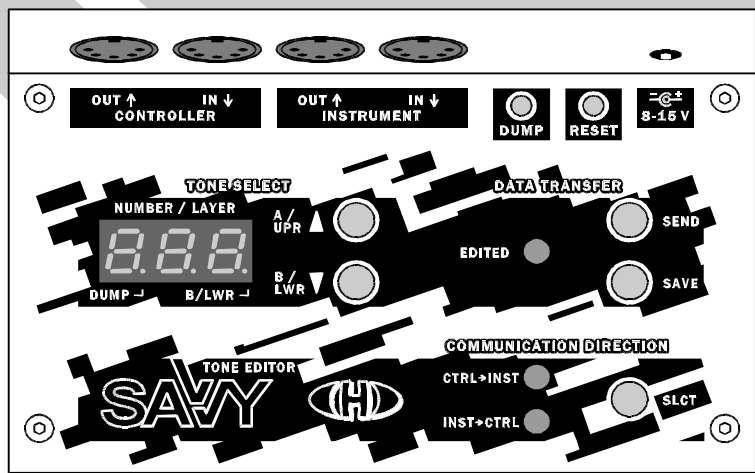


# SAVVY

## Tone Parameters Editor & Controller



Manual Supplement  
Roland Juno-106, HS-60  
OS 001 ver. 2.0



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## 1 FEATURES

**Supported instruments:** Roland – Juno-106 and HS-60 (Synth Plus 60)

**Number of tone memories:** 896 (seven memory banks)

**Individual tone parameters** (24x): all Roland Juno-106 tone parameters assigned to MIDI CCs

**Modifiers** (5x): MOD RATE, MOD DEPTH, BRILLIANCE, BASS BOOST, ENV TIME

**Random functions** (8x): DCO – Light, DCO – Full, VCF – Light, VCF – Full, VCA, ENV, FX, ALL

**Enhanced features:** Each of tones can be individually named. The name is stored in SAVVY's memory as a tone data.<sup>1</sup>

## 2 PREPARE THE INSTRUMENT

To use SAVVY with your Roland Juno-106:

- 1) Turning the Juno 106 on automatically select MIDI channel 1 (SAVVY is factory set to channel 1)<sup>2</sup>
- 2) Set the MIDI Function selector switch on the Juno's rear panel to ALL (III) position

<sup>1</sup> The tone name is not shown on the instrument's or SAVVY's display but it is viewable and editable with help of support software (see chapter 7).

<sup>2</sup> SAVVY use MIDI channel Nr. 1 as a default after factory reset (see System Parameters table). It can be changed by the user anytime. All other MIDI commands (Note On / Off, Pitch Bend, etc.) for the instrument control must be sent on the same MIDI channel. If you want to use a different MIDI channel, Juno 106 has to be set to the same channel (see Roland Juno 106 user manual).



## 3 INSTRUMENT PARAMETERS – MIDI CC ASSIGNMENT

- **Individual tone parameters** - MIDI CCs assigned to individual tone parameters control.
- **Modifiers** - MIDI CCs assigned to tone modifications controls (+/- offsets), that affect more tone parameters simultaneously accordingly to the fixed algorithms. In the middle position (i.e. value 64), the tone is not affected
- **Random functions** - MIDI CC assigned to intelligent random functions set random values of selected tone parameters.

All changes of individual tone parameters, Modifiers and results of Macro and Random functions can be saved in SAVVY's tone memories.

The following table shows factory assigned MIDI CCs numbers, however the assigned MIDI CCs are user definable<sup>3</sup> and can be changed by user.

INDIVIDUAL TONE PARAMETERS			
Parameter Name	CC Nr.	Parameter Name	CC Nr.
LFO RATE	13	VCF RESONANCE	51
LFO DELAY	14	VCF ENV	54
DCO RANGE	24	VCF ENV MODE	52
DCO PULSE	27	VCF LFO	53
DCO SAW	28	VCF KYBD	55
DCO SUB LEVEL	30	VCA LEVEL	71
DCO LFO	37	VCA MODE	70
DCO PWM	36	ENV ATTACK	74
PWM MODE	35	ENV DECAY	75
NOISE LEVEL	23	ENV SUSTAIN	76
HPF CUTOFF	49	ENV RELEASE	77
VCF CUTOFF	50	CHORUS	66
MODIFIERS			
Modifier Name	CC Nr.	Modifier Name	CC Nr.
MOD RATE	95	BASS BOOST	92
MOD DEPTH	94	ENV TIME	91
BRILLIANCE	93		
RANDOM FUNCTIONS			
Random Setting Name	CC Nr.		
DCO / VCF / VCA / ENV / FX	3		

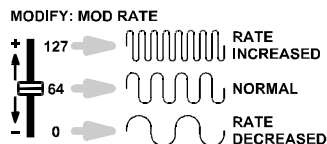
<sup>3</sup> To see how to change the assigned MIDI CCs or make new user map see chapter 5.



