*Piano**Disc***

ProRecord

Rev A01
August 2013

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1. Features of the *ProRecord*

- *Compatible with vertical and grand pianos*

- *Switch between you piano's real sound and the digital synthesizer (requires optional mute rail)*

- *No-contact optical sensors are more reliable and won't affect the touch or playability of you piano.*

- *Damper and soft pedal support, with damper half-pedaling.*

- *Subtle sounds that make ProRecord ultra-realistic. (Damper/string resonance, key-off sounds)*

- *Support for MIDI IN/OUT.*

- *General MIDI Level 2 sound set (128+100 instruments with 12 drum sets)*

- *Integrated metronome feature*

- *Integrated record/play with tempo change*

- *Line-out for connection to and external amplifier (optional).*

- *108 note polyphony. (Many instruments use stereo sound, which consume 2 notes per one key note.)*

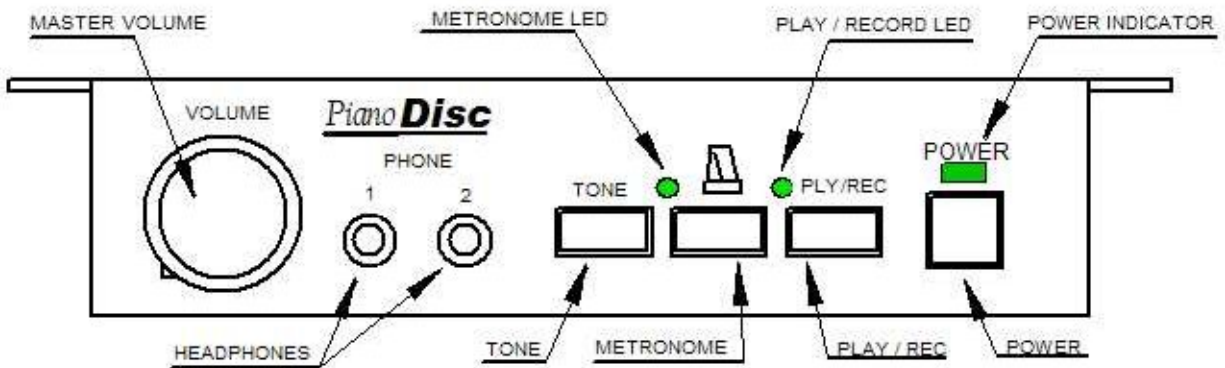- *High quality sound recorded from a real grand piano*

SPECIFICATIONS

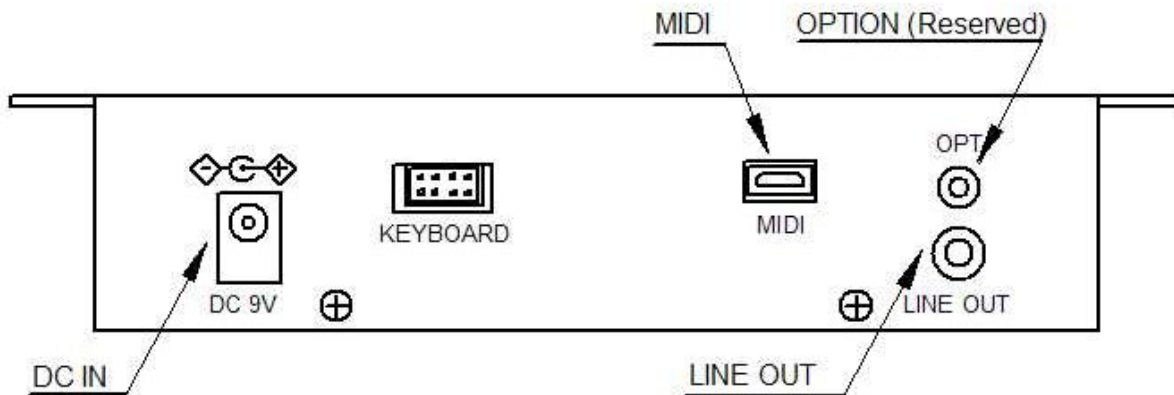|		
Polyphony	108 voice	
Sound tone selection	Main instruments: 8 Additional instruments: 88 Computer selection: 128(GM) +100(extension)+12 Drums	
Effect	Reverb (Room, Hall), Chorus (Rotary), Delay	
Metronome	Beat (signature): 0, 2, 3, 4, 5, 6, 8 Tempo: 30-250	
Record/Playback	Record: about 10000 notes per bank, Total 10 banks Playback: Speed 0.5x - 2x	
Tuning	+/- 13Hz (427 – 440 – 453Hz) *default : 440Hz	
Transpose	+/- 1 octave	
Pedal adjustment	Damper: half pedal / Soft: On/Off (extra Sostenuto for Grand PF)	
Key depth	4 steps for bottom and 5 steps for upper (threshold level)	
Touch Volume	8 steps adjustment. (Hard to Soft : not curve but physical speed)	
Black key volume bal.	+/- 5steps against to white key volume	
Individual key vol bal.	+/- 5steps	
Demo songs	10 songs	
Ext.	Analog	Headphone x2, Line-Out x1
	Digital	MIDI IN/OUT (original option cable is needed.)
Input Power	DC+9V, 0.4A	
Accessories	MIDI Cable, Power adapter , This manual	
Option	USB-MIDI Cable, Loudspeaker, Mute rail	

