



## Version 2.0 Release Notes for Kurzweil Mark 150/10 & Young Chang DG 150

This document describes the changes and new features that are part of version 2.0 software for the Kurzweil Mark 150/10 and Young Chang DG 150 digital pianos.

### **New Piano Sound**

The tuning of the Piano sound has been adjusted to be even more accurate. Also, many of our customers have asked for a “warmer” piano sound. This new piano sound is available as the Grand Piano Variation sound. The "bright" piano that was formerly the Grand Piano Variation is available through MIDI as program number 109. A complete list of the new programs available through MIDI is included in this document.

### **New Song Chain Feature**

Your songs can now be played in a “chain.” To do this, press Demo and then Loop (in the recorder section). All songs (1 through 8) that you have recorded or loaded from a file will now be played, back to back. If the song is a General MIDI (GM) song, it should automatically go into GM mode. If it does not, refer to the “GM file load” section of these notes to find out how to set the song as a GM song. Songs that have been recorded with looped tracks will only play the looped track once. Otherwise the Song Chain would get “stuck” on that song! The chain play can be stopped by pressing any button on the front panel, which puts you back into Demo mode. You can exit Demo mode by pressing the Demo button.

### **Enhanced Full Keyboard Mode**

Full keyboard mode now requires you to play 3 or more notes in order to change chords. If 3 notes are played, the chord will change. Then you can “solo” over that without fear of changing chords. Also, in full keyboard mode, if chord hold is ON, a chordal backing is playing, and you play an “unknown” chord, the backing will not change.

### **New MIDI Features (overview)**

These new features are useful if you are using the Mark 150/10 as a sound engine with an external sequencer, or if you are using the internal recorder to play back Standard MIDI files (SMF). They are used quite a bit for General MIDI (GM) files.

The Mark 150/10 now responds to MIDI controller #11, Expression.

Registered parameters for Transposition, Tuning, and Pitch Bend Range are recognized. See the MIDI section or a MIDI specification for more detail on this. Note that the Pitch Bend Range parameter only works if the Mark 150/10 is in General MIDI mode.

## New Standard MIDI File and General MIDI File Load Features

Standard MIDI files, including General MIDI files, have the following enhanced features:

You can now tell if the Mark 150/10 is in General MIDI mode. The last decimal point on the tempo display will be lit if the Mark 150/10 is in GM mode. The GM mode display can be turned on or off automatically by the song (see below), or by using the General MIDI parameter in the MIDI Edit Mode.

The system exclusive message to turn GM on and off is recognized by the recorder. If the file you loaded has this message, GM mode will automatically be turned on when the sequence is played. If the song you loaded is supposed to be a GM song, but the GM display does not turn on when you play the song, you can set the song to automatically turn on GM mode whenever you select it. If the song is selected when you turn on GM mode with the MIDI edit button (i.e., when you hold the MIDI button then press A#0 - the lowest black key on the keyboard), it will set a special GM parameter in the song itself. You should then save the song back to disk to record this setting. From now on, whenever you select that song, the GM mode will automatically turn on. This is useful for the new Song Chain feature (see below). Whenever any song is deselected (by pressing the same song button as the currently selected song, or by selecting another song), GM mode will turn off.

### Tempo Messages

Tempo messages are now recognized by the recorder. If the tempo has been adjusted by the song's author, it will change during playback by a percentage relative to the currently displayed tempo. For example, consider a song that an author begins at 100 bpm and during the song increases the tempo to 150 bpm (i.e., a 50 percent increase). If you decide to set the speed of the song to 50 bpm it would speed up to 75 bpm (a 50 percent increase) at the tempo change. Note that the tempo display does not change as a result of tempo messages. Tempo messages are only loaded from Type 0 MIDI files, not from Type 1 MIDI files.

If you have already loaded the SMF and GM files, and saved them as Mark 150/10 songs under an earlier version of the software, you should reload the original files to take advantage of the new GM message and tempo message playback, as these were not stored in the earlier Mark 150/10 songs.

The program remapping for GM has also been enhanced, with new sounds created specially for the GM mode. Furthermore, the drum channel (10) now defaults to program 98 rather than 78. The default reverb is now "bright stage" instead of "stage."

## New Yamaha Disk Orchestra and PianoSoft\* File Load Features

Tempo messages are now recognized by the recorder. Refer to "Tempo Messages" above.

The program remapping for Disk Orchestra files has also been enhanced, with new sounds created specially for the Disk Orchestra file translation. The default reverb is now "bright stage" instead of "stage."

If you have already loaded the Disk Orchestra files, and saved them as Mark 150/10 songs under an earlier version of the software, you should reload the original files to take advantage of the new voice remapping and tempo message playback, as these were not stored in the earlier Mark 150/10 songs.