## 3.1 MODIFIERS

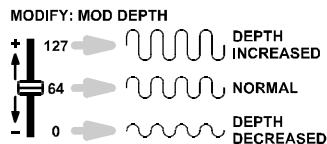
### MOD RATE

MOD RATE ① is a new performance parameter. This modifier changes the rate of the **vibrato**, **growl**, **LFO delay** or **PWM** effects.



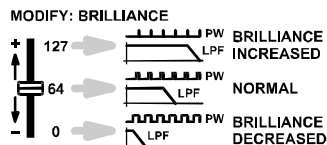
### MOD DEPTH

MOD DEPTH ② is a new performance parameter. This modifier changes the depth of the **vibrato** or **growl** effects.



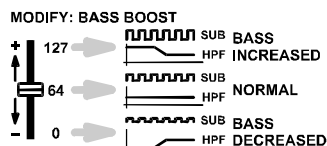
### BRILLANCE

BRILLANCE ③ is a new performance parameter. This modifier changes the **Brilliance/sharpness** of the tone



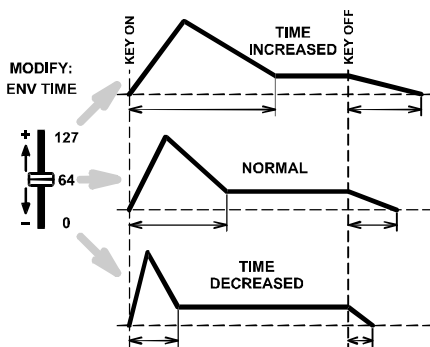
### BASS BOOST

BASS BOOST ④ modifier emphasize the bass frequencies of the tone. It is a new Modifier that use **HPF** and **DCO** Suboscillator.



### ENV TIME

ENV TIME is an emulation of original Juno's "Tone Modify-Envelope Time" performance parameter. This modifier offsets all **time segments of Envelope generator** with single MIDI CC, while preserving all other tone settings. The original tone color can be used with various lengths of envelope from short percussive to long evolving pad.





### 3.2 RANDOM FUNCTIONS

The random functions or “Intelligent random generator” use MIDI CC #3<sup>4</sup>. There are different random algorithms available as described in the table below:

VALUES OF CC ASSIGNED TO RANDOM SETTING FUNCTION CONTROL		
CC Value	Function	Description
0 ~ 7	n/a	Not used
8 ~ 15	DCO – Light	Limited number and range of DCO parameters without pitch modulation effects for more predictable results.
16 ~ 23	DCO – Full	All available DCO parameters in full range, including modulation for more excentric tones and sound effect.
24 ~ 55	n/a	Not used
56 ~ 63	VCF – Light	VCF limited range random (both HPF and LPF cutoff and resonance settings)
64 ~ 71	VCF – Full	All available VCF paramateres in full range (both HPF and LPF, including modulations)
72 ~ 79	VCA	VCA modulation parameters random
80 ~ 87	ENV	Envelope (all time and level parameters including keyfollow modulation) random
88 ~ 103	n/a	Not used
104 ~ 111	FX	LFO and Chorus parameters random
112 ~ 119	n/a	Not used
120 ~ 127	ALL	Full tone random for sound experimenting.

It is recommended to assign push buttons on your hardware MIDI controller with the different MIDI CC #3 values as described in the table above.

<sup>4</sup> Factory preset value. To see how to change number of assigned MIDI CC see chapter 5.2.

## 4 SYSTEM PARAMETERS

System Parameters define basic functions of SAVVY (MIDI channel for communication, MIDI data flow processing, tone number display format, display brightness, etc.).

SYSTEM PARAMETERS				
Parameter			Factory Default <sup>5</sup>	
Name	Range	Description	Value	Description
<b>Global Parameters</b>				
MIDI Channel	0 ~ 15	0: Chnl 1 ... 15: Chnl 16	0	MIDI Channel Nr. 1
Use Bank Select Command	0 ~ 1	0: No / 1: Yes	1	Yes
MIDI Errors Auto Reset	0 ~ 1	0: Off / 1: On	1	On
Remember last tone	0 ~ 1	0: No / 1: Yes	1	Yes
Tone Number Format	0 ~ 1	0: 0 to 895 / 1: 1 to 896	1	Numbers 1 to 896
Display Brightness	0 ~ 15	0: min ... 15: max	15	Maximal brightness
<b>Inst → Ctrl Data Transfer</b>				
Select Device ID for Bulk Dump	0 ~ 1	0: Universal / 1: MIDI Chnl Nr.	0	Universal ID Number
Send All CCs (Tone Change)	0 ~ 1	0: No / 1: Yes	1	Yes
Send One CC (Parameter Change)	0 ~ 1	0: No / 1: Yes	1	Yes
Send Manual Tone Slct as Pgm Chng	0 ~ 1	0: No / 1: Yes	1	Yes
<b>Ctrl → Inst Data Transfer</b>				
Cache Modifications in Edit Buffer	0 ~ 1	0: No / 1: Yes	1	Yes
Cache Random Setting in Edit Buffer	0 ~ 1	0: No / 1: Yes	1	Yes
Transfer Pgm Chng from Ctrl to Inst	0 ~ 1	0: No / 1: Yes	0	No
Accept Pgm Chng from Ctrl	0 ~ 1	0: No / 1: Yes	1	Yes
Send Manual Tone Slct as Pgm Chng	0 ~ 1	0: No / 1: Yes	1	Yes

