

D-110

MULTI TIMBRAL
SOUND MODULE

FACTORY TONES SAMPLE COLLECTION BY

nion

INFORMATION

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The D-110 is a true synthesizer, extensive editing of the so called 'partials' (operators) that are used to build tones is possible. But, the aim of this project was to digitize the D-110 factory preset tones, not to create a virtual synthesizer. The D-110 uses Linear Arithmetic (LA) Synthesis and ROM samples. The D-110 tones are built from a maximum of four so called 'partials': either short PCM samples or synthesized waves (square and saw waves). This has been emulated in this collection when possible.

The D-110 has two tone banks called 'preset tones' (banks A and B in this collection) and one rhythm set (bank R). In this sample collection, these banks have been created by sampling the partials, and combining them as they are combined in the D-110. Some tones use ring modulation, these have been sampled 'as is'. The (filtered) partials are included in this collection: PCM Bank, RingMod Bank and Synth Bank.

Notes have been sampled from midi number 024 (C0) to 96 (C6). Most instruments have repeating samples in the higher regions, these have not been sampled.

Sustained tones have been sampled up to the point where they repeat (and then, looped, as they are looped in the D-110).

All samples have been recorded at 44,000 kHz/16-bit. Most tones are monaural, some stereo. Stereo tones have been sampled in stereo. In some tones, noise may be heard at the end of samples, due to the analogue recording and the base material from the D-110. This could not be avoided, because the D-110 does not have a digital output. Noise reduction has not been applied, as it also alters the sound. If required, a quicker fade out can be applied using the ADSR parameter settings in Kontakt.

The internal reverb from the D-110 has been disabled: Kontakt has many built-in reverbs (and other effects). Samples would have become much larger had reverb been included, and it can't easily be removed once it's been recorded within the sample.

Some D-110 tones are velocity sensitive: brighter when played harder. This has been emulated on all tones by sampling the brightest sound (maximum velocity) and providing a Kontakt low pass filter that reacts to velocity. As a bonus, high pass, resonance and LFO filtering has been included, as well as ADSR editing, from the front panel.

TONES AND PARTIALS

No.	Tone name
TONE BANK A	
A11	Acoustic Piano 1
A12	Acoustic Piano 2
A13	Acoustic Piano 3
A14	Honky-Tonk Piano
A15	Electric Piano 1
A16	Electric Piano 2
A17	Electric Piano 3
A18	Electric Piano 4
A21	Electric Organ 1
A22	Electric Organ 2
A23	Electric Organ 3
A24	Electric Organ 4
A25	Pipe Organ 1
A26	Pipe Organ 2
A27	Pipe Organ 3
A28	Accordion

No.	Tone name
TONE BANK A	
A31	Harpsichord 1
A32	Harpsichord 2
A33	Harpsichord 3
A34	Clavinet 1
A35	Clavinet 2
A36	Clavinet 3
A37	Celesta 1
A38	Celesta 2
A41	Violin 1
A42	Violin 2
A43	Cello 1
A44	Cello 2
A45	Contrabass
A46	Pizzicato
A47	Harp 1
A48	Harp 2

No.	Tone name
TONE BANK A	
A51	Strings 1
A52	Strings 2
A53	Strings 3
A54	Strings 4
A55	Brass 1
A56	Brass 2
A57	Brass 3
A58	Brass 4
A61	Trumpet 1
A62	Trumpet 2
A63	Trombone 1
A64	Trombone 2
A65	Horn
A66	French Horn
A67	English Horn
A68	Tuba

No.	Tone name
TONE BANK A	
A71	Flute 1
A72	Flute 2
A73	Piccolo
A74	Recorder
A75	Pan Pipes
A76	Bottle Blow
A77	Breath Pipe
A78	Whistle
A81	Saxophone 1
A82	Saxophone 2
A83	Saxophone 3
A84	Clarinet 1
A85	Clarinet 2
A86	Oboe
A87	Bassoon
A88	Harmonica