Specifications may change without notification.

2. Installation & Setup

o *The ProRecord System must be installed and setup by a qualified PianoDisc technician.*
o *Some settings may be customized by the user. See **9.1 Initial setup.***

3. Panel Description

Main Box front panel

Main Box Rear panel

[TONE] [METRONOME] [PLY/REC] [POWER]
The buttons have both primary and secondary functions. The primary function is printed on the bezel, while the secondary functions can be accessed by following the directions in this guide.

DC In
  For AC Power adapter

MIDI terminal
  Connect either the MIDI cable (included), or the USB cable (optional).

Line-Out
  Connect to external audio system (optional).

Option terminal Reserved for future expansion

4. Instrument Selection

The instruments can be selected by the button and keyboard.

4-1. Select one of the eight main instruments

- Press the **[TONE]** button to sequentially select one of the eight main instruments.
  * Each time you press and release the button, the audition note will sound one time.

	1	2	3	4	5	6	7	8
Instruments	Piano 1	Piano 2	Piano 3	Elec. Piano 1	Elec. Piano 2	Church Organ	Warm Organ	Pop Organ

4-2. Select one of the 88 additional instruments

- Hold the **[TONE]** button, and select one of the 88 keys.
- Holding the [TONE] button will change the instrument all the time.
- Each time you press the key, the audition note will sound one time.

Key	Instrument	Chorus	note	Key	Instrument	Chorus	Key	Instrument	Chorus
1	Piano 1			31	Steel Guitar	o	61	Alto Sax	
2	Piano 2			32	Jazz Guitar	o	62	Tenor Sax	
3	Piano 3			33	Chorus Guitar	o	63	Baritone Sax	
4	Piano 1 + Strings	o	* SlowSTR	34	Over Drive Guitar	o	64	English Horn	
5	Piano 1 + Choir	o	SlowChoir	35	Distortion Guitar	o	65	Bassoon	
6	Space Piano	o		36	Acoustic Bass		66	Clarinet	
7	Electric Piano 1	o		37	Finger Bass		67	Piccolo	
8	Electric Piano 2 (FM)	o		38	Slap Bass		68	Flute	
9	Harpsichord			39	Synth Bass 2		69	Recorder	
10	Church Organ			40	Violin		70	Pan Flute	
11	Warm Organ		**Rotary	41	Cello		71	Ocarina	
12	Pop Organ		**Rotary	42	Tremolo Strings		72	Synth.Sawtooth	o
13	Electric PF			43	Harp		73	Synth. Charang	
14	Honky Tonk PF			44	Strings		74	Synth.Voice	
15	Pan EP1	o		45	Slow Strings		75	Synth.Bass&Lead	
16	Clavinet	o		46	Horn & Strings		76	Synth. Warm	
17	Celesta	o		47	Synth. Strings		77	Synth. PolySynth	
18	Glocken	o		48	Choir		78	Synth. Choir	
19	Music Box	o		49	Dooh		79	Synth. Bowed	
20	Vibraphone	o		50	SynVOX		80	Synth. Halo	
21	Santur	o		51	Trumpet		81	Crystal	
22	Drawbar Organ 1		**Rotary	52	Trombone		82	Atmosphere	
23	Drawbar Organ 2		**Rotary	53	Tuba		83	Brightness	
24	Rock Organ		**Rotary	54	French Horn	o	84	Echo Drops	
25	Small Church Organ			55	Brass w/ Trumpet	o	85	Sitar	
26	Reed Organ			56	Synth. Brass 1	o	86	Koto	
27	French Accordion	o		57	Synth. Brass 2	o	87	Bagpipe	
28	Harmonica	o		58	Synth. Brass 3		88	Tinkle	
29	Bandoneon	o		59	Synth. Brass 4				
30	Nylon Guitar	o		60	Soprano Sax				

- The shaded instruments in the chart are same which can also be selected with the TONE button.
- All instruments have individual Reverb level.
- * Slow Strings can make sound within velocity 1-99.
- ** The speed of Rotary speaker effect can be changed by pressing the **SOFT** pedal.