### 4.1 GLOBAL PARAMETERS

#### 4.1.1 MIDI Channel

This parameter sets MIDI channel used for the instrument control (**0 for channel 1, 1 for channel 2, etc. up to 15 for channel 16**). All MIDI Channel messages are received and transmitted on selected MIDI channel only. MIDI channel for the SAVVY editor must be the same as selected MIDI channel of the controlled instrument!

#### 4.1.2 Use Bank Select (CC #32)

If the parameter is 1 (i.e. "**YES**"), SAVVY uses the **CC #32** as the **Bank Select LSB** command for communication between the controller / PC and SAVVY. The CC #32 then defines number of active tone memory bank (0 to 6).

If the parameter is 0 (i.e. "**NO**"), the CC #32 can be used as universal CC for setting of a tone parameter (see chapter 3).

#### 4.1.3 MIDI Errors Auto Reset

If the parameter is 1 (i.e. "**ON**") and an error in MIDI communication occurs, the **communication is reset** and the device continues normal operation.

If the parameter is 0 (i.e. "**OFF**") and an error in MIDI communication occurs, the **device stops operation** and the error status is indicated.

<sup>5</sup> Factory preset values are user editable. See chapter 5 for details.



## 4.1.4 Remember Last Tone

If the parameter is 1 (i.e. "YES"), SAVVY **remembers last selected tone number** after switching off (for next session).

If the parameter is 0 (i.e. "NO"), SAVVY always **starts with the first tone** number.

## 4.1.5 Tone Number Format

This parameter sets the displayed tone number format. It can be either **0** to **895** (parameter value is 0) or **1** to **896** (parameter value is 1).

## 4.1.6 Display Brightness

The parameter sets the display brightness (**0** for minimum, **15** for maximum).

## 4.2 INST → CTRL DATA TRANSFER PARAMETERS

### 4.2.1 Select Device ID for Bulk Dump

The parameter selects identification number of the SAVVY editor for both transmitted and received MIDI Bulk Dump SysEx Messages.

If the parameter is 1 (i.e. "MIDI Channel"), the Device ID number is the same as number of MIDI channel chosen for MIDI communication with the instrument (i.e. global parameter MIDI Channel).

If the parameter is 0 (i.e. "Universal ID Number"), the Device ID number is equal to 127. SysEx messages will be in such setting recognized by any SAVVY editor independently on selected MIDI channel number.

### 4.2.2 Send All CCs (Tone Change)

If the parameter is 1 (i.e. "YES"), the SAVVY editor **transmits all CCs** assigned to tone parameters **when tone number is selected / changed** (manually by button on front panel or by APR SysEx message or Program Change command from the instrument).

If the parameter is 0 (i.e. "NO"), **no CCs are transmitted after tone select / change**.

### 4.2.3 Send One CC (Parameter Change)

If the parameter is 1 (i.e. "YES"), the SAVVY editor **transmits MIDI CC** assigned to a tone parameter each time the **parameter is changed on the instrument** (by IPR SysEx message).

If the parameter is 0 (i.e. "NO"), assigned **CC is not transmitted** after the parameter change.

### 4.2.4 Send Manual Tone Slct as Pgm Chng

If the parameter is 1 (i.e. "YES"), **Program Change** command is **sent to the controller / PC** each time the tone is changed manually (by buttons on SAVVY's front panel). If "Use Bank Select Command" parameter (see chapter 4.1.2) is "YES", the Bank Select LSB command (i.e. CC #32) is also sent.

If the parameter is 0 (i.e. "NO"), **Program Change** command is **not transmitted**.



## 4.3 CTRL → INST DATA TRANSFER PARAMETERS

### 4.3.1 Cache Modifications in Edit Buffer

If the parameter is 1 (i.e. "YES"), any **change of tone** parameters made by a "Modifier" CCs are **sent to the instrument and remain in edit buffer** (so they can be saved together with the tone parameters in SAVVY's memory).

