



Multimaximizer.

chm.

L3

- - 
  -
- ( ) ( ) ( )
- ( )



Музыкальный портал  
**SSL Project**



Undo A->B Load Save ? WAVES

Setup 4

Profile  
Extreme Analog

Threshold Out Ceiling Atten

-0.0 -0.0 -0.3 -0.3 -8.0

24 Bits Quantize Release 1.00

Type1 Dither

Normal Shaping

**IDR**

L3 Ultramaximizer

L3 Multimaximizer Undo Setup A A->B Load Save ? WAVES

Threshold Out Ceiling Atten

-0.0 -0.0 -0.3 0.0 -12.5

24 Bits Quantize

Type1 Dither

Normal Shaping

**IDR**

Master Release ARC 522.16

Gain Priority Release

100 Xover LO 80 LM 320 HM 1278 HI 5113

0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0

522.16 522.16 522.16 522.16 522.16

Frequency (kHz)	Gain (dB)
32	-2
64	-4
128	-6
250	-8
500	-10
1k	-12
2k	-14
4k	-16
8k	-18
16k	-20



L3



?

L3

L3.

L3 Ultramaximizer Insert,  
L3

- L3.
- Threshold/Ceiling, Input
- Output, Attenuation.
- Attenuation
- 
- Ceiling -0.2
- IDR Quantize
- 16bit Audio CD 24bit
- 

L3

L3



L3 Multimaximizer

Peak Limiter

Bit Depth Re-Quantizer  
Waves.

Waves L1 L2 Ultramaximizer

Look-ahead,

L3

Threshold.

L3

L3

24-bit

L3

■ L3 Ultramaximizer

Profile,

L1 L2.

L2.

a L3

Profile

■ L3 Multimaximizer

— Gain, Priority Release.

L3

IDR (Increased Digital Resolution)

Waves

24-

16-

Audio CD. Dither,

IDR Noise Shaping



L3 —

L3

5

Mixer™ ( L3 )

Waves,

Peak Limiting

Peak Limiting Mixer™

(

),

Threshold.

L3

L3

L3

Waves L1 L2.

— Threshold, Ceiling, (Master)

Release IDR.

L3 Multimaximizer

Gain, Priority

Release.

Separation

Release Behavior

Release

ARC ( Waves Adaptive Release Control )

L3 Ultramaximizer

Profile

— Priority,

Release, Xover Cutoff Separation.

