Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different presentation formats.</p>	<p>Mono Output</p> <p>Select if a Mono downmix is presented in one speaker (center) or as a phantom image in L and R.</p>	<p>90 degree Mono</p> <p>Select if downmix uses 90 degree summing in LCRS and Mono format.</p>	<p>LFE Mode</p> <p>Selects how the LFE channel is handled. "Extract" adds LF from the 5 Main channels to the Sub out. "Distribute" spreads the LFE signal among all the 5 Main speakers.</p>		<p>Fader</p> <p>Pre dither output fader for all 5.1 channels preset at -20 dB. If Calibrated Reference levels are used (Level page), the Fader becomes inactive.</p>

1	Mon. Main Ch to Sub	Toolbox 5.1	<p>This preset gives a presentation of a 5.1 signal, if bass management at the end listener is set for “satellite configuration”, ie. 5 Small Main speakers with all low frequency energy redirected to one single Sub/LFE speaker.</p> <p>Note that the preset allows the LFE input to be or not to be mixed and output with the LF content of the Main channels. Some consumer systems have more gain on the LFE input to Sub/LFE output than they apply for low frequency elements derived from the Main channels. To set up these properties, adjust the LFE setting on the Bass page relative to the setting of the 5 other channels.</p> <p>Tip: To hear how much a particular Main channel contributes to the Sub/LFE output, Solo LFE Output in combination with Input Solo or Mutes on the Main page.</p> <p>Basic description of the Toolbox algorithm at preset 0.</p>		
<p>Main Lo Cut</p> <p>Lo Cut frequency of the 5 Main channels. Lo Cut is not performed when Lo Cut Order is set to Off.</p>	<p>Main Lo Cut Order</p> <p>Low frequency Cut off slope for the 5 Main channels. Preset defaults to Off (no lo cut applied to the Main channels).</p>	<p>LFE Hi Cut</p> <p>Hi Cut frequency for the Sub/LFE output. Preset defaults to 80 Hz.</p>	<p>LFE Hi Cut Order</p> <p>Hi frequency Cut off slope for all channels before they are passed to the Sub/LFE output. Preset defaults to 4th order.</p>	<p>Out Level LFE</p> <p>Gain of the Sub/LFE output. Note that LFE input may or may not be mixed with the LF content of the Main channels based upon the LFE setting on the Bass page.</p>	<p>Fader</p> <p>Output fader for all 5.1 channels preset at -10 dB. Note that Inputs are trimmed down by 10 dB (Trim page), so total input attenuation is 20 dB upon preset recall.</p>

2	Mon. LFE to Main Ch	Toolbox 5.1	<p>This preset gives a presentation of a 5.1 signal, if there is no Sub/LFE speaker in the reproduction setup, and all LF energy has to be emitted by the 5 Main speakers. Full Size Main speakers would obviously be needed for this to work as intended.</p> <p>The preset takes into account that for film reproduction, acoustic gain for LFE elements needs to be higher than gain for Main channel elements (see fader 1). Whether or not all 5 Main speakers carry the same amount of LFE input signal may be adjusted on the Bass page.</p> <p>Tip: To hear how much a particular Main channel receives from the LFE input, Solo LFE input in combination with Main channel Output Solo on the Main page.</p> <p>Basic description of the Toolbox algorithm at preset 0.</p>		
<p>In Level LFE</p> <p>The amount of LFE input directed to the 5 Main speakers. A Main speaker carries its own signals at -10 dB, so an LFE setting of -4 indicates a relative LFE gain of +6 dB. The amount of LFE energy emitted from each Main speaker is adjusted on the Bass page.</p>	<p>LFE Hi Cut</p> <p>A Hi Cut may be applied to the LFE input before it's spread among the Main speakers. This parameter adjust the corner frequency of the Hi Cut filter</p>	<p>LFE Hi Cut Order</p> <p>This parameter sets the slope of the Hi Cut filter described at fader 2.</p>	<p>Bass Level LFE</p> <p>This parameter determines if the LFE signal is also output from the Sub/LFE output channel. Preset default is muted Sub/LFE output.</p>		<p>Fader</p> <p>Output fader for all 5.1 channels preset at -10 dB. Note that Main Channels are trimmed down by 10 dB (Trim page), while the LFE input is trimmed down 4 dB (fader 1). Total input attenuation is 14-20 dB upon preset recall.</p>