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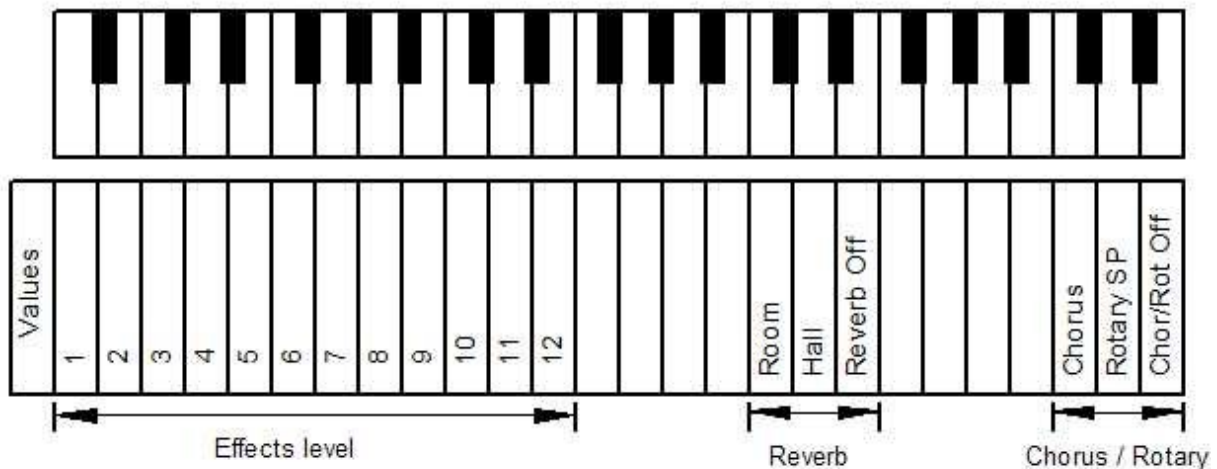# 5. Effects & Transpose Setting

5-1. Effects

The ProRecord has 3 kinds of built-in "special effects" which can be customized.

      1. Reverb group: **Room**, **Hall**
      2. Chorus group: **Chorus**, **Rotary Speaker**
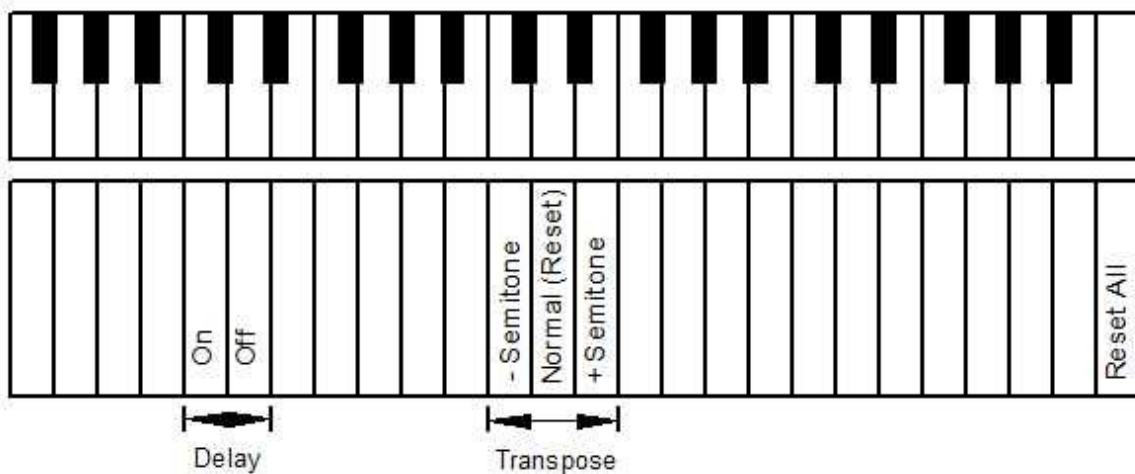   3. Delay group: **Delay**

** The **delay** effect is not the default setting for all instruments, and cannot be set with volume level.*
** If selecting the **Rotary** effect, the "SOFT" pedal will work only for switching between "fast" or "slow" and the **delay** will be disabled.*

Bass End of Keyboard

Treble End of Keyboard

Setting the Effect programs and its volume level (depth)

(1) While holding down the **[TONE]** button, press and hold the **[Metronome] button**. (Continue holding the buttons)
(2) Select (one touch) one of the volume level keys, then remove your finger from the **[TONE]** and

[Metronome].
(3) To set other programs, press **[Metronome]** again, and repeat step (2).
(4) When finished with the set up, then release the **[TONE]** and **[Metronome]** buttons.
(5) To completely reset, press the **[Reset All]** key and all the effect and transpose (see below) will be reset.

