

(numbers are decimal, except as noted)

Function	CC #	CC Range	Parm Value
DCO LFO Depth	01	0-127	0-254
(this is the Mod wheel CC, also sets LFO delay to 0)			
DCO2 Fine Tune	14	0-127	0-254
DCO2 Tune	15	0-127	0-254
DCO Envelope Depth	16	0-127	0-254
DCO LFO Depth	17	0-127	0-254
Source Mix	18	0-127	0-254
HP Filter Cutoff	19	0-127	0-254
Filter Resonance	20	0-127	0-254
Filter Cutoff	21	0-127	0-254
Filter Envelope Depth	22	0-127	0-254
Filter LFO Depth	23	0-127	0-254
Filter KeyTrack Amt	24	0-127	0-254
VCA Level	25	0-127	0-254
LFO Rate	26	0-127	0-254
LFO Delay	27	0-127	0-254
Env Attack	28	0-127	0-254
Env Decay	29	0-127	0-254
Env Sustain	30	0-127	0-254
Env Release	31	0-127	0-254
DCO1 Octave	32	0-41 42-83 84-127	0: 16' 1: 8' 2: 4'
DCO1 Waveform	33	0-41 42-83 84-127	0: Saw 1: Pulse 2: Square
DCO2 Octave	34	0-127	0-2 (see DCO1)
DCO2 Waveform	35	0-31 32-63 64-95 96-127	0: Saw 1: Pulse 2: Square 3: Noise
DCO Cross Mod	36	0-41 42-83 84-127	0: Off 1: Sync 2: Metal ("FE")
VCF Envelope Polarity	37	0-63 64-127	0: Negative 1: Positive
VCA Mode	38	0-63 64-127	0: Gate 1: Envelope
DCO1 Env Freq Mod	39	0-63 64-127	0: Disable 1: Enable

DCO1 LFO Freq Mod	40	0-63 64-127	0: Disable 1: Enable
DCO2 Env Freq Mod	41	0-63 64-127	0: Disable 1: Enable
DCO2 LFO Freq Mod	42	0-63 64-127	0: Disable 1: Enable
LFO Waveform	43	0-31 32-63 64-95 96-127	0: Sine 1: Square 2: Random 3: Random very fast ("bb")
DCO Envelope Polarity	44	0-63 64-127	0: Negative 1: Positive
Chorus Enable	45	0-63 64-127	0: Off 1: On
Velocity Setting	46	0-31 32-63 64-95 96-127	0: Off 1: VCF env amount only 2: VCA level only 3: both VCF and VCA
Key Assign Mode	47	0-41 42-83 84-127	0: SemiRotary ("P ") 1: Rotary ("ro") 2: NonRotary ("P ")

Pot values are 8-bit (0-255) in the MKS-30. This is the resolution of the A to D converter. The PG-200 also sends 8-bit values. The patch contains 8-bit values for the pots. "Normal" CC's have 7-bit data, so values are 0-127. To form the pot value for the patch, the CC value is multiplied by two before saving. The MKS-30 scales all pot values to a 0-99 range for display. Since CC values are 0-127, scaling them to 0-99 means that sometimes the CC value will increase by 1 and the value on the MKS display will not change. (The patch value will always reflect the actual value) To address this issue, a second mode for displaying the CC values as 0-127 was added. Values less than 100 are shown normally. Values from 100-127 are shown with the decimal point lit. Please select whichever mode you prefer. This only affects how the value is displayed, and not what is placed in the patch.

To Set CC Value display range, press and hold MIDI, and press 2 to toggle between 0-99 scaled ("99") and 0-127 unscaled ("2.7") This setting is saved when power is off.

To set Velocity usage, just press Dynamics.
This actually changes the patch setting, and is saved with the patch.

Off ("oF")
Filter Only ("F ")
VCA Only (" A")
Filter and VCA ("FA")

To Set Key assign mode, press and hold MIDI and press Cartridge.

This setting always defaults to Poly I at power up.

Poly I ("P |")

Poly II ("P ||")

Rotary ("ro")

To save patches using sysex (after you have modified MIDI Thru to be MIDI out) press and hold MIDI and press Save (1). All 64 patches will be saved in one sysex file. The file size should be 2695 bytes.

To reload the patches, simply send the file to the MKS-30, after turning off memory protect. If the MKS-30 is in Cartridge mode, the cartridge patches will be saved or loaded instead of the internal ones. Saved patches can be loaded into either the cartridge or the internal memory.