3	Mon. 5.1 to LCRS	Toolbox 5.1	<p>This preset gives a presentation of a 5.1 signal if reproduced through an LCRS speaker setup without stereo surrounds and Sub/LFE speaker.</p> <p>The preset does not take into account the reduced channel separation and artefacts associated with steering found in for instance Dolby ProLogic and other 4:2:4 matrixed codecs. Expect a 5.1 signal encoded and decoded through a matrix system to sound worse than the direct transcoding performed by this preset.</p> <p>Note: The LFE input signal is discarded with this preset. If you want to pass LFE to the LCRS outputs, set LFE Mode to Distribute on the Bass page. LFE is added to the 5 Main channels before they are downmixed, so the 5 LFE to Main Channels parameters will determine how much LFE ends up at the LCRS output.</p> <p>Basic description of the Toolbox algorithm at preset 0.</p>			
Output Format Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different presentation formats.		Feed From SL/SR Sets the coefficients when summing SL and SR. To sum SL and SR with a 90 degree offset, adjust the 90 degree Mono parameter on the Format page. The S output can be limited using the Limiter on the same page.				Fader Output fader for all 5.1 channels preset at -20 dB.

4	Mon. 5.1 to Stereo	Toolbox 5.1	<p>This preset gives a presentation of a 5.1 signal when reproduced through two channel stereo speakers (normally referred to as just “stereo”).</p> <p>The channel downmix coefficients may be easily adjusted using parameters assigned to faders 2-4. The main issue here is the relative difference between these three parameters. Default ATSC and EBU downmix coefficients calls for C at -3 dB and SL/SR at -6 dB relative to L and R. The absolute numbers are a matter of headroom management.</p> <p>Note: The LFE input signal is discarded with this preset. If you want to pass LFE to the stereo output, set LFE Mode to Distribute on the Bass page. LFE is added to the 5 Main channels before they are downmixed, so the 5 LFE to Main Channels parameters will determine how much LFE ends up at the stereo output.</p> <p>Tip: To hear how much a particular channel contributes to the stereo output, use the Input solo keys on the Main page.</p> <p>Basic description of the Toolbox algorithm at preset 0.</p>		
Output Format	Feed From L/R	Feed From C	Feed From SL/SR		Fader
Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different presentation formats.	Sets the mix coefficients of L and R. Preset at -8 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -11 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -14 dB to accommodate loud 5.1 mixes.		Output fader for all 5.1 channels preset at -16 dB, which in combination with the downmix attenuation translates a typical 5.1 mix to a normal stereo reproduction level.

5	Mon. 5.1 to Mono	Toolbox 5.1	<p>This preset gives a presentation of a 5.1 signal when reproduced in mono through two speakers (phantom mono). To listen through only one speaker, select Center as Mono Output on the Format page, or use preset 5.</p> <p>The channel downmix coefficients may be easily adjusted using parameters assigned to faders 2-4. The main issue here is the relative difference between these three parameters, and whether or not the 90 degree de-correlation is activated or not. The absolute numbers are a matter of headroom management.</p> <p>Note: The LFE input signal is discarded with this preset. If you want to pass LFE to the mono output, set LFE Mode to Distribute on the Bass page. LFE is added to the 5 Main channels before they are downmixed, so the 5 LFE to Main Channels parameters will determine how much LFE ends up at the mono output.</p> <p>Tip: To hear how much a particular channel contributes to the mono output, use the Input solo keys on the Main page.</p> <p>Basic description of the Toolbox algorithm at preset 0.</p>			
<p>Output Format</p> <p>Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different presentation formats.</p>	<p>Feed From L/R</p> <p>Sets the mix coefficients of L and R. Preset at -12 dB to accommodate loud 5.1 mixes.</p>	<p>Feed From C</p> <p>Sets the mix coefficients of L and R. Preset at -15 dB to accommodate loud 5.1 mixes.</p>	<p>Feed From SL/SR</p> <p>Sets the mix coefficients of L and R. Preset at -15 dB to accommodate loud 5.1 mixes.</p>	<p>90 degree Mono</p> <p>Applies 90 degree summing when combining L, R, SL and SR. Broadcasters and end listeners will probably not use 90 degree summing, if converting to mono.</p>	<p>Fader</p> <p>Output fader for all 5.1 channels preset at -16 dB, which in combination with the downmix attenuation translates a typical 5.1 mix to a normal stereo reproduction level.</p>	