* When Rotary SP is selected, there is no need to select a level. (There is no volume adjustment)
* This value will be reset to factory default after power-off or with new instrument selection.

5-2. Transpose

The ProRecord has a transpose function with semitone resolution. The maximum range is two octaves.
This is part of the Effects setting; refer to the figure on the previous page.

Setting Transpose

(1) While holding the **[TONE]** button, press and hold the **[Metronome]** button. (Continue to hold buttons).
(2) Press the key to change to the desired transpose,
(3) When finished, release the **[TONE]** and **[Metronome]** buttons.
(4) If you select **[Normal (Reset)]**, then only the transpose will be reset to default.
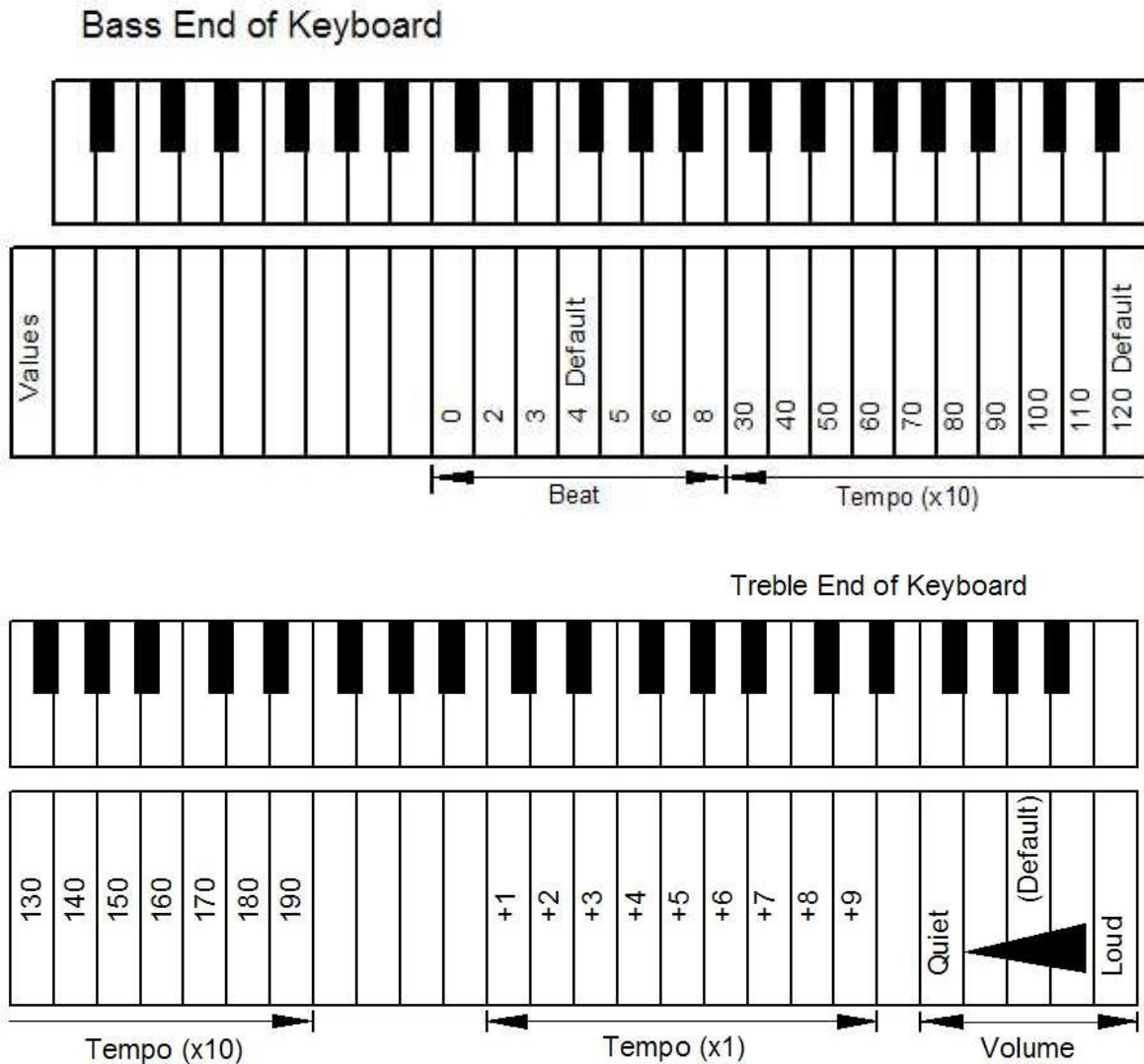(5) If you select the **[Reset all]** key, then all effects and transpose will be reset to default.