TONES AND PARTIALS

No. Tone name	No. Tone name	No. Tone name	No. Tone name
ZONE BANK B			
B11 Fantasy	ZONE BANK A		
B12 Harmo Pan	B31 Synthesizer Lead 1	B51 Vibe	B71 Tech Snare
B13 Chorale	B32 Synthesizer Lead 2	B52 Glock	B72 Electric Tom
B14 Glasses	B33 Synthesizer Lead 3	B53 Marimba	B73 Reverse Cymbal
B15 Soundtrack	B34 Synthesizer Lead 4	B54 Xylophone	B74 Ethno Hit
B16 Atmosphere	B35 Synthesizer Bass 1	B55 Guitar 1	B75 Timpani
B17 Warm Bell	B36 Synthesizer Bass 2	B56 Guitar 2	B76 Triangle
B18 Space Horn	B37 Synthesizer Bass 3	B57 Electric Guitar 1	B77 Wind Bell
B21 Echo Bell	B38 Synthesizer Bass 4	B58 Electric Guitar 2	B78 Tube Bell
B22 Ice Rains	B41 Acoustic Bass 1	B61 Koto	B81 Orchestra Hit
B23 Oboe 2002	B42 Acoustic Bass 2	B62 Shamisen	B82 Bird Tweet
B24 Echo Pan	B43 Electric Bass 1	B63 Jamisen	B83 One Note Jam
B25 Bell Swing	B44 Electric Bass 2	B64 Sho	B84 Telephone
B26 Reso Synthesizer	B45 Slap Bass 1	B65 Shakuhachi	B85 Typewriter
B27 Steam Pad	B46 Slap Bass 2	B66 Wadaiko Set	B86 Insect
B28 Vibe String	B47 Fretless Bass 1	B67 Sitar	B87 Water Bells
	B48 Fretless Bass 2	B68 Steel Drum	B88 Jungle Tune

TONES AND PARTIALS

No.	Tone name
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TONE BANK R	
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R11	Drums & Percussion
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TONES AND PARTIALS

No.	Tone Name
→	Partials
TONE BANK A	
A11	Acoustic Piano 1
→	Acoustic Piano High
→	Acoustic Piano Low
→	Square Wave
A12	Acoustic Piano 2
→	Acoustic Piano Low
→	Square Wave
A13	Acoustic Piano 3
→	Square Wave (RingMod)
→	Square Wave (RingMod)
A14	Honky-Tonk Piano
→	Square Wave (RingMod)
→	Square Wave (RingMod)
→	Electric Piano 2
A15	Electric Piano 1
→	Square Wave (RingMod)
→	Square Wave (RingMod)
→	Saw Wave

No.	Tone Name
→	Partials
TONE BANK A	
A16	Electric Piano 2
→	Electric Piano 2
→	Saw Wave
→	Spectrum 2
A17	Electric Piano 3
→	Square Wave
→	Saw Wave
A18	Electric Piano 4
→	Square Wave
A21	Electric Organ 1
→	Organ Percussion
→	Low Organ
→	Low Organ
→	High Organ
A22	Electric Organ 2
→	Drawbars (RingMod)
→	Square Wave (RingMod)

No.	Tone Name
→	Partials
TONE BANK A	
A23	Electric Organ 3
→	Drawbars
→	Drawbars
A24	Electric Organ 4
→	Low Organ
A25	Pipe Organ 1
→	Drawbars
→	Drawbars
→	Square Wave
A26	Pipe Organ 2
→	Low Organ
→	High Organ
→	Saw Wave
A27	Pipe Organ 3
→	Drawbars
→	Saw Wave

No.	Tone Name
→	Partials
TONE BANK A	
A28	Accordion
→	Drawbars
→	Square Wave
A31	Harpsichord 1
→	Saw Wave
→	Square Wave
→	Harpsichord 1
A32	Harpsichord 2
→	Harpsichord 2
→	Square Wave
A33	Harpsichord 3
→	Saw Wave
A34	Clavinet 1
→	Clav (RingMod)
→	Saw Wave (RingMod)
→	Square Wave

