

MIDI Settings

MIDI Overview

The term MIDI is an acronym for Musical Instrument Digital Interface, an international standard for connecting musical instruments, computers, and other devices to allow the exchange of performance data.

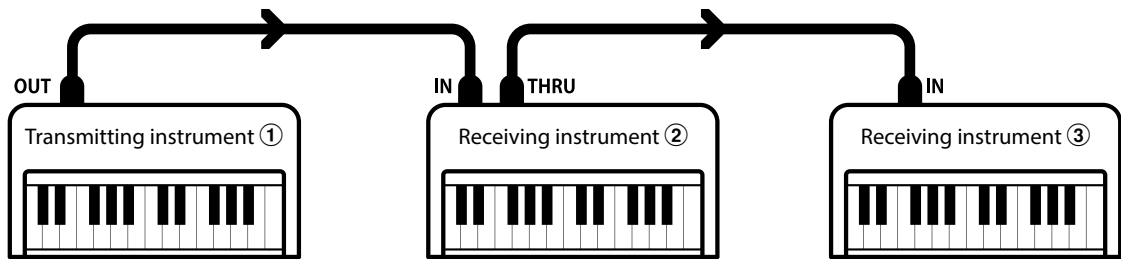
MIDI Terminals

MIDI terminal	Function
MIDI IN	Receiving note, program change, and other data.
MIDI OUT	Sending note, program change, and other data.

MIDI channels

MIDI uses channels to exchange data back and forth between MIDI devices. There are receive (MIDI IN) and transmit (MIDI OUT) channels. Most musical instruments or devices with MIDI functions are equipped with both MIDI IN and OUT jacks and are capable of transmitting and receiving data via MIDI. The receive channels are used to receive data from another MIDI device, and the transmit channels are used to transmit data to another MIDI device.

The illustration below shows three musical instruments, connected together using MIDI.

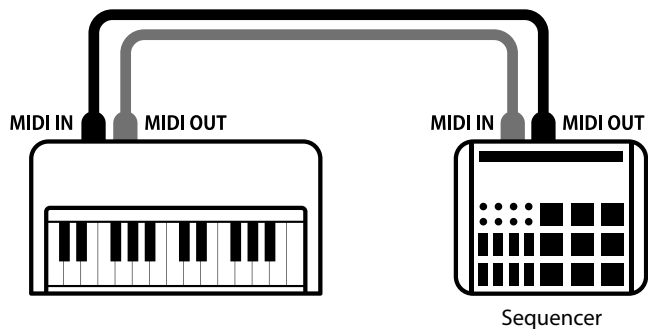


Transmitting instrument ① sends transmit channel and keyboard information to receiving instruments ②/③. The information arrives at the receiving instruments ②/③. Receiving instruments ②/③ will respond to MIDI data that is sent if their receive channel is the same as the transmit channel of the transmitting instrument ①. If the channels do not match, the receiving instruments ②/③ will not respond to any data that is sent.

For both receiving and transmitting, channels 1-16 can be used.

Recording/playing with a sequencer

When connected to a sequencer (or a computer running MIDI sequencing software), the AR2/ATX4 hybrid piano can be used to record and playback multi-track songs, with separate sounds playing simultaneously on each channel.



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■ MIDI Functions

The AR2/ATX4 hybrid piano supports the following MIDI functions:

Transmit/receive note information

Transmit/receive note information to/from a MIDI-connected musical instrument or device.

Transmit/receive channel settings

Specify transmit/receive channels within the range of 1 to 16.

Receive volume data

Receive MIDI volume data sent from a MIDI-connected musical instrument or device.

Transmit/receive program change information

Transmit/receive program change data to/from a MIDI-connected musical instrument or device.

Transmit/receive pedal data

Transmit/receive sustain, sostenuto, and soft pedal data to/from a MIDI-connected musical instrument or device.