6	Mon. 5.1 to Mono C Spkr.	Toolbox 5.1	<p>This preset gives a presentation of a 5.1 signal when reproduced in mono through one speaker. To listen to mono through two speakers, select L/R as Mono Output on the Format page, or use preset 4.</p> <p>The channel downmix coefficients may be easily adjusted using parameters assigned to faders 2-4. The main issue here is the relative difference between these three parameters, and whether or not the 90 degree de-correlation is activated or not. The absolute numbers are a matter of headroom management.</p> <p>Note: The LFE input signal is discarded with this preset. If you want to pass LFE to the mono output, set LFE Mode to Distribute on the Bass page. LFE is added to the 5 Main channels before they are downmixed, so the 5 LFE to Main Channels parameters will determine how much LFE ends up at the mono output.</p> <p>Tip: To hear how much a particular channel contributes to the mono output, use the Input solo keys on the Main page.</p> <p>Basic description of the Toolbox algorithm at preset 0.</p>			
Output Format	Feed From L/R	Feed From C	Feed From SL/SR	90 degree Mono	Fader	
Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different presentation formats.	Sets the mix coefficients of L and R. Preset at -12 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -15 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -15 dB to accommodate loud 5.1 mixes.	Applies 90 degree summing when combining L, R, SL and SR. Broadcasters and end listeners will probably not use 90 degree summing, if converting to mono.	Output fader for all 5.1 channels preset at -13 dB, which in combination with the downmix attenuation translates a typical 5.1 mix to a normal stereo reproduction level.	

9	Spkr. Cal. (Pink Noise)	Toolbox 5.1	<p>This preset was created with speaker loudness calibration in mind, and based on the algorithm's true RMS noise and tone generators. Calibrated loudness will allow you to exchange mixes between studios and colleagues in a meaningful way, and to combat abusive level and distortion from exhausting your headroom.</p> <p>Calibration of the 5 Main speakers should be based on broadband pink noise (default of this preset), or the HPF pink noise also available. Turn up the Fader to 0.0, and adjust the Generator Level to the reference point specified by the standard you wish to follow (normally -18 or -20 dB RMS).</p> <p>Engage one speaker at a time using the Output Solo keys on the Main page, and calibrate the loudness at listening position using an SPL meter (C curve, slow reading). Use a calibration standard suitable for your type of work. Post and television studios tend to operate between 76 and 80 dB SPL, Film studios 83-85 dB SPL, while music studios may have an even higher "comfort level". (Calibration numbers are for a broadband pink noise signal at reference level per speaker).</p> <p>Consult recommended practices from EBU (tech 3276), SMPTE (RP 200) or papers at the Tech Library of the TC website for more detailed info about test signals and alignment of Main and LFE speakers.</p>		
Gen. Type	Gen. Sine Freq		Gen. Level (RMS)	Gen. LFE Trim	Fader
Sets the type of calibration signal generated. For Main speakers use Pink Noise or HPF Pink Noise. For LFE use LPF Pink Noise.	If Gen. Type is set to Sine, this parameter adjusts its frequency.		Sets the output RMS level of the signal generator, regardless if it's generating noise or a sine. Reference level is normally either -18 or -20 dB RMS.	Sets the generator level for the LFE relative to the Main channels to compensate for the boost often incorporated in the LFE reproduction channel.	Master fader for all 5.1 channels. When calibrating, set the fader at 0.0 dB for a valid generator RMS output level setting.

