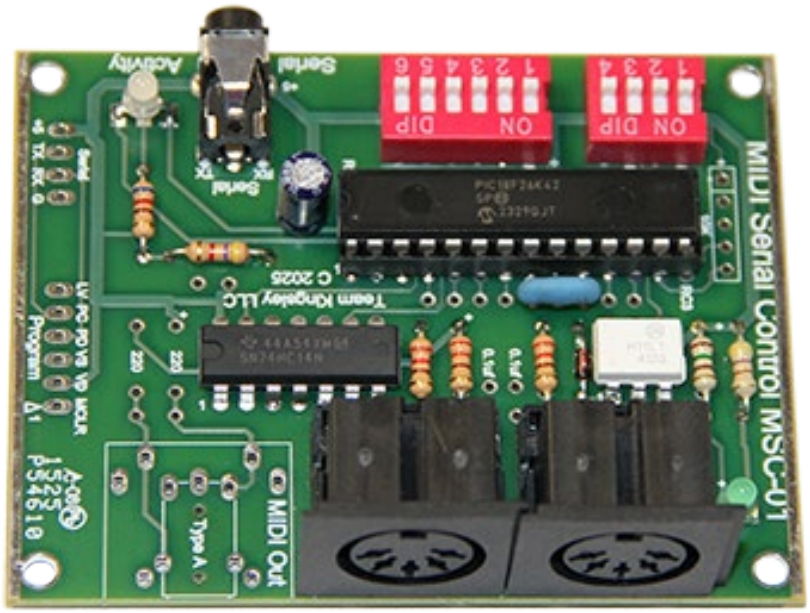
.

MedeaWiz® MSC-01

MIDI control for MedeaWiz® Sprite® Video Player

Manual Version 1.00



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Introduction

The MedeaWiz® MSC-01 MIDI to serial control converts Musical Instrument Digital Interface signals to serial commands to control play of video or audio files on the MedeaWiz Sprite and Sprite 4K media players.

It can be set to MIDI addresses 1 to 16 and trigger the Sprite from a MIDI note on event or a PC program change event. Is has over 30 user selectable modes of operation for various needs and can be controlled from any MIDI keyboard, pads, workstation etc. that is capable of transmitting MIDI.

It operates on 5 volts DC and is powered from the Sprite media player using the included cable.

It has MIDI in and Thru standard with provisions for MIDI out for future capabilities.

It comes with standard 5 pin DIN connectors but we can supply with 3.5mm (1/8) MIDI jacks on request.

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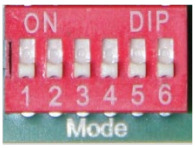
Settings and Connections

Set the MIDI Channel using the 4 DIP switches marked “Channel”.
Set the Mode of operation using 6 DIP switches marked “Mode”.

Add the values shown for each switch in the ON position, then add 1* to the total.

Value 1, 2, 4, 8



Value 1, 2, 4, 8, 16, 32

In example, for MIDI channel
All CHANNEL switches off would be: 0 + 0 + 0 + 0 + 1 = channel 1.
All CHANNEL switches on would be 1 + 2 + 4 + 8 + 1 = channel 16.

Similarly for the MODE of operation
All MODE switches off would be: 0 + 0 + 0 + 0 + 0 + 0 + 1 = MODE 1.
For MODE 23, set switches 2, 3 and 5 to on. 0 + 2 + 4 + 0 + 16 + 1 = 23.

The port marked “Serial” connects to the Sprite IO port. The Sprite will supply power to the MSC-01 and receive serial commands. Use cables with 3.5mm 4-pole plug at each end to connect the MSC-01 to a Sprite. A cable is included with the MSC-01.

Connect a MIDI cable from OUT on your keyboard or other MIDI controller to IN on the MSC-01.

Important:
The Sprite must be set as follows. Use the Sprite remote control to view the on-screen menu and make settings changes.

If you plan to use video files: Set the PLAY MODE to VIDEO CONTROL MODE.
OR
If you plan to use audio files: Set the PLAY MODE to AUDIO CONTROL MODE.

Set the CONTROL MODE to SERIAL CONTROL.

Set the BAUD RATE to 9600.

Set the ADDRESS to DO NOT USE ADDRESS.

You MUST have a file named 000 plus your additional trigger files named 001 up to 127 as required to match the MODE you select in the MSC-01

*In 1982 a note from Roland to Dave Smith declared MIDI channels should be named 1 to 16, not the internal digital values 0 to 15. We decided to keep the MODE setting the same way for consistency.

