

# ARIUS

## YDP-181

DATA LIST  
Daten-Liste  
Liste des données  
Lista de datos

# MIDI Data Format / MIDI-Datenformat / Format des données MIDI / Formato de datos MIDI

## MIDI Channel Message

- : Can be transmitted and recognized.
- ▲ : Cannot be transmitted by the panel operations, but can be transmitted by song playback data.
- × : Cannot be transmitted or received.

MIDI Events	Status byte		1st Data byte			2nd Data byte			Transmitted	Recognized	
	Status		Data	(HEX)	Parameter	Data	(HEX)	Parameter			
Key Off	8nH	(n: channel no.)	kk		Key no. (0 - 127)	vv		Velocity (0 - 127)	▲	●	
Key On	9nH		kk		Key no. (0 - 127)	vv		Key On: vv = 1 - 127 Key Off: vv = 0	●	●	
Control Change	BnH		0	(00H)	Bank Select MSB	0	(00H)	Normal	●	●	
			32	(20H)	Bank Select LSB	0 - 127			●	●	
			1	(01H)	Modulation	0 - 127	(...7FH)			▲	●
			6	(06H)	Data Entry MSB	0 - 127	(...7FH)			●	●
			38	(26H)	Data Entry LSB	0 - 127	(...7FH)			●	●
			7	(07H)	Main Volume	0 - 127	(...7FH)			●	●
			10	(0AH)	Panpot	0 - 127	(...7FH)			▲	●
			11	(0BH)	Expression	0 - 127	(...7FH)			●	●
			64	(40H)	Damper (Sustain)	0 - 127	(...7FH)			●	●
			66	(42H)	Sostenuto	0 - 127	(...7FH)			●	●
			67	(43H)	Soft Pedal	0 - 127	(...7FH)			●	●
			71	(47H)	Harmonic Content	0 - 127	(...7FH)			▲	●
			72	(48H)	Release Time	0 - 127	(...7FH)			▲	●
			73	(49H)	Attack Time	0 - 127	(...7FH)			▲	●
			74	(4AH)	Brightness	0 - 127	(...7FH)			▲	●
			84	(54H)	Portamento Control	0 - 127	(...7FH)			▲	●
			91	(5BH)	Effect1 Depth (Reverb Send Level)	0 - 127	(...7FH)			●	●
			93	(5DH)	Effect3 Depth (Chorus Send Level)	0 - 127	(...7FH)			●	●
Mode Message	BnH		96	(60H)	Increment	0 - 127	(...7FH)		▲	●	
			97	(61H)	Decrement	0 - 127	(...7FH)				
			100	(64H)	RPN LSB	0 - 127	(...7FH)			●	●
			101	(65H)	RPN MSB	0 - 127	(...7FH)				
			120	(78H)	All Sound Off	0				▲	●
			121	(79H)	Reset All Controller	0				▲	●
			122	(7AH)	Local Control	0 - 3F: OFF 40 - 7F: ON				×	●
			123	(7BH)	All Note Off	0				▲	●
Mode Message	BnH		124	(7CH)	OMNI OFF	0			×	●	
			125	(7DH)	OMNI ON	0			×	●	
			126	(7EH)	MONO	0 - 16	(...10H)			×	●
			127	(7FH)	POLY	0				×	●
			Note This instrument is fixed to Multi-timbral Mode and Poly Mode, since these modes do not change even when Omni on/ omni off/ Mono/Poly Mode messages are received.								
Program Change	CnH		pp		0 - 127	-		-	●	●	
Channel After Touch	DnH		vv			-			×	×	
Polyphonic After Touch	AnH		kk			vv			×	×	
Pitch Bend Change	EnH		cc	LSB		dd	MSB		▲	●	
Realtime Message	F8H	MIDI Clock	-			-			●	●	
	FAH	Start	-			-			●	●	
	FBH	Continue	-			-			×	×	
	FCH	Stop	-			-			●	●	
	FEH	Active Sens	-			-			●	●	
FFH	System Reset	-			-				×	×	
Note When an Overrun or Framing error occurs, the Damper, Sostenuto and Soft are set to off in all channels, and All Notes Off is executed.											

**PROGRAM CHANGE**

P.C.# =Program Change Number

Voice Category	MSB	LSB	P.C.#
GrandPiano1	0	122	0
GrandPiano2	0	112	0
E.Piano1	0	122	5
E.Piano2	0	122	4
Harpischord 1	0	122	6
Harpischord 2	0	123	6
Vibraphone	0	122	11
ChurchOrgan 1	0	123	19
ChurchOrgan 2	0	122	19
JazzOrgan	0	122	16
Strings 1	0	122	48
Strings 2	0	125	49
Choir	0	122	52
Guitar	0	122	24

**Parameters controlled by RPN (Registered Parameter Numbers)**

RPN		Data Entry		Parameter	Data Range
MSB	LSB	MSB	LSB		
00H	00H	mmH	-	Pitch Bend Sensitivity	mm: 00H-18H (0...+24[semitones])
00H	01H	mmH	llH	Fine Tune	mm ll: 00H 00H -100[cent] ... mm ll: 40H 00H 0[cent] ... mm ll: 7FH 7FH 100[cent]
00H	02H	mmH	-	Coarse Tune	mm: 28H-40H-58H (-24...0...+24[semitones])
7FH	7FH	-	-	Null	-

## MIDI Parameter Change Table

### MIDI PARAMETER CHANGE TABLE (XG SYSTEM)

Address (H)			Size (H)	Data (H)	Parameter	Transmitted	Recognized	Description	Default value (H)
00	00	00	4	0000 - 07FF	MASTER TUNE	●	●	-102.4 - +102.3[cent]	00 04 00 00
		01						1st bit3 - 0 → bit15 - 12	
		02						2nd bit3 - 0 → bit11 - 8	
		03						3rd bit3 - 0 → bit7 - 4	
		04	1	00 - 7F	MASTER VOLUME	×	●	0 - 127	7F
		05	1	00 - 7F	(MASTER ATTENUATOR)	×	×	Ignored	
		06	1	28 - 58	TRANPOSE	×	×	-12 - +12[semitones] (MIDI value = 34H - 4CH)	40
		7D		n	DRUM SETUP RESET	×	×	n = Drum setup number	
		7E		00	XG SYSTEM ON	● (*1)	●	00 = XG sytem ON (*3)	
		7F		00	ALL PARAMETER RESET	×	● (*2)	00 = ON (*3)	

TOTAL SIZE 7

(\*1) Output when Init Send is transmitted.