*\*PianoSoft is a trademark of Yamaha Corporation.*

## MIDI Enhancements

Much of the power and flexibility of the Mark 150/10 and DG 150 are due to their implementation of the MIDI specification. Version 2 software further increases the instruments' MIDI capabilities, as described in the following sections.

### New MIDI Edit Features

The following keys have been added or changed in the MIDI Edit section.

**A0** (Lowest A on the 88 note keyboard). This key will tell you the current version of Mark 150/10 software that has been installed in your instrument.

**A#0** (Lowest A# on the 88 note keyboard). This is the GM mode on/off key. Its behavior has been changed slightly. If a song is selected when GM mode is turned on, GM mode will be stored in the song. To erase this, simply turn off GM mode while the song is still selected. Any time that a song is un-selected or a new song is selected, GM mode will be turned off.

**B0** (Lowest B on the 88 note keyboard). The key will tell you, in kilobytes, how much memory is left in the Mark 150/10 for loading of songs and styles. When the Mark 150/10 has been reset and has no songs or styles loaded, the number is 108 kilobytes.

**C7**. This key lets you dump songs, styles, or panel memories via MIDI system exclusive messages. When you press C7 while in MIDI mode, the available song, style, and panel memory buttons will blink. When you press the button representing the item you want, the others will stop blinking and the dump will take place. This is an advanced MIDI feature for users with external sequencers. These users can store songs into their sequencers as system exclusive messages, and later dump them back into the Mark 150/10 for playback using the Mark 150/10's recorder. Most people do not need this feature, since the Mark 150/10 can also transfer songs to an external sequencer by playing them (using the Transmit Sequencer Data parameter), or by saving them to floppy disk.

**D#7**. This key is used for setting the Ignore All Notes Off parameter. In the manual, it says that setting this parameter to Off may cause problems with the auto accompaniment section of the Mark 150/10. This behavior has been changed, and auto accompaniment will now work correctly with the parameter set to either ON or OFF.

### New MIDI Features (detail)

1. Local Control On/Off -- Controller #122. The MIDI implementation chart in the manual says that this was implemented in Version 1.0, when in fact it was not. This has been corrected.
2. Expression Control -- Controller #11. This has been added for better General MIDI support, but it works in all modes.
3. All Sound Off -- Controller #120. This is a relatively new addition to the MIDI spec. It functions the same as All Notes Off (Controller #123).
4. MIDI Song Select -- System Common Message \$F3. Valid song numbers are 0 through 7, which would select Mark 10 sequences 1 through 8. Other numbers are ignored. This only responds if external sync is turned on.

5. Registered Parameters -- Registered Parameters 0 (Pitch Bend Range), 1 (Fine Tuning) and 2 (Coarse Tuning, which is called Receive Transpose on the Mark 10) are now supported. Pitch Bend Range is only supported when the Mark 150/10 is in GM mode. This means that the following controllers are now supported:

- 5.1 Data Entry MSB -- Controller #6  
Data Entry LSB -- Controller #38
- 5.2 Data increment -- Controller #96  
Data decrement -- Controller #97
- 5.3 Registered parameter number LSB -- Controller #100  
Registered parameter number MSB -- Controller #101

6. Inquiry Message -- The standard System Exclusive inquiry message is now supported. This is a non-real time message, in addition to the General MIDI On/Off message, which was already supported. Sending the following message: \$F0 \$7E \$00 \$06 \$01 \$F7, will return the following message: \$F0 \$7E \$00 \$06 \$02 \$07 \$10 \$00 \$0A \$00 \$ss \$ss \$ss \$ss \$F7, which is described below:

- \$F0 \$7E \$00 Universal System Exclusive Non-real time header
- \$06 General Information (sub-ID #1)
- \$02 Device id message (sub-ID #2)
- \$07 Manufacturer's System Exclusive Code (Kurzweil is \$07)
- \$10 \$00 Device family code (14 bits, LSB first, Mark Series is \$10)
- \$0A \$00 Device family member code (14 bits, LSB first, Mark 150/10 is \$0A)
- \$ss \$ss \$ss \$ss Software revision level. (0 2 0 0 is Version 2.00)
- \$F7 End of exclusive message (EOX)

7. Mark 150/10 specific System Exclusive -- A new system exclusive implementation has been added to allow the remote editing of many parameters from the "MIDI key" section of the instrument. The following is the general format of the messages:

\$F0 Begin Sysex

\$07 Kurzweil ID

\$00 Device ID

\$10 Mark Series ID

\$pp Parameter

\$vv Value

\$F7 End Sysex

7.1 Channel Disables -- Parameters 1 (\$01) through 16 (\$10) are channel disables for channels 1 through 16. Value of 0 means channel enabled (default). Value of 1 will disable that channel. Changes are remembered across power cycles.