Engine Bank F11, decade 2: Format Down Conversion for Production Audio

0	5.1 to LCRS	Toolbox 5.1	<p>The Toolbox 5.1 algorithm can be used for monitoring as well as production purposes. The F11 decade 0 bank holds monitoring presets, while decade 2 is for examples of production presets.</p> <p>This algorithm's resolution is 48 bit fixed point, and when no special functions are turned on, it is bit transparent. For a bit transparent bypass of all 5.1 channels, move the Fader to 0.0 dB, or press the Bypass key.</p> <p>Downmix coefficients can be adjusted, and summing points set to normal Mono (0 degree) or 90 degree Mono. 90 degree mono preserves out of phase elements in the mono signal, and attenuates fully correlated elements by 3 dB. Both characteristics are useful in film, DVD and post production.</p> <p>Trimming in timing (ms and samples) can be found in the Trim page, and may be added if speaker placement or signal correction calls for it.</p> <p>The algorithm includes precision test signal generators for calibration of speakers, distribution of test tones etc., as well as solo/mute functions for realtime inspection of various signals.</p> <p>Note: In the Production presets, the ".1" input and output is referred to as "LFE", unlike the Monitoring presets, where the output from this channel is labelled "Sub/LFE" because of its association with a certain speaker.</p>		
<p>Output Format</p> <p>Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different presentation formats.</p>	<p>Feed From SL/SR</p> <p>Sets the coefficients when summing SL and SR. To sum SL and SR with a 90 degree offset, adjust the 90 degree Mono parameter on the Format page. The S output can be limited using the Limiter on the same page.</p>				<p>Fader</p> <p>Output fader for all 5.1 channels.</p>

1	5.1 to Stereo	Toolbox 5.1	<p>This preset transcodes a 5.1 signal to two channel stereo.</p> <p>The channel downmix coefficients may be easily adjusted using parameters assigned to faders 2-4. The main issue here is the relative difference between these three parameters. Default ATSC and EBU downmix coefficients calls for C at -3 dB and SL/SR at -6 dB relative to L and R. The absolute numbers are a matter of headroom management.</p> <p>Note: The LFE input signal is discarded with this preset. If you want to pass LFE to the stereo output, set LFE Mode to Distribute on the Bass page. LFE is added to the 5 Main channels before they are downmixed, so the 5 LFE to Main Channels parameters will determine how much LFE ends up at the stereo output.</p> <p>Tip: To hear how much a particular channel contributes to the stereo output, use the Input solo keys on the Main page.</p>		
Output Format	Feed From L/R	Feed From C	Feed From SL/SR		Fader
Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different outputs formats.	Sets the mix coefficients of L and R. Preset at -8 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -11 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -14 dB to accommodate loud 5.1 mixes.		Output fader for all 5.1 channels.

2	5.1 to Mono	Toolbox 5.1	<p>This preset transcodes a 5.1 signal to two channel mono (L and R).</p> <p>The channel downmix coefficients may be easily adjusted using parameters assigned to faders 2-4. The main issue here is the relative difference between these three parameters, and whether or not the 90 degree de-correlation is activated or not. The absolute numbers are a matter of headroom management.</p> <p>Note: The LFE input signal is discarded with this preset. If you want to pass LFE to the mono output, set LFE Mode to Distribute on the Bass page. LFE is added to the 5 Main channels before they are downmixed, so the 5 LFE to Main Channels parameters will determine how much LFE ends up at the mono output.</p> <p>Tip: To hear how much a particular channel contributes to the mono output, use the Input solo keys on the Main page.</p>		
Output Format	Feed From L/R	Feed From C	Feed From SL/SR	90 degree Mono	Fader
Selects the downmix performed to a 5.1 input. Use the control to change in realtime between different output formats.	Sets the mix coefficients of L and R. Preset at -12 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -15 dB to accommodate loud 5.1 mixes.	Sets the mix coefficients of L and R. Preset at -15 dB to accommodate loud 5.1 mixes.	Applies 90 degree summing when combining L, R, SL and SR.	Output fader for all 5.1 channels.

3	5.1 to Binaural	Engage	<p>This preset prepares a 5.1 signal for headphone reproduction through the use of the Engage algorithm. The algorithm is tuned for AKG240DF headphones, so this selection should be used as default, and unless another specific model is specified.</p> <p>Note: Advanced versions of Engage are used for headphone mix optimization and In Flight Entertainment, and carry License protection. Contact TC Support for a trial version of the basic algorithm, if you are prevented from recalling this preset.</p>		
Threshold	Release	Output L	Output R		
Engage incorporates a Limiter. This parameter sets its threshold.	Release time constant of the Limiter.	Output level L.	Output level R.		