(\*2) When "XG ALL PARAMETER RESET" message is received, generates "XG SYSTEM ON" on the tone generator and generates reinitialization of the tuning value on the panel.

(\*3) Variation connection is fixed at System.

### MIDI PARAMETER CHANGE TABLE (EFFECT 1)

Address (H)			Size (H)	Data (H)	Parameter	Transmitted	Recognized	Description	Default
02	01	00	2	00 - 7F 00 - 7F	REVERB TYPE MSB REVERB TYPE LSB	●	●	Refer to Effect MIDI Map (page 5)	01 (= HALL1) 00
02	01	20		00 - 7F 00 - 7F	CHORUS TYPE MSB CHORUS TYPE LSB	●	●	Refer to Effect MIDI Map (page 5)	41 (= CHORUS1) 00
		22	1	00 - 7F	CHORUS PARAMETER 1	×	●	Ignored	
		24	1	00 - 7F	CHORUS PARAMETER 3	×	●	//	

### MIDI PARAMETER CHANGE TABLE (MULTI PART)

Address (H)			Size (H)	Data (H)	Parameter	Transmitted	Recognized	Description	Default value (H)
00	00	0C	1	00 - 7F	VELOCITY SENSE DEPTH	●	●	0 - 127	
		0D	1	00 - 7F	VELOCITY SENSE OFFSET	●	●	0 - 127	
		11	1	00 - 7F	DRY LEVEL	▲	●	0 - 127	7F

## System Exclusive Messages

MIDI EVENT		Data Format	Transmitted	Recognized
Universal System Exclusive	MIDI Master Volume	F0H 7FH 7FH 04H 01H 11 mm F7H or F0H 7FH XN 04H 01H 11 mm F7H XN When N is received N = 0 - F, whichever is received. X = Ignored II mm Volume (mm = MSB, II = LSB)	X	●
		F0H 7EH 7FH 09H 01H F7H or F0H 7EH XN 09H 01H F7H Oxxxxnnn XN When N is received N = 0 - F, whichever is received. X = Ignored.	●	●
XG	XG Parameter Change	F0H 43H 1nH 4CH hh mm ll dd ... F7H hh mm ll Address dd Data	●	●
	XG Bulk Dump	F0H 43H 0nH 4CH aa bb hh mm ll dd ... dd cc F7H 0n Device Number n = 0 (send), 0 - f (receive) aa bb Byte Count (aa << 7) + bb hh mm ll Address dd Data cc Check SUM	X	●
Digital Piano compliance	Internal Clock	F0H 43H 73H 01H 02H F7H	X	●
	External Clock	F0H 43H 73H 01H 03H F7H	X	●
Others	Master Tune	F0H 43H 1n 27H 30H 00H 00H mm ll cc F7H 1n Channel (0 (Send), 0 - f (receive) ) mm ll cc (mm << 4) + ll (1step/1cent), cc = Ignored	X	●

### Effect MIDI Map (Reverb)

	MSB	LSB
ROOM	02H	10H
HALL1	01H	10H
HALL2	01H	11H
STAGE	03H	10H
OFF	00H	00H

### Effect MIDI Map (Effect)

	MSB	LSB
CHORUS	41H	08H
PHASER	48H	11H
TREMOLO	77H	00H
ROTARY SP	42H	12H
OFF	00H	00H

Function...	Transmitted	Recognized	Remarks
Basic Channel Default Changed	1 - 16 0	1 - 16 0	
Mode Default Messages Altered	3 X *****	3 X X	
Note Number : True voice	0 - 127 *****	0 - 127 0 - 127	
Velocity Note ON Note OFF	O 9nH, v=1-127 X 9nH, v=0	O 9nH, v=1-127 X	
After Touch Key's Ch's	X X	X X	
Pitch Bend	X *1	O 0 - 24 semitones	
Control Change 0, 32 1 7 10 11 6, 38 64, 66, 67 71-74 84 91, 93 96-97 100-101	O X *1 O X *1 O X *1 O X *1 X *1 X *1 O X *1 O	O O O O O O O O O O O O	Bank Select Modulation Main Volume Panpot Expression Data Entry Pedal  Portament Control Effect Depth RPN Inc,Dec RPN LSB,MSB
Prog Change : True #	O 0 - 127 *****	O 0 - 127	
System Exclusive	O	O	
Common : Song Pos. : Song Sel. : Tune	X X X	X X X	
System : Clock Real Time : Commands	O O	O O	
Aux : All Sound Off : Reset All Cntrls : Local ON/OFF Mes- : All Notes OFF sages: Active Sense : Reset	X X X X O X	O (120, 126, 127) O (121) O (122) O (123-125) O X	
Notes:	*1 These Control Change messages cannot be transmitted by panel operations, but can be transmitted by song playback data.		

Mode 1 : OMNI ON , POLY  
 Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON ,MONO  
 Mode 4 : OMNI OFF,MONO

O : Yes  
 X : No