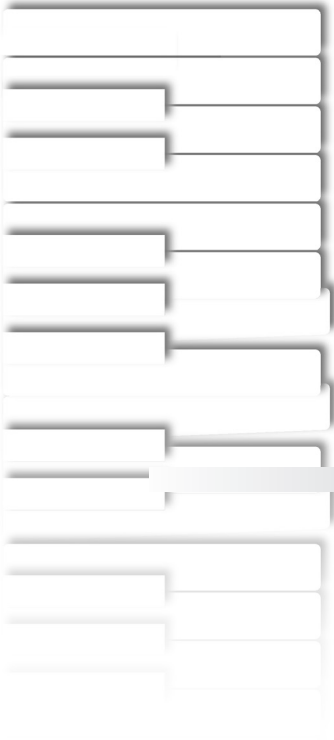


Reference



426-E-085A

Troubleshooting

Problem	Possible Cause	Action	See page
No sound when keyboard keys are pressed.	<ol style="list-style-type: none"> 1. Power cord is not connected correctly. 2. Power is not turned on. 3. MAIN VOLUME knob setting is too low. 4. Playing in the accompaniment keyboard range while the accompaniment mode is CASIO CHORD or FINGERED. 5. "Local Control" is off. 6. The melody part is off. 7. The melody part volume setting is too low. 8. MIDI IN command has lowered the master volume setting. 9. "DSP Volume" setting is too low. 	<ol style="list-style-type: none"> 1. Check to make sure the power cord is connected correctly. 2. Press the POWER button to turn on power. 3. Use the MAIN VOLUME knob to increase volume. 4. Auto accompaniment is turned off, which is indicated when none of the accompaniment mode indicators are lit. 5. Turn on "Local Control". 6. Use the mixer to turn on the melody part. 7. Use the mixer to increase the volume setting for the melody part. 8. Use "System" to raise the "Total M.Volume" setting. 9. Use "System" to raise the "DSP Volume" setting. 	<p>Page E-14</p> <p>Page E-18</p> <p>Page E-18</p> <p>Page E-23</p> <p>Page E-79</p> <p>Page E-47</p> <p>Page E-47</p> <p>Page E-80</p> <p>Page E-80</p>
Auto accompaniment does not sound.	<ol style="list-style-type: none"> 1. ACCOMP/SONG VOLUME knob setting is too low. 2. Auto accompaniment parts are turned off. 3. The volume settings of the auto accompaniment parts are too low. 	<ol style="list-style-type: none"> 1. Use the ACCOMP/SONG VOLUME knob to increase the volume. 2. Use the mixer to turn on the auto accompaniment parts. 3. Use the mixer to increase the volume settings of the applicable parts. 	<p>Page E-26</p> <p>Page E-47</p> <p>Page E-47</p>
Sound output does not change when key pressure is varied.	Touch response is turned off.	Use the FUNCTION button to select a touch curve.	Page E-32
No sound produced by demo tune play.	<ol style="list-style-type: none"> 1. MAIN VOLUME knob set to MIN. 2. Headphones connected to the piano. 	<ol style="list-style-type: none"> 1. Move MAIN VOLUME knob more towards the MAX side. 2. Disconnect the headphones from the piano. 	<p>Page E-18</p> <p>Page E-16</p>
Memory contents deleted.	Lithium battery is dead.	Contact your CASIO Service Provider for replacement of the lithium battery.	Page E-90
Nothing happens when the LAYER or SPLIT button is pressed.	<ol style="list-style-type: none"> 1. Upper2, Lower1, or Lower2 is off. 2. Upper2, Lower1, or Lower2 volume is too low. 	<ol style="list-style-type: none"> 1. Use the mixer Mode to turn on the part on/off setting. 2. Use the mixer Mode to raise the part volume. 	<p>Page E-47</p> <p>Page E-47</p>
Some parts don't play at all during sequencer playback.	<ol style="list-style-type: none"> 1. Mixer Mode part on/off setting is off. 2. Mixer Mode part volume setting is 0. 3. Song volume setting is too low. 4. "DSP Volume" setting is too low. 	<ol style="list-style-type: none"> 1. Use the mixer to make sure that parts are turned on. 2. Use the mixer to check the volume setting. 3. Use the ACCOMP/SONG VOLUME knob to raise the song volume. 4. Use "System" to raise the "DSP Volume" setting. 	<p>Page E-47</p> <p>Page E-47</p> <p>Page E-26</p> <p>Page E-80</p>