Engine Bank F11, decade 3: Format Up Conversion for Production Audio

0	UnWrap Dry	UnWrap	<p>UnWrap up-converts a stereo or LtRt (matrixed surround) input to a high resolution, 5.1 output. Numerous parameters enables the engineer to get a good result out of most source material. However, there will be times, where the freedom of a new 5.1 mix based on the original multi-track material is the best way forward. UnWrap license is required to recall a preset in this decade.</p> <p>This preset can be used as a starting point for upconverting material where intimacy needs preservation, and where the original mix is available using standard downmix coefficients on the 5.1 signal.</p> <p>Frontal image width: Solo LCR channels on the Output page when setting Level, Center channel and L/R processing parameters. Compare against Bypass if you wish to achieve the same overall image width as the two channel input.</p> <p>Tip: If you place a Monitor Matrix (preset 11-0-0) downstream of UnWrap, it's easy to judge how the processing works, should an end-listener or broadcaster be downconverting the result using standard downmix principles.</p>		
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Decorrelate	Fader
Controls frontal image width.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels can be generated in various ways. The Dry algorithm doesn't add extra spaciousness.	Output fader for all 5.1 channels.

1	UnWrap Intimate	UnWrap	<p>This particular preset can be used as a starting point for upconverting material where intimacy needs preservation, but slightly less dry than preset 0.</p> <p>Frontal image width: Solo LCR channels on the Output page when setting Level, Center channel and L/R processing parameters. Compare against Bypass if you wish to achieve the same overall image width as the two channel input.</p> <p>Basic description of the UnWrap algorithm at preset 0.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Decorrelate	Fader	
Controls frontal image width.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels can be generated in various ways. The Close algorithm adds a little spaciousness.	Output fader for all 5.1 channels.	

2	UnWrap Lateral	UnWrap	<p>This preset can be used as a starting point for upconverting material where lateralization from the surround speakers complements the source.</p> <p>Frontal image width: Solo LCR channels on the Output page when setting Level, Center channel and L/R processing parameters. Compare against Bypass if you wish to achieve the same overall image width as the two channel input.</p> <p>Basic description of the UnWrap algorithm at preset 0.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Focus	Fader	
Controls frontal image width.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels interact with the frontal image depending on the Focus parameter.	Output fader for all 5.1 channels.	

3	UnWrap Soft Sur	UnWrap	<p>This preset can be used as a starting point for upconverting material where an unobtrusive surround room addition complements the source.</p> <p>Frontal image width: Solo LCR channels on the Output page when setting Level, Center channel and L/R processing parameters. Compare against Bypass if you wish to achieve the same overall image width as the two channel input.</p> <p>Tip: If you place a Monitor Matrix (preset 11-0-0) downstream of UnWrap, it's easy to judge how the processing works, should an end-listener or broadcaster be downconverting the result using standard downmix principles.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Decorrelate	Fader	
Controls frontal image width.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The Dorsal algorithm adds spaciousness to the surrounds with a pronounced dorsal vector.	Output fader for all 5.1 channels.	

4	UnWrap Wide	UnWrap	<p>This preset can be used as a starting point for upconverting material where extra spaciousness complements the source.</p> <p>Frontal image width: Solo LCR channels on the Output page when setting Level, Center channel and L/R processing parameters. Compare against Bypass if you wish to achieve the same overall image width as the two channel input.</p> <p>Tip: If you place a Monitor Matrix (preset 11-0-0) downstream of UnWrap, it's easy to judge how the processing works, should an end-listener or broadcaster be downconverting the result using standard downmix principles.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Focus	Fader	
Controls frontal image width.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels interact with the frontal image depending on the Focus parameter.	Output fader for all 5.1 channels.	

4	UnWrap Wide	UnWrap	<p>This preset can be used as a starting point for a type of upconversion where different contour settings bring out alternative elements, especially in music.</p> <p>Frontal image width: Solo LCR channels on the Output page when setting Level, Center channel and L/R processing parameters. Compare against Bypass if you wish to achieve the same overall image width as the two channel input.</p> <p>Basic description of the UnWrap algorithm at preset 0.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Focus	Fader	
Controls frontal image width.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels interact with the frontal image depending on the Focus parameter.	Output fader for all 5.1 channels.	