If the parameter is 0 (i.e. "NO"), the **changes** are only **sent to the instrument and not cached** in edit buffer.

### 4.3.2 Cache Random Setting in Edit Buffer

If the parameter is 1 (i.e. "YES"), **changes** of tone parameters generated by the "Random" CC are sent to the instrument and **remain in edit buffer** (so they can be saved as a new tone parameters values in SAVVY's memory).

If the parameter is 0 (i.e. "NO"), the **changes** are only sent to the instrument and they are **not cached**.

### 4.3.3 Transfer Pgm Chng from Ctrl to Inst

If the parameter is 1 (i.e. "YES"), transfer of **Program Change** command is **enabled from** the connected **controller / PC** to the instrument through the editor.

If the parameter is 0 (i.e. "NO"), **Program Change** command is **filtered** by the SAVVY.

### 4.3.4 Accept Pgm Chng from Ctrl

If the parameter is 1 (i.e. "YES"), the editor **changes its tone** each time a **Program Change** command is **received** from the connected controller / PC. Number of newly selected tone bank conforms to value of the received Program Change command. If "Use Bank Select Command" parameter (see chapter 4.1.2) is "YES", the Bank Select LSB command (i.e. CC #32) is also accepted and active tone bank is also changed.

If the parameter is 0 (i.e. "NO"), **Program Change** command is **ignored** by the SAVVY.

### 4.3.5 Send Manual Tone Slct as Pgm Chng

If the parameter is 1 (i.e. "YES"), **Program Change** command is **sent to the instrument** each time the number is changed manually (by buttons on SAVVY's front panel).

If the parameter is 0 (i.e. "NO"), **Program Change** command is **not transmitted** after the tone is selected / changed.

## 5 SYSEX MESSAGES GENERATOR

As a support for the users we have made software generator to create System Exclusive messages to control the SAVVY editor. Any necessary SysEx message can be created with this generator without difficult calculating of binary or hexadecimal numbers.

The generator is based on Java scripts so it can run on any computer with web browser (Windows, OSX, etc.)<sup>6</sup>. To send the generated commands you will also need a **utility to send the generated text<sup>7</sup> as a MIDI SysEx dump** (see chapter 6 for recommended software<sup>8</sup>).

Visit our website and download the **“syxgen\_001-20\_Roland-Juno-106.zip”** archive for Roland Juno-106 instrument. Expand the archive to a selected folder on your computer's hard drive (i.e. **“index.html”**, **“00120\_general.html”**, **“00120\_instrument.html”**, **“00120\_tone.html”** and **“00120\_help.html”** files and **“media”** sub-folder).

To launch the SysEx messages generator, simply open the **“index.html”** file in your web browser (e.g. by clicking on the file icon). The generator type selector window opens.

Click on **“Go”** button to request either **System Parameters ①**, **Instrument Parameters ②** or **Tone Data ③** SysEx message generator windows.

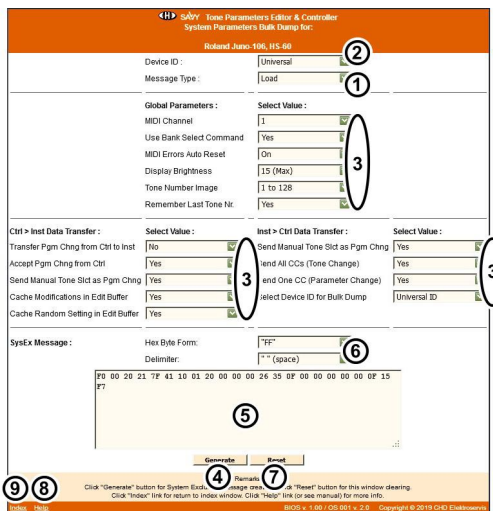


### 5.1 SYSTEM PARAMETERS WINDOW

#### 5.1.1 Change the system parameters

To change / adjust the system parameters:

1. Select **“Load”** message type ①.
2. Select the **“Device ID”** ② (It is either the same number as active MIDI Channel Nr. or **“Universal”**<sup>9</sup>).
3. Select / adjust requested values of System parameters to be changed ③.
4. Click the **“Generate”** button ④.
5. The hexadecimal MIDI SysEx message is generated as a text in the **“SysEx Message”** field ⑤.
6. **Copy** the text in clipboard (CTRL+C) and **paste** (CTRL+V) to a MIDI Sysex software<sup>10</sup>.
7. Send the message to SAVVY<sup>11</sup>.
8. SAVVY starts operation with the new system parameters settings immediately, no reset is necessary.



<sup>6</sup> Note that scripts and ActiveX elements must be enabled in web browser for proper function of the generator.