Troubleshooting

Problem	Possible Cause	Action	See page
Some parts stop playing at some point during sequencer playback.	Playback exceeds the maximum polyphony of the piano.	Use the mixer Mode to turn off some tracks (parts) to reduce the number of playback tracks.	Page E-47
Cannot record auto accompaniment rhythm.	Trying to record auto accompaniment to a non-system track (non-system tracks: Tracks 1 to 16).	Select the system track and try recording auto accompaniment again.	Page E-57
No sound is produced when playing MIDI data from a computer.	<ol style="list-style-type: none"> 1. MIDI cables are not connected properly. 2. The part is turned off or its volume setting is too low. 3. Receive channels are turned off. 4. MIDI IN command has lowered the master volume setting. 5. The USB cable is not connected properly. 	<ol style="list-style-type: none"> 1. Connect MIDI cables properly. 2. Use the mixer to turn on the part or increase its volume. 3. Specify the channel using the receive channel setting. 4. Use "System" to raise the "Total M.Volume" setting. 5. Check to make sure the USB cable is connected properly. 	Page E-66 Page E-47 Page E-80 Page E-80 Page E-69
Playing on the keyboard produces strange sound when connected to a computer.	The computer's MIDI THRU function is turned on.	Turn off the computer's MIDI THRU function or turn off "Local Control" on the piano.	Page E-79
Cannot record data played on the piano to a computer.	<ol style="list-style-type: none"> 1. "Accomp MIDI Out" is turned off. 2. Receive channels are turned off. 3. The USB cable is not connected properly. 4. "Real Time Message Out" is turned off. 	<ol style="list-style-type: none"> 1. Turn on "Accomp MIDI Out". 2. Specify the channel using the receive channel setting. 3. Check to make sure the USB cable is connected properly. 4. Turn on "Real Time Message Out". 	Page E-79 Page E-80 Page E-69 Page E-79
Piano cannot receive exclusive messages over MIDI IN.	The exclusive message device ID does not match the piano's device ID.	Make sure the exclusive message device ID matches the piano's device ID.	Page E-79
No sound from the left speaker or right speaker.	<ol style="list-style-type: none"> 1. The mixer pan setting is at either extreme. 2. MIDI IN command has shifted master pan to either side. 3. DSP Pan setting is shifted to either side. 	<ol style="list-style-type: none"> 1. Check the mixer pan setting. 2. Use "System" to adjust the "Total M.Pan" setting. 3. Use "System" to adjust the "DSP Pan" setting. 	Page E-48 Page E-80 Page E-80
DSP effects are not applied even when they are turned on.	<ol style="list-style-type: none"> 1. The mixer DSP setting is turned off for the part to which you are trying to apply an effect. 2. The mixer reverb send and chorus send settings are 0. 3. DSP reverb send and chorus send are 0. 	<ol style="list-style-type: none"> 1. Turn on the mixer DSP setting. 2. Use the mixer to change the reverb send and chorus send settings. 3. Change the DSP reverb send and chorus send setting. 	Page E-48 Page E-48 Page E-48
The mixer Mode pan effect is not being applied.	DSP is turned on for the part.	Change the DSP pan setting.	Page E-48
Auto harmonize effect does not work.	The current accompaniment mode is normal or FULL RANGE CHORD.	Change the accompaniment mode to CASIO CHORD or FINGERED.	Page E-23

Troubleshooting

Problem	Possible Cause	Action	See page
Keyboard keys do not light.	Key Lighting is turned off.	Turn on Key Lighting.	Page E-21
Keyboard keys do not light during sequencer playback.	1. The selected track does not have any data recorded in it. 2. Key Lighting is turned off.	1. Select the track that contains the data you want to control the key lighting. 2. Turn on Key Lighting.	Page E-60 Page E-21
Keyboard keys do not light during MIDI data play.	1. The data channel and navigate channel are different. 2. Key Lighting is turned off.	1. Make the tune's channel whose notes you want to light the same as the navigate channel. 2. Turn on Key Lighting.	Page E-79 Page E-21
No sound when playing back from the Music Library.	Song volume setting is too low.	Use the ACCOMP/SONG VOLUME knob to raise the song volume.	Page E-26