L3 —

24

80

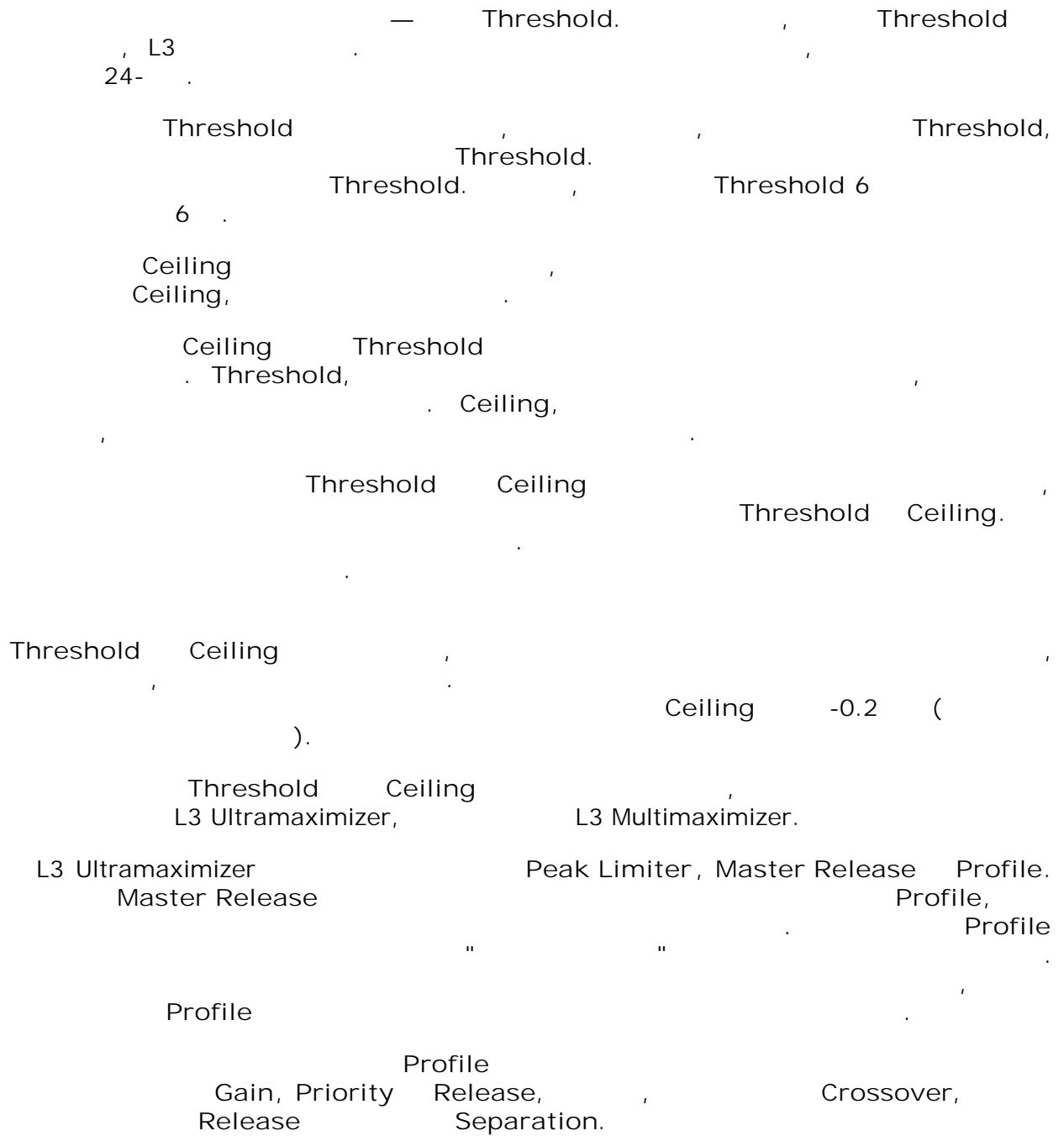


Peak Limiter      IDR.      L3      :      Peak  
Peak Limiter      L3 Multimaximizer      :

- — Threshold, Ceiling, Master Release
- — Gain, Priority, Release



# Peak Limiter



# Threshold Priority

L3

Threshold. Peak Limiting Mixer™  
Priority

Threshold

Priority

Priority  
Priority,



*Threshold.*

Threshold  
Priority

Priority.  
Threshold

L3 Multimaximizer

L3

Gain  
)

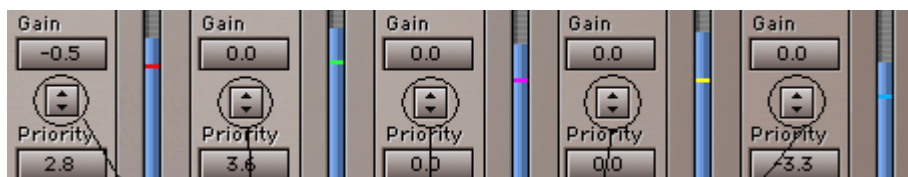
(

Gain

Threshold.

Gain  
Gain Priority.

Gain Priority



*Gain Priority*

Crossover

Solo.

Multiband.



0

Gain, Priority Release

Release

Waves ARC (Adaptive Release Control),  
Release.

L3  
Release. L3

Master

Release,

Release



# Release Behavior



Waves ARC (Adaptive Release Control )

L3

Release

ARC,  
ARC

- ARC —
- Warm —
- Scaled —
- Aggressive —
- Manual —

ARC.

Release

Release,

Release,

Master Release



IDR



L3

: Type1 Type2.

:

- type1
- type2

IDR

Noise-shaping.

—



# IDR

- Quantize (24, 22, 20, 18, 16- ).
- Dither (type1, type2, none).
- Noise Shaping (Moderate, Normal, Ultra, None), Shaping. ([Noise Shaping.](#))

( , , , )! — L3  
IDR:



" "

Type1  
Noise Shaping

CD,

Waves Type1 —

Type1

Type1

20-

16-

( ) IDR  
24- , 19-

16-

—

18

20-



Type2 , Noise Shaping ,  
, IDR Type1,

Type2 — Type1,  
Type2. Type2 "  
" ( ), Type2



# Noise-Shaping



Shaping

Noise Shaping

15

IDR,

Noise Shaping

- Moderate — Noise Shaping.
- Normal —
- Ultra —

(16- )

Ultra

(L3,

Ultra Noise Shaping,

Type1 Noise Shaping Type2, Noise Shaping

IDR,

Shaping.

