

Medeli SP4200 Voices Analysis

Anders Borg, 2023-03-04, revision 5

Logs are from MIDI-OX. Conversion to decimal CC# is in parentheses.

Original

```
00009AD4 2 -- B0 63 (99) 32 1 --- CC: NRPN MSB
00009AD4 2 -- B0 62 (98) 0C 1 --- CC: NRPN LSB
00009AD4 2 -- B0 06 (06) 00 1 --- CC: Data Entry MSB
00009AD4 2 -- B0 00 (00) 79 1 --- CC: Bank MSB
00009AD4 2 -- B0 20 (32) 64 1 --- CC: Bank LSB
00009AD5 2 -- C0 00 (00) -- 1 --- PC: Acc. Grand Piano
00009AD5 2 -- B0 4B (75) 40 1 --- Control Change
00009AD5 2 -- B0 4C (76) 40 1 --- Control Change
00009AD5 2 -- B0 4E (78) 40 1 --- Control Change
00009AD5 2 -- B0 4D (77) 40 1 --- Control Change
00009AD5 2 -- B0 5B (91) 41 1 --- CC: Reverb Depth
00009AD5 2 -- B0 5D (93) 40 1 --- CC: Chorus Depth
00009AD5 2 -- B0 4A (74) 40 1 --- CC: Brightness
00009AD6 2 -- B0 49 (73) 40 1 --- CC: Attack Time
00009AD6 2 -- B0 48 (72) 40 1 --- CC: Release Time
00009AD6 2 -- B0 07 (07) 38 1 --- CC: Volume
```

Row format

```
Timestmp In Pt St D1 D2 Ch Note Description
```

- Pt = Port
- St = Status
- Dx = Data x
- Ch = Channel

Example

```
0010B993 2 -- B0 63 32 1 --- CC: NRPN MSB
```

One voice

Highlighted the values that differ between voices.

Proprietary

```
0xB0, 0x63, 0x32, # CC: Non-Registered Parameter Number MSB (always 0x32)
0xB0, 0x62, 0x0C, # CC: Non-Registered Parameter Number LSB (always 0x0C)
0xB0, 0x06, 0x00, # CC: Data Entry MSB (0x00 for normal voices, 0x01 for drum kits)
```

Program

```
0xB0, 0x00, 0x79, # CC: Bank MSB (varies)
0xB0, 0x20, 0x64, # CC: Bank LSB (varies)
0xC0, 0x00, # PC: Acc. Grand Piano (varies)
```

Controls

```
0xB0, 0x4B, 0x40, # CC: Decay Time (always 0x40)
0xB0, 0x4C, 0x40, # CC: Vibrato Rate (always 0x40)
0xB0, 0x4E, 0x40, # CC: Vibrato Delay (always 0x40)
0xB0, 0x4D, 0x40, # CC: Vibrato Depth (always 0x40)
0xB0, 0x5B, 0x41, # CC: Reverb Send Level (varies)
```

0xB0, 0x5D, 0x40, # CC: Chorus Send Level (always 0x40)
0xB0, 0x4A, 0x40, # CC: Brightness (always 0x40)
0xB0, 0x49, 0x40, # CC: Attack Time (always 0x40)
0xB0, 0x48, 0x40, # CC: Release Time (always 0x40)
0xB0, 0x07, 0x38, # CC: Volume (varies)

Notes

- The SP4200 adds All Sound Off when a drum kit is selected independent of from what and to what. When another drum kit is selected right after, there's no All Sound Off. This seems more like a safety thing (avoiding stray notes) than necessary.
- Pitch Bend: Only MSB varies.