CMU-800 MIDI interface
User's Manual

1. Top View

MIDI Timing Clock
Monitor LED

MIDI Note Message
Monitor LED

Power
Indicator

CMU-800
Card Edge Connector

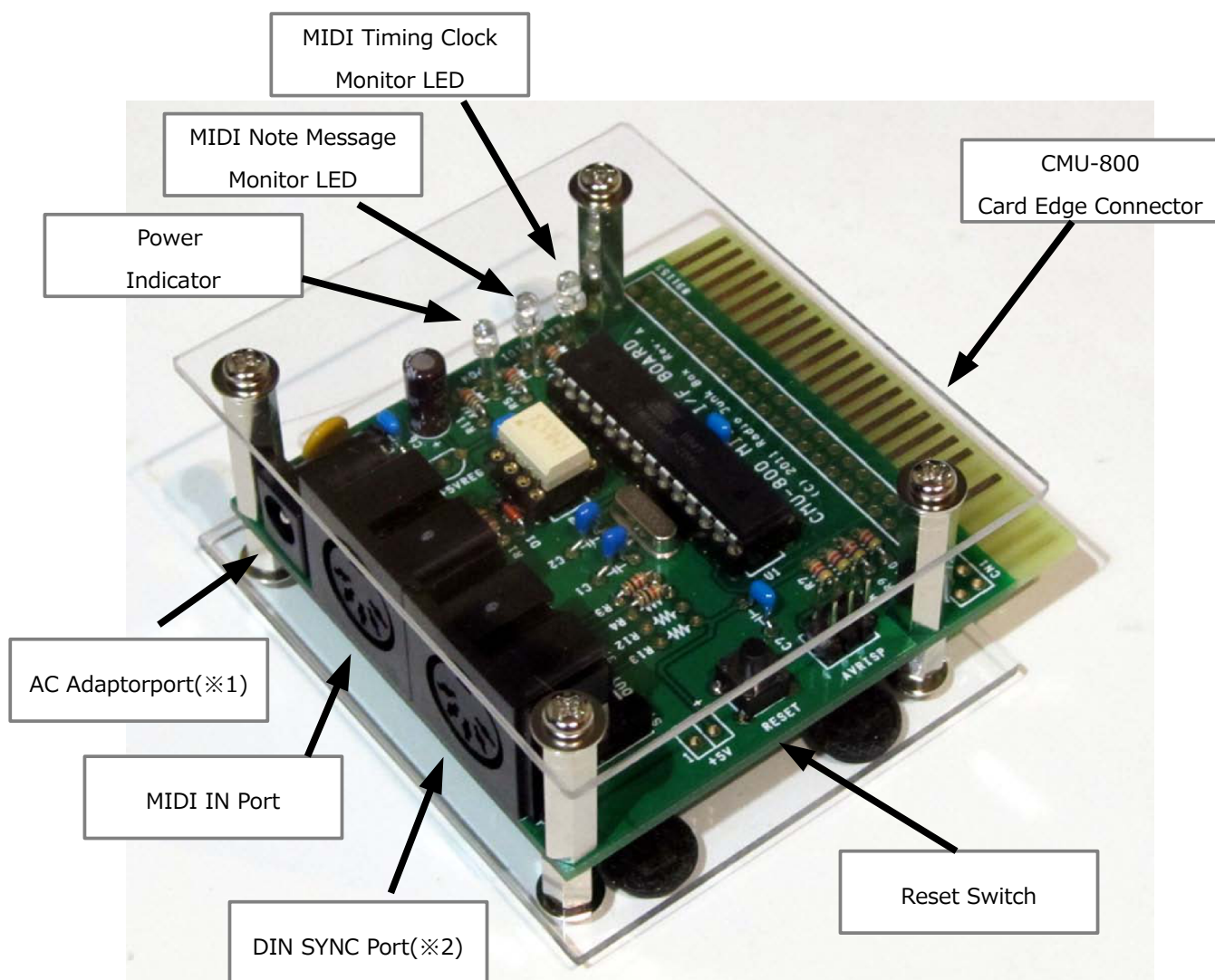AC Adaptorport(※1)

MIDI IN Port

DIN SYNC Port(※2)

Reset Switch

Fig.1 CMU-800 MIDI Inter face top view and instructions

※1　AC adaptor port

Use 5V output voltage type.　　internal diameter of plug is 2.1mm. You must use regulated type. Unregulate type may get damage to this board.

