KURZWEIL

Music Systems

Mark-Pro TWOi S

Digital Piano
Owner's Manual
사용설명서

YOUNG CHANG
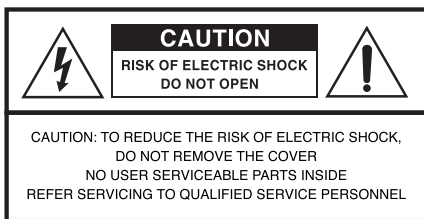
IMPORTANT SAFETY & INSTALLATION INSTRUCTIONS

INSTRUCTIONS PERTAINING TO THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

WARNING : When using electric products, basic precautions should always be followed, including the following:

1. Read all of the Safety and Installation Instructions and Explanation of Graphic Symbols before using the product.

2. This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a power supply cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet which is properly installed and grounded in accordance with all local codes and ordinances.

   DANGER : Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Do not modify the plug provided with the product-if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use an adaptor which defeats the function of the equipment-grounding conductor. If you are in doubt as to whether the product is properly grounded, check with a qualified serviceman or electrician.

3. Do not use this product near water-for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.

4. This product should only be used with a stand or cart that is recommended by the manufacturer.

5. This product, either alone or in combination with an amplifier and speakers or headphones, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long priod of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

6. The product should be located so that its location or position does not interfere with its proper ventilation.

7. This product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.

8. This product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.

9. This product may be equipped with a polarized line plug (one blade wider than be other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.

10. The power supply cord of the product should be unplugged from the outlet when left unused for a long period of time. When unplugging the power supply cord, do not pull on the cord, but grasp it by the plug.

11. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

12. The product should be serviced by qualified service personnel when:
    A. The power supply cord or the plug has been damaged;
    B. Objects have fallen, or liquid has been spilled into the product;
    C. The product has been exposed to rain;
    D. The product does not appear to be operating normally or exhibits a marked change in performance;
    E. The product has been dropped, or the enclosure damaged.

13. Do not attempt to service the product beyond that described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.

14. **WARNING** : Do not place objects on the product's power supply cord, or place the product in a position where anyone could trip over, walk on, or roll anything over cords of any type. Do not allow the product to rest on or be installed over cords of any type. Improper installations of this type create the possibility of a fire hazard and/or personal injury.

RADIO AND TELEVISION INTERFERENCE

WARNING : Changes or modifications to this instrument not expressly approved by KURZWEIL could void your authority to operate the instrument.

IMPORTANT : When connecting this product to accessories and/or other equipment use only high quality shielded cables.

NOTE : This instrument has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This instrument generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this instrument does cause harmful interference to radio or television reception, which can be determined by turning the instrument off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the instrument and the receiver.
• Connect the instrument into an outlet on a circuit other than the one to which the receiver is connected.
• If necessary consult your dealer or an experienced radio/television technician for additional suggestions.

The normal function of the product may be disturbed by strong elecro Magnetic Interference. If so, Simply reset the Product to resume normal operation by following the instruction manual. In case the function coule not resume, please use the product in other location.

NOTICE
This apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

AVIS
Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class B prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with dry cloth.

7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments / accessories specified by the manufacturer.

12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING : To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.

To completely disconnect this equipment from the AC Mains, disconnect the power supply cord plug from the AC receptacle.

To reduce the danger of explosion if the lithium battery is incorrectly replaced, replace only with the same or equivalent type.

KURZWEIL

# Mark-Pro TWOi S

Digital Piano
Owner's Manual

Table of Contents

KURZWEIL

SET UP MUSIC RACK

HOW TO SET UP MUSIC RACK

①   Assemble a fixed bolt first to the back (rear) of music rack support (prop).
    ※ Do not keep too tight when assemble a fix bolt

②   Insert music rack to music rack support to fit the holes on the both end of music rack's bottom with bolts assembled in 1.

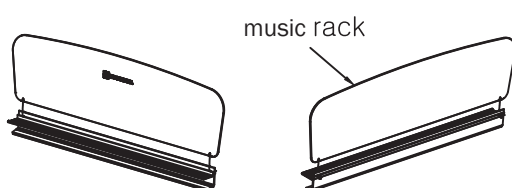③   Tighten a fixed bolt after insert music rack to music rack support.

① assemble music rack support and a fixed bolt

music stand support
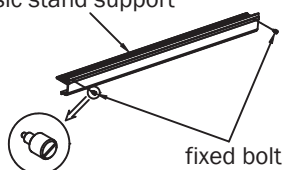
fixed bolt

② figure assembling music rack support and a fixed bolt

③ assemble music rack and music rack support

music rack

④ figure assembling music rack and music rack support
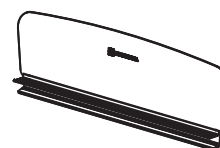
HOW TO A SET UP (ASSEMBLE) BODY AND MUSIC RACK

①   Insert music rack to the center of hold in the back side (rear) body.

②   When insert music rack, push to the end.

① assemble body and music rack (front side)

② assemble body and music rack (back side)

③ figre assemble body and music rack (front side)
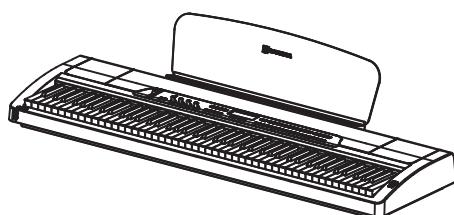
④ figre assemble body and music rack (back side)

STAND ASSEMBLY

ACCESSORIES
부속품
零件

① 6.2cm Screw
(4 Pieces)

② Plastic Cap
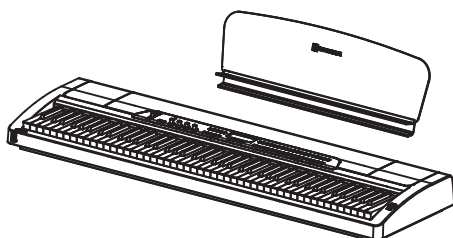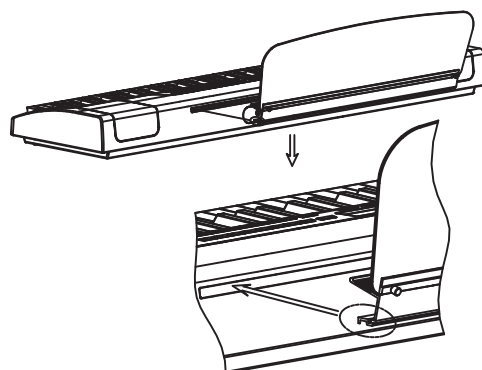(4 Pieces)

③ 1.5cm Screw
(4 Pieces)
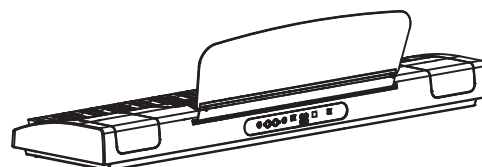
① As shown connect side board 1 to rear board 3, then tighten screws 1.

옆판1과 뒷판에 보기1번 나사를 조인다

侧板1与后板间锁紧编号1螺丝

② Connect side board 2 to the opposite end of rear board 3, then tighten screws 1.

옆판1과 고정한 뒷판에 옆판2를 대고 보기1번 나사를 조인다.

侧板2与后板间锁紧编号1螺丝.

③ Plastic caps 2 should be put in the holes after tightening the screws.

나사가 조여진 홀 안에 플라스틱 캡을 끼워 넣어준다.

锁紧螺丝后,在侧板标记孔里塞进塑胶帽(编号2).

BOTTOM
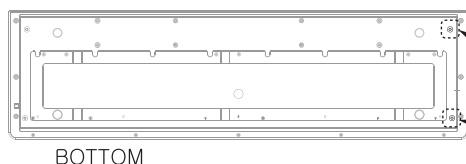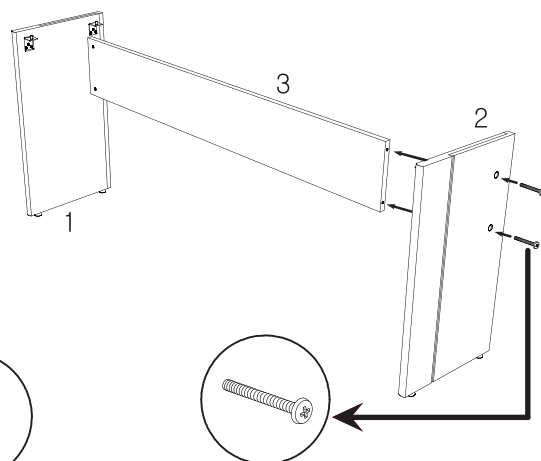
④ As shown, connect the keyboard to the stand, After that, tighten screws 3.
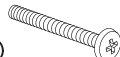
본체를 보기와 같이 스탠드의 4개의 쇠 부분에 맞춰 넣은 후 보기 3번 나사를 조인다.

把琴体放在已装好的4个角铁上,
对准螺丝孔,再锁紧螺丝(编号3).

Features

Welcome to the world of the KURZWEIL Mark-Pro TWOi S digital piano.

The Mark-Pro TWOi S features digital representation of live instruments accurate to the finest details. You will hear the difference in tone as you play from bass to treble and from soft to loud, just as the original instruments. And the user friendly interface will give you easy access to the most advanced technology.

The Features of the Mark-Pro TWOi S

- 88 notes, Weighted Hammer type keys

- 2 Pedals

- 7 different levels of keyboard touch sensitivity

- 64 Preset Sounds

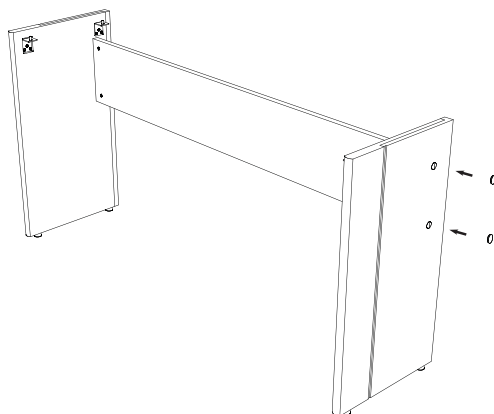- Sound Layering with Volume Balance Control

- Left Split with Volume Balance Control

- Transpose, Microtuning, 6 intonation choices

- 64 Reverbs and 64 Effects

- 3 x 7-Segments Display

- Recording for 2 songs with 2 tracks each

- Metronome

- Tap tempo

- 50 Piano Demo Songs

- 8 Preset Demo Songs

- Line In / Out

- MIDI In / Out and USB to connect to external MIDI devices

- 2 Headphone Jacks

Power Supply

The Mark Pro TW0i S is a free volt product which can be used both on 110V and 220V. You can power this digital piano by plugging it into a standard household power outlet. Make sure the power switch on the bottom surface of the keyboard is turned off before you connect the power cord to the electrical outlet.