Specifications

Models:	PL-40R
Keyboard	
◆ Type:	Piano
◆ Number of Keys:	88 (A0 to Cs)
◆ Touch Response:	Three sensitivity levels; on/off
◆ Key Light System:	Can be turned on and off
◆ Key Lighting Polyphony:	10
Tones	
◆ Number of Tones:	271 (63 panel tones + 128 GM tones + 70 variation tones + 10 drum sounds)
◆ Maximum Polyphony:	64
◆ Layering:	on/off
◆ Split:	on/off (variable split point)
Effects	
◆ Number of Effects:	0
◆ Type:	3-channel Reverb (8 types) + Chorus (8 types) + DSP (16 types)
◆ Other:	DSP settings (volume, pan, reverb send, chorus send)
Metronome	
◆ Time Signatures:	0, 2/4 to 7/4, 9/4, 12/4, 3/8, 5/8, 6/8, 7/8, 9/8, 12/8
◆ Tempo Range:	30 to 255
◆ Metronome Volume:	0 to 127
Auto Accompaniment	
◆ Number of Rhythms:	100
◆ Number of Rhythm Sound Sources:	65
◆ Tempo Range:	30 to 255
◆ Controllers:	INTRO, FILL-IN, BREAK, VARIATION 1/2, SYNCHRO START/STOP, ENDING, START/STOP
◆ Modes:	Normal; CASIO CHORD; FINGERED; FULL RANGE CHORD
◆ Parts:	Drum; Percussion; Bass; Chord 1 to Chord 5
◆ Accompaniment/Song Volume:	Adjustable
◆ Accomp Settings:	Chord Hold on/off, Lower Hold on/off, Mixer Hold on/off, On Bass Chord on/off, Tension Chord on/off, 6th Chord on/off
Auto Harmonize:	12 types; adds harmony notes to melody in accordance with auto accompaniment chord fingerings.
One Touch Presets	
◆ Number of Presets:	100 (1 set per rhythm)
◆ Setting Data:	Tone, tempo, other

Specifications

Mixer <ul style="list-style-type: none"> ◆ Number of Channels: ◆ Parameters: 	30 (Group A: 14, Group B: 16) Tone, part on/off, volume, pan, effect send, fine tune, coarse tune
Sequencer <ul style="list-style-type: none"> ◆ Number of Songs: ◆ Number of Tracks: ◆ Type: ◆ Capacity: ◆ Editing: ◆ Other Functions: 	10 System Track + 16 Tracks Real-time recording 15,500 notes Punch-in Quantize, delete, time signature, metronome on/off
Music Library <ul style="list-style-type: none"> ◆ Number of Tunes: ◆ Arrangement Levels: ◆ Tempo: ◆ Controller: ◆ Repeat Function: ◆ Demo: 	70 preset 3 30 to 255 Stop, Play/Pause, Fast Reverse/Back, Fast Forward/Next, Phrase Repeat Phrase repeat, section repeat 70 preset songs, group repeat playback
Lesson Function <ul style="list-style-type: none"> ◆ Step Lesson: ◆ Lesson Part: ◆ Voice Fingering Guide: ◆ Other: 	3-Step Lesson Left hand, right hand, both hands Selectable language (English, Japanese), on/off Repeat on/off, pre-count on/off
Other <ul style="list-style-type: none"> ◆ Transpose: ◆ Master Tuning: ◆ Sound: ◆ Baroque Pitch: ◆ Stretch Tune: ◆ Temperament Settings: ◆ System: 	±12 semitones, 25 steps A4 = 415.3Hz to 440.0Hz to 466.2Hz (Initial Default: 440.0Hz) Unit: 0.1Hz 510 levels Brilliance, equalizer (for speaker, 3 types) on/off on/off 7 types (equal temperament, just major intonation, just minor intonation, Pythagorean system, mean-tone system, Werckmeister, Kirnberger); selectable root Total (master) volume, total (master) pan
Display <ul style="list-style-type: none"> ◆ Backlight: ◆ Contrast: ◆ Other: 	Equipped Adjustable Selectable language (English, Japanese), Hold on/off

Specifications

MIDI	<ul style="list-style-type: none"> ◆ System: 16-channel multi-timbre receive; GM Level 1 compliant ◆ Setting: GM ON command Rx/Tx channel setting; navigate channel setting MIDI In-chord Judge on/off Local on/off, realtime message on/off, device ID Accomp MIDI out on/off
Pedals	Damper; sostenuto/soft (selectable)
Input/Output:	
<ul style="list-style-type: none"> ◆ Headphones: Stereo mini jacks × 2 ◆ Pedal: Standard jacks × 2 ◆ LINE OUT (R, L/MONO): Standard jacks × 2 Output Impedance; 2.3KΩ Output Voltage; 1.8V (RMS) MAX ◆ Power: 15V DC ◆ MIDI (OUT) (IN) ◆ USB Port 	
Speakers:	(16cm × 8cm) × 2 (Output: 7.0W + 7.0W)
Power Supply:	AC Adaptor: AD-15ML
Power Consumption:	15V ---39W
Dimensions:	129.8 × 34.2 × 13.9cm (51 1/8 × 13 1/2 × 5 1/2 inch)
Weight:	Approximately 22.0kg (48.5lbs)

- ◆ Design and specifications are subject to change without notice.