5	UnWrap Additive	UnWrap	<p>This preset adds the extra channels without subtracting material from L and R. The original mix is therefore preserved in the L and R output.</p> <p>Basic description of the UnWrap algorithm at preset 0.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Focus	Fader	
Controls frontal image width. Turn this parameter to 0% to leave L and R completely unaltered.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels interact with the frontal image depending on the Focus parameter.	Output fader for all 5.1 channels.	

6	LtRt Centered	UnWrap	<p>This preset turns an LtRt mix into 5.1 without the steering artefacts normally associated with LtRt decoding. The preset is suitable for film and music, but preset 8 may be a better choice for the latter.</p> <p>Basic description of the UnWrap algorithm at preset 0.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Focus	Fader	
Controls frontal image width. Turn this parameter to 0% to leave L and R completely unaltered.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels interact with the frontal image depending on the Focus parameter.	Output fader for all 5.1 channels.	
7	LtRt Spread	UnWrap	<p>This preset turns an LtRt mix into 5.1 without the steering artefacts normally associated with LtRt decoding. The preset is suitable for music and doesn't collapse to the center which an LtRt decoding tends to.</p> <p>Basic description of the UnWrap algorithm at preset 0.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Focus	Fader	
Controls frontal image width. Turn this parameter to 0% to leave L and R completely unaltered.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels interact with the frontal image depending on the Focus parameter.	Output fader for all 5.1 channels.	
8	LtRt Hall Repro	UnWrap	<p>This preset turns an LtRt mix into 5.1 without the steering artefacts normally associated with LtRt decoding. The preset has the same profile as no 7, but is aimed at reproduction in a larger hall or movie theatre.</p> <p>Basic description of the UnWrap algorithm at preset 0.</p>			
L/R Processing	LFE Cut Freq.	SL Delay	SR Delay	Focus	Fader	
Controls frontal image width. Turn this parameter to 0% to leave L and R completely unaltered.	Hi cut filter frequency applied to derive an LFE signal from the input.	Surround delay. Use larger delays if the reproduction room is expected to be large.	Surround delay. Use larger delays if the reproduction room is expected to be large.	The surround channels interact with the frontal image depending on the Focus parameter.	Output fader for all 5.1 channels.	

Engine Bank F11, decade 5: BackDrop Noise Reduction

0	BackDrop (Startup)	BackDrop	<p>BackDrop noise reduction was designed to provide the maximum amount of realtime noise reduction without audibly altering the underlying signal. This decade of presets provide starting points for different types of restoration and clean-up work. BackDrop license is required to recall any of these presets.</p> <p>This preset provides a good choice when the level of the noise is relatively low and when it is not very complex (for instance tape hiss). To process single sources rather than related or L/R signals, Unlink the channels on the Model page.</p> <p>For certain stereo audio sequences, operating in M/S mode can give better results than when operating in Stereo mode. Operating mode is set on the Main screen. It should be noted that when you change the Processing Mode, BackDrop automatically recalculates the noise print information for the current operating mode.</p> <p>Tip: Use the Listen Removed key to hear if you affect the noise or also the signal.</p>			
Aggression	Max Reduction	Basilar Dispersion	Transient Recov.	Trim Start	Trim End	
Together with Max Reduction, this parameter controls how much noise reduction is applied.	Sets the max number of dB BackDrop is allowed to remove.	Amount of masking used by BackDrop's perceptual model to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.	Sets the starting point of the noise print. Trim a loop that contains only noise, and remember to press Calculate whenever Trim Start or End is pressed.	Sets the end point of the noise print. Trim a loop that contains only noise, and remember to press Calculate whenever Trim Start or End is pressed.	