(Bottom surface)
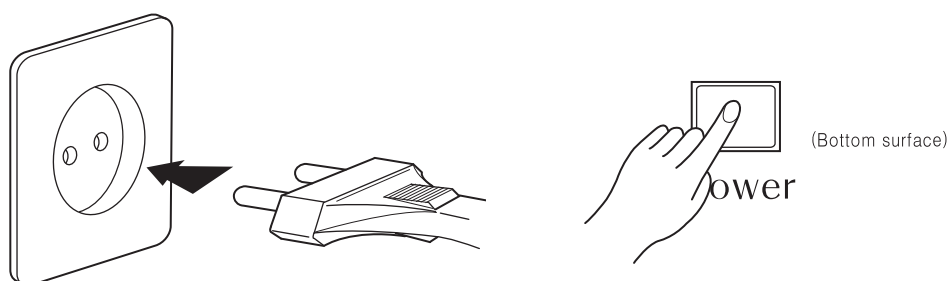
ower

After connecting to the outlet, you may turn on the power switch located at the bottom left of the keyboard. Check the main volume knob is fully down to the left. When the power switch is turned on, the front panel lights up. In 3 seconds the Mark Pro TW0i S is ready to play.

Controlling the Main Volume

Use the volume knob located on the far left of the front panel to adjust the volume. Set the volume to the minimum when turning on the instrument and adjust it to the desired level later. Moving the knob clockwise increases volume, while moving it counter clockwise decreases volume.

Soft   Loud

Master Volume
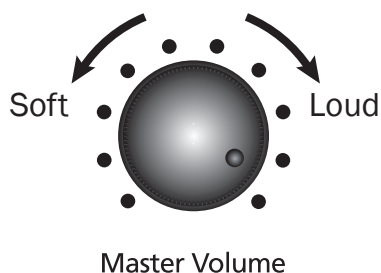
The Keyboard

The keyboard of the Mark-Pro TW0i S has 88 weighted hammer action keys that will ensure you will have the original piano feeling when playing. They are also touch-sensitive for a true piano feel. In other words, the harder you press the keys (the faster, to be exact), the louder and brighter the sound gets. It is called "velocity-sensitive" in more technical terms. The Mark-Pro TW0i S provides you with 7 different sensitivity levels you can choose from for the entire keyboard. See "keyboard touch" on page 41 for more information on the touch sensitivity level.

The Pedals

In addition to the keyboard, the Mark-Pro TW0i S is equipped with sustain, sostenuto and soft pedals for the complete acoustic piano experience. These pedals functions exactly the same as those on grand pianos:
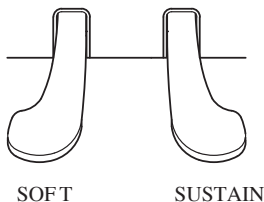
SOFT   The soft pedal makes the volume softer when pressed. But it will not affect the volume of notes that are already played.

SUSTAIN   The Sustain pedal lets the notes ring on after the keys are released. Releasing the pedal will silence the sustained notes.

SOFT   SUSTAIN

The Controls & Connectors

The Front Panel

Demo Play

Reverb and Effect

Recording/
Playing

Volume Knob

Metronome/
Rhythm

Speaker

K U

Master Volume

Reverb   REC   Song1   Song2   Metro / Rhythm

Demo / Edu.   Effect   Play / Stop   Track1   Track2   Tap Tempo

Like a Piano

Split
Layer

Voice Select

Global

Speaker

Transpose

RZWEIL

− Transpose +

Layer

Default

Split Point

− / No   + / Yes

Split

Grand Piano

Piano   E Piano   Organ / Key   String   Pad / Voices   Brass   Guitar   Perc.

Panic

1   2   3   4   5   6   7   8

Local   Tune   Touch   Drum Map   USB   Intonation   Loop   Reset

Global

*Mark-Pro TWO*ᵢ *S*

Listen to the Demo Songs

The Mark-Pro TW0i S has 3 ensemble demos, 50 piano demos and 8 instrumental demos that will aquaint you with the sound of the Mark-Pro TW0i S.

Ensemble Demos and Piano Demos
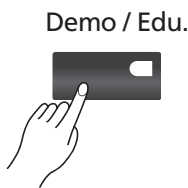
Demo / Edu.

Press **Demo/Edu**. The red LED on the button blinks and the display shows dE1, meaning demo ensemble number 1.

/ No   + / Yes
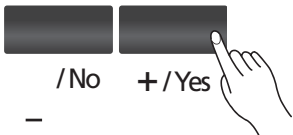
Press the **+/Yes** button. The number on the display increases. Press the **Play/Stop** button. The selected demo number plays. To stop the song, press the **Play/Stop** button.

Ensemble Demos

 ~

3 Demos of voice combinations

Piano Demos

 ~

50 Demos of the grand piano voice.
See page 51 for the list of piano demo songs.

Instrumental Demos

 ~

8 demos each featuring one of the 8 instrumental groups.

Instrumental Demos

Demo / Edu.   Piano   E.Piano Organ/Key String   Pad/Voice Brass   Guitar   Perc.
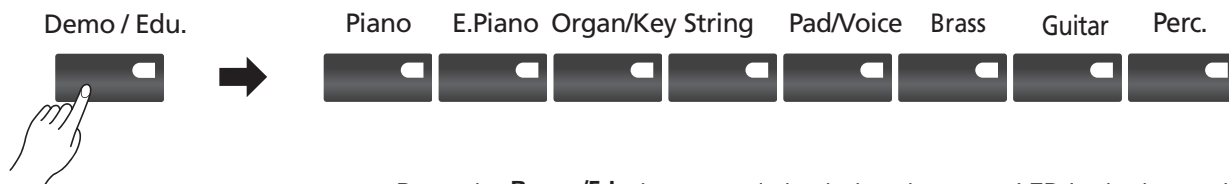
Press the **Demo/Edu** button and check that the green LED in the button is on. Press one of the voice group buttons on the right side of the front panel. The demo of the selected instrument will play.

Beyer
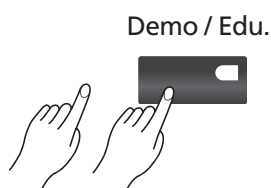
Demo / Edu.

In addition to the above demos, the Mark-Pro TW0i S also has an Education mode to play Beyer for young learners.

Press the **Demo/Edu** button twice to enter the education mode where you can listen to the 106 Beyer songs.

```
b00
```

− /No   + /Yes
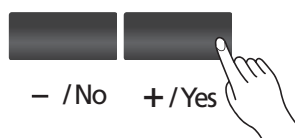
Press the **+/Yes** button to increase the number on the display.

1 ~ 99   `b01` ~ `b99`

100   `b:0`

101 ~106   `b:1` ~ `b:6`
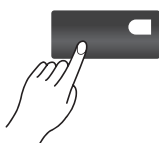
Play / Stop

Press the **Play/Stop** button to to play the selected Beyer song.

Voice Select
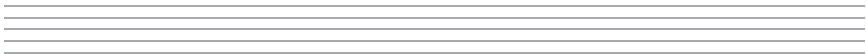
The Mark Pro-TW0i S selects the piano voice by default when turned on, which can also be selected by the Grand Piano button on the left as shown in the following figure.

In addition to the Grand Piano voice, the Mark-Pro TW0i S has 64 voices which can be classified to as 8 categories: 8 piano voices, 8 elec pianos, 8 organs/keyboards, 8 strings, 8 pads, 8 brasses, 8 guitars/voices, and 8 percussion sets.

Piano	E.Piano	Organ/Key	String	Pad/Voice	Brass	Guitar	Perc.

Grand Piano	1	2	3	4	5	6	7	8

Select an instrumental group from the upper row. Each instrumental group has 8 voices, which you can select with the lower row buttons.

(The Grand Piano button on the left does not have subvoices. See "Like a Piano" on page 37 for the useful functions of this button.

See page 50 for the complete voice list.

TRY IT

1. Press the **Organ/Key** button and play the keyboard.
2. Press the **2** button in the lower row and play the keyboard.
3. Press the **3** button in the lower row and play the keyboard.

Layering Voices

In addition to the 64 voices built in, the Mark-Pro TW0i S also lets you combine two of the 64 voices to make unique sounds of your own. It is called layering, and you can do this using the **Layer** button.

Adding strings voice
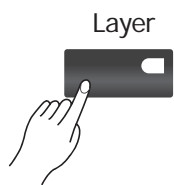
Layer

Press the **Layer** button. The LED on the button turns on and the strings voice will be added onto the main voice.
Press the **Layer** button once more to turn the second voice off.

Adding a voice other than strings

If you want to add a voice other than strings, press the **Layer** button to light up the LED on it and choose a voice with the voice select buttons. Choose an instrumental category with the upper row buttons and choose the sub voice with the lower row buttons.

Layer

Piano	E.Piano	Organ/Key	String	Pad/Voice	Brass	Guitar	Perc.

Grand Piano	1	2	3	4	5	6	7	8
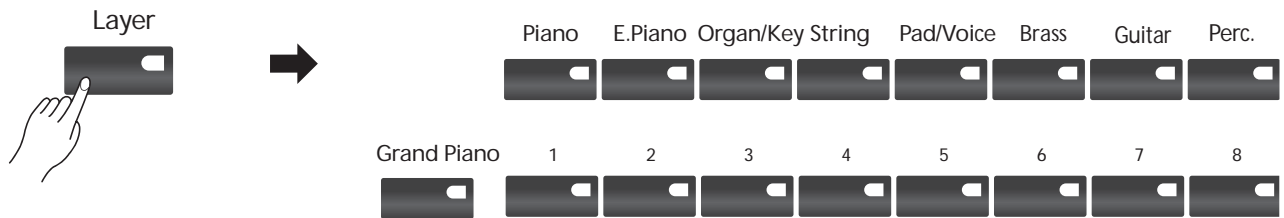
The display will show you the number of the added voice. (See page 50 for the list of voices in numbers.)
The second voice can be turned off by pressing the **Layer** button once more.

`L01` ~ `L65`

! NOTE

• You can only add one layer to the main voice. Pressing the Layer button will add the strings voice by default to any selected main voice. But you can change the added voice using the above method.