NOTE

- ◆ Use a commercially available USB cable.

Operational Precautions

Locating the Unit

Avoid the following locations.

- ◆ Areas exposed to direct sunlight and high temperature.
- ◆ Areas subjected to very low temperatures.
- ◆ Near a radio, TV, video deck, or tuner (unit can cause interference with audio or video signals).

Care of the Unit

- ◆ Never use benzene, alcohol, thinner or other such chemicals to clean the exterior of the unit.
- ◆ To clean the keyboard, use a soft cloth dampened with a weak solution of a mild neutral detergent and water. Wring out all excess moisture from the cloth before wiping.
- ◆ Severe impact can cause problems.
When transporting the piano, use soft cloth to pack around the keyboard and buttons to protect them against damage.
- ◆ Never try to repair or modify any part of the piano.
Any attempt to repair or modify the piano can cause problems with operation.
- ◆ Avoid using this piano near televisions, radios, etc.
Because this piano uses digital circuitry, it may cause interference with other electronic devices such as televisions, radios, etc.
- ◆ In case of a problem, check that buttons and connections are correct, as indicated in this manual. If the piano still does not work properly, contact your retailer or a nearby dealer. Never try to repair the piano yourself.

Lithium Battery

This unit is equipped with a lithium battery to provide power needed to retain memory contents while unit power is turned off. Should the lithium battery go dead, all memory contents will be lost whenever you turn unit power off. The normal life of the lithium battery is five years from the time that the battery was installed. Be sure to periodically contact your retailer or authorized service provider to have the lithium battery replaced. Note that you will be charged separately for lithium battery replacement.

- * Note that CASIO COMPUTER CO., LTD. shall not be held liable for any damages or losses or any claims by third parties arising from corruption or loss of data caused by malfunction or repair of the unit, or from battery replacement.

You may notice lines in the finish of the case of this piano. These lines are the result of the molding process used to shape the plastic of the case. They are not cracks or breaks in the plastic, and are no cause for concern.

NOTE

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- ◆ The contents of this manual are subject to change without notice.

Appendix

Tone List

No.	Tone Group	On-screen Tone Name	Program Change	Bank Select MSB	DCO Channels Used	Maximum Polyphony	Legato	DSP
0	PIANO	Stereo Piano	000	2	2	32		
1	PIANO	St.Br.Piano	001	2	2	32		
2	PIANO	St.Mel.Piano	000	3	2	32		
3	PIANO	Grand Piano	000	0	1	64		
4	PIANO	Bright Piano	001	0	1	64		
5	PIANO	Mellow Piano	000	16	1	64		
6	PIANO	Honky-Tonk	003	0	2	32		
7	PIANO	2octavePiano	000	30	2	32		
8	PIANO	1octavePiano	000	29	2	32		
9	PIANO	Dance Piano	001	16	2	32		
10	PIANO	StringsPiano	000	24	2	32		Reflection
11	PIANO	Harpichord	006	0	2	32		
12	PIANO	Coupled Hps	006	8	2	32		
13	EP/ORGAN	ModernEPiano	004	16	2	32		Chorus
14	EP/ORGAN	Elec.Piano	004	0	1	64		Chorus
15	EP/ORGAN	FM E. Piano	005	0	2	32		Chorus
16	EP/ORGAN	60's E. Piano	004	24	1	64		Tremolo
17	EP/ORGAN	E. GrandPiano	002	0	1	64		
18	EP/ORGAN	Synth-Str EP	004	30	2	32		Chorus
19	EP/ORGAN	ChurchOrgan	019	0	1	64		
20	EP/ORGAN	ChapelOrgan	019	1	1	64		
21	EP/ORGAN	Perc.Organ	017	1	2	32		Rotary
22	EP/ORGAN	Tremolo Org	016	8	1	64		Rotary
23	EP/ORGAN	Even Bar	016	33	1	64		Rotary
24	EP/ORGAN	Full Organ	016	2	1	64		Rotary
25	EP/ORGAN	70's Organ	016	32	1	64		Rotary
26	EP/ORGAN	Vibraphone	011	0	1	64		Tremolo
27	EP/ORGAN	Marimba	012	0	1	64		
28	EP/ORGAN	Clavi	007	0	1	64		Auto Wah
29	GT/BASS	NylonStr.Gtr	024	0	1	64		
30	GT/BASS	SteelStr.Gtr	025	0	1	64		Chorus
31	GT/BASS	Jazz Guitar	026	0	1	64		
32	GT/BASS	Clean Guitar	027	1	1	64		Ensemble
33	GT/BASS	AcousticBass	032	0	1	64		
34	GT/BASS	Ride AcoBass	032	32	2	32		
35	GT/BASS	Finger.Bass	033	0	1	64		
36	GT/BASS	Picked Bass	034	0	1	64		
37	GT/BASS	FretlessBass	035	0	1	64		
38	GT/BASS	Slap Bass	037	0	1	64		
39	GT/BASS	Synth-Bass	038	0	2	32		
40	ENSEMBLE	Strings 1	048	0	1	64	○	Reflection
41	ENSEMBLE	Strings 2	049	0	1	64		
42	ENSEMBLE	SynthString	050	0	2	32		Chorus
43	ENSEMBLE	SymphoSynstr	050	24	2	32		
44	ENSEMBLE	Choir Aahs	052	0	1	64		Reflection
45	ENSEMBLE	Synth-Voice	054	0	1	64		Chorus
46	ENSEMBLE	Warm Pad	089	0	1	64		Chorus