Multi-timbral mode setting

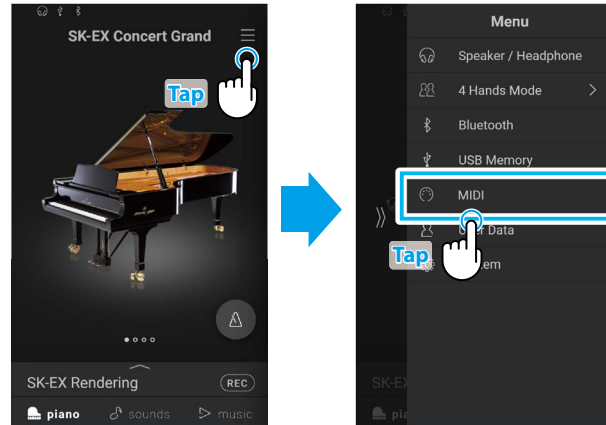
Receive multiple channel MIDI data from a MIDI-connected musical instrument or device.

Ref. Please refer to the "MIDI Implementation Chart" on page 15 for further information regarding the MIDI capabilities of the AR2/ATX4 hybrid piano.

■ Entering the MIDI Settings menu

Tap the ≡ button in the top right corner of the screen to open the Menu.

Tap MIDI to enter the MIDI category.



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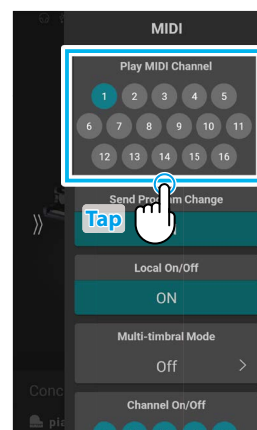
1 MIDI Channel

The MIDI Channel setting allows the transmit/receive channel to be specified. The selected channel will function as both the transmit and receive channel (separate transmit/receive channels cannot be specified).

■ Changing the MIDI Channel

In the Play MIDI Channel area, tap the number buttons to select the transmit/receive MIDI channel.

The MIDI channel can be set from 1 to 16.



■ Omni mode

When the AR2/ATX4 hybrid piano is turned on, the instrument is automatically set to “omni mode on”, allowing MIDI information to be received on all MIDI channels (1-16). When the MIDI Channel setting is used to specify a transmit/receive channel, the instrument will be set to “omni mode off”.

■ Multi-timbral mode and Split/Dual modes

Using Split mode with Multi-timbral mode enabled

Notes played in the lower section of the keyboard will be transmitted on the channel that is 1 channel higher than the specified channel. For example, if the MIDI channel is set to 3, notes played in the lower section of the keyboard will be transmitted on channel 4.

Using Dual mode with Multi-timbral mode enabled

Notes played will be transmitted on two channels: the specified channel and the channel that is 1 channel higher.

For example, if the MIDI channel is set to 3, notes played on the keyboard will be transmitted on channels 3 and 4.

* If the specified MIDI channel is 16, the lower section / layered part will be transmitted on channel 1.



MIDI Settings

2 Transmit Program Change Numbers

The Transmit Program Change Numbers setting determines whether the AR2/ATX4 hybrid piano will transmit program change information via MIDI when sounds are selected.

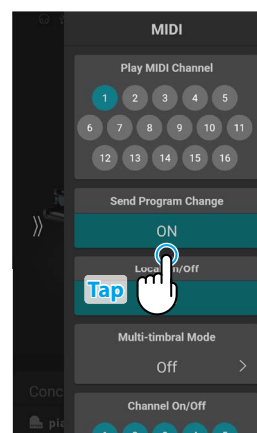
■ Transmit Program Change Numbers setting

Transmit PGM#	Multi-timbral setting	Effect of selecting sounds
On (default)	Off, On1	Sound tab selections will send PGM# shown in the left column*.
On	On2	Sound tab selections will send PGM# shown in the right column*.
Off	Off	Program Change information will not be transmitted via MIDI.

Ref. "Program Change Number List" P. 7.

■ Changing the Transmit Program Change Numbers setting

In the Send Program Change area, tap the [On/Off] button to turn the function on/off.



MIDI Settings

3 Local Control

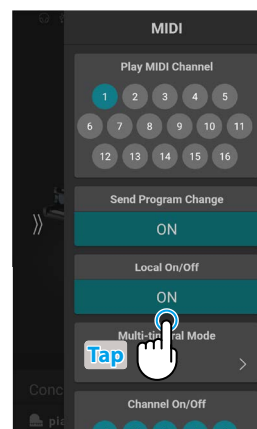
The Local Control setting determines whether the instrument will play an internal sound when the keys are pressed. This setting may be useful when using the AR2/ATX4 hybrid piano to control an external MIDI device that is connected to the instrument's amplifier/speakers.