6. Metronome

6-1 Start/Stop metronome

Press the **[Metronome]** button for it to start/stop alternatively.

6-2 Metronome setting

One can change the beat (time signature), tempo and volume.

Bass End of Keyboard

Values | 0 | 2 | 3 | 4 Default | 5 | 6 | 8 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 Default

Beat — Tempo (x10)

Treble End of Keyboard

130 | 140 | 150 | 160 | 170 | 180 | 190 | +1 | +2 | +3 | +4 | +5 | +6 | +7 | +8 | +9 | Quiet | (Default) | Loud

Tempo (x10) — Tempo (x1) — Volume

(1) Hold the **[Metronome]** button until LED is flashing. This will start the metronome.

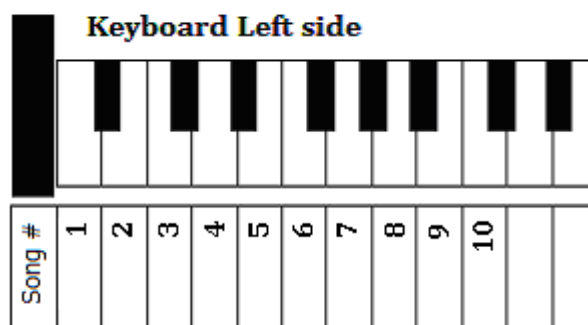(2) Select each value. Refer to above figure for key allocations.

   * For tempo setting, select (x10) first, then (x1) value.
   * This setting is saved even after power-off.

7. Demo Mode

The ProRecord includes the following ten demo songs:

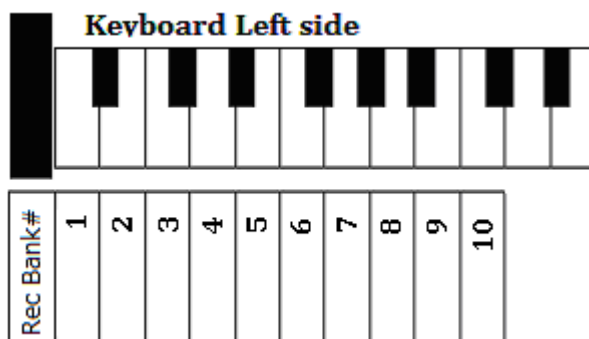|	Song Title	Composer
	Song Title	Composer
1	Prelude	J.S. Bach
2	Fur Elise	L.V. Beethoven
3	Moonlight	L.V. Beethoven
4	Shenandoah	American Folk song
5	Danny boy	Irish Folk song
6	I love you, Porgy	George Gershwin
7	Someday my prince will come	Frank Churchill
8	All the things you are	Jerome David Kern
9	Someone to watch over me	George Gershwin
10	My wild Irish rose	Chancellor Alcott

How to play the demo

(1) While holding the **[Tone]** button, press and hold the **[PLY/REC]** button. The [PLY/REC] LED will turn **On**.

(2) The demo songs will start to play starting with demo #1.

   - While the demo song is playing, another demo can be selected by pressing the other keys (see chart).

(3) To stop demo, press the **[PLY/REC]** button again.

8. Recording/Playback

Playing the keyboard can be recorded and played back. This is especially useful for piano practicing.

Keyboard Left side

8-1. Recording

(1) Hold the **[PLY/REC]** button and select a specified bank number you wish to record into. The LED will start flashing when ready.

(2) The recording will start automatically when you play the keyboard or use the pedals.

(3) Press the **[PLY/REC]** button to stop recording. The LED will stop flashing. When the light turns off, the recorded data will be stored into the selected bank.

8-2. Erase Recorded data

(1) Hold the **[PLY/REC]** button, and **SOFT pedal**, to select the key that you want to erase.

(2) The result is confirmed by a chime sound and all data is erased.