Appendix

No.	Tone Group	On-screen Tone Name	Program Change	Bank Select MSB	DCO Channels Used	Maximum Polyphony	Legato	DSP
47	ENSEMBLE	Fantasy	088	0	2	32		Chorus
48	ENSEMBLE	Square Wave	080	0	2	32		Delay
49	ENSEMBLE	SawtoothWave	081	0	2	32		Delay
50	ENSEMBLE	Calliope	082	0	2	32		Cross Delay
51	REED/BRASS	BreathyA.Sax	065	16	1	64	○	
52	REED/BRASS	Alto Sax	065	0	1	64	○	
53	REED/BRASS	Tenor Sax	066	0	1	64	○	
54	REED/BRASS	Soprano Sax	064	0	1	64	○	
55	REED/BRASS	Clarinet	071	0	1	64	○	
56	REED/BRASS	Oboe	068	0	1	64	○	
57	REED/BRASS	Flute	073	0	1	64	○	
58	REED/BRASS	Trumpet	056	2	1	64		
59	REED/BRASS	Mute Trumpet	059	0	1	64	○	
60	REED/BRASS	Trombone	057	0	1	64		
61	REED/BRASS	Brass	061	0	1	64		
62	REED/BRASS	AnalogSynBrs	062	1	2	32		Delay
63	GM/DRUM	000:GrandPno	000	0	1	64		
64	GM/DRUM	000*:StreoPno	000	2	2	32		
65	GM/DRUM	000*:StMelPno	000	3	2	32		
66	GM/DRUM	000*:G.PnoWid	000	8	1	64		
67	GM/DRUM	000*:MellowPno	000	16	1	64		
68	GM/DRUM	000*:StrngPno	000	24	2	32		
69	GM/DRUM	000*:1oct.Pno	000	29	2	32		
70	GM/DRUM	000*:2oct.Pno	000	30	2	32		
71	GM/DRUM	001:BrtePno	001	0	1	64		
72	GM/DRUM	001*:St.BrPno	001	2	2	32		
73	GM/DRUM	001*:BrPnoWid	001	8	1	64		
74	GM/DRUM	001*:DancePno	001	16	2	32		
75	GM/DRUM	002:E.Grand	002	0	1	64		
76	GM/DRUM	003:HnkyTonk	003	0	2	32		
77	GM/DRUM	004:E.Piano1	004	0	1	64		
78	GM/DRUM	004*:E.Piano2	004	1	1	64		
79	GM/DRUM	004*:StSoftEP	004	8	2	32		Chorus
80	GM/DRUM	004*:ModernEP	004	16	2	32		
81	GM/DRUM	004*:60s EP	004	24	1	64		Phaser
82	GM/DRUM	004*:SynStrEP	004	30	2	32		
83	GM/DRUM	005:FM EP	005	0	2	32		
84	GM/DRUM	006:Harpsi.	006	0	2	32		
85	GM/DRUM	006*:CoupHps	006	8	2	32		
86	GM/DRUM	007:Clavi	007	0	1	64		
87	GM/DRUM	008:Celesta	008	0	1	64		
88	GM/DRUM	009:Glocken.	009	0	1	64		
89	GM/DRUM	010:MusicBox	010	0	1	64		
90	GM/DRUM	011:Vibes	011	0	1	64		
91	GM/DRUM	012:Marimba	012	0	1	64		
92	GM/DRUM	013:Xylophon	013	0	1	64		
93	GM/DRUM	014:TublrBel	014	0	1	64		

