KURZWEIL
Music Systems

K2600 Version 4 (GM Mode) User's Guide

This document describes General MIDI (GM Mode), a new feature included with Version 4 of the K2600 Operating System. To get started with GM Mode, you must first use the Boot Loader to install the Version 4 software on your K2600. This procedure is described in Appendix A of the *K2600 Musician's Guide*.

You must perform a hard reset after you install this new operating system.

What it is

Version 4 of the K2600 Operating System introduces GM Mode, an efficient way to use your K2600 with General MIDI devices and sequences. Since you can turn GM Mode on or off in a single step, you can easily move between the K2600's normal operating mode and GM Mode. The K2600 remembers your Master table settings, so when you leave GM Mode to return to normal operating mode everything is right where you left it.

GM Mode is optimized for use with the K2600 ROM 5 and Orchestral ROM options. Installing these optional soundsets in your instrument is your best bet for top-notch GM sounds. You may, however, take advantage of GM Mode without installing the option ROMs. See "Using GM Mode without ROM5 and Orchestral ROM," below, for more information.

About GM

General MIDI (GM) is an addition to the original MIDI specification that assigns sounds to specific channel numbers, program numbers, and note values. Using General MIDI, you can share song files between different devices with reasonably consistent performance.

Many GM song files are commercially available, and they'll sound great on your K2600.

GENERAL
MIDI

Inside GM Mode

Here's what happens when you enable GM Mode:

- On all channels except channel 10 (which GM uses for drums), you will see only the 128 GM programs. On MIDI channel 10, you will see the eight drum kits. (If you do not see the GM programs when you turn on GM Mode, you need to install ROM5 or load one of the disk file GM sets.)
- The K2600 will modify the following entries in the master table:

  - FX mode (GM uses Master mode)
  - FX channel (GM uses None)
  - FX studio (GM uses the studio selected in GM Studio set on the Master: GM page)
  - Receive velocity map (GM uses the GM Receive Velocity Map)
  - progChgType (GM uses 0-127 mode)

  Old settings will be remembered, however, so that when you turn GM Mode off the K2600 will restore your previous settings.
- Volume and expression controllers are mapped to a special GM curve, as in "GS" synths. (GS is a superset of General MIDI that is used by the Roland Sound Canvas and other products.)
- GM drum kits are mapped across program number space as in the "GS" synths, and have exclusive zones included with them.
- Program changes sent to the K2600 when it is in GM Mode will only select programs from the GM program set.

⚠ *Setups, Songs, and QA Banks created outside of GM Mode will not point to the correct programs within GM Mode (although you may find the results "interesting").*

Similarly, Setups, Songs, and QA Banks created within GM Mode will not point to the correct programs when you leave GM Mode. For this reason, when you create Setups, Songs, or QA Banks within GM Mode you may want to append the letters "GM" to the object's name and/or store the objects only in certain banks.

Using GM Mode without ROM5 and Orchestral ROM

While you'll attain the best-sounding GM soundset if you install ROM5 and the Orchestral ROM in your K2600, you can also take advantage of GM Mode with one of the GM soundsets downloadable from the www.kurzweilmusicsystems.com website. There are several GM soundsets available, depending on which option ROMs you have in your K2600. If you have previously obtained a GM soundset for your K2600, you will have to get the new version that is designed to work with GM Mode.

If you choose this approach, first upgrade your operating system to Version 4. Then load the GM soundset using Disk Mode (make sure to load the GM disk sets as Everything-Merge files and verify that the programs have loaded into banks 400-500s). Turn on GM Mode AFTER loading the disk set, then follow the instructions for GM Mode in this document.

Master Table changes

With Version 4 of the K2600 Operating System, new items have been added to the Master Table. If you have previously created your own ROM program sets, we recommend that you make and load a new ROM set in order to correctly store the new parameters with your favorite defaults.

You should also be aware that with Version 4 the Master Table has grown in size to accommodate GM parameters. If you install an old (pre v4.0) Master Table as part of an object set, the K2600 will say "Resizing Master Table..." on startup.