Adjusting the Volume Balance

To make the added voice louder, while holding down Layer button, press the **+/Yes** button. Similarly, press the **-/No** button while holding down the Layer button, to make the added voice softer.

Layer

+

− / No   + / Yes

TRY IT
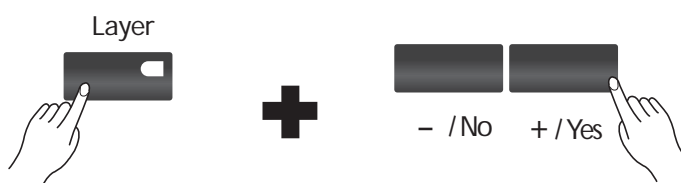
1. Press the **Piano** button and play the keyboard.
2. Press the **Layer** button and play the keyboard to hear the strings voice added to the piano voice.
3. Hold down the **Layer** button and press the **+/Yes** button.
4. Play the keyboard to hear the added voice louder.

Left Split

You can divide the keyboard of the Mark-Pro TWOi S into two, left and right, and assign a different voice for each. It is called a split and you can easily do it with the Split button.
When split, you can use left and right hands to play different voices.

Activate left Split
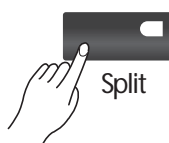
Press the **Split** button. the LED will be on and the Ab3 key and to its left keys will change to the Bass Guitar voice while the right side keys remain as the main voice.

If you want a voice other than the Bass Guitar for the split left side, select the desired voice in the voice select area while the LED on the Split button is on. (See page 18 for voice select.)

Piano	E.Piano	Organ/Key	String	Pad/Voice	Brass	Guitar	Perc.

Grand Piano	1	2	3	4	5	6	7	8
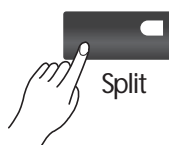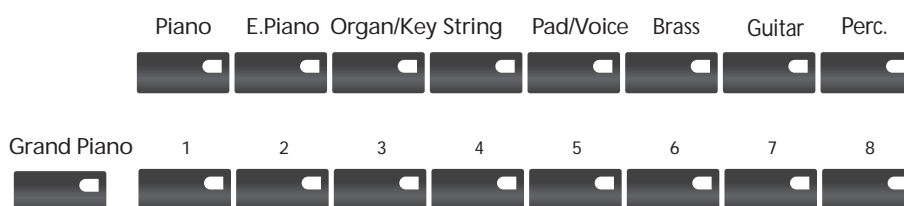
To get out of split mode, press the **Split** button once more. The LED goes off and the left side returns to the main voice which was on the right.

> **! NOTE**
> · The split state that has been created is only temporary. That means it cannot be stored to the memory and you will lose what you have modified if you choose another main voice or if you turn the Mark-Pro TWOi S off.

TRY IT

1. Press the **Piano** button and play the keyboard.
2. Press the **Split** button and play the keyboard using both left and right hands. You will notice that the voice of the left side on the keyboard has changed to Bass Guitar while the right side remains as Piano.
3. Press the **Pad** button on the voice select area and play the keyboard with both hands to see now the bass guitar sound has been replaced with the pad sound.

Split Point

Pressing the **Split** button changes the voice of the left side keys on the keyboard starting from Ab3 key by default. However, you can change the split point to other than the Ab3 key. Hold down the **Split** and the **Layer** buttons at the same time and press any key on the keyboard to change the split point. The pressed key and its left side will change to the Bass Guitar sound. If you want a voice other than the Bass Guitar for the split left, select it from the voice select area while the LED on the Split button is on.

Layer

|
Split Point
|

Split

+

Adjusting the Volume Balance

Layer

+

− / No   + / Yes
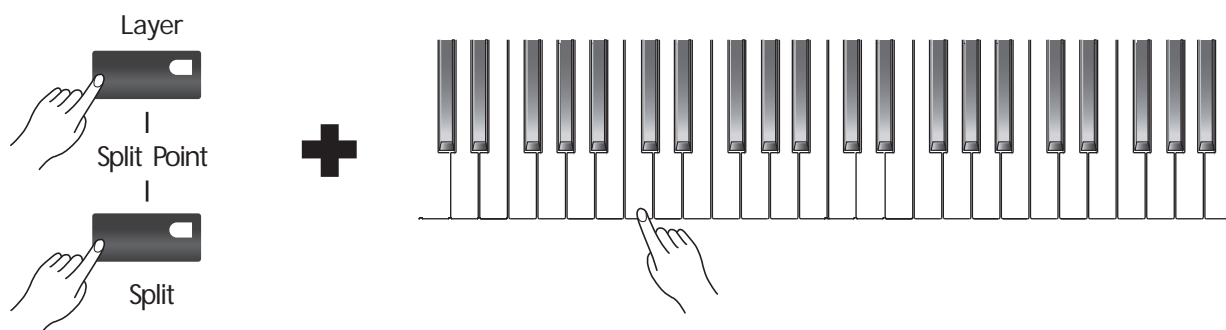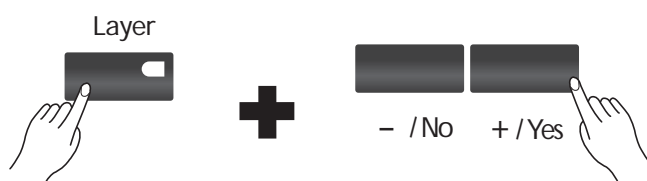
To make the left voice louder, while holding down the **Split** button, press the **+/Yes** button. Likewise, press the **-/No** button while holding down the **Split** button, to make the left voice softer.

Drum Maps

Select the Drum voice by pressing the Perc. button and then 5 in the lower row. Play the keyboard to see that a different sound is assigned to each key across the keyboard. Snare sound is assigned to C4 key, and hi-hat to C5, for example. The drum map on page 25 will show you which key has what sound.

Kurzweil Map and GM ReMap

The Mark-Pro TW0i S supports two sets of drum maps: Kurzweil Map and GM ReMap. The Mark-Pro TW0i S uses the Kurzweil map for its drum sound by default, but for compatibility with General Midi instruments, it also supports GM remap. The maps are on page 25.

Press the **Global** button and press the **DrumMap** button.

Global

Local   Tune   Touch   Drum Map   USB   Intonation   Loop   Reset
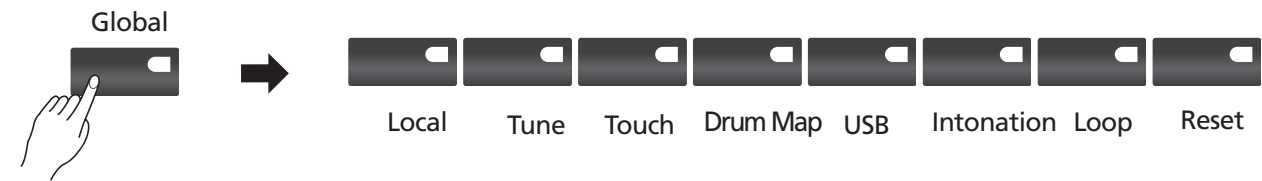
The display shows "Kr" which means Kurzweil.

| Kr |

– / No   + / Yes
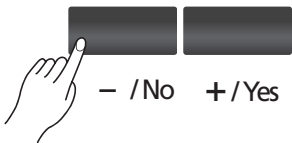
Press **-/No** or **+/Yes** button. The map changes to the GM remap.

| Gr |

> [!NOTE]
> • Drum map applies only to the 5th, 6th and 7th voices of the percussion group.

TRY IT

1. Press the **Perc.** button and press the **5** button.
2. Play the keyboard.
3. Press the **Global** button and the **DrumMap** button.
4. Press the **+/Yes** button and play the keyboard.
5. Press the **-/No** button and play the keyboard.

NOTE

- The two drum maps contain essentially the same sounds in different orders. You can choose any of those two in performance, but when you connect the Mark-Pro TW0i S to external MIDI devices, you need to be careful about setting the drum map. For Example, if you connect the Mark-Pro TW0i S to a computer and play a song made for GM drums, you need to set the drum map to GM Remap to get the correct sound.

Drum Maps

Keyboard	Kurzweil Map	GM ReMap
A 0		
A# 0		
B 0		
C 1		
C# 1		
D 1		
D# 1		
E 1		
F 1		
F# 1	Hard Snare 1	
G 1	Kick 3	
G# 1	Kick 3	
A 1	Snare 4	Metronome Click
A# 1	Snare 4	
B 1	Crash Cymbal	Kick Drum 2
C 2	Floor Tom	Kick Drum 1
C# 2	Floor Tom	Side Stick
D 2	Lo Mid Tom	Snare Drum 2
D# 2	Lo Mid Tom	Hand Clap
E 2	Mid Tom	Snare Drum 2
F 2	Mid Tom	Lo Tom 2
F# 2	Mid Tom	Closed Hi-hat
G 2	Hi Tom	Lo Tom 1
G# 2	Hi Tom	Pedal Hi-hat
A 2	Hi Tom	Mid Tom 2
A# 2	Hi Tom	Open Hi-hat
B 2	Kick 1	Mid Tom 1
C 3	Kick 1	Hi Tom 2
C# 3	Kick 1	Crash Cymbal 1
D 3	Kick 2	Hi Tom 1
D# 3	Kick 2	Ride Cymbal 1
E 3	Cross Stick Ambient	
F 3	Cross Stick Ambient	Ride Bell
F# 3	Cross Stick	Tambourine
G 3	Snare 3	Splash Cymbal
G# 3	Snare 3	Cow Bell
A 3	Snare 2	Crash Cymbal 2
A# 3	Snare 2	
B 3	Soft Snare 1	Ride Cymbal 2
C 4	Dual Snare 1	Hi Bongo
C# 4	Dual Snare 1	Lo Bongo
D 4	Closed Hi-hat	Mute Conga
D# 4	Closed Hi-hat	Hi Conga
E 4	Closed Hi-hat	Lo Conga
F 4	Slightly Open Hi-hat	Hi Timbale
F# 4	Slightly Open Hi-hat	Lo Timbale
G 4	Slightly Open Hi-hat	Hi Agogo
G# 4	Open Hi-hat	Lo Agogo
A 4	Open Hi-hat	Cabasa
A# 4	Open/Closed Hi-hat	Maracas
B 4	Open/Closed Hi-hat	
C 5	Foot Hi-hat	
C# 5	Crash Cymbal	
D 5	Crash Cymbal	
D# 5	Crash Cymbal	Clave
E 5	Crash Cymbal	
F 5	Crash Cymbal	
F# 5	Crash Cymbal	
G 5	Splash Cymbal	
G# 5	Ride Cymbal	Triangle Mute
A 5	Ride Cymbal Rim	Triangle Open
A# 5	Ride Cymbal Rim/Bell	Shaker
B 5	Ride Cymbal Bell	
C 6	Ride Cymbal Bell	
C# 6	Cowbell	
D 6	Hand Clap	
D# 6	Lo Timbale/Hi Timbale	
E 6	Timbale Shell	
F 6	Conga	
F# 6	Hi Tumba	
G 6	Conga	
G# 6	Lo Tumba	
A 6	Clave	
A# 6	Shakers	
B 6	Tambourine	
C 7	Tambourine	
C# 7	Shakers	
D 7	Tambourine	
D# 7	Maracas	
E 7	Maracas	
F 7	Lo Agogo	
F# 7	Hi Agogo	
G 7	Lo Bongo	
G# 7	Bongo Slap	
A 7	Hi Bongo	
A# 7	Finger Snap	
B 7	Muted Triangle	
C 8	Open Triangle	

Reverbs and Effects

For sound realistically reverbrated in specific spaces or for special effects, the Mark-Pro TW0i S provides you with two independent types of digital signal processing: 64 sets of reverbs and 64 sets of effects.