Appendix

No.	Tone Group	On-screen Tone Name	Program Change	Bank Select MSB	DCO Channels Used	Maximum Polyphony	Legato	DSP
94	GM/DRUM	015:Dulcimer	015	0	1	64		
95	GM/DRUM	016:DrwbrOrg	016	0	1	64		
96	GM/DRUM	016*Full Org	016	2	1	64		Rotary
97	GM/DRUM	016*Trem.Org	016	8	1	64		Rotary
98	GM/DRUM	016*70's Org	016	32	1	64		Rotary
99	GM/DRUM	016*Even Bar	016	33	1	64		Rotary
100	GM/DRUM	017:PercOrg1	017	0	2	32		
101	GM/DRUM	017*PercOrg2	017	2	1	64		Rotary
102	GM/DRUM	017*PercOrg3	017	32	2	32		Rotary
103	GM/DRUM	018:Rock Org	018	0	2	32		
104	GM/DRUM	018*Rotary S	018	16	2	32		
105	GM/DRUM	018*Rotary F	018	24	1	64		
106	GM/DRUM	019:ChrchOrg	019	0	1	64		
107	GM/DRUM	019*ChaplOrg	019	1	1	64		
108	GM/DRUM	020:Reed Org	020	0	1	64		
109	GM/DRUM	021:Acordion	021	0	1	64		
110	GM/DRUM	022:Harmnica	022	0	1	64		
111	GM/DRUM	023:Bandneon	023	0	2	32		
112	GM/DRUM	024:NylonGtr	024	0	1	64		
113	GM/DRUM	024*Ny.GtOff	024	16	2	32		Reflection
114	GM/DRUM	025:SteelGtr	025	0	1	64		
115	GM/DRUM	025*12Str.Gt	025	8	2	32		Ensemble
116	GM/DRUM	026:JazzGtr1	026	0	1	64		
117	GM/DRUM	026*JazzGtr2	026	1	1	64		Chorus
118	GM/DRUM	026*PedalSlr	026	8	2	32		
119	GM/DRUM	027:CleanGt1	027	0	1	64		
120	GM/DRUM	027*CleanGt2	027	1	1	64		Chorus
121	GM/DRUM	027*CleanGt3	027	5	1	64		Ensemble
122	GM/DRUM	027*ChorusEG	027	8	2	32		Chorus
123	GM/DRUM	027*ElecGtr1	027	16	1	64		
124	GM/DRUM	027*ElecGtr2	027	17	1	64		Distortion
125	GM/DRUM	028:Mute Gtr	028	0	1	64		
126	GM/DRUM	028*FunkGtr1	028	8	1	64		
127	GM/DRUM	028*FunkGtr2	028	16	1	64		Distortion
128	GM/DRUM	029:Ovrdriv1	029	0	1	64		
129	GM/DRUM	029*Ovrdriv2	029	1	2	32	○	Distortion
130	GM/DRUM	030:Dist.Gt1	030	0	1	64		
131	GM/DRUM	030*Dist.Gt2	030	1	2	32		Loudness
132	GM/DRUM	030*Dist.Gt3	030	3	1	64	○	Distortion
133	GM/DRUM	030*Dist.Gt4	030	4	1	64	○	
134	GM/DRUM	030*Dist.Gt5	030	5	1	64		Distortion
135	GM/DRUM	030*Feedback	030	8	2	32		Distortion
136	GM/DRUM	031:GtrHrnc	031	0	2	32		
137	GM/DRUM	032:Aco.Bass	032	0	1	64		
138	GM/DRUM	032*FideBass	032	32	2	32		
139	GM/DRUM	033:FingBass	033	0	1	64		
140	GM/DRUM	034:PickBass	034	0	1	64		

