

Function ...		Transmitted		Recognized		Remarks
Basic Channel	Default Changed	1-16	1-16	1-16	*4	Memorized
Mode	Default	x		Mode 3 (OMNI OFF)		
	Messages Altered	x *****		x x		
Note Number:	True Voice	x *****		o 0-127	*3	Depends on Rhythm Kit Map
Velocity	Note ON Note OFF	x x		o x	*3	
After Touch	Key's Ch's	x x		x x		
Pitch Bend		x		x		
Control Change	1 - 31 64 - 95	o o	*1,2 *1,2	o o	*1,2 *1,2	
Prog Change	: True #	o 0-98	*2	o 0-98 0-15	*2 *3	Program Number 1-99 RHYTM KIT Number 1-16
System Exclusive		o		o		
System Common	: Song Pos : Song Sel : Tune	x x x		x x x		
System Real Time	: Clock : Command	o x		o x		
Aux Message	: ALL sound off : Reset All Controller : Local ON/OFF : All Notes OFF : Active Sense : Reset	x x x x o x		x x x x o x		
Notes		*1 The settings are optional *2 The settings are valid for channels set to TX/RX CONTROL CH. *3 The settings are valid for channels set to RX NOTE CH. *4 There are two types of MIDI RX channels: RX CONTROL CH and RX NOTE CH.				

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

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

o : Yes
 x : No

MIDI Implementation

Model : RC-10R
Date : Sep. 5th, 2019
Version : 1.00

Receive data

Channel Voice Messages

Note On

Status	2nd Byte	3rd Byte
-----	-----	-----
9nH	ccH	vvH

n = RX NOTE CH : 0H - FH(0 - 15) 0=ch.1 15=ch.16
cc = Note Number : 00H - 7FH(0 - 127)
vv = Velocity : 01H - 7FH(0 - 127)

You can use note-on message from an external MIDI device to play the rhythm sound module built into the RC-10R.

Control Change

Status	2nd Byte	3rd Byte
-----	-----	-----
BnH	ccH	vvH

n = MIDI Channel Number : 0H - FH(0 - 15) 0=ch.1 15=ch.16
cc = Control Change Number : 01H - 1FH(1 - 31), 40H - 5FH(64-95)
vv = Value : 00H - 7FH(0 - 127)

You can use control change messages from an external MIDI device to control functions that would be difficult to control using the RC-10R's own controllers.

Program Change

Status	2nd Byte
-----	-----
CnH	ppH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
pp = Program Number : 00H - 62H (0 - 98)
0 = phrase memory 1, 98 = phrase memory 99

The RC-10R can receive Program Change messages numbered 1 through 99 (00H - 62H), corresponding to the 99 individual phrase memories 1-99.

- * Program Change messages 100 - 128 (63H - 7FH) cannot be received.
- * Even if received, Bank Select MIDI messages (Control Change #0, #32) are disregarded.

n = RX NOTE CH : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16
 pp = Program Number : 00H - 0FH (0 - 15) RHYTHM KIT
 : 0 = Studio, Live, Light, Heavy, Rock, Metal, Jazz,
 Brushes, Cajon, Drum&Bs, R&B, Dance, Techno, Dance Beats,
 Hiphop, 15 = 808+909

The RC-10R can receive Program Change messages numbered 1 through 16 (00H - 0FH), corresponding to the 16 individual RHYTHM KIT.

System Realtime Message

Timing Clock

Status

F8H

Received when "MIDI SYNC CLOCK" parameter is set to except INTERNAL.

Active Sensing

Status

FEH

When an Active Sensing message is received, the interval of all subsequent messages will begin to be monitored. If an interval greater than 400 msec. between messages, the display will indicate "MIDI Off Line!"