Reverbs

Reverb, or reverbration occurs naturally when sound undergoes multiple reflections off the walls of a space. These reflections blend together into a "wash" of sound that adds warmth and ambience to music.

The Mark-Pro TW0i S has 64 built in reverb of 5 space types.

■ Booth   : the reverbration of a recording booth
■ Room   : the warmth of a small room
■ Chamber : the intimacy of a chamber music room
■ Hall   : the spacious image of a concert hall
■ Combi   : combinations of above

On page 27 is the list of the built in reverbs of the Mark-Pro TW0i S.

Changing reverb
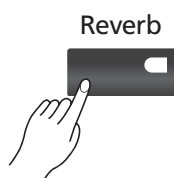
Reverb

Press the **Reverb** button and the display will show the reverb number assigned to the selected voice by default. ("R" before the number stands for reverb.)

R01
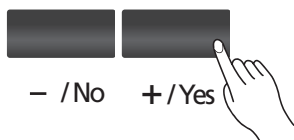
Press **-/No** or **+/Yes** button to change the reverb type. See page 27 for the reverb list.

− / No   + / Yes

~   R64

Changing Wet/Dry Mix

Hold down the **Reverb** button and press **+/Yes** or **-/No** to change wet/dry mix, in other words, the amount of reverb.

Reverb

+

−/No   +/Yes

NOTE

· The reverb setting affects Mark-Pro TWOi S's sound as a whole. That means, two or more voices are active by layer, split, or any other ways, the reverb setting is effective to all the voices in the same way.

Reverb List

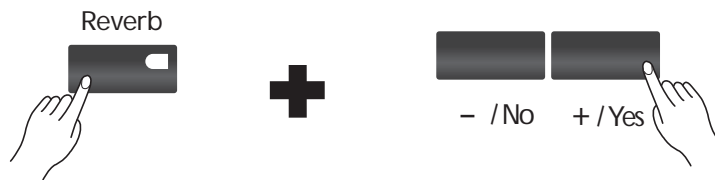| Category																
Booth	1	Nice LittleBooth	2	Viewing Booth	3	Drum Booth	4	Drum Room	5	Drum Room B	6	Natural Room	7	Small Wood Booth	8	Half Bath
Room 1	9	Add Ambience	10	SmallStudio Room	11	The Real Room	12	With A Mic	13	Pretty SmallPlace	14	Real Niceverb	15	ClassRoom	16	Big Studio Room
Room 2	17	BrightSmall Room	18	Tight Perc Room	19	Small DarkRoom	20	Bassy Room	21	Percussive Room	22	Bathroom	23	Real Room	24	Large Room
Chamber	25	Brass Chamber	26	Sax Chamber	27	Plebe Chamber	28	Live Chamber	29	Small Chamber	30	SmallDrum Chamber	31	Small Hall	32	My Garage
Hall 1	33	Sweet Hall	34	Semisweet Hall	35	Classic Chapel	36	Medium Hall	37	Ball Hall	38	Small Hall	39	Reflective Hall	40	Smoooth Hall
Hall 2	41	Grandiose Hall	42	Elegant Hall	43	Bright Hall	44	Medium Hall Too	45	School Stairwell	46	Large Hall	47	Real Big Room	48	Sweet Hall
Hall 3	49	Spacious Hall	50	Opera House	51	Real Niceverb	52	Splendid Palace	53	Weighty Platey	54	Classic Plate	55	Gated Reverb	56	Gate Plate
Combi	57	Chorus SmallRoom	58	Chorus Delay Hall	59	ChorDlyRvb Lead	60	Deep ChorDly Hall	61	FlangeDelay Room	62	FlangeDelay Hall	63	Slo FlangeDly Room	64	FlangeDly BigHall

Effects

You can add an effect to a voice for richer sound or for a special effect. Mark-Pro TW0i S has 64 built in effects of 8 types with 8 effects each:

Chorus Multiple numbers of selected voice playing together with roughly the same timbre and nearly (but never exactly) the same pitch.

Flange Two identical voices are mixed together, but with one time-delayed by a small and gradually changing amount.

Delay Sound replayed after a short period of time. Echo.

Compressor The low volume sounds become louder and the high volume sounds become lower so that the dynamics become more even. (compressed).

Distortion Adds harsh harmonics to the tone, simulating the effect of a guitar distortion pedal on the sound.

Filter "colors" the timber of the sound.

LazerVerb Kurzweil's unique speciality reverb that creates buzzy pitch effects.

Misc Other effects like panning, tremolo etc.

Changing effects
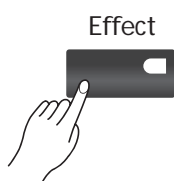
Effect

Press the **Effect** button and the display will show the effect number assigned to the selected voice by default. ("E" before the number stands for effect.)

```
E01
```
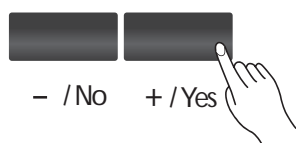
Press **-/No** or **+/Yes** button to change effects. See page 25 for the effect list.

− / No   + / Yes

~
```
E64
```

Changing Wet/Dry Mix

Hold down the **Effect** button and press **+/Yes** or **-/No** to change the wet/dry mix, in other words, the amount of the effect.

Effect List

Chorus	1	Stereo Chorus1	2	Stereo Chorus2	3	Basic Chorus	4	Chorus Comeback	5	Everyday Chorus	6	Thick Chorus	7	Chorusier	8	Rock Chorus
Flange	9	Sweet Flange	10	Big Slow Flange	11	Throaty Flange	12	Squeeze Flange	13	Simply Flange	14	Wetlip Flange	15	Flange Delay	16	Flange Booth
Delay	17	Complex Echo	18	Stereo Echoes	19	4-Tap Delay	20	8-Tap Delay	21	Spectral 4-Tap	22	Astral Taps	23	BasicChorusDelay	24	Chorus PanDelay
Compressor	25	HKCompressor 3:1	26	DrumKompress 5:1	27	SKFdbks Comp 6:1	28	SKCompressr 12:1	29	SKCompressr 9:1	30	SKCompressr 18:1	31	HKCompressor 9:1	32	HKComprsor Inf:1
Distortion	33	Subtle DrumShape	34	Subtle Distortion	35	Dist Cab EPiano	36	Distortion +EQ	37	Super Shaper	38	2 Band Shaper	39	Shaper ->Reverb	40	Quantize +Flange QuantizLvl
Filter	41	Phunk Env Filter	42	Trip Filter	43	LFO Sweep Filter	44	Bass Env Filter	45	EPno Env Filter	46	LFO Sweep Filt2	47	DoubleRise Filter	48	Circle Bandsweep
LazerVerb	49	Cheap LaserVerb	50	Spry Young BoyFdbk	51	LaserDelay ->Rvb	52	Lazerfazer EchoesF	53	Drum Neurezonate	54	Flange ->LaserDly	55	Lazertag Flange	56	LaserVerb Loop
Misc	57	VibChor +Rotary2	58	VibChor +Rotary1	59	VC +Dist +Rotary2	60	3 Band Enhancer	61	Extreem Enhancer Hi/Md Xovr	62	Tremolo	63	Simple Panner	64	Dual Panner

Rotary Speaker			Enhancer		Simple Motion		

The three classifications on the last row are effective from 57 through 64, the Miscelleneous effects:

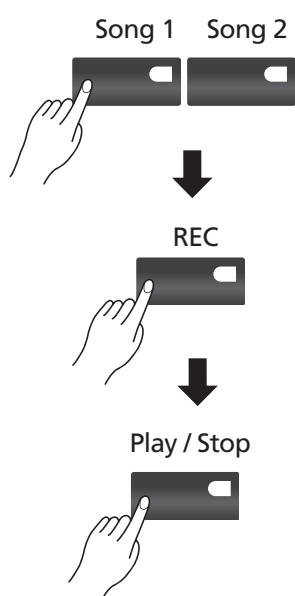**Rotary Speaker**   Effects used for KB3 organs
Enhancer   Effects with Boosted high frequency
Simple Motion   Effects with simple repeated motion

Recording and Playing

The Mark-Pro TW0i S allows you to record and playback your performance. Two song spaces are available each with two tracks.

Recording

Song 1   Song 2

REC

Play / Stop

Song1 and Song2 are two spaces where you can record.
Select one of the spaces by pressing **Song1** or **Song2**. The LED indicates the selected song.

! NOTE   · About 10,000 notes can be recorded to a song space.

After selecting a song, press the **REC** button to be record ready. Press the **Play/Stop** button to start recording. To stop, press the **Play/Stop** button once more.
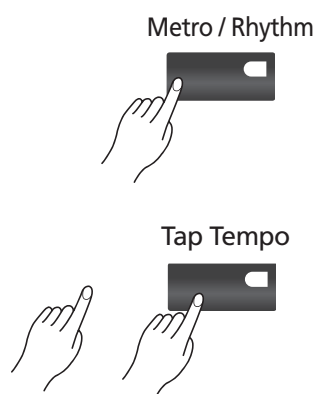
The display counts the bar number you are in.

Using the Metronome while recording

Metro / Rhythm

Tap Tempo

You can change the tempo of the metronome.
In recording mode, the Metro/Rhythm button functions as metronome on/off. Pressing the **Metro/Rhythm** button in recording mode starts the metronome at the previously set tempo and time. (See page 29 for metronome use.)