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Powering On

The MSC-01 receives 5 volt DC power from the Sprite media player. It is recommended to use a power strip to turn the Sprite on and off. You can also simply plug in or unplug the power supply to the wall AC power. Make sure to use the power supply included with the Sprite to avoid any damage.

When power is applied, the MSC-01 Activity light will be red.

After a short time the Activity light will flash green / red a number of times to show the MIDI Channel that is set.

It will then pause on red for a brief time and then flash green / red a number of times to show the Mode of operation that is set.

It will again pause on red until the Sprite player has booted and is ready for commands.

Finally, after about 25 seconds, it will turn green to show it is ready for use.

When any MIDI message arrives at the MIDI IN port, the green light beside the port will flicker. If the message is on the MIDI Channel that is set on the MSC-01, the Activity light will flicker to show the command has been sent to the Sprite.

If all is setup correctly, and you have the associated files / names on the SD / USB drive, you will see the action / file change on your video monitor.

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Modes of Basic Operation

Basic operation Modes allow you to “play” video files by pressing keys on a MIDI keyboard, or from some other MIDI device that is programmed to transmit MIDI note on commands.

The Sprite media player will always be playing file 000 in a looping fashion until it receives a command to play a different file. After the commanded file ends, the Sprite will again loop the file named 000. All trigger files should be named 001, 002, 003, etc. up to 127. The file names should match the MIDI note on commands you will transmit. For instance, note C2 would be MIDI note on command 36 and would play the file named 036, if present.

Mode switch settings are shown by up / down arrows denoting the switch positions 1 to 6.

1) Straight MIDI ↓ ↓ ↓ ↓ ↓ ↓

MIDI note on commands 0 to 127 will play files named 000 t0 127. Any new note on command will interrupt the file playing and play the new requested file.

2) Straight MIDI, no interrupt ↑ ↓ ↓ ↓ ↓ ↓

Same as Mode 1 except a triggered file will play to the end and not allow interruption from a new command.

3) A0 plays file 000 for an 88 key piano ↓ ↑ ↓ ↓ ↓ ↓

The first key on an 88 key keyboard, A0 or MIDI note on 21, is mapped to play file 000. The next key, A# or MIDI note on 22, will play file 001, and etc. until the last key would play file 087. Any new note on command will interrupt the file playing and play the new requested file.

4) A0 plays file 000 for 88 key piano, no interrupt ↑ ↑ ↓ ↓ ↓ ↓

Same as Mode 3 except a triggered file will play to the end and not allow interruption from a new command.

5) E1 plays file 000 for 76 keys ↓ ↓ ↑ ↓ ↓ ↓

This is the same as Mode 1 but for a 76 key keyboard where the first key is E1 or MIDI note on 29, is mapped to play file 000. The next key, F1 or MIDI 29 will play file 001 and etc. to the last key. Any new note on command will interrupt the file playing and follow the new command.

6) E1 plays file 000 for 76 keys, no interrupt ↑ ↓ ↑ ↓ ↓ ↓

Same as Mode 5 except a triggered file will play to the end and not allow interruption from a new command.

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7) C0 plays file 000 for 61 or keys or less, transposed shifted down ↓ ↑ ↑ ↓ ↓ ↓

Key C0 or MIDI note on 12 is mapped to play file 000. The next key, C#0 or MIDI note on 13, will play file 001 and etc. to the last key. Any new note on command will interrupt the file playing and follow the new command.

8) C0 plays file 000 for 61 keys or less, transposed shifted down, no interrupt ↑ ↑ ↑ ↓ ↓ ↓

Same as Mode 7 except a triggered file will play to the end and not allow interruption from a new command.

9) C1 plays file 000 for 61 keys or less synth shifted down ↓ ↓ ↓ ↑ ↓ ↓

This is the same as Mode 7 except it is mapped to begin at key C1 or MIDI note on 24.

10) C1 plays file 000 for 61 keys or less, transposed shifted down, no interrupt ↑ ↓ ↓ ↑ ↓ ↓

Same as Mode 9 except it will not allow interruption of the file playing.

11) C2 plays file 000 for 61 keys or less ↓ ↑ ↓ ↑ ↓ ↓

This is the same as Mode 7 except it is mapped to begin at key C2 or MIDI note on 36.

12) C2 plays file 000 for 61 keys or less, no interrupt ↑ ↑ ↓ ↑ ↓ ↓

Same as Mode11 except it will not allow interruption of the file playing.