7.2 Sequencer Data Enables -- Parameters 17 (\$11) through 32 (\$20) are sequencer data enables for MIDI channels 1 through 16. Value of 0 means that the sequencer and auto accompaniment will not send data to the MIDI out port (default on power up). Value of 1 will enable that channel's MIDI output stream.

7.3 Stereo/Mono switch -- Parameter 33 (\$21) is the Stereo/Mono switch. Value of 0 allows the Mark 10 to operate in Stereo (default on power up). Value of 1 will pan all sound to center (monaural).

7.4 Ignore All Notes Off -- Parameter 34 (\$22) allows the Mark 10 to ignore All Notes Off messages (controller #123). Value of 0 means that the Mark 150/10 will respond to controller #123 (default). Value of 1 means that the Mark 150/10 will ignore controller #123. Changes are remembered across power cycles.

7.5 Transmit Program Change -- Parameter 35 (\$23) allows the Mark 150/10 to disable the transmission of program changes. Value of 0 means that the Mark 150/10 will not transmit program changes. Value of 1 means that the Mark 150/10 will transmit program changes (default). Changes are remembered across power cycles.

7.6 Receive Program Change -- Parameter 36 (\$24) allows the Mark 150/10 to disable the reception of program changes. Value of 0 means that the Mark 150/10 will not receive program changes. Value of 1 means that the Mark 150/10 will receive program changes (default). Changes are remembered across power cycles.

7.7 Keyboard Touch select -- Parameter 37 (\$25) allows the user to select different Keyboard Touch settings. The values range from 1 (most difficult) to 7 (easiest). The default value is 4, but changes are remembered across power cycles.

7.8 Transmit Split and Layer Data -- Parameter 38 (\$26) allows the Mark 150/10 to transmit split and layer data as continuous controllers. Value of 0 disables this, sending standard program changes instead. Value of 1 enables transmission of split data (default on power up).

7.9 External Sync -- Parameter 39 (\$27) allows the Mark 150/10 to switch between internal sync and external sync. Value of 0 selects internal sync (default on power up). Value of 1 selects external sync.

7.10 Transmit Sequencer Data -- Parameter 40 (\$28) allows the setting and resetting of all 16 sequencer data enables simultaneously. Value of 0 disables transmission of sequencer data on all 16 MIDI channels to the MIDI out port (default on power up). Value of 1 enables transmission on all 16 MIDI channels.

7.11 Beats Per Measure -- Parameter 41 (\$29) allows the user to adjust the Beats Per Measure parameter. Values range from 1 to 7. Default value is 4. Changes are remembered across power cycles.

7.12 Auto Setup -- Parameter 42 (\$2A) allows the enabling/disabling of the Auto Setup feature. Value of 0 disables Auto Setup. Value of 1 enables Auto Setup (default on power up).

7.13 Metronome Channel -- Parameter 43 (\$2B) allows the user to change the MIDI output channel for the metronome. Values range from 0 through 15, which correspond to MIDI channels 1 through 16. Default value is 15 (MIDI channel 16). Changes are remembered across power cycles.

7.14 Metronome Program -- Parameter 44 (\$2C) allows the user to change the metronome program. Values range from 0 to 127. Default value is 75 (Drums 1). Changes are remembered across power cycles.

7.15 Metronome Key -- Parameter 45 (\$2D) allows the user to change the note used by the metronome. Values range from 0 to 127. Default value is 97 (C#7, "Click" on the Drums 1 program). Changes are remembered across power cycles.

7.16 Metronome Velocity -- Parameter 46 (\$2E) allows the user to change the note velocity used by the metronome. Values range from 0 to 127. Default value is 100. Changes are remembered across power cycles.

## New Programs

The programs in the list below can now be accessed through MIDI. This list augments the list of panel-accessible programs that appears in the owner's manual.

<b>Prg No.</b>	<b>Sound</b>
83	CHOIR LAYER
84	CATHEDRAL CHOIR 2
85	FAST STRINGS 3
86	FAST STRINGS 4
87	STRING LAYER
88	STEREO STRINGS 2
89	EQUAL TEMPERED PIANO
90	EQUAL TEMPERED BRIGHT PIANO
97	SLOW STRINGS 2
98	GM DRUM KIT 2
99	ORGAN 1
100	ORGAN 2
101	SMALL DRUM KIT
102	TIMPANI
103	FAST STRINGS 5
104	PIZZICATO STRINGS
105	TIMPANI 2
106	ORGAN 3
107	MUTED GUITAR SUSTAINED
108	OVERDRIVE GUITAR
109	BRIGHT PIANO*
110	---NOT USED---
111	PICKED BASS
112	FRETLESS BASS
113	BANJO

New Programs

<b>Prg No.</b>	<b>Sound</b>
114	SLAP BASS 2
115	SYNTH BASS 1 (FULL KEYBOARD)
116	SYNTH BASS 2 (FULL KEYBOARD)
117	TREMOLO STRINGS
118	SHORT VOX
119	ORCHESTRA HIT
120	MUTED TRUMPET
121	BRASS SECTION
122	FINGERED BASS
123	SYNTH BRASS 2
124	TENOR SAXOPHONE
125	BARITONE SAXOPHONE 2
126	SAWTOOTH-WAVE WITH 5TH
127	FANTASIA

\*Bright Piano (109) was formerly program number 2. Program 2 has been changed to Warm Piano in the version 2 software.