※2　DIN　SYNC　OUTPUT

This port will out puts DIN SYNC (SYNC24) signal. It may sync with MIDI Timing Clock (F8H), If MIDI stream has Timing clock.

2. How to use

1. Connect Your connector just like pucture. To be sure the directions of connector. If you conecting in wrong way may get damage onto the board.

2. Connect MIDI key board or PC based Sequencer or so.

3. Connect DIN Sync Port to something like TR-606 or so, if you want.

4. Powe up CMU-800, first .

5. Next, connect 5V AC adaptor to this board. And check power indicator light.

6. Push reset switch this board.

7. There may be something sound come from CMU-800.

8. Put MIDI data from your equipment that you connect. MIDI note message monitor LED may light. And if there is MIDI Timing clock, its LED also light.

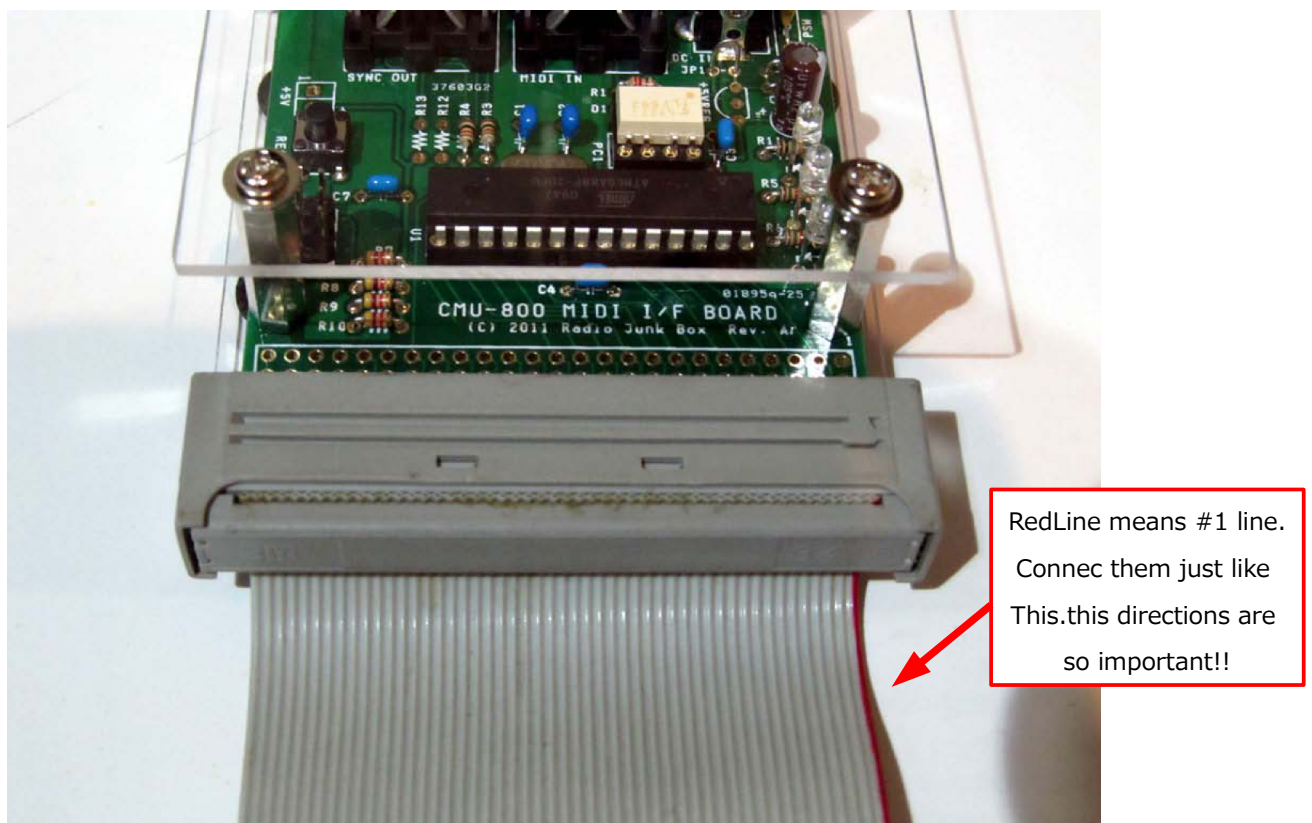9. When your finish the session. Unplug this board first. Next power off your CMU-800