13) C3 plays file 000 for 61 keys or less, transposed shifted up ↓ ↓ ↑ ↑ ↓ ↓

This is the same as Mode 7 except it is mapped to begin at key C3 or MIDI note on 48.

14) C3 plays file 000 for 61 keys or less, transposed shifted up, no interrupt ↑ ↓ ↑ ↑ ↓ ↓

Same as Mode 13 except it will not allow interruption of the file playing.

15) C4 plays file 000 for 61 keys or less, transposed shifted up ↓ ↑ ↑ ↑ ↓ ↓

This is the same as Mode 7 except it is mapped to begin at key C4 or MIDI note on 60.

16) C4 plays file 000, for 61 keys or less, transposed shifted up, no interrupt ↑ ↑ ↑ ↑ ↓ ↓

Same as Mode 15 except it will not allow interruption of the file playing.

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17) C5 plays file 000 for 61 keys or less, transposed shifted up ↓ ↓ ↓ ↓ ↑ ↓

This is the same as Mode 7 except it is mapped to begin at key C5 or MIDI note on 72.

18) C5 plays file 000, for 61 keys or less, transposed shifted up, no interrupt ↑ ↓ ↓ ↓ ↑ ↓

Same as Mode 17 except it will not allow interruption of the file playing.

Notice:
The Note on messages must be sent on the MIDI channel that is set on the MSC-01.

The Sprite needs a fraction of a second to change files. When “playing” successive notes too quickly some messages will be ignored / lost.

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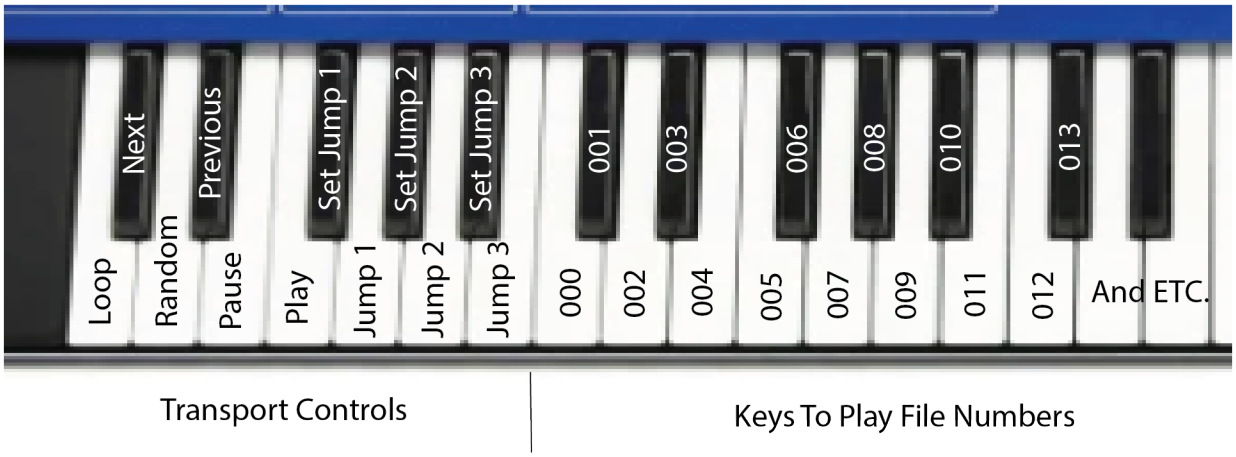
Modes of Operation with Transport Controls

In addition to triggering files to play, Transport Modes have extra functions.

MSC-01 Keyboard Control Map for Transport Modes



Loop
Allows you to set a file other than 000 to be the looping file. Press and release the Loop key, then press and release one of the file keys.

Next
Will play the next file in order after the currently playing file on the SD / USB drive. If at the last file, Next will play the first file, 000, on the SD / USB drive.

Random
Will play a random* file on the SD / USB. This key may be used after the Loop key to loop a random file.
*This is pseudo random, a repeating digital mix sequence. We may enhance this in the future.

Previous
Will play the previous file in order before the currently playing file on the SD / USB drive. If at the first file, 000, Previous will play the last file on the SD / USB drive.

Pause
Will pause the playing file and freeze the image.

Play
After a Pause, will resume playing the file.

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Set Jump Cut 1, 2, 3
Will read the time code at the point you press the Jump key, and store the value.

Jump Cut 1, 2, 3
Will jump to the time code location previously stored by the Set Jump key.
You can set up to 3 jump points using Set Jump 1, 2, and 3 keys.
You can jump between the points at will by pressing the Jump 1. 2 or 3 keys.