1	Basic Noise Reduction	BackDrop	<p>This preset provides a good choice when the level of the noise is relatively low and when it is not very complex (for instance tape hiss). To process single sources rather than related or L/R signals, Unlink the channels on the Model page.</p> <p>Basic description of the BackDrop algorithm at preset 0.</p>			
Aggression	Max Reduction	Basilar Dispersion	Transient Recov.	Trim Start	Trim End	
Together with Max Reduction, this parameter controls how much noise reduction is applied.	Sets the max number of dB BackDrop is allowed to remove.	Amount of masking to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.	Sets the starting point of the noise print. Trim a loop that contains only noise, and remember to press Calculate whenever Trim Start or End is pressed.	Sets the end point of the noise print. Trim a loop that contains only noise, and remember to press Calculate whenever Trim Start or End is pressed.	

2	MultiBand Noise Reduction	BackDrop	<p>This preset offers an enhanced set of controls compared to preset 1 or 2. The MultiBand model used provides three independent noise reduction engines split across three frequency bands. Xover frequencies are accessed from the Model page.</p> <p>The MultiBand model is a good choice for higher levels of noise and when you need a high degree of precision in where you apply the noise reduction. If more noise reduction is needed, turn up the Aggression parameters on the Model page. To process single sources rather than related or L/R signals, Unlink the channels on the Model page.</p> <p>Basic description of the BackDrop algorithm at preset 0. Note that MS or channel unlinked processing is also available in MultiBand mode.</p>		
Lo Max Reduction	Lo Bas. Dispers.	Mid Max Reduction	Mid Bas. Dispers.	Hi Max Reduction	Hi Bas. Dispers.
Sets the max number of dB BackDrop is allowed to remove on the Lo band.	Amount of masking used to limit the artefacts of noise reduction on low level material on the Lo Band.	Sets the max number of dB BackDrop is allowed to remove on the Mid band.	Amount of masking used to limit the artefacts of noise reduction on low level material on the Mid Band.	Sets the max number of dB BackDrop is allowed to remove on the Hi band.	Amount of masking used to limit the artefacts of noise reduction on low level material on the Hi Band.

3	MultiType Noise Reduction	BackDrop	<p>This MultiType preset gives you the ability to de-compose the noise in realtime, and treat elements of it separately.</p> <p>For example, consider a recording that has been corrupted by a combination of a hum due to a ground loop, room rumble and tape hiss. In such a situation one often finds that the tonal components of the hum are more annoying than the other two noise components. Therefore, it is useful to apply the most noise reduction specifically to the hum component. Conversely, the tape hiss component might be quite acceptable and so you might want to leave it untouched while reducing the room rumble component.</p> <p>Basic description of the BackDrop algorithm at preset 0. Note that MS or channel unlinked processing is also available in MultiType mode.</p>		
Buzz Aggress.	Room Aggress.	Hiss Aggress.	Max Reduction	Basilar Dispersion	Transient Recov.
Amount of noise reduction applied to tonal components, e.g. hum, air conditioners, cooling fans, hard disks or CRT fly-back transformers.	Amount of noise reduction applied to room components, e.g. air conditioning units, cooling fans, low frequency rumble due to traffic noise, room feeling etc.	Amount of noise reduction applied to hiss components, e.g. tape, thermal or quantization noise.	Sets the max number of dB BackDrop is allowed to remove from any noise component.	Amount of masking to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.

4	Gentle Noise Reduction	BackDrop	<p>This preset provides a good choice for subtle reduction of random noise such as tape hiss, thermal or quantization types.</p> <p>Basic description of the BackDrop algorithm at preset 0.</p>		
Aggression	Max Reduction	Basilar Dispersion	Transient Recov.	Trim Start	Trim End
Together with Max Reduction, this parameter controls how much noise reduction is applied.	Sets the max number of dB BackDrop is allowed to remove.	Amount of masking to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.	Sets the starting point of the noise print. Trim a loop that contains only noise, and remember to press Calculate whenever Trim Start or End is pressed.	Sets the end point of the noise print. Trim a loop that contains only noise, and remember to press Calculate whenever Trim Start or End is pressed.