System Exclusive Message

Status	Data Byte	Status
-----	-----	-----
F0H	41H, ddH, ..., eeH	F7H

Byte	Explanation
-----	-----
F0H:	System Exclusive Message status
41H:	Manufacturer ID (Roland)
dd, ..., ee = data:	00H-7FH(0-127)
F7H:	EOX(End Of Exclusive)

Universal Non-Realtime System Exclusive Messages

Identity Request Message (Device Inquiry)

Status	Data Byte	Status
-----	-----	-----
F0H	7EH, ddH, 06H, 01H,	F7H

Byte	Explanation
----	-----
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
ddH	Device ID (dev: 10H, 7FH) * 7FH = Broadcast
06H	Sub ID # 1 (General Information)
01H	Sub ID # 2 (Identity Request)
F7H	EOX (End Of Exclusive)

When this message is received, Identity Reply message will be transmitted. (please see "Transmit data")

Transmit data

Channel Voice Messages

Control Change

Status	2nd Byte	3rd Byte
-----	-----	-----
BnH	ccH	vvH

n = MIDI Channel Number : 0H - FH(0 - 15) 0=ch.1 15=ch.16
cc = Control Change Number : 01H - 1FH(1 - 31), 40H - 5FH(64-95)
vv = Value : 00H - 7FH(0 - 127)

Control change information can be sent to an external MIDI device according to the operation of RC-10R.

Program Change

Status	2nd Byte
-----	-----
CnH	ppH

n = MIDI Channel Number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

pp = Program Number : 00H - 62H (0 - 98)

 0 = phrase memory 1, 98 = phrase memory 99

When phrase memories are changed on the RC-10R, a MIDI Program Change message is transmitted to the connected external MIDI device. You can transmit Program Change messages numbered 1 through 99 (00H - 62H), corresponding to the 99 individual phrase memories 1-99.

* Program Change messages 100 - 128 (63H - 7FH) cannot be transmitted.

* Bank Select MIDI messages (Control Change #0, #32) cannot be transmitted.

System Realtime Message

Timing Clock

Status

F8H

Transmit when "MIDI CLOCK OUT" parameter is set to "ON", at an interval according to the tempo of RC-10R.

Active Sensing

Status

FEH

These messages are transmitted at all times, at an interval of approximately 250 ms.

System Exclusive Message

Status	Data Byte	Status
-----	-----	-----
F0H	41H, ddH, ..., eeH	F7H

Byte	Explanation
----	-----
F0H:	System Exclusive Message status
41H:	Manufacturer ID (Roland)
dd, ..., ee = data:	00H-7FH(0-127)
F7H:	EOX(End Of Exclusive)

Universal Non-Realtime System Exclusive Messages

Identity Reply Message (Device Inquiry)

Status	Data Byte	Status
-----	-----	-----
F0H,	7EH, ddH, 06H, 02H, 41H, 5FH, 03H, 00H, 00H, x1H, x2H, x3H, x4H,	F7

Byte	Explanation
-----	-----
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
ddH	Device ID (10H)
06H	Sub ID # 1 (General Information)
02H	Sub ID # 2 (Identity Reply)
41H	Manufacturer ID (Roland)
72H	Device family code # 1 (RC-10R)
02H	Device family code # 2 (RC-10R)
00H	Device family Number code # 1 (RC-10R)
00H	Device family Number code # 2 (RC-10R)
x1H	Software revision level # 1
x2H	Software revision level # 2
x3H	Software revision level # 3
x4H	Software revision level # 4
F7H	EOX (End of Exclusive)

Receiving Identity Request Message , the RC-10R send this message.

(Note)

If the system parameter "MIDI SYNC CLOCK" is set as "MIDI", the system realtime messages which are sent to the RC-10R's USB jack are ignored.

In the same way, if the system parameter "MIDI SYNC CLOCK" is set as "USB" and Timing Clock from USB-MIDI, the MIDI data which are sent to the RC-10R's MIDI IN jack are ignored.

RC-10R always sent MIDI data to MIDI OUT jack and USB jack, regardless of the setting of the system parameter "MIDI SYNC CLOCK".