Notice:
The jump point is approximate and may be a few video frames from the expected point.
Setting a Jump very near to the beginning or end of a file may have unwanted results.
The jump points stay in memory until either you set a new point or a power cycle.
Jumps will not work with the original Sprite model DV-S1. Use the Sprite 4K model DV-S4.

Modes with Transport Control all begin at the key of C

21) with transport controls starting at C0, file play begins at C1 with file 000. ↓ ↓ ↑ ↓ ↑ ↓

22) with transport controls starting at C1, file play begins at C2 with file 000. ↑ ↓ ↑ ↓ ↑ ↓

23) with transport controls starting at C2, file play begins at C3 with file 000. ↓ ↑ ↑ ↓ ↑ ↓

24) with transport controls starting at C3, file play begins at C4 with file 000. ↑ ↑ ↑ ↓↑ ↓

25) with transport controls starting at C4, file play begins at C5 with file 000. ↓ ↓ ↓↑ ↑ ↓

26) with transport controls starting at C5, file play begins at C6 with file 000. ↑ ↓ ↓↑ ↑ ↓

Notice:
The Note on messages must be sent on the MIDI channel that is set on the MSC-01.

The Sprite needs a fraction of a second to change files. When “playing” successive notes too quickly some messages will be ignored / lost.

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Modes of Operation using MIDI PC Program Change Commands

Modes using PC Program Change Commands

30) MIDI program change, instant ↑ ↓ ↑ ↑ ↑ ↓
A MIDI PC message will play the file matching the PC number. As example, a PC message of 55 would play the file named 055 as soon as the PC message is sent.

31) MIDI program change, delayed ↓ ↑ ↑ ↑ ↑ ↓
This is similar to Mode 30, however the file will not begin until any first MIDI note on message is sent.

32) MIDI program change, instant, looping ↑ ↑ ↑ ↑ ↑ ↓
This is similar to Mode 30 except the file will now be the looping file.

33) MIDI program change, delayed, looping ↓ ↓ ↓ ↓ ↓ ↑
This is similar to Mode 32, however the file will not begin until any first MIDI note on message is sent.

34) MIDI program change, instant. random file ↑ ↓ ↓ ↓ ↓ ↑
This is similar to Mode 30, however it will play a random file.

35) MIDI program change, delayed, random file ↓ ↑ ↓ ↓ ↓ ↑
This is similar to Mode 34, however the file will not begin until any first MIDI note on message is sent.

36) MIDI program change, instant, looping, random ↑ ↑ ↓ ↓ ↓ ↑
Similar to above modes. Will pick a random file to loop and instantly start playing it.

37) MIDI program change, delayed, looping, random ↓ ↓ ↑ ↓ ↓ ↑
This is similar to Mode 36, however the file will not begin until any first MIDI note on message is sent.

Notice:
The PC message must be sent on the MIDI Channel that is set on the MSC-01.

The Sprite needs a fraction of a second to change files. When “playing” successive notes too quickly some messages will be ignored / lost.

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Reference Materials

Octaves / Keys to MIDI Decimal Table

Octave	C	C#/Db	D	D#/Eb	E	F	F#/Gb	G	G#/Ab	A	A#/Bb	B
-1	0	1	2	3	4	5	6	7	8	9	10	11
0	12	13	14	15	16	17	18	19	20	21	22	23
1	24	25	26	27	28	29	30	31	32	33	34	35
2	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59
4	60	61	62	63	64	65	66	67	68	69	70	71
5	72	73	74	75	76	77	78	79	80	81	82	83
6	84	85	86	87	88	89	90	91	92	93	94	95
7	96	97	98	99	100	101	102	103	104	104	106	107
8	108	109	110	111	112	113	114	115	116	117	118	119
9	120	121	122	123	124	125	126	127				

Various Modes will use some or all of the MIDI decimal values to play files on the Sprite that match the numbers. You must name your files with three digits as 000, 001, etc. As example, key G2 is MIDI decimal 43 and will play the file named 043 on the SD / USB drive, if it is present.

Most 88 key pianos begin at A0, MIDI number 21, and would play the file named 021.

Most 76 key synths begin at E1, MIDI number 28, and would play the file named 028.

Most 61 key and less synths begin at C2, MIDI number 36, and would play the file named 036.

These are typical layouts but yours may vary, and of course there are smaller keyboards, and octave transpose switches on most.

Keep in mind the Modes with Transport Controls shift the file numbers by 1 octave to allow using the lower octave for the controls.

Support

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