TONES AND PARTIALS

No.	Tone Name
→	Partials
TONE BANK A	
A35	Clavinet 2
→	Clav
→	Square Wave
A36	Clavinet 3
→	Clav
→	Square Wave
A37	Celesta 1
→	Saw Wave (RingMod)
→	Saw Wave (RingMod)
→	Spectrum 2
A38	Celesta 2
→	Saw Wave (RingMod)
→	Saw Wave (RingMod)
A41	Violin 1
→	Violin 1
→	Violin
→	Square Wave

No.	Tone Name
→	Partials
TONE BANK A	
A42	Violin 2
→	Violin 2
→	Square Wave
A43	Cello 1
→	Contrabass
→	Cello
→	Square Wave
A44	Cello 2
→	Square Wave
→	Square Wave
A45	Contrabass
→	Contrabass
→	Saw Wave
A46	Pizzicato
→	Pizzicato
→	Saw Wave
→	Acoustic Bass

No.	Tone Name
→	Partials
TONE BANK A	
A47	Harp 1
→	Harp
→	Square Wave
→	But Guitar
A48	Harp 2
→	Harp
→	Square Wave
A51	Strings 1
→	Saw Wave
→	Square Wave
→	Contrabass
→	Violin 2
A52	Strings 2
→	Saw Wave
→	Square Wave
→	Violin

No.	Tone Name
→	Partials
TONE BANK A	
A53	Strings 3
→	Square Wave
→	Square Wave
A54	Strings 4
→	Saw Wave
→	Saw Wave
→	Square Wave
A55	Brass 1
→	Saw Wave
→	Saw Wave
→	Saw Wave
→	Saw Wave
A56	Brass 2
→	Saw Wave
→	Square Wave
→	Saw Wave

TONES AND PARTIALS

No.	Tone Name
→	Partials
TONE BANK A	
A57	Brass 3
→	Trumpet
→	Saw Wave
→	Trombone
→	Saw Wave
A58	Brass 4
→	Trumpet
→	Trombone
→	Saw Wave
→	Square Wave
A61	Trumpet 1
→	Saw Wave (RingMod)
→	Trumpet (RingMod)
→	Trumpet
A62	Trumpet 2
→	Trumpet
→	Saw Wave

No.	Tone Name
→	Partials
TONE BANK A	
A63	Trombone 1
→	Trombone
→	Saw Wave
→	Lips
A64	Trombone 2
→	Trombone
→	Saw Wave
A65	Horn
→	Trombone
→	Saw Wave
→	Lips
A66	French Horn
→	Saw Wave
→	Square Wave
A67	English Horn
→	Saw Wave (RingMod)
→	Saw Wave (RingMod)

No.	Tone Name
→	Partials
TONE BANK A	
A68	Tuba
→	Saw Wave (RingMod)
→	Saw Wave (RingMod)
A71	Flute 1
→	Saw Wave
→	Saw Wave
→	Flute High
→	Spectrum 1
A72	Flute 2
→	Flute Low
→	Saw Wave
A73	Piccolo
→	Flute High
→	Saw Wave
→	Square Wave
A74	Recorder
→	Spectrum 3
→	Square Wave

No.	Tone Name
→	Partials
TONE BANK A	
A75	Pan Pipes
→	Steamer
→	Square Wave
→	Spectrum 1
A76	Bottle Blow
→	India Flute
→	China Cymbal
→	Square Wave
→	Square Wave
A77	Breath Pipe
→	Saw Wave
→	Saw Wave
→	Steamer
→	India Flute
A78	Whistle
→	Spectrum 3
→	Square Wave

TONES AND PARTIALS

No. Tone Name

→ Partials

STONE BANK A

A81 Saxophone 1

→ Saw Wave (RingMod)

→ Saxophone 2 (RingMod)

A82 Saxophone 2

→ Saw Wave (RingMod)