Appendix

No.	Tone Group	On-screen Tone Name	Program Change	Bank Select MSB	DCO Channels Used	Maximum Polyphony	Legato	DSP
141	GM/DRUM	035:Fretless	035	0	1	64		
142	GM/DRUM	036:Slap Bs1	036	0	1	64		
143	GM/DRUM	037:Slap Bs2	037	0	1	64		
144	GM/DRUM	038:SynBass1	038	0	2	32		
145	GM/DRUM	038*Ar.SynBs	038	1	1	64		
146	GM/DRUM	038*AcidBass	038	8	1	64		
147	GM/DRUM	039:SynBass2	039	0	1	64		
148	GM/DRUM	039*BeefFMBs	039	8	2	32		
149	GM/DRUM	040:Violin	040	0	1	64	○	
150	GM/DRUM	041:Viola	041	0	1	64	○	
151	GM/DRUM	042:Cello	042	0	1	64	○	
152	GM/DRUM	043:Contrabs	043	0	1	64	○	
153	GM/DRUM	044:Trem.Str	044	0	1	64		
154	GM/DRUM	045:Pizz.Str	045	0	1	64		
155	GM/DRUM	046:Harp	046	0	1	64		
156	GM/DRUM	047:Timpani	047	0	2	32		
157	GM/DRUM	048:Strings1	048	0	1	64	○	
158	GM/DRUM	049:Strings2	049	0	1	64		
159	GM/DRUM	049*Strings3	049	1	1	64		Reflection
160	GM/DRUM	050:Syn-Str1	050	0	2	32		
161	GM/DRUM	050*MelSynSt	050	2	1	64		
162	GM/DRUM	050*SymSynSt	050	24	2	32		Reflection
163	GM/DRUM	051:Syn-Str2	051	0	2	32		
164	GM/DRUM	052:ChoirAah	052	0	1	64		
165	GM/DRUM	053:VoiceDoo	053	0	1	64		
166	GM/DRUM	054:SynVoice	054	0	1	64		
167	GM/DRUM	055:Orch.Hit	055	0	2	32		Chorus
168	GM/DRUM	056:Trumpet1	056	0	1	64		
169	GM/DRUM	056*Trumpet2	056	1	1	64		
170	GM/DRUM	056**Trumpet3	056	2	1	64		
171	GM/DRUM	057:Trombon1	057	0	1	64		
172	GM/DRUM	057**Trombon2	057	1	2	32		
173	GM/DRUM	058:Tuba	058	0	1	64		
174	GM/DRUM	059:Mute Trp	059	0	1	64	○	
175	GM/DRUM	060:Fr.Horn1	060	0	1	64		
176	GM/DRUM	060*Fr.Horn2	060	1	2	32		
177	GM/DRUM	061:Brass 1	061	0	1	64		
178	GM/DRUM	061*Brass 2	061	8	2	32		
179	GM/DRUM	062:Syn-Brs1	062	0	2	32		Delay
180	GM/DRUM	062*ArSynBrs	062	1	2	32		Chorus
181	GM/DRUM	062*OctSynBr	062	16	2	32		
182	GM/DRUM	063:Syn-Brs2	063	0	1	64		Ensemble
183	GM/DRUM	064:Sopr.Sax	064	0	1	64	○	
184	GM/DRUM	065:Alto Sax	065	0	1	64	○	
185	GM/DRUM	065*Vel.ASax	065	8	1	64	○	
186	GM/DRUM	065*GrwIASax	065	9	1	64	○	
187	GM/DRUM	065*BrtyASax	065	16	1	64	○	

Appendix

No.	Tone Group	On-screen Tone Name	Program Change	Bank Select MSB	DCO Channels Used	Maximum Polyphony	Legato	DSP
188	GM/DRUM	066:TmrSax1	066	0	1	64	○	
189	GM/DRUM	066*TmrSax2	066	1	2	32	○	
190	GM/DRUM	066*BtyTSax	066	8	2	32	○	
191	GM/DRUM	066*BrgtTSax	066	16	1	64	○	
192	GM/DRUM	066*Vel.TSax	066	24	2	32	○	
193	GM/DRUM	067:Bari.Sax	067	0	1	64	○	
194	GM/DRUM	068:Oboe 1	068	0	1	64	○	
195	GM/DRUM	068*VeloOboe	068	8	1	64	○	
196	GM/DRUM	068*Oboe 2	068	9	1	64	○	
197	GM/DRUM	069:Eng. Horn	069	0	1	64		
198	GM/DRUM	070:Bassoon	070	0	1	64		
199	GM/DRUM	071:Clarinet	071	0	1	64	○	
200	GM/DRUM	072:Piccolo	072	0	1	64	○	
201	GM/DRUM	073:Flute	073	0	1	64	○	
202	GM/DRUM	073*MelFlute	073	1	2	32	○	
203	GM/DRUM	074:Recorder	074	0	1	64		
204	GM/DRUM	075:PanFlute	075	0	2	32	○	
205	GM/DRUM	076:BotlBlow	076	0	1	64		
206	GM/DRUM	077:Shakachi	077	0	2	32		
207	GM/DRUM	078:Whistle	078	0	1	64		
208	GM/DRUM	079:Ocarina	079	0	2	32		
209	GM/DRUM	080:SquarWav	080	0	2	32		
210	GM/DRUM	080*Sine	080	8	1	64		Cross Delay
211	GM/DRUM	081:Saw.Wave	081	0	2	32		
212	GM/DRUM	081*Sawtooth	081	1	1	64		
213	GM/DRUM	081*Saw+Sqr	081	8	2	32		Delay
214	GM/DRUM	082:Calliope	082	0	2	32		
215	GM/DRUM	083:Chiff Ld	083	0	2	32		Delay
216	GM/DRUM	084:Charang	084	0	2	32		
217	GM/DRUM	085:Voice Ld	085	0	2	32		
218	GM/DRUM	086:Fifth Ld	086	0	2	32		
219	GM/DRUM	087:Bass+Ld	087	0	2	32		Delay
220	GM/DRUM	088:Fantasy	088	0	2	32		Ensemble
221	GM/DRUM	089:WarmPad1	089	0	1	64		
222	GM/DRUM	089*WarmPad2	089	1	1	64		Phaser
223	GM/DRUM	090:Polysyn	090	0	2	32		Delay
224	GM/DRUM	091:SpaceChr	091	0	2	32		
225	GM/DRUM	092:BowGlass	092	0	2	32		Chorus
226	GM/DRUM	093:MetalPad	093	0	2	32		Chorus
227	GM/DRUM	094:Halo Pad	094	0	2	32		
228	GM/DRUM	095:SweepPad	095	0	2	32		
229	GM/DRUM	096:RainDrop	096	0	2	32		Chorus
230	GM/DRUM	097:Soundtrk	097	0	2	32		
231	GM/DRUM	098:Crystal	098	0	2	32		Ensemble
232	GM/DRUM	099:Atmosphre	099	0	2	32		Chorus
233	GM/DRUM	100:Britenes	100	0	2	32		
234	GM/DRUM	101:Goblins	101	0	2	32		Ring Mod.