Enabling GM Mode from the Master page

In the V4.0 K2600 operating system, the first Master page (MAST1) now has a **GM** soft button:

```
Master    GM  Samples:8192K    Memory:485K
Tune      :0ct
Transpose :0ST
KB3Chan   :1
VelTouch  :1 Linear
PressTouch:1 Linear          Confirm  :On
Intonation:1 Equal           IntonaKey:C
Object  Delete   Util   Sample    GM    MAST2
```

Press the **GM** soft button to call up the new GM page:

```
Master:GM

GM          :On
GM Studio :500 GM1 Room



                                        MAST1
```

Enable GM Mode by setting the GM parameter to On. When GM is on, **GM** is displayed on the top line of the screen. This happens on all of the K2600's main pages.

The GM Studio parameter sets the FX Studio that will be used by GM programs. Six GM Studios are included, providing different reverb and chorus-plus-reverb settings.

500   GM1 Room
501   GM2 Chamber
502   GM3 Hall
503   GM4 Chorus+Room
504   GM5 Chorus+Chmbr
505   GM6 Chorus+Hall

The default GM Studio (GM1 Room) is at ID 500. Use the GM Studio parameter to select a Studio which best complements your program material.

The **View** soft button (formerly on the Mast1 page) is now on the MAST2 page.

```
Master2   GM  Samples:8192K    Memory:485K

Vocoder    :Off
View Mode :List



Reset                                   MAST1
```

GM Mode in Song Files

The Edit Song:COMMON page now has a GM parameter for each song:

```
EditSong:COMMON              <>Track:1
Tempo      :120      StartStep   :1
TimeSig    :4/ 4     TempoControl:Song
EffectChan:1         TriggerChan :1
ChainTo    :0 None   TriggerCtl  :ON
TrackDest :---- ---- ---- ----  GM:On
DrumTrack :---- ---- ---- ----
<more   EVENT   TRACK   STEP   ARRANG more>
```

When you set GM On, the unit will put itself into GM Mode when the song starts, and get out of GM when the song stops. The GM Mode setting will be saved with the song file.

GM Mode can also be turned on from an external MIDI device that sends the "General MIDI On" message as defined in the MIDI Specification. When you insert a General MIDI On message at the beginning of a sequence you are telling the playback device (e.g., K2600) to immediately start GM when you play the song. On pause, stop, or end of song, GM Mode is turned off automatically.

In addition, when you import Standard MIDI Files (SMF) with the GM sysex embedded in them, the K2600 sets the GM parameter in the song to ON. And when the K2600 exports a song to SMF with the GM parameter set, it embeds the GM On sysex message.

The Sysex messages are:

```
GM ON

    F0 7E           UNIVERSAL NON-REAL TIME SYSEX HEADER

    <device ID>     ID of target device

    09                  GM Message

    01                  GM ON

    F7              EOX


GM OFF

    F0 7E <device ID> 09 02 F7

    02                  GM OFF
```

General MIDI Programs

The table below shows the 128 General MIDI programs. The ID numbers shown are the locations that these programs will occupy in GM Mode. In Standard Mode the program numbers will be 400-527.

You can create your own GM sets as well, provided that you store the programs at 400-527 and the drum kits at 528-535.