IDR

" Noise "

( )

( ,

(2-3 )

20-

— Type1 Normal Noise Shaping.

CD  
16-

— Type2 Ultra;

— Type1 Ultra.







[Peak Limiter](#)

[Multimaximizer Master Release](#)

[Ultramaximizer Release](#)

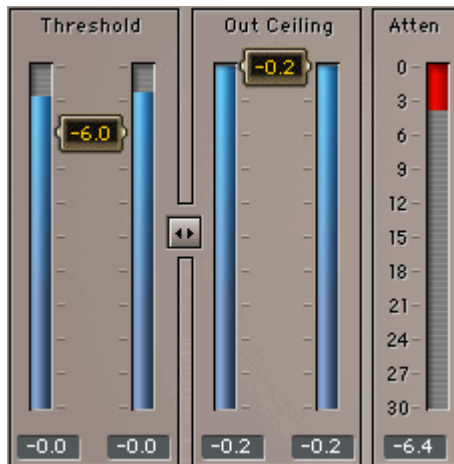
[Profile](#)

[L3 Multimaximizer](#)

[IDR](#)



# Peak Limiter



Threshold: 0.0 -30 , — 0.  
Threshold

Gain , Threshold,  
Gain Threshold. L3  
Threshold.

Out Ceiling: 0.0 -30 , — 0.  
Out Ceiling

Attenuation: 0 -30 .  
Attenuation

0.0 ,

L3 Multimaximizer.

# Multimaximizer Master Release



Master Release L3 Multimaximizer

:

Release —

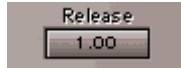
Release,  
Waves ARC (Adaptive Release Control)

Master Release —

Release



# Ultramaximizer Release

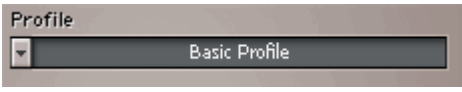


Ultramaximizer  
Release

Release,

Profile.

# Profile



— Basic Profile ( Ultramaximizer).  
Profile L3. Profile

Separation. , Release, Crossover



# L3 Multimaximizer



Crossover

Crossover . Crossover. L3 4  
 High Pass Low Pass ,

Xover  
 Linear Phase.

Xover.

Crossover

- Low: 40 350 , 80 .
- Low Mid: 150 2997 , 320 .
- Hi Mid: 1022 4757 , 1278 .
- Hi: 4 16 , 5113 .

Separation

Separation

0 100, 100.

Separation 100,

Separation 0

Gain

Gain

-12 +12, — 0.

Gain

Linear Phase L3.

Priority

Priority  
2.8

-12 +12, — 0.

Mixer™.

Priority

Priority

Peak Limiting

Gain.

Priority

Gain Priority



Gain Priority

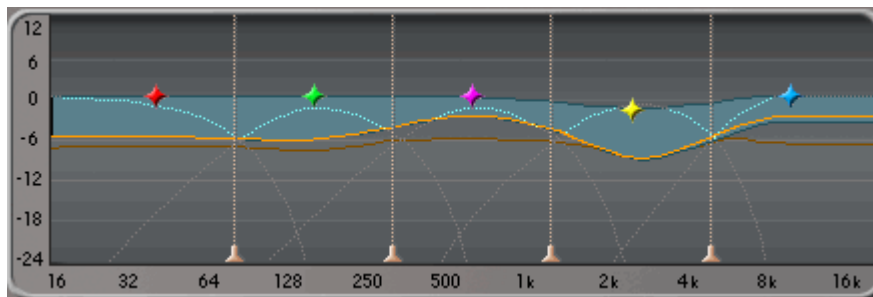
Release

Release  
14.93

0.1 5000.

Release.

Gain/Frequency



Gain/Frequency

Gain

Gain.

Gain,

—  
Gain

Gain.

,  
Gain,

—  
Gain.

Gain Priority.

/ — /

Crossover.