<sup>7</sup> The generated format of the message is **text**. The text can not be saved as a \*.syx or \*.mid file directly, hence a text to SysEx utility is needed.

<sup>8</sup> It is not necessary to use the recommended utility. The same function is provided by various DAW and MIDI SysEx softwares. For required text format and instructions check the documentation of your DAW/software.

<sup>9</sup> “Universal” ID will be recognized by any SAVVY editor.

<sup>10</sup> See Chapter 6.1.2 for recommended MIDI SysEx software.

<sup>11</sup> SAVVY must be set in **“CTRL→INST”** communication direction.

## 5.1.2 Request the contents of system memory

To request the contents of System parameters memory for backup in your computer:

1. Select **"Request"** message type ①.
2. Select the **"Device ID"** ② (It is either the same number as active MIDI Channel Nr. or **"Universal"**<sup>12</sup>).
3. Click the **"Generate"** button ④.
4. The hexadecimal MIDI SysEx message is generated as a text in the **"SysEx Message"** field ⑤.
5. **Copy** the text in clipboard (CTRL+C) and **paste** (CTRL+V) in a MIDI Sysex software<sup>13</sup>.
6. Send the message to SAVVY<sup>14</sup>.
7. SAVVY responds immediately – it sends the System parameter settings as **"Load"** type SysEx message<sup>15</sup>.
8. Now you can save the received message in your computer for further use.

## 5.1.3 Initialize data

To initialize the System data to factory default values:

1. Select **"Initialize"** message type ①.
2. Select the **"Device ID"** ② (It is either the same number as active MIDI Channel Nr. or **"Universal"**<sup>16</sup>).
3. Click the **"Generate"** button ④.
4. The hexadecimal MIDI SysEx message is generated as a text in the **"SysEx Message"** field ⑤.
5. **Copy** the text in clipboard (CTRL+C) and **paste** (CTRL+V) in a MIDI Sysex software<sup>17</sup>.
6. Send the message to SAVVY<sup>18</sup>.
7. SAVVY starts operation with the initialized system settings immediately, no reset is necessary.

## 5.1.4 Other functions

Select **"Hex Byte Form"** and **"Delimiter"** character ⑥ as required for your MIDI SysEx software<sup>19</sup>. Default setting of the generator is optimized for the recommended **Pocket MIDI** utility<sup>20</sup> (see Chapter 6). However some DAW or MIDI SysEx utilities require different format of the generated text message.

To clear the text field and return all values to their defaults, click the **"Reset"** button ⑦.

**"Help"** link ⑧ opens new window with brief help.

**"Index"** link ⑨ closes this window and returns to initial generator type selection window.

<sup>12</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>13</sup> See Chapter 6.1.3 for recommended MIDI SysEx software.

<sup>14</sup> SAVVY must be set in **"CTRL→INST"** communication direction and your computer must be connected bi-directionally (both MIDI IN and OUT cables) with SAVVY.

<sup>15</sup> If you are using the recommended MIDI SysEx software, the message should be visible in the "MIDI In Monitor" window - see Chapter 6.1.3.

<sup>16</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>17</sup> See Chapter 6.1.2 for recommended MIDI SysEx software.

<sup>18</sup> SAVVY must be set in **"CTRL→INST"** communication direction.

<sup>19</sup> See the documentation of your DAW for required format.

<sup>20</sup> The default format is also compatible with Bome SendSX and various other softwares.

## 5.2 INSTRUMENT PARAMETERS WINDOW

### 5.2.1 Create / adjust the MIDI CC map

You can **create** your own user **MIDI CC map** in this generator window (e.g. to use your modern Virtual analogue synthesizer as a controller for your vintage instrument).

To create your own MIDI CC map:

1. Select **"Load"** message type ①.
2. Select the **"Device ID"** ② (It is either the same number as active MIDI Channel Nr. or **"Universal"**<sup>21</sup>).
3. For each of tone parameter and functions, select / change the respective MIDI CC<sup>22</sup> Nr. as you need ③.
4. Click the **"Generate"** button ④.
5. The hexadecimal MIDI SysEx message is generated as a text in the **"SysEx Message"** field ⑤.
6. **Copy** the text in clipboard (CTRL+C) and **paste** (CTRL+V) to a MIDI Sysex software<sup>23</sup>.
7. Send the message to SAVVY<sup>24</sup>.
8. SAVVY starts operation with the new user MIDI CC mapping immediately, no reset is necessary.