Appendix

No.	Tone Group	On-screen Tone Name	Program Change	Bank Select MSB	DCO Channels Used	Maximum Polyphony	Legato	DSP
235	GM/DRUM	102:Echoes	102	0	1	64		
236	GM/DRUM	103:SF	103	0	2	32		Auto Pan
237	GM/DRUM	104:Sitar	104	0	1	64		
238	GM/DRUM	105:Banjo	105	0	1	64		
239	GM/DRUM	106:Shamisen	106	0	1	64		
240	GM/DRUM	107:Koto	107	0	1	64		
241	GM/DRUM	108:Kalimba	108	0	1	64		
242	GM/DRUM	109:Bag Pipe	109	0	2	32		
243	GM/DRUM	110:Fiddle	110	0	1	64		
244	GM/DRUM	111:Shanai	111	0	2	32		
245	GM/DRUM	112:TinklBel	112	0	2	32		
246	GM/DRUM	113:Agogo	113	0	2	32		
247	GM/DRUM	114:SteelDrum	114	0	1	64		
248	GM/DRUM	115:WoodBlok	115	0	1	64		
249	GM/DRUM	116:Taiko	116	0	1	64		
250	GM/DRUM	117:Melo.Tom	117	0	1	64		
251	GM/DRUM	118:Syn-Drum	118	0	1	64		
252	GM/DRUM	119:RevCymbal	119	0	1	64		
253	GM/DRUM	120:FreiNoiz	120	0	1	64		
254	GM/DRUM	121:BrthNoiz	121	0	1	64		
255	GM/DRUM	122:Seashore	122	0	1	64		
256	GM/DRUM	123:Bird	123	0	2	32		
257	GM/DRUM	124:Telephone	124	0	1	64		
258	GM/DRUM	125:Helicoptir	125	0	1	64		
259	GM/DRUM	126:Applause	126	0	2	32		
260	GM/DRUM	127:Gunshot	127	0	1	64		
261	GM/DRUM	StandardSet1	000	0	-	-	-	
262	GM/DRUM	StandardSet2	001	0	-	-	-	
263	GM/DRUM	Room Set	008	0	-	-	-	
264	GM/DRUM	Power Set	016	0	-	-	-	
265	GM/DRUM	Elec.Set	024	0	-	-	-	
266	GM/DRUM	Synth-Set 1	025	0	-	-	-	
267	GM/DRUM	Synth-Set 2	030	0	-	-	-	
268	GM/DRUM	Jazz Set	032	0	-	-	-	
269	GM/DRUM	Brush Set	040	0	-	-	-	
270	GM/DRUM	Orch.Set	048	0	-	-	-	

NOTE

- When the "GM/Various" tones "031:GtrHrmmc", "047:Timpani", or "113:Agogo" tone is selected, notes in the range starting with C7 are always sounded one octave lower in the range starting from C6. Transposing the keyboard causes the start points to be raised or lowered accordingly.
- After you use transpose, notes outside the normal A0 to C8 keyboard range may be difficult to hear.
- Legato ○: Tones that change during legato play.