Another way to change tempo is by pressing the Tap Tempo button. While the metronome is on, press the **Tap Tempo** button twice at the desired tempo. The tempo will instantly change to the tapped tempo.
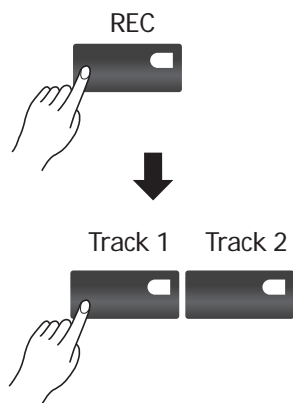
Seleting a track to recored

REC

⬇

Track 1   Track 2

Song1 and Song2 both have two tracks.

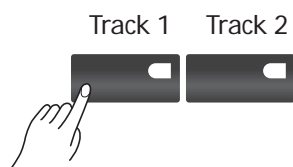When you select a song to record, you are in record ready mode with an empty track of the song selected. (If there is no empty track in the song, or both tracks are empty, track 1 is selected.) Press **Track1** or **Track2** button to select the other track. Now you can start recording by pressing the **Play/Stop** button (or by pressing any key or pedal) to record notes on the selected track.

Track Mute

Track 1   Track 2

When not in record ready mode, the two track buttons(Track1 and Track2) mute the corresponding track.
In other words, when a song is being recored, playing or stopped, pressing **Track1** or **Track2** button will mute the track with the LED off. To unmute, press the track button once more.

Erasing a Recoreded Track

REC   ➡   Track 1   Track 2   ➡   Play / Stop   ➡   Play / Stop
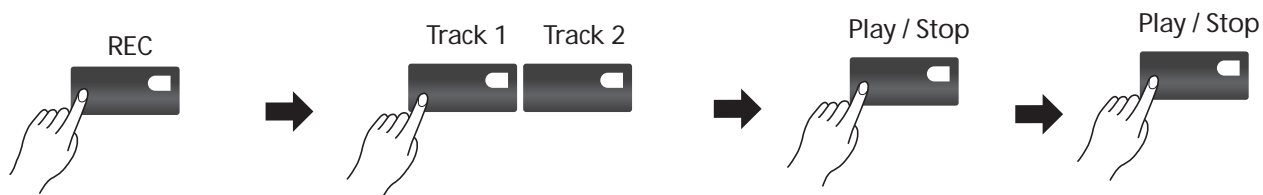
To erase recorded data, select the track to erase and start recording by pressing the **Play/Stop** button. Press **Play/Stop** again to finish without recording anything.
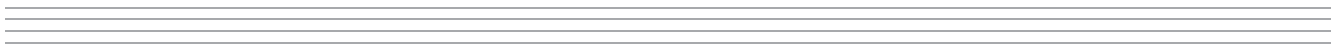
Start Recording with keyboard or Pedal

In record ready mode entered, any one of three actions can trigger the recording:

    1) Press any key.
    2) Press any pedal.
    3) Press the Play/Stop button.

When you start recording by pressing the Play/Stop button, it is hard to syncronize your first note to the start of the bar. But if you start with a pedal or key, it is easier to syncronize the start.

Playing Back

Song 1   Song 2
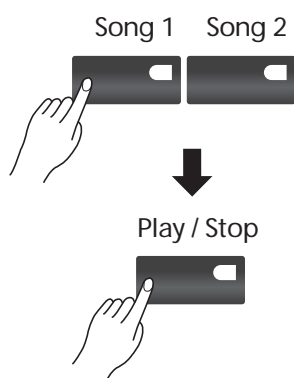
Play / Stop

Press the **Song** button and then press the **Play/Stop** button to play back your recording To stop, press **Play/Stop** again.

Metronome

Metro / Rhythm

Use the metronome when playing or recording to hear the desired tempo.

Press the **Metro/Rhythm** button to be in Rhythm Selection mode where you can also select Metronome. When you press the **Metro/Rhythm** button, you can choose one of the 64 built in rhythms of which the first 4 rhythms are metronomes.
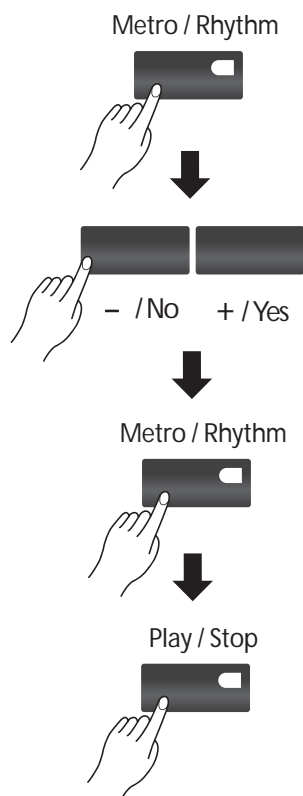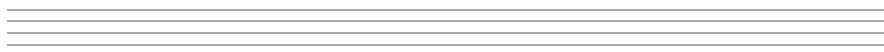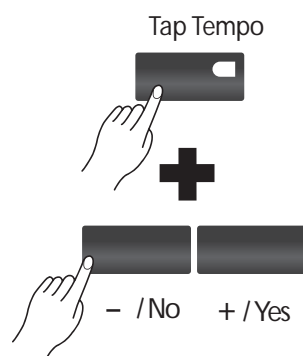
– / No   + / Yes

In other words, press the **Mtero/Rhythm** button, and press **-/No** or **+/Yes** button until you can see 2/4, 3/4, 4/4, or 6/8 on the display.

Metro / Rhythm

| 2/4 | 3/4 | 4/4 | 6/8 |

Play / Stop

Press the **Metro/Rhythm** button again to get out of rhythm selecting mode and press **Play/Stop** button to play the metronome at the selected time signature.

Tap Tempo

Adjusting Tempo

The tempo of the metronome may vary from 40 to 280 beats per minute. Hold down **Tap Tempo** and press **-/No** or **+/Yes** button to increase or decrease tempo. Default value is set to 120 bpm.

– / No   + / Yes

Tap Tempo

Tap Tempo is another way of adjusting tempo. The Tap Tempo button allows you to enter the desired tempo just by tapping it twice at the tempo.

When the metronome is playing, tap the **Tap Tempo** button at the desired tempo twice. The metronome will change to the tempo you have just tapped.

Tap Tempo

When nothing is playing, tap the **Tap Tempo** button 4 times. The rhythm will start playing. If you want to start the metronome in this way, you should select one of the 4 metronomes (2/4, 3/4, 4/4, or 6/8) using **Metro/Rhythm** and **-/No**, **+/Yes** buttons before tapping and get out of the selecting mode by pressing the **Metro/Rhythms** button once more.
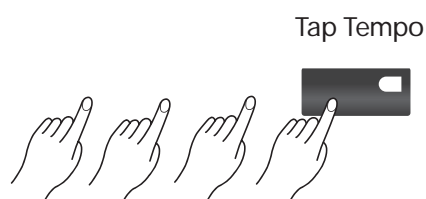
Rhythms

The Mark-Pro TW0i S has 64 built in rhythm patterns. The first 4 patterns are metronomes (2/4, 3/4, 4/4, and 6/8) and the other 60 are various rhythms.

Select a rhythm in Rhythm Selection mode. You can always play it by pressing the Play/Stop button in stop mode.
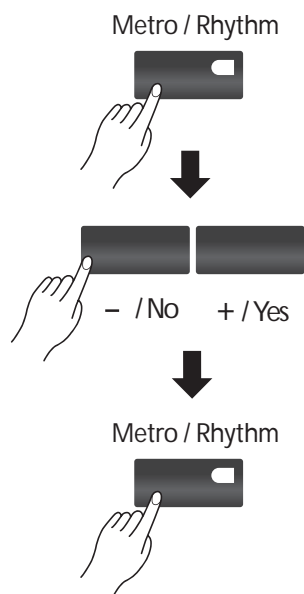
Metro / Rhythm

– / No   + / Yes

Metro / Rhythm

Selecting Rhythms

To select one of the 60 rhythms or 4 metronomes, press the **Metro/Rhythm** button. The LED will turn on and you will be in the Rhythm Selection mode. Look at the display and press **-/No** or **+/Yes** until you get to the desired number.

r01

"r" before numbers stands for rhythm.

Press **Metro/Rhythm** again to get out of the Rhythm Selection mode.

Playing Rhythms

Select a rhythm (or a metronome) as above and you can start playing the selected one in two ways:

Exit the selecting mode (the LED on the Metro/Rhythm button should be off). Press **Play/Stop**. Press **Play/Stop** once again to stop the playing.

Or tap the **Tap Tempo** button 4 times. The selected rhythm will play at the average tempo of the 4 taps.
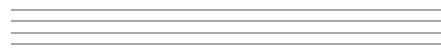
Changing Tempo

To change the tempo of the rhythm while playing, tap the **Tap Tempo** button twice at the desired tempo.

Rhythm Volume

To change the volume of the rhythm, hold down the **Metro/Rhythm** button and press the **-/No** or **+Yes** button.

Transposition and Tuning

Transposition by Half Steps

Transposition means moving the pitches of the entire keyboard up or down by half steps. This is useful, for example, when you accompany a singer and the key is too high or too low, or when you play music written for a transposing instrument like a saxophone or a clarinet.

− Transpose +

Press the **Transpose +** or **-** button to raise or lower the pitches and the display will show you the number of steps you have transposed. You can transpose the keyboard as much as 24 half steps (2 octaves) down and up.

-24   ~   000   ~   24
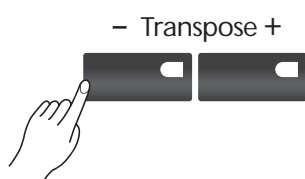
Or, an easier way to transpose is to hold down the **Transpose -** and **+** buttons at the same time and press the key you want to transpose the C4 key to.

Fine Tuning within a Half Step

You can also fine tune the pitches of the entire keyboard by cents. A cent is 1/100 division of the half-step, or 1/1200 of an octave.

Press the **Global** button and then press the **Tune** button.