1	Grand Piano	33	Acoustic Bass	65	Soprano Sax	97	Ice Rain
2	Bright Piano	34	Fingered Bass	66	Alto Sax	98	Soundtrack
3	Electric Grand	35	Picked Bass	67	Tenor Sax	99	Crystal
4	Honky-Tonk Piano	36	Fretless Bass	68	Baritone Sax	100	Atmosphere
5	Elec Piano 1	37	Slap Bass 1	69	Oboe	101	Brightness
6	Elec Piano 2	38	Slap Bass 2	70	English Horn	102	Goblins
7	Harpsichord	39	Synth Bass 1	71	Bassoon	103	Echo Drops
8	Clavinet	40	Synth Bass 2	72	Clarinet	104	Sci-fi Pad
9	Celeste	41	Violin	73	Piccolo	105	Sitar
10	Glockenspiel	42	Viola	74	Flute	106	Banjo
11	Music Box	43	Cello	75	Recorder	107	Shamisen
12	Vibraphone	44	Contrabass	76	Pan Flute	108	Koto
13	Marimba	45	Tremolo Strings	77	Blown Bottle	109	Kalimba
14	Xylophone	46	Pizzicato String	78	Shakuhachi	110	Bagpipe
15	Tubular Bells	47	Plucked Harp	79	Whistle	111	Fiddle
16	Dulcimer	48	Timpani	80	Ocarina	112	Shanai
17	Drawbar Organ	49	Ensemble Strings	81	Square Wave	113	Tinkle Bell
18	Perc Organ	50	Slow Strings	82	Sawtooth Wave	114	Agogo
19	Rock Organ	51	Synth Strings 1	83	Synth Calliope	115	Steel Drums
20	Church Organ	52	Synth Strings 2	84	Chiff Lead	116	Woodblock
21	Reed Organ	53	Choir Oohs	85	Charang	117	Taiko Drum
22	Accordion	54	Voice Oohs	86	Solo Vox	118	Melodic Toms
23	Harmonica	55	Synth Vox	87	Fifths Saw Wave	119	Synth Drums
24	Bandoneon	56	Orchestra Hit	88	Bass & Lead	120	Reverse Cymbal
25	Nylon Str Guitar	57	Trumpet	89	Fantasia Pad	121	Gtr Fret Noise
26	Steel Str Guitar	58	Trombone	90	Warm Pad	122	Breath Noise
27	Jazz Guitar	59	Tuba	91	Poly Synth Pad	123	Seashore
28	Clean Guitar	60	Muted Trumpet	92	Space Voice Pad	124	Birds
29	Muted Guitar	61	French Horn	93	Bowed Glass Pad	125	Telephone
30	Overdrive Guitar	62	Brass Section	94	Metallic Pad	126	Helicopter
31	Distorted Guitar	63	Synth Brass 1	95	Halo Pad	127	Applause
32	Guitar Harmonics	64	Synth Brass 2	96	Sweep Pad	128	Gun Shot

GM Drum Kits

The table below lists the drum kits provided with ROM 5 and GM Mode for the K2600. The location for the kits (as shown in columns 1 and 2 of the table) will depend on whether or not GM Mode is enabled. You can also create own GM drum kits and store them at locations 528-535.

GM Mode Program No.	Standard Mode Program No.	Drum Kit Name
1	528	Standard Kit Pan
9	529	Room Kit Pan
17	530	Power Kit Pan
25	531	Synth Kit Pan
26	532	Analog Kit Pan
33	533	Jazz Kit Pan
41	534	Brush Kit Pan
49	535	Orch Kit Pan

Standard Mode Controller Assignments

ID	Name	Ctrl	Function
400	Grand Piano	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	Aux Lo Pass
		MIDI 25	L/R PreDelay Time
401	Bright Piano	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	Aux Lo Pass
		MIDI 25	L/R PreDelay Time
402	Electric Grand	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	Aux Lo Pass
		MIDI 25	L/R PreDelay Time
403	Honky Tonk	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
404	Elec Piano 1	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
405	Elec Piano 2	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
406	Harpsichord	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
407	Clavinet	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
408	Celeste	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
409	Glockenspiel	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
410	Music Box	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
411	Vibraphone	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
412	Marimba	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
413	Xylophone	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
414	Tubular Bell	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
415	Santur	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
		MIDI 26	Absorption
416	Drawbar Organ	MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 25	Vib/Chor In/Out
		MIDI 26	Aux Level
		MIDI 29 (Sw2)	Leslie Fast/Slow