## Reverb and Effect Settings

To change the global Reverb and Effect setting through MIDI, send a controller #83 message with a value from the following table:

No.	Effect	Reverb Room Size	Reverb Quality*
65	None	None	None
66	Chorus	None	None
67	Delay	None	None
68	Symph.	None	None
69	None	Room	None
70	Chorus	Room	None
71	Delay	Room	None
72	Symph.	Room	None
73	None	Stage	None
74	Chorus	Stage	None
75	Delay	Stage	None
76	Symph.	Stage	None
77	None	Hall	None
78	Chorus	Hall	None
79	Delay	Hall	None
80	Symph.	Hall	None
81	None	None	Bright
82	Chorus	None	Bright
83	Delay	None	Bright
84	Symph.	None	Bright
85	None	Room	Bright
86	Chorus	Room	Bright
87	Delay	Room	Bright

No.	Effect	Reverb Room Size	Reverb Quality*
88	Symph.	Room	Bright
89	None	Stage	Bright
90	Chorus	Stage	Bright
91	Delay	Stage	Bright
92	Symph.	Stage	Bright
93	None	Hall	Bright
94	Chorus	Hall	Bright
95	Delay	Hall	Bright
96	Symph.	Hall	Bright
97	None	None	Warm
98	Chorus	None	Warm
99	Delay	None	Warm
100	Symph.	None	Warm
101	None	Room	Warm
102	Chorus	Room	Warm
103	Delay	Room	Warm
104	Symph.	Room	Warm
105	None	Stage	Warm
106	Chorus	Stage	Warm
107	Delay	Stage	Warm
108	Symph.	Stage	Warm
109	None	Hall	Warm
110	Chorus	Hall	Warm
111	Delay	Hall	Warm
112	Symph.	Hall	Warm

\*If the Reverb Room Size is None, the Reverb Quality setting will not produce an audible difference and will not cause the Warm or Bright light to illuminate.

## MIDI Implementation Chart

Manufacturer:  
Young Chang

Date: 3/1/94  
Version: 2.0

Model: Kurzweil Mark 150/10 Ensemble Grand

Function		Transmitted	Recognized	Remarks
<b>Basic Channel</b>	Default	1	1	
	Changed	1 - 16	1 - 16	
<b>Mode</b>	Default	X	Multi*	memorized
	Messages	X	Mode 1 & 3	memorized
	Altered	X		
<b>Note Number</b>		0 -127	0 - 127	key range: C0 - C8
	True Voice	12 - 108	12 - 108	
<b>Velocity</b>	Note ON	O	O	
	Note OFF	O	O	
<b>After Touch</b>	Keys	X	X	
	Channel	X	O	
<b>Pitch Bender</b>		O	O	
<b>Control Change</b>	1,33	X	O	mod wheel
	6,38	X	O	data entry
	7,39	X	O	volume
	10,42	X	O	pan
	11,43	X	O	expression
	64	O	O	sustain pedal
	66	O	O	sostenuto pedal
	67	O	O	soft pedal
	68	O	O	symphonic on
	76	O	O	right octave shift
	77	O	O	left octave shift
	78	O	O	bass sustain
	79	O	O	layer vol. adjust
	80	O	O	split point
	81	O	O	split program
	82	O	O	layer program
	83	O	O	reverb select
	85	O	O	style select
	86	O	O	style control
	96	X	O	data increment
	97	X	O	data decrement
100,101	X	O	registered param num	
103	O	O	drums volume	
104	O	O	bass volume	
105	O	O	background A	
106	O	O	background B	
107	O	O	background C	
120	X	O	all sound off	
121	O	O	reset all controllers	
<b>Program Change</b>		O **	O**	
		1 - 82	1 - 109	
		91 - 96	111-127	
	True #	1 - 82	1 - 109	
		91 - 96	111-127	
<b>System Exclusive</b>		X	O	General MIDI
<b>System Common</b>	Song Pos	X	X	
	Song Sel	X	O	
	Tune	X	X	
<b>System Real Time</b>	Clock	O	O	
	Messages	O	O	
<b>Aux Messages</b>	Local Control	X	O	
	All Notes Off	O	O	
	Active Sense	X	X	
	Reset	X	X	
<b>Notes</b>		* Use MULTI mode to assign different programs to each MIDI channel		
		** Can be disabled		

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

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

O = yes  
X = no