[CAUTION]
- There is no warning when overriding and existing bank.
- The instruments cannot be changed while recording
- Recording feature records only notes and pedal info, not metronome.
- Each bank contains about 10,000 events (key/pedal strokes), and is terminated automatically when memory is full.
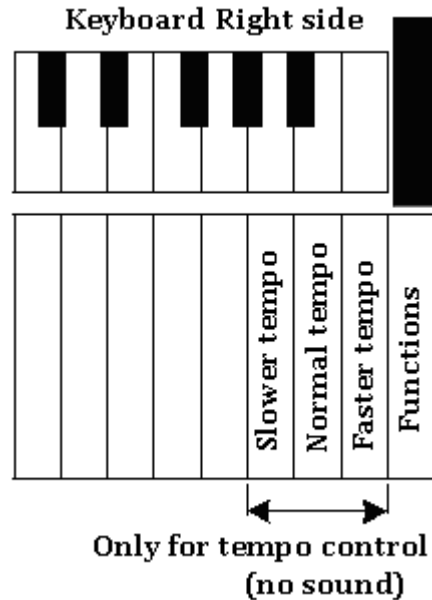*- The recorded data is saved even after power-off.*

8-3. Playback

(1) To play a recorded song, hold the key of the specific bank you recorded and then press **[PLY/REC]**.

(2) The recorded song should begin one second after selecting.

(3) When you are listening to the recorded sound playback, you can also play the keyboard.

(4) To stop, press the **[PLY/REC]** button again.

[CAUTION]
- During playback, the tempo can be changed using the top three white keys. Because of this function these keys cannot be played. Refer to the following details.

8-4. Playback with tempo change

The ProRecord has the capability to change tempo during playback. The range is 50% to 200% in 11 different steps.

Keyboard Right side

Slower tempo | Normal tempo | Faster tempo | Functions

Only for tempo control
(no sound)

(1) First, start playback with recorded data
(2) Press one of the three white keys located on the highest octaves to increase or decrease speed as indicated above.
(3) To return to normal speed press the "Normal tempo" key and the playback will revert back to normal speed.

Steps	-5	-4	-3	-2	-1	+/-0	+1	+2	+3	+4	+5
Speed	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.6	1.8	2.0
	Slow	←				Center				→	Fast

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9. System Setup

9.1 Initial setup mode

It is necessary to perform setup after installation.

NOTE: Once powered up in the setup mode, do not touch any keys or pedals unless instructed to.

1. The metronome LEDs will flash after the system is powered up. This is the factory default settings and you are in the initial set up mode.
2. Press all 88 keys from 1 through 88. The speed and order does not matter. If you have a speaker connected up to the control box, you will hear the piano through the speaker, but slightly delayed. This is done so you can verify that each note is working correctly.
3.   De press each pedal once. You will hear a chime after each pedal depression to confirm the sensor is working.
4. Press the [PLY/REC] button and you should hear a "chime". Then you will be done with the initial set-up. If you do not hear the chime you must repeat sets 2-4

NOTE: It may be necessary to perform "System Default" if there is any malfunction during the set up procedure. Go the System Default at the end of the document.
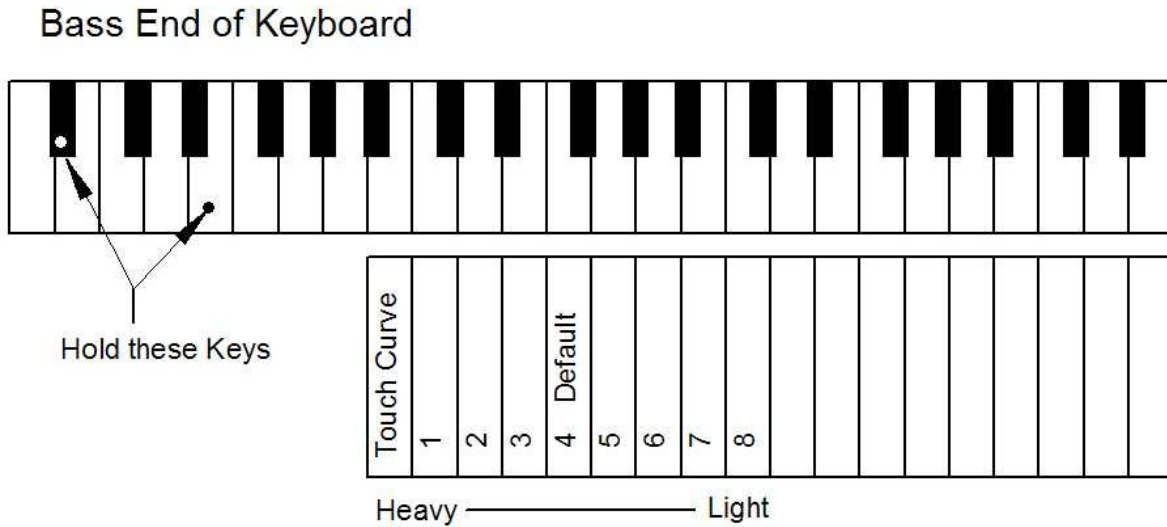
9.2 Sensor Re-calibration

During the use of the system an Optical sensor may need to be recalibrated for optimum performance.
NOTE: When playing a key or pedal during calibration make sure to fully depress it at a normal speed.