### 5.2.2 Request MIDI CC map

Actual **MIDI CC map** can be **saved** in your computer for backup. To request the MIDI CC map:

1. Select **"Request"** message type ①.
2. Select the **"Device ID"** ② (It is either the same number as active MIDI Channel Nr. or **"Universal"**<sup>25</sup>).
3. Click the **"Generate"** button ④.
4. The hexadecimal MIDI SysEx message is generated as a text in the **"SysEx Message"** field ⑤.
5. **Copy** the text in clipboard (CTRL+C) and **paste** (CTRL+V) in a MIDI Sysex software<sup>26</sup>.
6. Send the message to SAVVY<sup>27</sup>.
7. SAVVY responds immediately – it sends the MIDI CC map as **"Load"** type SysEx message<sup>28</sup>.
8. Now you can save the received message in your computer for further use.

<sup>21</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>22</sup> You can assign more than one parameter to a single MIDI CC Nr.

<sup>23</sup> See Chapter 6.1.2 for recommended MIDI SysEx software.

<sup>24</sup> SAVVY must be set in **"CTRL→INST"** communication direction.

<sup>25</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>26</sup> See Chapter 6.1.3 for recommended MIDI SysEx software.

<sup>27</sup> SAVVY must be set in **"CTRL→INST"** communication direction and your computer must be connected bi-directionally (both MIDI IN and OUT cables) with SAVVY.

<sup>28</sup> If you are using the recommended MIDI SysEx software, the message should be visible in the "MIDI IN Monitor" window - see Chapter 6.1.3.

### 5.2.3 Initialize MIDI CC map

To **Initialize** the MIDI CC map to **factory default** values:

1. Select "**Initialize**" message type ①.
2. Select the "**Device ID**" ② (It is either the same number as active MIDI Channel Nr. or "**Universal**"<sup>29</sup>).
3. Click the "**Generate**" button ④.
4. The hexadecimal MIDI SysEx message is generated as a text in the "**SysEx Message**" field ⑤.
5. **Copy** the text in clipboard (CTR+C) and **paste** (CTRL+V) in a MIDI Sysex software<sup>30</sup>.
6. Send the message to SAVVY<sup>31</sup>.
7. SAVVY starts operation with the initialized MIDI CC map immediately, no reset is necessary.

### 5.2.4 Other functions

Select "**Hex Byte Form**" and "**Delimiter**" character ⑥ as required for your MIDI SysEx software<sup>32</sup>. Default setting of the generator is optimized for the recommended **Pocket MIDI** utility<sup>33</sup> (see Chapter 6). However some DAW or MIDI SysEx utilities require different format of the generated text message.

To clear the text field and return all values to their defaults, click the "**Reset**" button ⑦.

"**Help**" link ⑧ opens new window with brief help.

"**Index**" link ⑨ closes this window and returns to initial generator type selection window.

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<sup>29</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>30</sup> See Chapter 6.1.2 for recommended MIDI SysEx software.

<sup>31</sup> SAVVY must be set in "**CTRL→INST**" communication direction.

<sup>32</sup> See the documentation of your DAW for required format.

<sup>33</sup> The default format is also compatible with Bome SendSX and various other softwares.

## 5.3 TONE DATA WINDOW

### 5.3.1 Create single user tone

A **single tone** can be **created** by entering the individual tone parameter values (e.g. to create tone from a Magazine paper sheets, Video tutorials or advices from other users).

To create your own user tone:

1. Select **"Load"** message type ①.
2. Select the **"Device ID"** ② (It is either the same number as active MIDI Channel Nr. or **"Universal"**<sup>34</sup>).
3. Select the **"Tone Nr."** you want to create ③.
4. Select / change the respective value for each of tone parameters ④.
5. Click the **"Generate"** button ⑤.
6. The hexadecimal MIDI SysEx message is generated as a text in the **"SysEx Message"** field ⑥.
7. **Copy** the text in clipboard (CTRL+C) and **paste** (CTRL+V) to a MIDI Sysex software<sup>35</sup>.
8. Send the message to SAVVY<sup>36</sup>.
9. SAVVY saves the new tone to selected **"Tone Nr."** for immediate use.

### 5.3.2 Request single tone

A **single tone** can be **backed up** (e.g. to share your sounds with other users).

To request single tone data:

1. Select **"Request"** message type ①.
2. Select the **"Device ID"** ② (It is either the same number as active MIDI Channel Nr. or **"Universal"**<sup>37</sup>).
3. Select the **"Tone Nr."** you want to request / backed-up ③.
4. Click the **"Generate"** button ⑤.
5. The hexadecimal MIDI SysEx message is generated as a text in the **"SysEx Message"** field ⑥.
6. **Copy** the text in clipboard (CTRL+C) and **paste** (CTRL+V) in a MIDI Sysex software<sup>38</sup>.
7. Send the message to SAVVY<sup>39</sup>.
8. SAVVY responds immediately – it sends the MIDI CC map as **"Load"** type SysEx message<sup>40</sup>.
9. Now you can save the received message in your computer for further use.

<sup>34</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>35</sup> See Chapter 6.1.2 for recommended MIDI SysEx software.