→ Saxophone 2 (RingMod)

A83 Saxophone 3

→ Saxophone

→ Saw Wave

A84 Clarinet 1

→ Clarinet

→ Square Wave

A85 Clarinet 2

→ Square Wave (RingMod)

→ Square Wave (RingMod)

→ Clarinet

No. Tone Name

→ Partials

STONE BANK A

A86 Oboe

→ Square Wave (RingMod)

→ Square Wave (RingMod)

→ Clarinet

A87 Bassoon

→ Reed

→ Square Wave

A88 Harmonica

→ Square Wave (RingMod)

→ Square Wave (RingMod)

TONES AND PARTIALS

No.	Tone Name
→	Partials
TONE BANK B	
B11	Fantasy
→	Saw Wave
→	Square Wave
→	Spectrum 6
→	Spectrum 2
B12	Harmo Pan
→	Saw Wave
→	Square Wave
→	Spectrum 2
→	Spectrum 9
B13	Chorale
→	Female 1
→	Male 1
→	Spectrum 3
B14	Glasses
→	Spectrum 6
→	Saw Wave
→	Jam 31

No.	Tone Name
→	Partials
TONE BANK B	
B15	Soundtrack
→	Saw Wave
→	Saw Wave
→	Saw Wave
→	Saw Wave
B16	Atmosphere
→	Square Wave
→	Square Wave
→	But Guitar
→	Spectrum 9
B17	Warm Bell
→	Saw Wave
→	Saw Wave
→	Spectrum 6
→	Spectrum 2

No.	Tone Name
→	Partials
TONE BANK B	
B18	Space Horn
→	Saw Wave
→	Square Wave
→	Spectrum 6
→	Spectrum 6
B21	Echo Bell
→	Saw Wave
→	Saw Wave
→	Spectrum 2
B22	Ice Rains
→	Saw Wave
→	Square Wave
→	Loop 42
→	Loop 42
B23	Oboe 2002
→	Spectrum 1
→	Square Wave

No.	Tone Name
→	Partials
TONE BANK B	
B24	Echo Pan
→	Saw Wave
→	Saw Wave
B25	Bell Swing
→	Spectrum 2
→	Spectrum 10
→	Square Wave
B26	Reso Synthesizer
→	Saw Wave
→	Saw Wave
B27	Steam Pad
→	Saw Wave
→	Saw Wave
→	Steamer

TONES AND PARTIALS

No.	Tone Name
→	Partials
TONE BANK B	
B28	Vibe String
→	Wind Bell
→	Square Wave
→	Saw Wave
→	Saw Wave
B31	Synthesizer Lead 1
→	Saw Wave
→	Saw Wave
→	Saw Wave
→	Saw Wave
B32	Synthesizer Lead 2
→	Saw Wave
→	Saw Wave
B33	Synthesizer Lead 3
→	Harpsichord 2
→	Steel Guitar
→	Square Wave

No.	Tone Name
→	Partials
TONE BANK B	
B34	Synthesizer Lead 4
→	Square Wave
→	Square Wave
B35	Synthesizer Bass 1
→	Slap Bass
→	Thump Bass
→	Slap Bass
B36	Synthesizer Bass 2
→	Saw Wave
→	Square Wave
B37	Synthesizer Bass 3
→	Saw Wave
→	Square Wave
B38	Synthesizer Bass 4
→	Slap Bass
→	Pull Bass
→	Square Wave

No.	Tone Name
→	Partials
TONE BANK B	
B41	Acoustic Bass 1
→	Acoustic Bass
→	Square Wave
B42	Acoustic Bass 2
→	Square Wave
B43	Electric Bass 1
→	Electric Bass
→	Square Wave
B44	Electric Bass 2
→	Square Wave (RingMod)
→	Square Wave (RingMod)
B45	Slap Bass 1
→	Pull Bass
→	Saw Wave
B46	Slap Bass 2
→	Thump Bass
→	Slap Bass
→	Slap Bass sustained