1. Hold [TONE] AND [PLY/REC], and power up the system. You will hear a chime sound confirming that you are in the Sensor Adjustment Mode. Also note that the metronome and PLY/REC lights will be flashing.
2. Press all 88 keys or just the keys that need calibration. If the note needed adjustment then you will hear a sound after that note was played.
3. Press the pedals if needed and you will hear a sound if adjustment was necessary.
4. After finishing the calibration, press [PLY/REC], then all LED's will go off and a chime will sound. The calibration was saved.

9-3. Key Touch dynamic offset

Although the system has been preset for optimum keyboard touch dynamic, it can be changed to personal preferences or to match different music styles, etc.
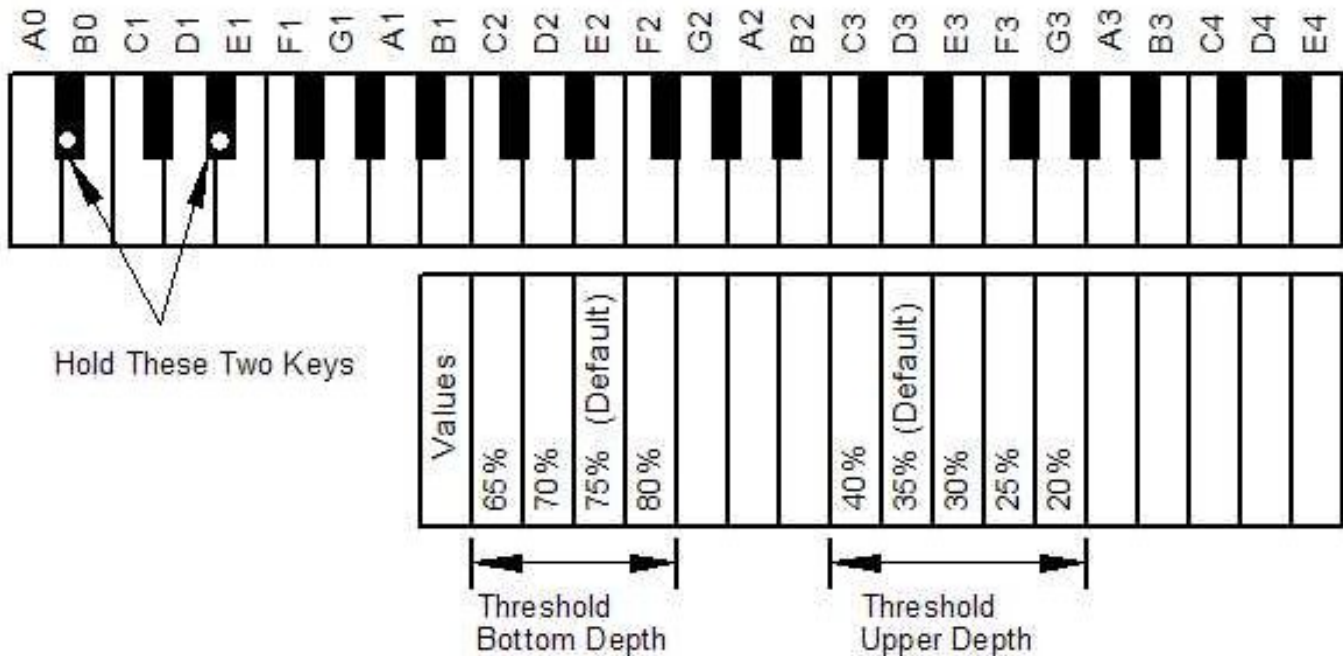

(1) While holding the two keys down (shown above), power on the control box and a chime will sound. You are now in key touch mode. (continue holding the keys)

(2) Press one of 8 keys to select the value desired.

(3) Release the keys being held to save the setting.

This value is saved even after power-off

9.4 Key Depth Adjustment Mode

The purpose of the adjustment is to control the key range of "off" and "on". The range of key movement is defined as a percentage, starting at 0% when the key is at rest, and ending at 100% when the key is fully depressed. Within that range, you can select the threshold within which key movement is detected as a "note on". The benefit of this setting is to minimize wrong (wild) keys during playing.