<sup>36</sup> SAVVY must be set in **"CTRL→INST"** communication direction.

<sup>37</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>38</sup> See Chapter 6.1.3 for recommended MIDI SysEx software.

<sup>39</sup> SAVVY must be set in **"CTRL→INST"** communication direction and your computer must be connected bi-directionally (both MIDI IN and OUT cables) with SAVVY.

<sup>40</sup> If you are using the recommended MIDI SysEx software, the message should be visible in the "MIDI In Monitor" window - see Chapter 6.1.3.



## 5.3.3 Initialize single tone

To **Initialize** a single tone to **factory default** values:

1. Select "**Initialize**" message type ①.
2. Select the "**Device ID**" ② (It is either the same number as active MIDI Channel Nr. or "**Universal**"<sup>41</sup>).
3. Select the "**Tone Nr.**" you want to initialize ③
4. Click the "**Generate**" button ④.
5. The hexadecimal MIDI SysEx message is generated as a text in the "**SysEx Message**" field ⑤.
6. **Copy** the text in clipboard (CTR+C) and **paste** (CTRL+V) in a MIDI SysEx software<sup>42</sup>.
7. Send the message to SAVVY<sup>43</sup>.
8. SAVVY initializes and saves the selected tone immediately, no reset is necessary.

## 5.3.4 Other functions

Select "**Hex Byte Form**" and "**Delimiter**" character ⑥ as required for your MIDI SysEx software<sup>44</sup>. Default setting of the generator is optimized for the recommended **Pocket MIDI** utility<sup>45</sup> (see Chapter 6). However some DAW or MIDI SysEx utilities require different format of the generated text message.

To clear the text field and return all values to their defaults, click the "**Reset**" button ⑦.

"**Help**" link ⑧ opens new window with brief help.

"**Index**" link ⑨ closes this window and returns to initial generator type selection window.

<sup>41</sup> "Universal" ID will be recognized by any SAVVY editor.

<sup>42</sup> See Chapter 6.1.2 for recommended MIDI SysEx software.

<sup>43</sup> SAVVY must be set in "**CTRL→INST**" communication direction.

<sup>44</sup> See the documentation of your DAW for required format.

<sup>45</sup> The default format is also compatible with Bome SendSX and various other softwares.

## 6 RECOMMENDED MIDI SOFTWARE

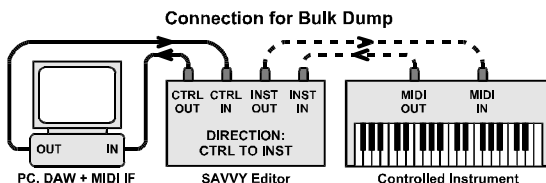
The hexadecimal MIDI SysEx messages created in the Generators (as described in chapter 5) are in **plain text format**. The text can not be saved as a \*.syx or \*.mid file directly, hence a text to SysEx capable utility or DAW is needed.

### 6.1 POCKET MIDI

**Pocket MIDI**<sup>46</sup> is a utility that can be used to send the text as a SysEx message. It is a simple MIDI monitoring tool for both Windows and Mac OSX platforms. **Pocket MIDI** is a **freeware** for commercial, non-profit or private use.

#### 6.1.1 Setting up the computer<sup>47</sup> and software

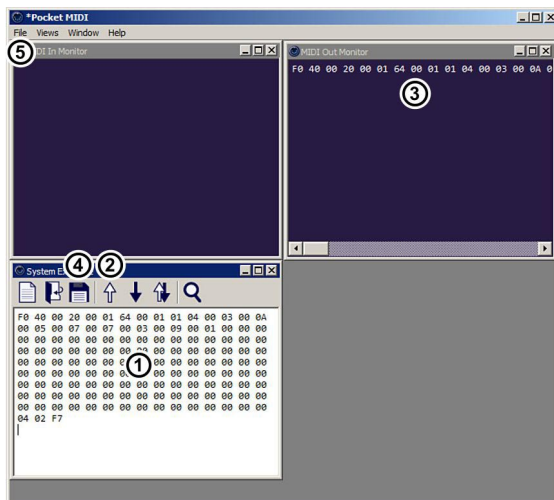
1. **Download** the **Pocket MIDI** utility at <https://www.morson.jp/pocketmidi-webpage/>
2. **Install** the utility in your computer.
3. **Connect** SAVVY accordingly to the figure "Connection for Bulk Dump".
4. **Select** the MIDI interface **Input and Outputs** to device where the SAVVY is connected to (drop-down menu **Views** → **MIDI Settings** → **Input Port / Outpu Port**).



#### 6.1.2 Send the text SysEx message to SAVVY

Basic procedure to send any SysEx data to SAVVY.