Global

1	2	3	4	5	6	7	8
Local	Tune	Touch	Drum Map	USB	Intonation	Loop	Reset

− / No   + / Yes
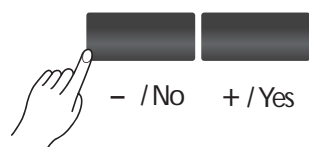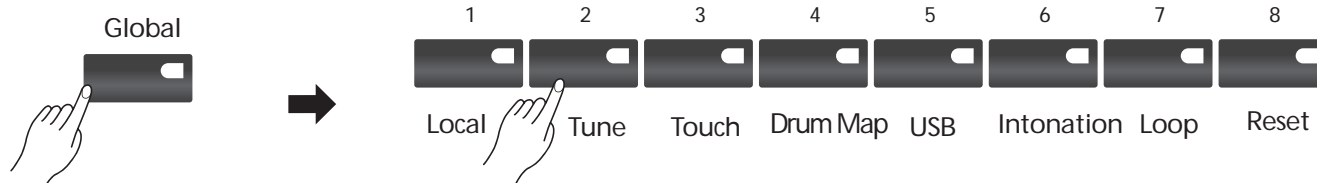
The display will show you 0. Press **-/No** or **+/Yes** to change the number down to -50 or up to 50. This number on the distplay tells you how many cents you moved.

-50   ~   000   ~   50

Scale or Intonation

In addition to shifting pitches as a whole, the Mark-Pro TW0i S also lets you adjust the intervals between keys to detune and play exotic scales or intonations.

The Mark-Pro TW0i S is set to equal temperatment by default, but in addition five more intonations are available.

Press the **Global** button and then press the **Intonation** button.

Global

1	2	3	4	5	6	7	8

Local   Tune   Touch   Drum Map   USB   Intonation Loop   Reset

− / No   + / Yes

You will see In1 on the display standing for Intonation 1. Press **+/Yes** or **-/No** to change it up to In6.
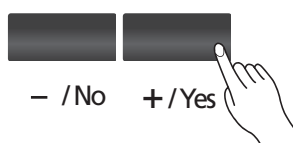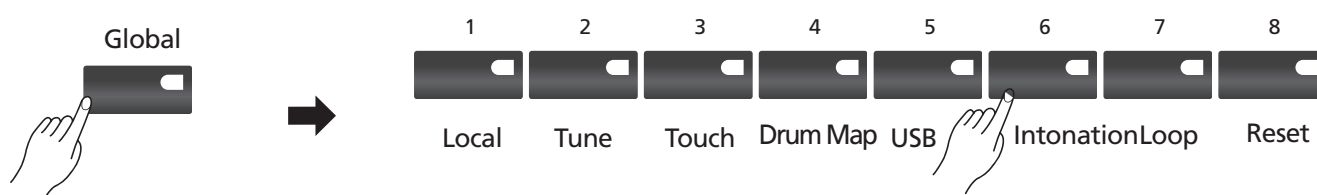
```
In1            ~            In6
```

The 6 Intonations are as follows.

Intonation	Description
1. Equal	No detuning of any interval.
2. Classic Just	Tunings are defined based on the ratios of the frequencies in the Major triad (For example, C:E:G). The original tuning of Classical European music.
3. Just b7th	Similar to Classic Just, but with the Dominatant 7th flatted an additional 15 cents.
4. Pythagorean	This scale was designed by Pythagoras, a Greek Mathematician. It's based on the interval of a perfect 5th. The 3rd sounds quite out of tune, but the 4th and 5th are perfectly tuned.
5. Mean Tone	An improved version of the Pythagorean scale to make the 3rd in tune.
6. Werkmeister	Named for its inventor, Andreas Werkmeister. It's fairly close to equal temperament, and was developed to enable transposition with less dissonance.

! NOTE

· The Alternate tunings are correct only when playing in the key of C. To play in a different key, use the Transpose function to select the desired key.

Like a Piano
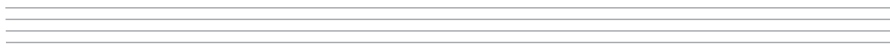
The Mark-Pro TW0i S can be just as simple to use as an acoustic piano by disabling all of the non piano functions.

Reset to Piano Voice
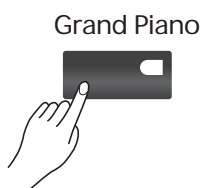
Grand Piano

Press the **Grand Piano** button once. All the changes you have made to voices such as layer, split, reverb, etc. will be discarded and the voice will be reset to Grand Piano.

Piano Lock
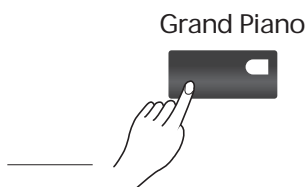
Grand Piano

Hold down the **Grand Piano** button for 3 seconds, and piano lock mode will be on. All other functions will be disabled and the Mark-Pro TW0i S will sound like a piano with only the main volume knob working. This is especially useful for spaces with kids around.

To unlock, hold down the **Grand Piano** button for 3 seconds again.

Global

The **Global** button, in connection with the 8 buttons on its left (Local, Tune, Touch, etc) lets you to control various functions affecting the keyboard globally.

Global

Press the **Global** button. The display shows you GLo which stands for global.
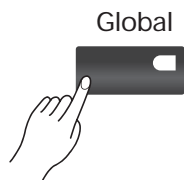
Then, press one of the 8 buttons on its left, and you can control the value of the selected item. All changed values are discarded when you turn the main power off except for drum map, USB, and loop settings.

Local   Tune   Touch   Drum Map   USB   Intonation   Loop   Reset

The 8 functions are as follows.

Local
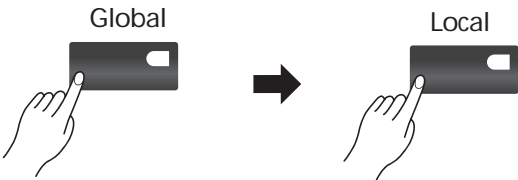
Global   Local

Press the **Global** button and then press the **Local** button. The display shows "on" which means local control is on. Press **+/Yes** to turn local control off. When local control is off, you will not get any sound by playing the keyboard. But MIDI data will be still sent.

– / No   + / Yes

on   ~   off
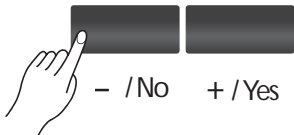
Local control off is needed when using an external MIDI device with your Mark-Pro TW0i S such as a computer sequencer. In that case, your playing goes to the computer instead of the internal sound engine. The computer has control of the Mark-Pro TW0i S. To hear your playing, the computer should be set to send the MIDI signals back to the Mark-Pro TW0i S (called patchthru).

NOTE

· Local control is always on by default. When you use the Mark-Pro TW0i S independently, you do not need to change the default local control setting.

Tune

Fine tuning adjusts the pitch of the entire keyboard by cents. A cent is 1/100 division of a half-step, or 1/1200 of an octave.

Global → Tune
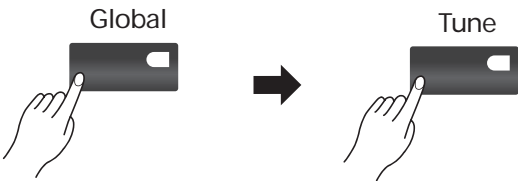
Press the **Global** button, then press the **Tune** button.
The display will show "0". Press **-/No** or **+/Yes** to change the number down to -50 or up to 50. The number on the display tells you how many cents you have moved.

– / No   + / Yes

| -50 | ~ | 0 | ~ | 50 |
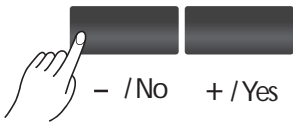
NOTE

· To set the tune value back to "0", press the -/No and +/Yes buttons at the same time.

Touch

Sets touch sensitivity of the keyboard to one of the 7 sensitivity levels.

Global ➡ Touch

Press the **Global** button then press the **Touch** button. "t01" appears on the display which means touch 01.

```
t01   ~   t07
```

– / No   + / Yes
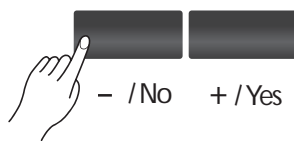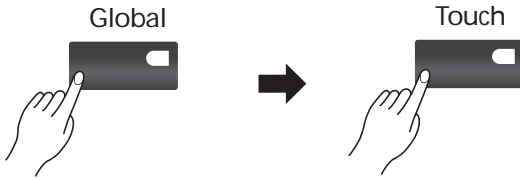
Press **-/No** or **+/Yes** to change the value up to t07.

The 7 levels are as follows:

Touch	Description
1. Linear	The Standard value, Unaltered level of keyboard sensitivity
2. Light 1 **3. Light 2** **4. Light 3**	For players who have a light touch-that is, you can play more lightly and still get the same attack-velocity values. Light 1 is a bit more sensitive than Linear and Light 3 is the most sensitive.
5. Hard 1 **6. Hard 2** **7. Hard 3**	For players who have a heavier touch-that is, you can play harder and still get the same attack-velocity values. Hard 1 is less sensitive than Linear, and Hard 3 is the least sensitive.

DrumMap

The Mark-Pro TW0i S supports two sets of drum maps: Kurzweil Map and GM ReMap. By default, Mark-Pro TW0i S uses the Kurzweil map for drum voices, but for compatibility with General Midi instruments it also supports GM remap. See page 25 for a detailed listings.

Global ➡ DrumMap

Press the **Global** button and then the **DrumMap** button, "Kr" appears on the display which stands for Kurzweil Map.

```
Kr   ~   Gn
```

– / No   + / Yes
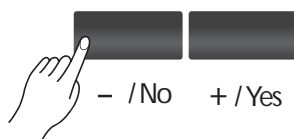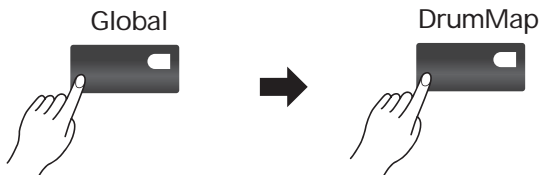
Press the **-/No** or **+/Yes** button to switch to GM ReMap.

The maps are on page 25.

USB

You can connect the Mark-Pro TW0i S to external MIDI devices in 2 ways: 1) with MIDI in/out on the rear panel, and 2) with USB. If you want to do it in the first way, using MIDI in/out, you need to set USB off. On the contrary, when you do it in the second way, using USB, you need to set USB on.

Global

Tune

Press the **Global** button then press the **USB** button. "Uon" appears on the display, meaning USB is on.

$$Uon \quad \sim \quad UoF$$

– / No   + / Yes

Press **-/No** or **+/Yes** to switch it to off.

! NOTE

• This setting is not important when using the Mark-Pro TW0i S alone not connected to external devices.

Intonation

The Mark-Pro TW0i S is tuned to equal temparament by default. It is the most common piano tuning with 12 tones in an octave divided equally. But there are also other ways to tune for different intonations. The Mark-Pro TW0i S supports six intonations.

