

**f 5** OR **f 6** **Orderlist table**

- SHIFT** + **⏪** Set all play markers (f2 for playback)
- C** + **⏪** Set playmark on a track
- C** + **SHIFT** + **⏪** Set marks to played position
- C** + **Z C V** Undo / copy / paste
- SHIFT** + **C** Set end of copy marking
- C** + **E** Find 1st empty pattern
- C** + **INS** OR **DEL** Insert an entire column

**f 7** **Instrument table**

- +** OR **-** Select instrument
- CTRL** Jump to instrument subtables
- SHIFT** + **N** Name the instrument
- RETURN** Toggle parameter / Jump to chord table
- SHIFT** + **⏪** Set note-off in table position
- C** + **Z X C V** Undo / cutcopy / copy / paste
- C** + **P** OR **F** Toggle pulse / filter reset
- =** Negate value in table (eg. **20=E0**)
- SHIFT** + **S** Jump to main instrument settings
- SHIFT** + **W** Jump to waveform / arpeggio table
- SHIFT** + **P** Jump to pulse table

**C** + **f 5** **Chord table**

- +** OR **-** Select chord in chord table
- RETURN** Toggle subtune funk tempo
- SHIFT** + **K** OR **L** Select chord anywhere
- C** + **N** Note mode / number mode (toggle)

**C** + **f 7** **Tempo table**

- C** + **<** OR **>** Inc/dec subtune tempo
- C** + **T** Toggle subtune funk tempo
- SHIFT** + **T** OR **Y** Inc/dec selected tempo program
- SHIFT** + **(** OR **)** Inc/dec 2nd funk tempo
- SHIFT** + **F** OR **G** Inc/dec frame speed

**Playback**

- f 1** Play from the beginning
- f 2** Play from play-mark
- f 3** Play selected pattern
- RUN STOP** OR **f 4** Stop/continue (toggle)
- C** + **f1..4** Same as f1-f4 but follow playback
- SHIFT** + **SPACE** Play pattern from current position
- ⏩** Fast forward 6x playback
- SHIFT** + **⏩** Toggle follow playback
- C** + **⏩** Toggle auto follow

**f 5** **Pattern editor keys**

- Fundamentals**
- ⏪** Edit on/off (toggle)
  - CTRL** Step through voices 1-3 (tab)
  - C** + **CTRL** Fast switch SID 1..3
  - SHIFT** + **1..9** Mute-unmute/solo-unsolo (toggle)
  - C** + **1..8** Select octave
  - C** + **+** OR **-** Octave up/down
  - +** OR **-** Select instrument

**Insert, delete, copy and paste**

- A** OR **1** Empty row in note column
- C** + **DEL**
- ⏪** OR **INS** Insert / increase pattern length
- DEL** Delete / decrease pattern length
- C** + **SHIFT** + **DEL** Delete entire row
- C** + **Z X C V** Undo / cutcopy / copy / paste
- SHIFT** + **C** Set end of copy marking

**Note column controls**

- RETURN** Note off
- SHIFT** + **RETURN** Note on
- SHIFT** + **V** Vibrato in note column
- SHIFT** + **P** Portamento in note column
- C** OR **SHIFT** + **R** Ring modulation on/off in note column
- C** OR **SHIFT** + **S** Synchronisation on/off in note column
- C** OR **SHIFT** + **D** Dovetail/MIDI-polyphony

**Transpose**

- SHIFT** + **Q** OR **W** Transpose by 1 from cursor up/down
- C** + **Q** OR **W** Transpose octave from cursor up/down

**Select Pattern**

- SHIFT** + **+** OR **-** Select pattern on current track
- C** + **RETURN** Selected patterns from orderlist

**Step settings**

- SHIFT** + **A** OR **Z** Inc/dec auto advanced step
- SHIFT** + **H** OR **J** Inc/dec highlight step

**Cursor movement**

- /** OR **↑** Page down 4/8 steps
- SHIFT** + **/** OR **↑** Page up 4/8 steps
- RESTORE**
- SHIFT** + **I** Toggle auto instrument
- C** + **B** Toggle track-binding (scroll all together)

**f 8** **Menu and file operations**

### Waveform - Arpeggio - Detune table

WAVE		ARP		DETUNE	
00..0F	Repeat row x times	00	No pitch shift	00..FE	Detune upwards
10..FD	Set waveform	01..5F	Pitch shift up	FF	NOP (previous value)
FE XX	Jump to XX (→40:itself)	7F	Exit to chord		
		80	NOP (previous value)		
		81..DF	Absolute pitch		
		E0..FF	Pitch shift down \$ff=-1		

### Pulsewidth (pw) table

00..7F XX	Add XX to pw within 00..7F times
8X..FX XX	Set pulsewidth XXX
FE XX	Jump to XX
=	Negate value in tables (eg. 20=E0)

### Filter table

00..7F XX	Add XX to cutoff within 00..7F times
8R..FR XX	Set R resonance and XX cutoff
9	Lowpass A Bandpass C Hipass
FE XX	Jump to XX
=	Negate value in tables (eg. 20=E0)

### Pattern instrument column effects

00..3E	Select instrument for each track
3F	Legato / tied (set pitch only)
4X	Set waveform X
5X	Set sustain level X (note volume)
6X	Set release time X
7X	Set chord X

**i** Adding an empty first row to the filter table will filter the instrument's voice and act as a slave to the instrument that contains filter controls.

### Chord table

00..7D	Relative pitch up by half notes
80..FF	Relative pitch down by half notes (e.g. FF=-1)
7E	Return from chord to arpeggio table
7F	Loop the chord infinitely
C + N	Note mode / number mode (toggle)

### Pattern column small effects

2X	Set attack time X of note
3X	Set decay time X of note
4X..7X	Same as instrument column effects
8X	Set vibrato amplitude X
9X	Set vibrato rate X
AX	Set main volume nybble X in \$D418
BX	Set filter band nybble to X
CX	Set chord speed to X
DX	Detune note by X
EX	Set control nybble to X (test / ring / sync)
FX	Set filter resonance to X

### Tempo table

00..7F	Tempo for one pattern row
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### Pattern effect column big effects

01	Pitch slide up
02	Pitch slide down
03	Tone portamento (auto portamento)
04	Waveform control register setting
05	Attack / Decay register setting
06	Sustain / Release register setting
07	Select chord (overrides default)
08	Set vibrato amplitude & rate
09	Go to waveform/arpeggio/detune table position
0A	Go to pulsewidth table position
0B	Go to filter table position
0C	Set chord speed (or arpeggio speed)
0D	Detune current note upwards
0E	Set pulsewidth
0F	Set filter cutoff frequency hi-byte
10	Set main single tempo
11	Set main funk tempo
12	Launch main tempo-program
13	Set track's single tempo
14	Set track's individual funk tempo
15	Launch tempo program for track
16	Select vibrato type (00 / 10 / 20 / 30)
1C	Shift cutoff folder hi-byte (permanent)
1D	Delay track by 00..FF frames
1E	Delay note by max = tempo-3 frames
1F	Set filter / resonance register \$D417

### Orderlist values

00..7F	Pattern numbers
8X	Transpose key down by X
9X	Transpose key up by X
AX	Set main volume to X
B0..EF	Set single track tempo
F0..FD	Separator NOP with section ID
FE (-E)	End of tune, stop playback
FF (-F)	Jump to position, values →80 jump to subtune