■ Local Control setting

Local Control	Description
Off	The instrument will transmit information to an external MIDI device only.
On (default)	The instrument will play an internal sound and transmit information to an external MIDI device.

■ Changing the Local Control setting

In the Local On/Off area, tap the [On/Off] button to turn the function on/off.



MIDI Settings

4 Multi-timbral Mode

The Multi-timbral Mode setting determines whether or not the AR2/ATX4 hybrid piano is able to receive MIDI information on more than one MIDI channel simultaneously. This allows the instrument to play back multi-track, multi-timbral performance data sent from an external MIDI device.

■ Multi-timbral Mode setting

Multi-timbral Mode	Selected sound
Off (default)	The sound shown in the left column is selected*.
On1	The sound shown in the left column is selected*.
On2	The sound shown in the right column is selected*.

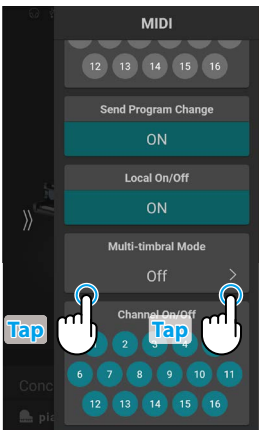
Ref. "Program Change Number List" P. 7.

■ Changing the Multi-timbral Mode setting

In the Multi Timbral Mode area, tap the < > buttons to select On1, On2, or Off.

☑ CHECK

Multi Timbral Mode will not be displayed when the "SK-EX Rendering" piano sound variation is selected.

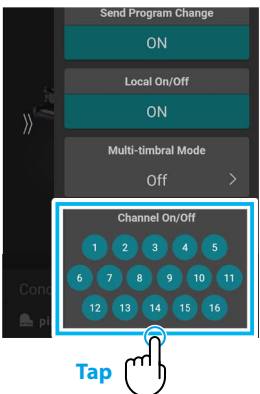


5 Channel On/Off

The Channel On/Off setting determines which MIDI channels (1~16) are activated to receive MIDI information when Multi-timbral mode is enabled.

■ Changing the Channel On/Off setting

In the Channel On/Off area, tap the number buttons to turn the MIDI channel on/off.



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Program Change Number List

Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
Piano				
SK-EX Rendering	1	1	95	112
SK-EX Concert	2	1	121	0
SK-EX Jazz Clean	3	1	121	1
SK-EX Warm	4	1	121	2
EX Concert	5	1	95	27
EX Warm	6	1	95	29
EX Standard	7	1	95	16
EX Pop Grand	8	1	95	28
EX Pop Piano	9	2	95	10
EX New Age	10	1	95	17
EX Modern	11	2	121	0
SK-5 Clasical	12	1	95	30
SK-5 Jazz Old School	13	1	95	32
SK-5 Pop	14	1	95	31
UprightPiano Clasical	15	1	95	25
UprightPiano Boogie	16	1	95	33
UprightPiano Honky Tonk	17	4	121	0
Electric Piano				
Classic Electric Piano	18	5	121	0
60's Electric Piano	19	5	121	3
Modern Electric Piano	20	6	121	0
Electric Grand	21	3	121	0
Classic Electric Piano 2	22	5	121	1
Classic Electric Piano 3	23	5	95	5
Classic Electric Piano 4	24	5	95	8
Crystal Electric Piano	25	6	95	1
Modern Electric Piano 2	26	6	121	1
Modern Electric Piano 3	27	6	121	2
Organ				
Jazz Organ	28	18	121	0
Blues Organ	29	17	121	0
Ballad Organ	30	17	95	5
Gospel Organ	31	17	95	3
Drawbar Organ	32	17	95	1
Drawbar Organ 2	33	17	95	2
Drawbar Organ 3	34	18	121	2
Drawbar Organ 4	35	17	121	3
Church Organ				
Church Organ	36	20	121	0
Diapason	37	20	95	7
Full Ensemble	38	21	95	1
Diapason Octave	39	20	95	6
Chiffy Tibia	40	20	95	17