Global

Intonation

Press the **Global** button then press the **Intonation** button. You will see In1 on the display which stands for Intonation 1.

$$In1 \quad \sim \quad In6$$

– / No   + / Yes

Press **+/Yes** or **-/No** to change it up to In6.

See page 36 for the intonation list.
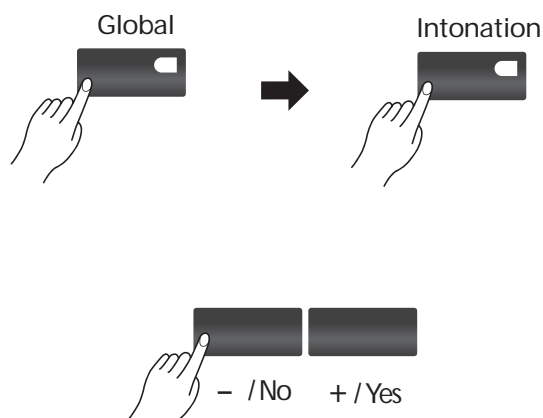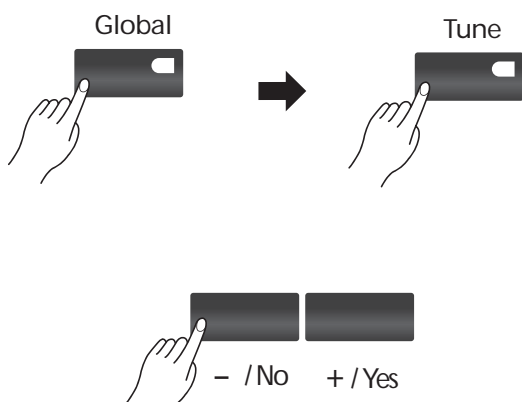
Loop

You can play the demo songs in one of the following three modes:
1) repeating one song; 2) repeating all songs; 3) no repeat.
The Mark-Pro TW0i S will play one selected demo song without repeat by default, but you may change the play mode with the Loop function.

Press the **Global** button then press the **Loop** button. The display will show you one, all, or off.

Global   Loop

– / No   + / Yes

| oFF | ~ | OnE | ~ | ALL |
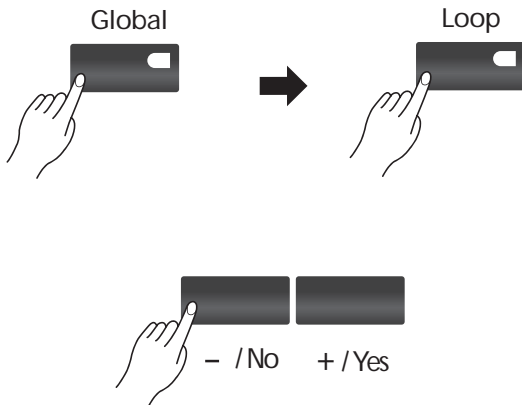
Pressing **-/No** or **+/Yes** will change the play mode.

Reset

Returns the Mark-Pro TW0i S to the initial state from the factory.

Global   Reset

Press the **Global** button then press the **Reset** button. rSt will appear on the display, meaning reset.

| rSt |

– / No   + / Yes
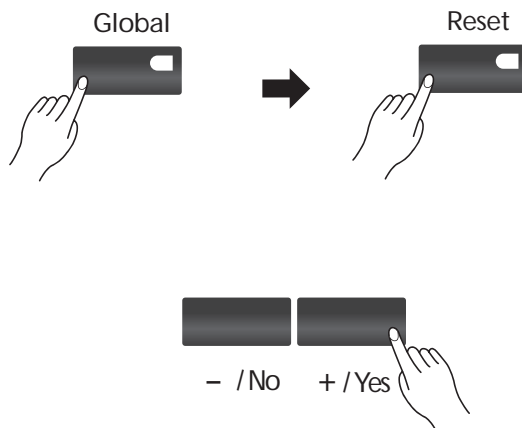
Press the **+/Yes** button and the display will ask you Su? (meaning are you sure?). Press the **+/Yes** button. The display will once again ask you rL? (meaning really?). Press the **+/Yes** button again to give the final confirmation.

~ | SU? | ~ | rL? |

Another way of reset is to hold down the **Global** button and press the **C8** key on the keyboard. It is an easier and quicker way of reset since it skips an extra step of entering the global menu.

⚠ NOTE   ' All recorded and modified data will be discarded and the memory will be initialized.

Execute reset when Mark-Pro TW0i S does not function properly or after the OS is upgraded.

MIDI

"MIDI" stands for "Musical Instrument Digital Interface." It is an international standard that allows electronic musical instruments to communicate with each other, using a simple cableconnection. The Mark-Pro TWOi S is compatible with other MIDI instruments.

MIDI Connection
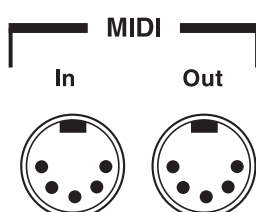
On the rear panel are two MIDI ports:

- MIDI In receives MIDI messages from other equipment.
- MIDI Out sends MIDI messages to other equipment.

MIDI cables provide the connection between the MIDI ports of one piece of equipment and those of another. To keep things simple, there are only two valid MIDI connections: Out to In, and In to Out.

The simplest use of MIDI is to play two instruments at a time from the keyboard of one of them. This is known as a "Master-Slave" connection. Use a MIDI cable to connect the MIDI Out port of the "Master" (the instrument whose keyboard you'll play) to the MIDI In port of the "Slave".
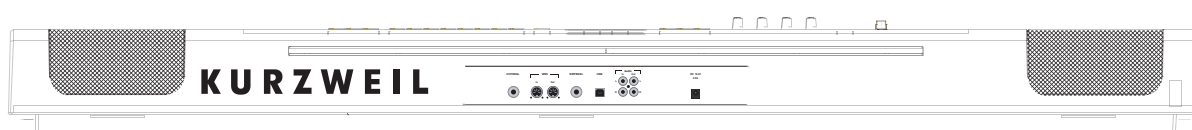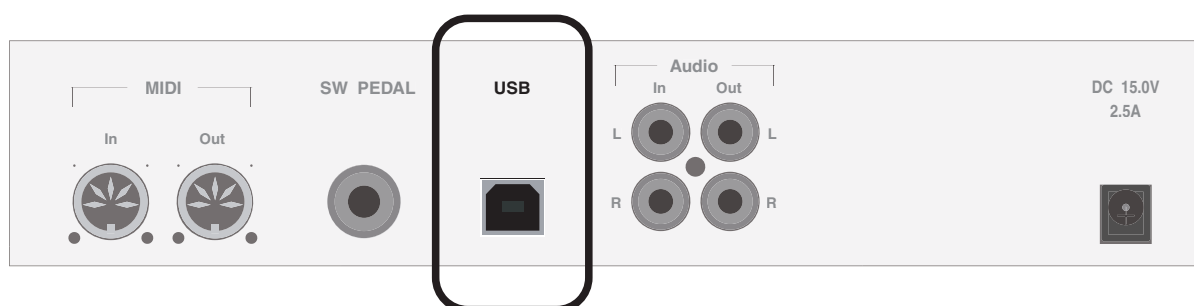
If you connect In to Out, rather than Out to In, the other instrument becomes the Master. And if you use two cables, connecting In to Out, and Out to In, you can use either instrument as the Master.

You probably will want to use the Mark-Pro TW0i S as the master keyboard. It is important to explain that what is sent over the MIDI cables is information (data), not sound. In fact, the usefulness of the master-slave setup lies in having each instrument produce a different sound, resulting in layering of sounds that expands on the layering that is possible with the Mark-Pro TW0i S.

The slave can be a MIDI organ, portable keyboard, synthesizer, tone module, drum machine, or effects device. If it does not have built-in amplification and speakers, connect its audio output to the Mark-Pro TW0i S Audio In jacks on the rear panel.

Another application of MIDI is in using a sequencer to record and play back your performance. The Recorder on the Mark-Pro TW0i is actually a sequencer, but some advanced users may wish to connect an external sequencer as well, to make use of features that go beyond what the built-in Recorder provides. An external sequencer can be a special hardware unit designed for that purpose, or it can be a computer running special sequencing software. In either use, the MIDI connections are the same - Out to In, and In to Out.
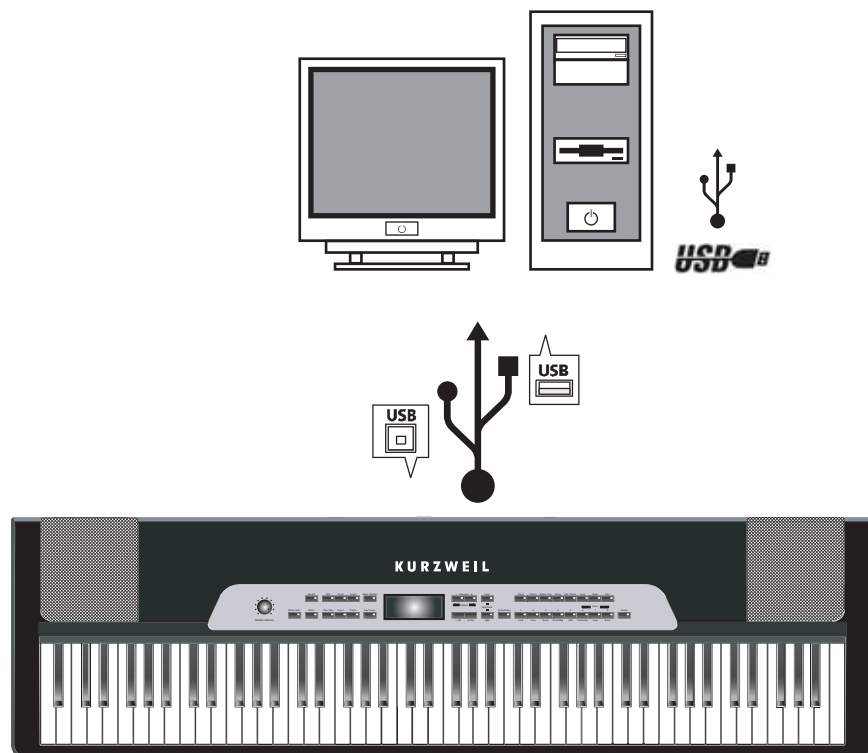
Mark–Pro TWO i S

Others

Headphone Out

A headphone jack allows private practice. Plugging in a pair headphones turns off the speakers.You can also insert a "dummy" stereo headphone adapter to silence the speakers. This is useful if you want to mute the internal speaker system while using a more powerful external amplification system connected to the Audio Out.