No.	Tone Name
→	Partials
TONE BANK B	
B47	Fretless Bass 1
→	Fretless
→	Thump Bass
→	Electric Bass 2
→	Saw Wave
B48	Fretless Bass 2
→	Fretless
→	Saw Wave
B51	Vibe
→	Vibraphone High
→	Square Wave
B52	Glock
→	Saw Wave (RingMod)
→	Saw Wave (RingMod)
→	Glock

TONES AND PARTIALS

No.	Tone Name
→	Partials
TONE BANK B	

B53	Marimba
→	Marimba
→	Square Wave
→	Xylophone Low
<hr/>	
B54	Xylophone
→	Xylophone Low
→	Xylophone High
<hr/>	
B55	Guitar 1
→	But Guitar
→	Square Wave
→	Gut Guitar
<hr/>	
B56	Guitar 2
→	Steel Guitar (RingMod)
→	Square Wave (RingMod)
→	Steel Guitar

No.	Tone Name
→	Partials
TONE BANK B	

B57	Electric Guitar 1
→	Square Wave (RingMod)
→	Square Wave (RingMod)
→	Pull Bass
→	Acoustic Piano Low
<hr/>	
B58	Electric Guitar 2
→	Square Wave
→	Square Wave
→	Dirt Guitar
→	Electric Guitar
<hr/>	
B61	Koto
→	Koto
→	Saw Wave
<hr/>	
B62	Shamisen
→	Spectrum 5
→	Kalimba

No.	Tone Name
→	Partials
TONE BANK B	

B63	Jamisen
→	Acoustic Bass
→	Square Wave
<hr/>	
B64	Sho
→	Saw Wave
→	Saw Wave
→	Saw Wave
<hr/>	
B65	Shakuhachi
→	India Flute
→	Spectrum 7
→	Saw Wave
→	Saw Wave
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B66	Wadaiko Set
→	Conga
→	Conga
→	High Conga
→	PianoForte Tap

No.	Tone Name
→	Partials
TONE BANK B	

B67	Sitar
→	Cello
→	Steel Guitar
→	Saw Wave
→	Saw Wave
<hr/>	
B68	Steel Drum
→	Vibraphone High
→	Saxophone 2
→	Female 1
→	Claves
<hr/>	
B71	Tech Snare
→	Snare Drum
→	Bass Drum
→	High Hat
→	China Cymbal

TONES AND PARTIALS

No.	Tone Name
→	Partials
TONE BANK B	
B72	Electric Tom
→	Timbale Low
→	Bass Drum
→	High Hat
→	China Cymbal
B73	Reverse Cymbal
→	Crash Cymbal
→	Crash Cymbal
B74	Ethno Hit
→	Timpani
→	Crash Cymbal
→	Chime Bar
→	Cup
B75	Timpani
→	Timpani Attack
→	Timpani

No.	Tone Name
→	Partials
TONE BANK B	
B76	Triangle
→	Wind Bell
→	Square Wave
B77	Wind Bell
→	Wind Bell
→	Spectrum 9
→	Square Wave
B78	Tube Bell
→	Electric Piano
→	Electric Piano
→	Wind Bell
→	Spectrum 2
B81	Orchestra Hit
→	Jam 1
→	Violin 2
→	Clarinet
→	Pizzicato

No.	Tone Name
→	Partials
TONE BANK B	
B82	Bird Tweet
→	Saw Wave
B83	One Note Jam
→	Jam 6
→	Jam 17
→	Jam 5
→	Loop 6
B84	Telephone
→	Telephone
B85	Typewriter
→	PianoForte Tap
→	Noise
B86	Insect
→	Spectrum 10
→	Spectrum 9

No.	Tone Name
→	Partials
TONE BANK B	
B87	Water Bells
→	Loop 42
→	Loop 42
→	Loop 42
B88	Jungle Tune
→	Jam 1
→	Loop 64
→	Spectrum 2
→	Loop 37