ID	Name	Ctrl	Function
417	Perc Organ	MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	Vib/Chor In/Out
		MIDI 26	Aux Level
		MIDI 29 (Sw2)	Leslie Fast/Slow
418	Rock Organ	MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	Vib/Chor In/Out
		MIDI 26	Aux Level
		MIDI 29 (Sw2)	Leslie Fast/Slow
419	Church Organ	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
420	Reed Organ	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
421	Accordion	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
		MIDI 26	LFO Rate
422	Harmonica	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
		MIDI 26	LFO Rate
423	Bandoneon	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
424	Nylon Guitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
425	Steel Str Guitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
426	Jazz Guitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
427	Clean Elec Guitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
		MIDI 29 (Sw2)	Delay ON/Off
428	Muted Guitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
		MIDI 29 (Sw2)	Delay ON/Off
429	OD Guitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	Lo Pass
		MIDI 25	L/R PreDelay Time
430	Dist Guitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	L/R Delay Fdbk
		MIDI 29 (Sw2)	Alt start
431	Gtr Harmonics	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	L/R Delay Fdbk
432	Acoustic Bass	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
		MIDI 26	FX1 Aux Level
433	Finger Bass	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
434	Pick Bass	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
435	Fretless Bass	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
436	Slap Bass 1	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
437	Slap Bass 2	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
438	Synth Bass 1	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
439	Synth Bass 2	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
440	Violin	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
441	Viola	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
442	Cello	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Absorption
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
443	Contrabass	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
444	Trem Strings	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
445	Pizz Strings	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
446	Harp	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
447	Timpani	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
448	Strings	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
449	Slo Strings	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
450	Syn Strings 1	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
451	Syn Strings 2	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
452	Choir Aahs	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
453	Voice Doos	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
		MIDI 26	FX1 Aux Level
454	Syn Vox	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
455	Orchestra Hit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
456	Trumpet	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
457	Trombone	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
458	Tuba	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
459	Muted Trumpet	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
460	French Horns	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
461	Brass Section	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
462	Synth Brass 1	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
463	Synth Brass 2	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
464	Soprano Sax	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
465	Alto Sax	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
466	Tenor Sax	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
467	Baritone Sax	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
468	Oboe	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
469	English Horn	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
470	Bassoon	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
471	Clarinet	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
472	Piccolo	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
473	Flute	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
474	Recorder	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
475	Pan Flute	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
476	Bottle Blow	MWheel	Vibrato
		MIDI 22	"Wet/Dry level, Feedback Level"
		MIDI 23	L/R Dly Time
477	Shakuhachi	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
478	Whistle	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
479	Ocarina	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
480	Square Wave	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
481	Saw Wave	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
482	Syn Calliope	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
483	Chiffer Lead	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
484	Charang	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
485	Solo Vox	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
486	5th Saw Wave	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	Mix Delay
487	Bass & Lead	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time

Standard Mode Controller Assignments

ID	Name	Ctrl	Function
488	Fantasia	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
489	Warm Pad	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
490	Poly Synth	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
491	Space Voice	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
492	Bowed Glass	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
493	Metallic Pad	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
494	Halo Pad	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
495	Sweep Pad	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
496	Ice Rain	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	L/R Mix Delay
		MIDI 24	L/R Delay Feedback
		MIDI 25	Delay Tempo

ID	Name	Ctrl	Function
497	Soundtrack	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	L/R Mix Reverb
		MIDI 24	L/R Delay Time
498	Crystal	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
499	Atmosphere	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
500	Brightness	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time/Absorption
		MIDI 24	HF Dampening
		MIDI 25	L/R PreDelay Time
501	Goblins	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	Lo Pass
		MIDI 25	L/R PreDelay Time
		MIDI 26	Aux LateRvb Time
502	Echo Drop	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
503	Star Theme	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
504	Sitar	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
505	Banjo	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	"L/R PreDelay Time, Build Time"

ID	Name	Ctrl	Function
506	Shamisen	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
507	Koto	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
508	Kalimba	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
509	Bagpipe	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
510	Fiddle	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
511	Shanai	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
		MIDI 26	Wet/Dry of Delay
512	Tinkle Bell	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
		MIDI 26	Mix Delay
513	Agogo	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
514	Steel Drum	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
515	Woodblock	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
516	Taiko Drum	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
517	Melodic Drum	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
		MIDI 29 (Sw2)	Aux Lvl
518	Synth Drum	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
519	Rev Cymbal	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
520	Gtr. Fret Noise	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
521	Breath Noise	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
522	Seashore	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
523	Birds	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
524	Telephone	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
525	Helicopter	MWheel	Vibrato
		MIDI 22	Wet/Dry level
526	Applause	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
527	Gunshot	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
528	Standard Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
529	Room Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
530	Power Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
531	Synth Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	LFO Period
		MIDI 24	HF Damping
		MIDI 25	Min/Max Frequency
532	Analog Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	LFO Period
		MIDI 24	HF Damping
		MIDI 25	Min/Max Frequency
533	Jazz Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time

ID	Name	Ctrl	Function
534	Brush Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time
535	Orch Kit	MWheel	Vibrato
		MIDI 22	Reverb Wet/Dry level
		MIDI 23	Reverb Time
		MIDI 24	HF Damping
		MIDI 25	L/R PreDelay Time