Hold These Two Keys

Values: 65% 70% 75% (Default) 80%

Threshold Bottom Depth

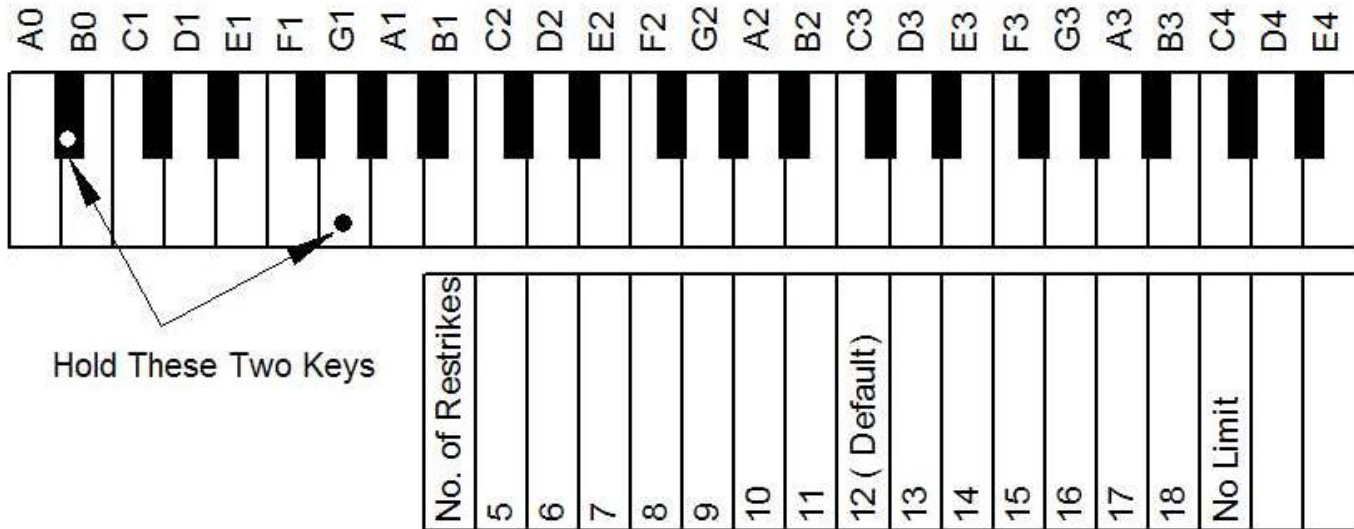40% 35% (Default) 30% 25% 20%

Threshold Upper Depth

To Enter Mode:

1. While holding the two keys down (shown above), power on the control box and a chime will sound. You are now in the "Key depth adjustment mode".
2. Press 1 of 9 options to select the upper and bottom depth of keys.
3. Release the two keys and the values are saved.

NOTE: These values are kept after the system is powered off.

9.5 Re-strike or Repeat Limitation

The ProRecord has the ability to recognize faster repeats than the piano is capable of performing. For this reason it may be desirable to limit the amount of repeats the ProRecord to match your acoustic piano.   The standard settings are: Upright – 7, Grand – 14.

Hold These Two Keys

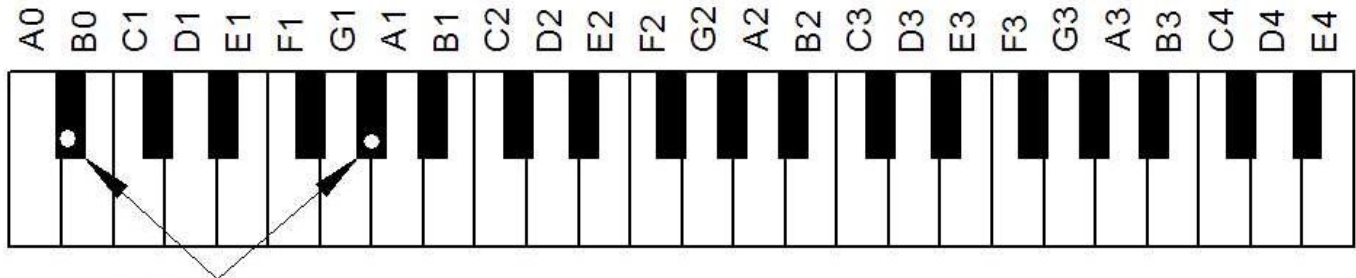| No. of Restrikes | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 (Default) | 13 | 14 | 15 | 16 | 17 | 18 | No Limit | | |

To Enter Mode:

1. Hold the keys indicated in the drawing above, power up the control unit and a chime sound will be heard. You are now in the re-strike/repeat set up mode. (Continue holding the two keys)

2. Now select the key that corresponds to the number of repeats desired.
3. Release the two notes and your values are saved.

10. System Default

If you perform System Default you must do the complete setup of the system as everything will change back to the Factory Default settings.

Hold these two keys

To Enter Mode:

1. Hold the key indicated in the drawing above, power on the control unit and you will hear a chime.
2. The Metronome and [PLY/REC] LEDs will start flashing.
3. Release the two keys and power off the control box. The system in now back to Factory System Default.