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Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
Principal Octave	41	20	95	24
Principal Choir	42	20	95	23
Baroque	43	20	95	19
Soft Diapason	44	20	95	45
Soft Strings	45	20	95	41
Mellow Flutes	46	20	95	48
Medium Ensemble	47	20	95	42
Loud Ensembe	48	20	95	43
Bright Ensemble	49	20	95	47
Full Organ	50	20	95	44
Reed Ensembe	51	20	95	46
Harpsichord				
Harpsichord	52	7	121	0
Harpsichord Octave	53	7	121	1
Harpsichord 2	54	12	121	0
Mallets				
Vibraphone	55	8	121	0
Clavi	56	13	121	0
Marimba	57	9	95	1
Celesta	58	7	121	3
Bell Split	59	15	95	5
Strings				
Slow Strings	60	45	95	1
String Pad	61	49	95	8
Warm Strings	62	49	95	1
String Ensemble	63	49	121	0
Soft Orchestra	64	50	95	1
Chamber Strings	65	49	95	14
Harp	66	47	121	0
Pizzicato Strings	67	46	121	0
Vocal				
Choir	68	53	121	0
Pop Ooh	69	54	95	39
Pop Aah	70	54	95	40
Choir 2	71	54	95	53
Jazz Ensemble	72	54	95	2
Pop Ensemble	73	54	95	7
Slow Choir	74	53	95	2
Breathy Choir	75	53	95	1
Pad				
New Age Pad	76	89	121	0
Square Pad	77	90	95	5
Itopia	78	92	121	1
Brightness	79	101	95	1



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Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
New Age Pad 2	80	89	95	2
Brass Pad	81	62	95	2
Bowed Pad	82	93	121	0
Bright Warm Pad	83	90	95	1
Bass				
Wood Bass	84	33	121	0
Electric Bass	85	34	121	0
Electric Bass 2	86	36	121	0
Wood Bass & Ride	87	33	95	1
Electric Bass & Ride	88	34	95	2
Guitar				
Ballad Guitar	89	26	95	6
Pick Nylon Guitar	90	25	95	3
Finger Nylon Guitar	91	25	95	4
MIDI				
Rock Piano	-	2	121	1
Electric Grand2	-	3	121	1
Wide Honky Tonk	-	4	121	1
Classic E.P. 5	-	5	121	2
Legend E.P.	-	6	121	3
Phase E.P.	-	6	121	4
WideHarpichord	-	7	121	2
Synth Clavi	-	8	121	1
Celesta	-	9	121	0
Glockenspiel	-	10	121	0
Music Box	-	11	121	0
Wide Vibraphone	-	12	121	1
Wide Marimba	-	13	121	1
Xylophone	-	14	121	0
Tubular Bells	-	15	121	0
Church Bells	-	15	121	1
Carillon	-	15	121	2
Dulcimer	-	16	121	0
Drawbar Organ 5	-	17	121	1
60's Organ	-	17	121	2
Perc. Organ	-	18	121	1
Rock Organ	-	19	121	0
Church Organ 2	-	20	121	1
Church Organ 3	-	20	121	2
Reed Organ	-	21	121	0
Puff Organ	-	21	121	1
FrenchAccordion	-	22	121	0
Accordion	-	22	121	1
Harmonica	-	23	121	0



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Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
Tango Accordion	-	24	121	0
Nylon Acoustic	-	25	121	0
Ukulele	-	25	121	1
Nylon Acoustic2	-	25	121	2
Nylon Acoustic3	-	25	121	3
Steel Guitar	-	26	121	0
12 String	-	26	121	1
Mandolin	-	26	121	2
Steel Guitar 2	-	26	121	3
Jazz Guitar	-	27	121	0
Pedal Steel	-	27	121	1
Electric Guitar	-	28	121	0
E. Guitar 2	-	28	121	1
Rhythm Guitar	-	28	121	2
Muted Electric	-	29	121	0
Cutting Guitar2	-	29	121	1
E. Guitar 3	-	29	121	2
Country Lead	-	29	121	3
OverdriveGuitar	-	30	121	0
Dynmic Ov.drive	-	30	121	1
Distortion	-	31	121	0
Dist Feedback	-	31	121	1
Dist Rhythm	-	31	121	2
E.Gtr Harmonics	-	32	121	0
Guitar Feedback	-	32	121	1
FingerSlap Bass	-	34	121	1
Pick Bass	-	35	121	0
Slap Bass	-	37	121	0
Slap Bass 2	-	38	121	0
Synth Bass	-	39	121	0
Warm Synth Bass	-	39	121	1
Synth Bass 3	-	39	121	2
Clavi Bass	-	39	121	3
Hammer Bass	-	39	121	4
Synth Bass 2	-	40	121	0
Synth Bass 4	-	40	121	1
Rubber Bass	-	40	121	2
Attack Bass	-	40	121	3
Violin	-	41	121	0
Slow Violin	-	41	121	1
Viola	-	42	121	0
Cello	-	43	121	0
Contrabass	-	44	121	0
Tremolo Strings	-	45	121	0