RedLine means #1 line. Connec them just like This.this directions are so important!!

Fig.2 Connect flat cable coming from CMU-800 to this board

3. MIDI-CH

MIDI-CH # ,Sound source inside of CMU-800, CV and GATE out puts are set as next chart. All the parameters are fixed and you can't change them.

MIDI CH#	Sound Source	CV OUT	GATE OUT	Memo
1	Melody	CH-1	CH-1	Monophonic
2	Bass	CH-2	CH-2	Monophonic
3	Cord	CH-3	CH-3	Monophonic
4	Cord	CH-4	CH-4	Monophonic
5	Cord	CH-5	CH-5	Monophonic
6	Cord	CH-6	CH-6	Monophonic
7	-	CH-7	CH-7	Monophonic
8	-	CH-8	CH-8	Monophonic
9	Cord	CH-9	CH-9	Monophonic
10	Rythm	-	-	Drum Map Chart
11～16	-	-	-	

Chart1 Sound Source and CV+GATE outputs

・When getting several MIDI note on message at a time, Higher note number has priority from MIDI CH-1～8 and internal sound source.

・MIDI note on message from MIDI CH-9 will drive internal sound source of Cord and CV/GATE as 4 Voice polyphonc. It's last note priority.

・The most lower tune of internal sound source is C1. And it's MIDI note number is 24. all the note that's more low note number may get as C1.

・CV output range is limited by specification of CMU-800. And it's from 24 to 87 (0～5.25V)

・Internal sound source will get ptich bend and modulation wheel

4.Drum Map

Internal Drum sound is maped to MIDI note number as next chart. This parameters are fixed and you can't change.

Internal drum sound	MIDI note number (GM SOUND NAME)	memo
BD	35(ADB), 26(BD)	
SD	38(SD), 40(ESD)	
LT	41(LFT), 43(HFT), 45(HMT), 50(LMT)	
MT	48(HMT), 50(HT)	
CY	49(CR1), 57(CR2)	
OH	48(OH)	
CH	42(CH)	

Chart2 Drum map

5.Internal Sound Source

This interface adapt note ON/ Off of internal sound souce. And there is some aditional function based on MIDI messages.

Function	MIDI Message	Memo
Pitch bend	CC#01	It's Range is ±2 half tone
Modulation	CC#16	
Modulation Wave form	CC#17	Triangle, Saw, Anti saw, Squre default: Triangle
Modulation frequency	CC#17	8 steps (0.5Hz 〜64Hz) default : 8Hz
Modulation depth	CC#18	4 steps (about ±1 half tone〜 about ±10 half tone) default:about ±1 half tone
Detune	RPN Master fine tunning	About ±1 half tone
All sound off	MM#120	
Reset all controller	MM#121	Get back to default
All note off	MM#123	

Chart 3 MIDI Functions

・The master tune is setted as A=440Hz if master osc inside of CMU-800 is set as 2,539,732Hz.

・MIDI CH-9 accpt pitch bend and modulation wheel only.

6.Limitations

・When it's gettiing something wired, push reset swith.

・ Tempo controle knob on CMU-800 don't work at all.

・CMU-800 had spent over 20 years or so. And some of them have something troubule inside of it. I will ship it after test with mine.

So, when you have trouble with this item, please, consider about trouble of your CMU-800.

・This project is basically developed by Redio Junk Box as open DIY project. I 've got a permission of original desginer to sale this board .

・I will follow the original statements of this project .

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based on CMU-800 MIDI interface user's manual Ver2.2

wriitten by Redio Junk Box 2008-2011

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