1. Generate required SysEx message in the SysEx Messages Generator (as described in Chapter 5)<sup>48</sup>.
2. **Copy** the text in clipboard (CTR+C) and **paste** (CTRL+V) in "System Exclusive" window ①.
3. Click the "↑" ("Transmit") arrow ② to send the data to SAVVY.
4. The sent message appears in the "MIDI Out Monitor" window ③.
5. Alternatively **you can save the file** for future use (either by the floppy icon ④ as a \*.txt file or in the drop-down "File" menu ⑤ as a \*.pocketmidi file).



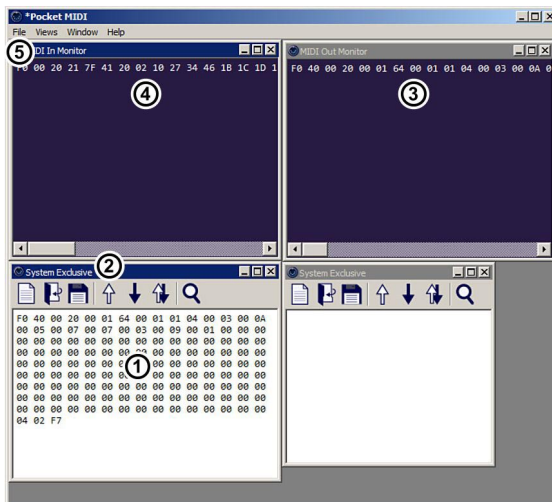
<sup>46</sup> Pocket MIDI is Copyright © MORSON JAPAN Co.,Ltd. All rights reserved.

<sup>47</sup> Computer MIDI interface must be active / switched on and all necessary MIDI drivers correctly installed.

<sup>48</sup> The correct "FF" Hex Byte Form and " " (space) for Delimiter are the initial values after the generator is launched, so there is no need to change them for Pocket MIDI.

### 6.1.3 Request the SysEx data from SAVVY

1. **Generate** required ("Request" type) SysEx message in the SysEx Messages Generator (as described in Chapter 5)<sup>49</sup>.
2. **Copy** the text in clipboard (CTR+C) and **paste** (CTRL+V) in "System Exclusive" window ①.
3. Click the "↑" ("Transmit") arrow ② to send the data to SAVVY.
4. The sent message appears in the "MIDI Out Monitor" window ③.
5. SAVVY responds with "Load" type SysEx message. The received message appears in the "MIDI In Monitor" window ④.
6. Click on the "MIDI In Monitor" window heading and **Save** the data (File dropdown menu ⑤) as a \*.pocketmidi file) for future use.
7. Alternatively **you can copy the data** (CTRL+C) from "MIDI In Monitor" window ④ and paste (CTRL+V) to any text editor and **save** as a \*.txt or document file.



## 6.2 ALTERNATIVE SOFTWARE SOLUTIONS

There are various DAW and MIDI utilities<sup>50</sup> that can be used for the communication with SAVVY, both commercial and free. Among the others:

**MIDI-OX** (free for private users, paid for commercial users) – advanced MIDI tool for MS Windows computers:  
<http://www.midiox.com/>

**Bome SendSX** (postcardware for private users, reasonably paid for commercial users) – Simple and effective MS Windows MIDI utility:  
<https://www.bome.com/products/sendsx>

**InerziaSysEx** (commercial) – advanced MIDI tool for Mac OSX:  
available on iTunes

**Steinberg Cubase Pro** (commercial) - DAW for both MS Windows and Mac OSX computers with full sysex support:  
<http://www.steinberg.net>

**Apple Logic Pro** (commercial) – Mac OSX DAW with full sysex support (all versions up to Logic Pro X):  
<https://www.apple.com/logic-pro/>

**Cakewalk Sonar** (commercial) – MS Windows DAW with full sysex support:  
<http://www.cakewalk.com/>

etc.

<sup>49</sup> The correct "FF" Hex Byte Form and " " (space) for Delimiter are the initial values after the generator is launched, so there is no need to change them for Pocket MIDI.

<sup>50</sup> All mentioned products are copyright of their respective owners.

## 7 TONE MEMORY ORGANIZER

The Tone Memory Organizer is a support software what we have made for the users to rename and relocate individual tones stored in SAVVY's tone memory. Also whole tone banks can be copied, exchanged or initialized. The software and the guide how to use it are available for downloading at our website.

[illegible]



Tone Parameters Editor & Controller  
Model TPE-1 Nr. 8-361 / Bios v. 1.00 / OS Nr. 001 v. 2.0  
Document: 8361100-00120\_manual

Manufacturer:  
CHD Elektroservis, Czech Republic  
[www.chd-el.cz](http://www.chd-el.cz)      [info@chd-el.cz](mailto:info@chd-el.cz)



**SAVVY**

Tone Parameters Editor & Controller