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Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
Celtic Harp	-	47	121	1
Timpani	-	48	121	0
Strings & Brass	-	49	121	1
60's Strings	-	49	121	2
StringEnsemble2	-	50	121	0
Synth Strings	-	51	121	0
Synth Strings 3	-	51	121	1
Synth Strings 2	-	52	121	0
Choir 3	-	53	121	1
Voice Oohs	-	54	121	0
Humming	-	54	121	1
Synth Vocal	-	55	121	0
Analog Voice	-	55	121	1
Orchestra Hit	-	56	121	0
Bass Hit Plus	-	56	121	1
6th Hit	-	56	121	2
Euro Hit	-	56	121	3
Trumpet	-	57	121	0
Solo Trumpet	-	57	121	1
Trombone	-	58	121	0
Trombone 2	-	58	121	1
Bright Trombone	-	58	121	2
Tuba	-	59	121	0
Muted Trumpet	-	60	121	0
Muted Trumpet 2	-	60	121	1
French Horns	-	61	121	0
Warm FrenchHorn	-	61	121	1
Brass Section	-	62	121	0
Brass Section 2	-	62	121	1
Synth Brass	-	63	121	0
Synth Brass 3	-	63	121	1
Analog Brass	-	63	121	2
Jump Brass	-	63	121	3
Synth Brass 2	-	64	121	0
Synth Brass 4	-	64	121	1
Analog Brass 2	-	64	121	2
Soprano Sax	-	65	121	0
Alto Sax	-	66	121	0
Tenor Sax	-	67	121	0
Baritone Sax	-	68	121	0
Oboe	-	69	121	0
English Horn	-	70	121	0
Bassoon	-	71	121	0
Clarinet	-	72	121	0



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Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
Piccolo	-	73	121	0
Flute	-	74	121	0
Recorder	-	75	121	0
Pan Flute	-	76	121	0
Blown Bottle	-	77	121	0
Shakuhachi	-	78	121	0
Whistle	-	79	121	0
Ocarina	-	80	121	0
Square	-	81	121	0
Square 2	-	81	121	1
Sine	-	81	121	2
Classic Synth	-	82	121	0
Classic Synth 2	-	82	121	1
Lead	-	82	121	2
Classic Synth 3	-	82	121	3
SequencedAnalog	-	82	121	4
Caliope	-	83	121	0
Chiff	-	84	121	0
Charang	-	85	121	0
Wire Lead	-	85	121	1
Voice	-	86	121	0
Fifth	-	87	121	0
Bass & Lead	-	88	121	0
Soft Wire Lead	-	88	121	1
Warm Pad	-	90	121	0
Sine Pad	-	90	121	1
Polysynth	-	91	121	0
Choir Pad	-	92	121	0
Metallic Pad	-	94	121	0
Halo Pad	-	95	121	0
Sweep Pad	-	96	121	0
Rain Pad	-	97	121	0
Soundtrack	-	98	121	0
Crystal	-	99	121	0
Synth Mallet	-	99	121	1
Atmosphere	-	100	121	0
Brightness	-	101	121	0
Goblin	-	102	121	0
Echoes	-	103	121	0
Echo Bell	-	103	121	1
Echo Pan	-	103	121	2
Sci-Fi	-	104	121	0
Sitar	-	105	121	0
Sitar 2	-	105	121	1