The Mark-Pro TW0i S hastwo identical headphone jacks which allow two people work together on the same Mark-Pro TW0i S.
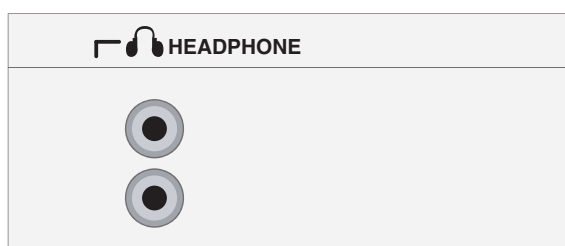
Audio In

You can connect your Mark-Pro TW0i S to an MP3 or a CD player via a pair of stereo RCA audio in jacks on the rear panel, and have them use the Mark-Pro TW0i's speakers. Although you can control the volume of the output with the main volume control knob on the front panel, it is recommended that you connect a device with its own volume control.

Reverb and effect settings are not effective for the audio in signal from an external device.

Audio Out

You can connect the pair of stereo RCA audio outs on the rear panel to an external amplifier and speakers. You can also connect the Mark-Pro TW0i S to a mixer or other audio device to record its sound via this pair of RCA outs.
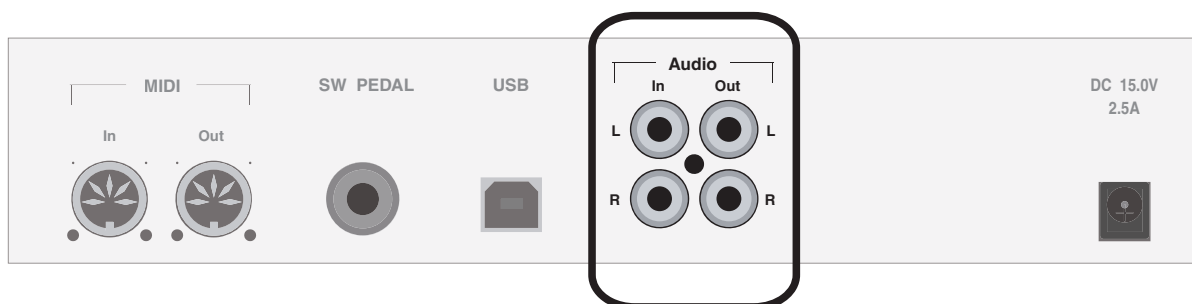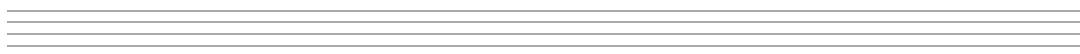
MIDI

MIDI Channels

For MIDI to control several instruments, each playing a different part at the same time, it uses different channels. There are 16 channels available, and each one can transmit any number of notes to any number of instruments, over the same MIDI cable. Each instrument only responds to notes and commands sent on the channel to which it is "tuned".

MIDI Messages

The MIDI messages that Mark-Pro TW0i S transmits and receives fall into several categories, as outlined in the MIDI Implementation Chart on page 52. This section explains the messages and their use.

Note On/Off

When you play a key on the Mark-Pro TW0i S, it sends a MIDI message that says a note has begun, what MIDI channel it's on, what note it is, and the velocity with which the key was pressed. When you release a key, a similar message is sent saying that a note has ended, on which channel, what note, and the velocity with which the key was released.

Control Change

Control Change is the largest category of MIDI messages. T h e Mark-Pro TW0i S has an extensive controller implementation, to help you alter your performances and sounds flexibly as you play or in your recorded sequences. The following discussion elaborates on each of these messages.

Mod Wheel: CC #1, 33

]The Mark-Pro TW0i S recognizes Mod Wheel messages, which affect the sound of different programsin different ways. Controller 1 can be used by itself, or if more subtle control is desired, controller 33 can be used with controller 1.

Volume: CC #7, 39

The Mark-Pro TW0i S recognizes Volume messages, which control the overall volume of the sound on the MIDI channel on which they are sent. Controller 7 can be used by itself, or when subtle control is desired, controller 39 can be used with it.

Pan: CC #10, 42

The Mark-Pro TW0i S recognizes Pan messages, which control the location in the stereo field of the sound on the MIDI channel on which they are sent. Controller 10 can be used by itself (avalue of 0 is hard left, 64 is centered, and 127 is hard right), or when subtle control is desired, controller 42 can be used with it.

Expression: CC #11, 43

The Mark-Pro TW0i S recognizes Expression messages, which also regulate the volume of the sound on the MIDI channel on which they are sent between a minimum of 0 and a maximum of the current Volume setting. Controller 11 can be used by itself, or when subtle control is desired, controller 43 can be used with it.

Sustain, Sostenuto, Soft: CC #64, 66, 67

The right, center, and left pedals transmit MIDI controller message 64 (Sustain), 66 (Sostenuto), and 67 (Soft), respectively. The Mark-Pro TWOi also recognizes these messages. A value of 0 is OFF, and a value of 127 is ON. These pedals affect the timbre or modulation of some internal programs (voices) of the Mark-Pro TWOi.

All Notes Off, Reset All Controllers: CC#120, #121

The Mark-Pro TW0i S recognizes the All Notes Off message (CC #120) which silences the instrument, and the Reset All Controllers message (CC #121) which resets all controllers to their default values.

Program Change

When you select a voice on the Mark-Pro TWOi S , it transmits a program change message. In the same way, it also receives program change messages when it is connected to an external device via the MIDI in port or USB port.

Appendix

Appendix A

Specifications

Specifications are subject to change without notice

Physical Specification

	Mark-Pro TWOi S
Dimension(mm)	1310(L) X 360(W) X 90(H)
Weight	19.6 kg / 20.4 kg (Inclusion Music Stand)

Electrical Specification
Voltage and Frequency Ranges

	120 VAC Adapter Model PM0023A	230 VAC Adapter Model PM0024A
Safe voltage range	100–125 Volts RMS	200–230 Volts RMS
Safe frequency range	58–65 Hz	48–65 Hz

Power Consumption

Voltage Level	Power Consumption
120 VAC	0.35 Amps
230 VAC	0.13 Amps

Environmental Specifications

	Minimum		Maximum	
Temperature Range for operation	40 F	5 C	104 F	40 C
Temperature Range for storage	13 F-	25 C	185 F	85 C
Humidity Range for operation	5%		95% (non-condensing)	
Humidity Range for storage	5%		95% (non-condensing)	

Voice List

CATEGORY	NO.	VOICE
none	0	Solo Grand Piano
Piano	1	Stereo Grand Piano
Piano	2	Classic Grand Piano
Piano	3	Dynamic Grand Piano
Piano	4	Warm Grand Piano
Piano	5	Concert Grand Piano
Piano	6	Nice Touch Grand Piano
Piano	7	Grand Piano 440
Piano	8	Piano for layers
E.Piano	9	Digital E Piano
E.Piano	10	90's FM Ballad
E.Piano	11	Ballad Keys
E.Piano	12	Soft E Piano
E.Piano	13	Studio Rhds
E.Piano	14	C3PO
E.Piano	15	Big Red Wurly
E.Piano	16	FantAsmAtron
Organ/Key	17	Pipe Organ
Organ/Key	18	Pipes 16'8',reed
Organ/Key	19	Orgiano
Organ/Key	20	Prog Rocker's B
Organ/Key	21	Clav Classic
Organ/Key	22	Dual Wah Clav
Organ/Key	23	Harpsichord
Organ/Key	24	Accordion
String	25	Film String
String	26	Fast Strings
String	27	Octave Strings 2
String	28	Emotional Strings
String	29	Emphatic Strings
String	30	Slow Strings
String	31	Marcato Strings
String	32	Layer Strings
Pad/Voice	33	kupiter
Pad/Voice	34	Orch Pad 2
Pad/Voice	35	U Say Tomita...
Pad/Voice	36	Spider's Web
Pad/Voice	37	Scatman
Pad/Voice	38	Bright Voices
Pad/Voice	39	Doo><Daa
Pad/Voice	40	The Croons
Brass	41	Williams Brass
Brass	42	Synth Brass 3
Brass	43	Anabrass
Brass	44	Solo Tenor Sax
Brass	45	Trumpet
Brass	46	Trombone
Brass	47	Big Brass
Brass	48	Goosed Riff Sect
Guitar	49	Acoustic Guitar
Guitar	50	Chorus Elec Gtr
Guitar	51	Lead Rock Gtr
Guitar	52	Jazzy Frets
Guitar	53	Round and Wound
Guitar	54	Two Finger Bass
Guitar	55	Slap Bass
Guitar	56	Upright Bass 2
Perc.	57	Celesta
Perc.	58	dual Marimba
Perc.	59	Vibes
Perc.	60	Carnival
Perc.	61	Studio Drums 1+2
Perc.	62	Electro Kit
Perc.	63	LA Drums/Brk Bt.
Perc.	64	Virtuoso Perc

MIDI Implementation Chart

Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1	1	
	Changed	1	1	
Mode	Default	Multi *	Multi *	memorized
	Messages	Any	Mode 1 & 3	memorized
	Altered	X		
Note Number	0 – 127	0 – 127	key range	
	True Voice	1 – 128	1 – 128	C 0 – C 8
Velocity	Note ON	O	O	
	Note OFF	O	O	
After Touch	Keys	X	X	
	Channels	X	O	
Pitch Bender		X	O	
Control Change	0, 32	O	O	Bank Select
	1	X	O	Mod Wheel
	6	X	O	Data Entry
	7	X	O	Volume
	10	X	O	Pan
	11	X	O	Expression
	64	O	O	Sustain Pedal
	66	O	O	Sostenuto Pedal
	67	O	O	Soft Pedal
	91	O	O	Reverb Wet/Dry
	93	O	O	Effects Wet/Dry
	120	O	O	All Sound Off
	121	O	O	Reset All Controllers
Program Change		O** 0 – 64	O** 0 – 64	
	True #	O** 0 – 64	O** 0 – 64	
System Exclusive		X	O	
System Common	Song Pos.	X	X	
	Song Sel.	X	X	
	Tune	X	X	
System Real Time	Clock	X	X	
	Messages	X	X	
Aux Messages	Local Control	X	O	
	All Notes Off	O	O	
	Active Sense	X	X	
	Reset	X	X	
Notes		* Use Multi mode to assign different programs to each MIDI channel * Assign to bank1		

Mode 1 : Omni On, Poly   Mode 2 : Omni On, Mono   O = Yes
Mode 3 : Omni Off, Poly   Mode 4 : Omni Off, Mono   X = No