Effects are used for manipulating the way a note is to be played. For no effects, select arepeggiation with zeros for both parameters. The following is a description of the effects and their parameters.

1) Arpeggiation: rapidly steps the note between 3 pitch values: the original pitch value, the original pitch value + "x" number of halfsteps (step), and the original pitch value + "y" number of halfsteps (peak).

2) Slide Up: slides pitch up; slide speed is determined by the two parameters: the first parameter is multiplied by 16 and added to the second to obtain the final speed.

3) Slide Down: same as slide up, except the pitch is decreased. • Slides cannot occur outside of a sample's range!

4) Slide to Note: slides the pitch towards the pitch of the associated note. The two parameters collectively set the speed using the common formula: the first is multiplied by 16 and added to the second.

5) Vibrato: performs vibrato on a note. The first parameter is the speed and the second is the depth in halfsteps.

6) Continue Slide to Note + Volume Slide: continues a previously set "slide to note' effect while simultaneously sliding the volume either up or down. The first parameter is the speed to slide the volume up and the second is the speed to slide the volume down.

7) Continue Vibrato + Volume Slide: continues a previously set "vibrato" effect while simultaneously sliding the volume either up or down - the parameters are arranged in the same way as the Continue Slide to Note + Volume Slide.

8) Tremolo: vibrates the volume of the note. The first parameter is the speed of the tremolo and the second is the depth in halfsteps.

9) Set Instrument Offset: plays the associated instrument starting from a specified point, rather than starting from the beginning of the instrument. The offset is the first parameter multiplied by 16 added to the second parameter and that quantity is multiplied by 256.

10) Volume Slide: slides the volume either up or down. The first parameter is the speed to slide up and the second parameter is the speed to slide down. The unused parameter should be kept at zero.

11) Position Jump: breaks the pattern (i.e. stops playing it at its current position) and jumps to a new position in the pattern sequence table. The new position is obtained by multiplying the first parameter by 16 and adding it to the second parameter.

12) Set Volume: sets the volume for its associated note. The volume is the first parameter x 16 + second parameter and valid volumes range from 0 to 40.

13) Pattern Break: breaks the pattern (i.e. stops playing at its current position) and goes on to the next one in the sequence table. The next pattern starts playing at the row specified by: parameter one x 16 + parameter 2.

14) Miscellaneous Commands:

Set Filter: used to set a filter on the music. A '1' turns the filter off and a '0' turns the filter on. This effect is, for the most part, obsolete.

Fine Slide Up: similar to "slide up", except it only slides the note up once and doesn't continue sliding. The parameter is the slide speed;

Fine Slide Down: same as "fine slide up", except it slides the note down once.

Glissando Control: when glissando is on, "slide to note" will slide a half-step at a time, instead of a smooth slide. A parameter value of 1 means glissando is on and a value of 0 means glissando is off.

Vibrato Waveform: Sets the type of wave for a vibrato effect. A '0' or '4' sets a sine wave with and without filtering. A '1' or '5' sets a triangular wave with and without filtering. A '3' or '7' sets a square wave with and without filtering.

Set Finetune: the parameter is the finetune value, as a signed 2's complement number. That is, if it's value is 0 to 7, the finetune value is the same. If the parameter value if 8 to 15, then the finetune value is the parameter value-16. Positive finetune values make the pitch slightly higher; negative, slightly lower.

Pattern Loop: if the parameter value is 0, the current row is marked as the start of the loop. If the value is 1 through 15, then the pattern jumps to the start of the loop that number of times.

Tremolo Waveform: Sets the type of wave for a tremolo effect. A '0' or '4' sets a sine wave with and without filtering. A '1' or '5' sets a triangular wave with and without filtering. A '3' or '7' sets a square wave with and without filtering.

Retrigger Note: the parameter value is the "tick" at which the note will be retriggered. The number of "ticks" per note is determined by the speed of the song.

Fine Volume Slide Up: slides the volume once only. The parameter value is the slide speed.

Fine Volume Slide Down: same as "fine volume slide up", except it slides down.

Cut Note: cuts the note at the tick number specified by the parameter value, giving very short notes. The number of ticks per note is determined by the speed.

Note Delay: delays playing of the note until the tick number specified by the parameter value.

Pattern Delay: delays playing of the pattern for the number of notes specified by the parameter value before continuing playback.

Invert Loop: inverts the looping of the instrument being played in this voice.

15) Set Speed: sets the speed of the song; values from 0 to 31 are "internal" values - lower numbers being faster. Values 32 to 256 are BPM (beats per minute) values. The speed is determined by the common formula: parameter 1 x 16 + parameter 2.