# IDR



Quantize



24, 22, 20, 18 16 24

Quantize

Dither

L3.  
Shaping.  
L3.

L3

24  
24

24

64

Type



Type1, Type2, None.

— Type1.

1, 2,

Noise Shaping —

Shaping



Moderate, Normal, Ultra

None.

— Normal.

Shaping  
Shaping,  
Noise Shaping  
( )

Noise Shaping .

/

Noise

None

/

IDR



Dither

Noise Shaping

IDR

Dither

IDR  
Noise

Shaping

None,

IDR





L3 Ultramaximizer

Waves

L3

L3

1.

2.

Dither

Noise Shaping.

L3 Ultramaximizer

" "

, L3

( . . )

Waves IDR

16

64

16

24

L3

16

Dither Noise Shaping

Dithering

?

( ), ( ), ( )

" "

( ) ( )

IDR™

IDR™ —

Gerzon Waves.

IDR —

IDR ( 16 )

( 24 ) IDR 48

24 , 24 20

24, 22, 20, 18, 16 L3 — 64

TDM (Time Division Multiplexing)

24 DVD

IDR,

L3-Multimaximizer,

L1 L2 L3 ( IDR Waves.

Noise Shaping Noise Shaping )



# Dither Noise Shaping



Dither Noise Shaping —

Dithering

Type1

Noise Shaping

Dither).

( Dither —  
Noise Shaping

Dithering

( (1 6 ), " )  
( 15 ).

( )

?

— " "

—

(

.

# Dither

No Dither. 24

24 ( )  
Bypass!

IDR L3 24 Dither

IDR Dither Type1 . Type1 5

" " . Type1

Noise Shaping . Type1

. Type1 —

( ) IDR, 16  
20 24 18 ! 19

16

CD,  
Waves Type1 —

IDR Dither Type2. 5 Type1.

Type2 —

IDR Type1, Type2 —  
Type1, Type2.

# Noise Shaping

Noise Shaping  
 Noise Shaping, 15k  
 Noise Shaping L3  
 Noise Shaping L3  
 Off. Noise Shaping ( ) Dither).  
 Moderate. ( Dither 9 44.1 )  
 Normal. ( Dither 15 )  
 44.1 12 Normal Type1  
 Ultra. / 23 44.1 Ultra 18  
 (16 Ultra )  
 IDR  
 Noise Shaping Dither ( None)  
 Noise Shaping  
 Type1 Type2. Noise Shaping  
 Dither.  
 IDR IDR, Noise Shaping.  
 —

( " ").

( , ' . . ).

CD — Type1  
16

Normal Noise Shaping.  
( ) Type2 Ultra.  
Type1 Ultra.

44.1 48

Noise Shaping Ultra.  
Noise Shaping Ultra

Normal Moderate,  
16 : Ultra

■ Noise Shaping —  
CD Ultra —  
CD,

■ Noise Shaping Ultra ( )  
CD.  
CD

Normal Noise Shaping .

CD,  
■ ( !).  
Ultra Noise Shaping

Ultra

Normal Moderate

Ultra ( Waves PAZ - Psychoacoustic

Analyzer).





16

(

)



44.1/48

24, 22, 20

L3 16

■

L3. L3-Multimaximizer

■

16

Threshold

L3.

Threshold

Attenuation

4-6

■

Output Ceiling

Output 0.0

CD

( )

-0.2 ; ( )

.

■

Release Behavior

ARC.

■

Quantize

16

( CD/DAT,

22, 20, 18

16+ ).

■

Dither (Type1 Type2). IDR Type1 —

■

Shaping (Moderate, Normal, Ultra, none). Ultra Normal —

:

	Dither	Noise Shaping
CD	Type1	Normal
16	Type2	Ultra
	Type1	Ultra



L3

-1

Type2, Normal — IDR  
Type2, Ultra —

Type1  
Type1  
16

CD,

( )

CD Audio

L3.

Dither Type1  
Type1 Ultra  
Type2 ( )

Normal Noise Shaping  
IDR

L3,



( , ) ,

—

" "

( )

" "

—

L3

L3

0

Gain

Gain,

?

0.3

L3

High Pass,

High Pass 4 Low-Pass

— ?

0.3

? ! ) CD ( )  
( ) !)

:



Waves L3 Ultramaximizer Multimaximizer!!!

L3.