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Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
Banjo	-	106	121	0
Shamisen	-	107	121	0
Koto	-	108	121	0
Taisho Koto	-	108	121	1
Kalimba	-	109	121	0
Bag Pipe	-	110	121	0
Fiddle	-	111	121	0
Shanai	-	112	121	0
Tinkle Bell	-	113	121	0
Agogo	-	114	121	0
Steel Drums	-	115	121	0
Woodblock	-	116	121	0
Castanet	-	116	121	1
Taiko Drums	-	117	121	0
Concert BD	-	117	121	1
Melodic Toms	-	118	121	0
Melodic Toms 2	-	118	121	1
Synth Drum	-	119	121	0
Rhythm Box Tom	-	119	121	1
Electric Drum	-	119	121	2
Reverse Cymbal	-	120	121	0
Gtr Fret Noise	-	121	121	0
GtrCuttingNoise	-	121	121	1
Ac Bass Slap	-	121	121	2
Breath Noise	-	122	121	0
Flute Key Click	-	122	121	1
Seashore	-	123	121	0
Rain	-	123	121	1
Thunder	-	123	121	2
Wind	-	123	121	3
Stream	-	123	121	4
Bubble	-	123	121	5
Bird Tweet	-	124	121	0
Dog Barking	-	124	121	1
Horse Gallop	-	124	121	2
Bird Tweet 2	-	124	121	3
Telephone	-	125	121	0
Telephone 2	-	125	121	1
Door Creak	-	125	121	2
Door Slam	-	125	121	3
Scratch	-	125	121	4
Wind Chime	-	125	121	5
Helicopter	-	126	121	0
Car Engine	-	126	121	1



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Sound Name	Multi-timbral mode = off/on1	Multi-timbral mode = on2		
	Program Number	Program Number	Bank	
			MSB	LSB
Car Stopping	-	126	121	2
Car Passing	-	126	121	3
Car Crash	-	126	121	4
Siren	-	126	121	5
Train	-	126	121	6
Jet Plane	-	126	121	7
Starship	-	126	121	8
Burst Noise	-	126	121	9
Applause	-	127	121	0
Laughing	-	127	121	1
Screaming	-	127	121	2
Punch	-	127	121	3
Heartbeat	-	127	121	4
Foot Step	-	127	121	5
Gunshot	-	128	121	0
Machine Gun	-	128	121	1
Laser Gun	-	128	121	2
Explosion	-	128	121	3
StereoPop Set	-	1	120	0
StereoAmbien	-	33	120	0
Stereo Ballad	-	9	120	0
Analog Set	-	26	120	0
CP Dance	-	27	120	0
Power Set	-	17	120	0
Electronic Set	-	25	120	0
Brush Set	-	41	120	0
Orchestra Set	-	49	120	0
SFX Set	-	57	120	0



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MIDI Implementation Chart

[HYBRID PIANO]

Kawai AR2/ATX4

MIDI Implementation Chart

Date: February 2021

Version: 1.0

Function	Transmitted	Section	Remarks
Basic Channel	Default Changed	1 - 16 1 - 16	
Mode	Default Messages Altered	Mode 3 X *****	Mode 1 Mode 1, 3 * The default for the OMNI mode is ON. Specifying MIDI channels automatically turns it OFF.
Note Number	True Voice	21 - 108** *****	0 - 127 0 - 127 ** The value depends on the Transpose setting.
Velocity	Note ON Note OFF	O O	
After Touch	Key Channel	X X	
Pitch Bend		X	
Control Change	0, 32 7 10 11 64 66 67	O X X X O (Right pedal) O (Middle pedal) O (Left pedal)	O O O O O O O Bank Select Volume Pan Pot Expression Pedal Sustain Pedal Sostenuto Pedal Soft Pedal
Program Change	True #	O 0 - 127 *****	O 0 - 127 *** 0 - 127 *** Refer to the Program Change Number List on page 7.
System Exclusive		O	
Common	Song Position Song Select Tune	X X X	X X X
System Real Time	Clock Commands	X O	X X
Others	Local OFF/ON All Note OFF Active Sense Reset	X X X X	O O (123-127) O X
Notes			

Mode 1 : OMNI ON , POLY

Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON , MONO

Mode 4 : OMNI OFF, MONO

O : Yes

X : No