5	Air-Conditioning Remove	BackDrop	<p>This MultiType preset gives you the ability to de-compose the noise in realtime, and apply reduction specifically to tonal room components such as AC's.</p> <p>Basic description of the BackDrop algorithm at preset 0. Note that MS or channel unlinked processing is also available in MultiType mode.</p>		
Buzz Aggress.	Room Aggress.	Hiss Aggress.	Max Reduction	Basilar Dispersion	Transient Recov.
Amount of noise reduction applied to tonal components, e.g. hum, air conditioners, cooling fans, hard disks or CRT fly-back transformers.	Amount of noise reduction applied to room components, e.g. air conditioning units, cooling fans, low frequency rumble due to traffic noise, room feeling etc.	Amount of noise reduction applied to hiss components, e.g. tape, thermal or quantization noise.	Sets the max number of dB BackDrop is allowed to remove from any noise component.	Amount of masking to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.

6	Hiss Remove	BackDrop	<p>This MultiType preset gives you the ability to de-compose the noise in realtime, and apply reduction specifically to random noise such as tape hiss, thermal or quantization types.</p> <p>Basic description of the BackDrop algorithm at preset 0. Note that MS or channel unlinked processing is also available in MultiType mode.</p>		
Buzz Aggress.	Room Aggress.	Hiss Aggress.	Max Reduction	Basilar Dispersion	Transient Recov.
Amount of noise reduction applied to tonal components, e.g. hum, air conditioners, cooling fans, hard disks or CRT fly-back transformers.	Amount of noise reduction applied to room components, e.g. air conditioning units, cooling fans, low frequency rumble due to traffic noise, room feeling etc.	Amount of noise reduction applied to hiss components, e.g. tape, thermal or quantization noise.	Sets the max number of dB BackDrop is allowed to remove from any noise component.	Amount of masking to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.

7	Buzz Remove	BackDrop	<p>This MultiType preset gives you the ability to de-compose the noise in realtime, and apply reduction specifically to buzz and hum elements.</p> <p>Basic description of the BackDrop algorithm at preset 0. Note that MS or channel unlinked processing is also available in MultiType mode.</p>		
Buzz Aggress.	Room Aggress.	Hiss Aggress.	Max Reduction	Basilar Dispersion	Transient Recov.
Amount of noise reduction applied to tonal components, e.g. hum, air conditioners, cooling fans, hard disks or CRT fly-back transformers.	Amount of noise reduction applied to room components, e.g. air conditioning units, cooling fans, low frequency rumble due to traffic noise, room feeling etc.	Amount of noise reduction applied to hiss components, e.g. tape, thermal or quantization noise.	Sets the max number of dB BackDrop is allowed to remove from any noise component.	Amount of masking to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.

8	Buzz Remove	BackDrop	<p>This MultiType preset gives you the ability to de-compose the noise in realtime, and apply reduction specifically to room sound, traffic noise and similar sources.</p> <p>Basic description of the BackDrop algorithm at preset 0. Note that MS or channel unlinked processing is also available in MultiType mode.</p>		
Buzz Aggress.	Room Aggress.	Hiss Aggress.	Max Reduction	Basilar Dispersion	Transient Recov.
Amount of noise reduction applied to tonal components, e.g. hum, air conditioners, cooling fans, hard disks or CRT fly-back transformers.	Amount of noise reduction applied to room components, e.g. air conditioning units, cooling fans, low frequency rumble due to traffic noise, room feeling etc.	Amount of noise reduction applied to hiss components, e.g. tape, thermal or quantization noise.	Sets the max number of dB BackDrop is allowed to remove from any noise component.	Amount of masking to limit the artefacts of noise reduction on low level material. When set to 0%, Transient Recovery is disabled.	Limits the artefacts of Basilar Dispersion, which can blur the transients.

9	Advanced Cat43	BackDrop	<p>This MultiBand preset puts the realtime power of an updated Cat43 into your hands. Same Xovers and operating procedures, but better resolution and perceptual realtime modeling added. Compare against preset 10-3-9, or for multichannel 10-8-9.</p> <p>Basic description of the BackDrop algorithm at preset 0. Note that MS or channel unlinked processing is also available in MultiType mode.</p>		
Lo Aggression	Mid Aggression	Hi Aggression			
Amount of noise reduction applied to low frequency elements, and taking masking into account. 100% gives a max reduction of 24 dB.	Amount of noise reduction applied to mid band elements, and taking masking into account. 100% gives a max reduction of 20 dB.	Amount of noise reduction applied to hi frequency elements, and taking masking into account. 100% gives a max reduction of 16 dB.			