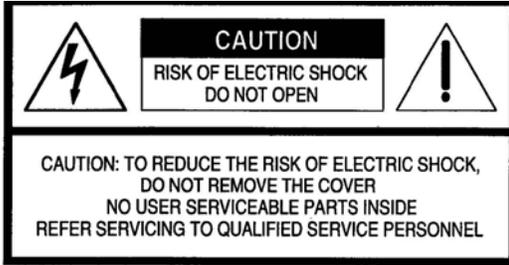


INTRODUCTION TO THE
KURZWEIL™
Music Systems

RG200
Digital Piano

This service manual does not include schematics. The schematic set was removed to reduce the file size for improvement of email transfer and downloads. To obtain a .pdf file of the schematics contact us and ask for the RG200 schematic set.

KURZWEIL MUSIC SYSTEMS
AND Music Corp
9501 Lakewood Drive, SW Ste. D
Lakewood, Washington 98499
(253)589-3200



EXPLANATION OF GRAPHIC SYMBOLS:



The lightning flash with the arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

IMPORTANT SAFETY AND INSTALLATION INSTRUCTIONS

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

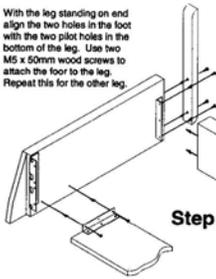
WARNING—When using electric products, basic precautions should always be followed, including the following:

1. Read all of the Safety and Installation Instructions and Explanation of Graphic Symbols before using the product.
2. 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.
3. 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 period 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.
4. The product should be located so that its location or position does not interfere with its proper ventilation.
5. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
6. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
7. This product may be equipped with a polarized line plug (one blade wider than the 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.
8. 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.
9. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
10. The products should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled, into the product; or
 - C. The product has been exposed to rain; or
 - D. The product does not appear to be operating normally or exhibits a marked change in performance; or
 - E. The product has been dropped, or the enclosure damaged.
11. 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.
12. **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.

SAVE THESE INSTRUCTIONS

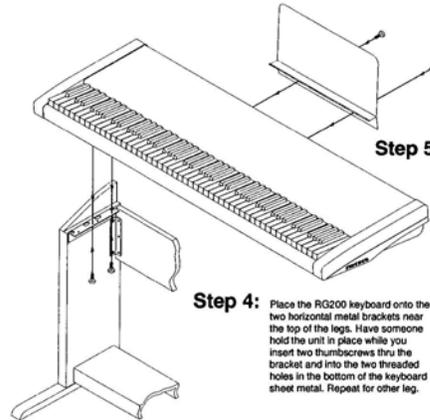
ASSEMBLY INSTRUCTIONS

Step 1: With the leg standing on end and align the two holes in the foot with the two pilot holes in the bottom of the leg. Use two M5 x 50mm wood screws to attach the foot to the leg. Repeat this for the other leg.



Step 2: With the leg still standing on end place the pedal crossmember, pedals up, onto the bracket near the foot. Put two M6 machine screws thru the bracket and into the threaded inserts on the underside of the pedal crossmember. Repeat this for the other leg.

Step 3: Align the bracket on the upper crossmember up with the two threaded inserts. When properly aligned the top edge of the upper crossmember should be approximately level with the top bracket. Put two M6 machine screws thru the bracket and into the threaded inserts in the leg. Repeat this for the other leg.



Step 4: Place the RQ200 keyboard onto the two horizontal metal brackets near the top of the legs. Have someone hold the unit in place while you insert two thumbscrews thru the bracket and into the two threaded holes in the bottom of the keyboard sheet metal. Repeat for other leg.

Step 5: Align the two holes in the music rack up with the two threaded holes on the units rear panel. Insert a thumbscrew thru each hole.

RADIO AND TELEVISION INTERFACE

WARNING: Changes or modifications to this instrument not expressly approved by Young Chang 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 different from the one to which the receiver is connected.
- If necessary consult your dealer or an experienced radio/television technician for additional suggestions.

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.

INTRODUCTION TO THE
KURZWEIL™
Music Systems

RG200
Digital Piano

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ABOUT THE RG200

Introduction

Welcome to the Kurzweil **RG200**! The **RG200** gives you simple, affordable access to Kurzweil's high-quality sound technology. The authentic digital representations of musical instrument sounds in the **RG200** reproduce the finest details of the original sounds—from bass to treble and from soft to loud.

This manual serves as both a guided tour of the **RG200** for the new owner and a reference for later use. The features of the instrument are discussed one at a time, and the songs included give you an opportunity to play the **RG200** right away.

Setting Up The Instrument

See the "Important Safety And Installation Instructions" and "Assembly Instructions," on page 1, for information regarding the installation and assembly of the **RG200**.

Once the **RG200** is assembled and attached to its stand, make sure to plug the cord that comes from the pedals (in the base of the stand) into the Pedals jack, on the rear panel.

Four thumbscrews hold the keyboard to the stand. For table-top playing, unscrew these to detach the keyboard. **CAUTION:** Have someone hold the keyboard unit while you remove the thumbscrews, so that the unit does not fall. Also, unplug the cord from the Pedals jack, on the rear panel, before removing the keyboard from the stand.

Apply the four adhesive-backed rubber feet that were packed with the instrument to the bottom of the keyboard if you intend to place the instrument on anything other than its own stand.

NOTE: Make sure nothing obstructs the speakers. Don't cover them with anything.

CARE OF YOUR INSTRUMENT

Dust the **RG200** with a soft dry cloth; **DO NOT** use aerosol sprays on or near it. Clean the keys with a soft damp (**NOT** wet) cloth, dampened in a solution of dish soap and water if necessary. **NEVER** use solvents such as alcohol or benzene.

NOTE: To avoid possible injury or electrocution, do not open up the **RG200**. There are no user-serviceable parts inside.

POWER

The **RG200** operates on DC power; a DC power adaptor is included with the instrument to connect it to an AC outlet. If you should move to another country, or if you should have any doubts about AC voltages, see your local Kurzweil dealer.

WARNING: Be sure the DC power adaptor is labeled "**RG200**". Use of any other DC power adaptor, including the power adaptor for the **RG100**, may damage your instrument or result in seriously degraded performance.

Before connecting the power supply, make sure the Power switch, at the left end of the control panel, is OFF (0). One end of the power supply plugs into the Power In jack on the rear panel of the **RG200**; the other end plugs into an AC outlet.

Connect it to the instrument first, then the AC outlet; then turn the Power switch ON (I). The **RG200** is now ready to play. To make sure that you can hear the instrument, move the Master Volume slider to approximately the position shown:



This should provide a comfortable volume, which you can adjust if you wish.

Demo

The **RG200** contains a built-in demonstration to acquaint you with the sounds and capabilities it possesses. To access this demonstration, first press the Select button in the Function section, at the right end of the front-panel controls; the light above this button will illuminate. Then press the Metronome button, in the Recorder section, which has the word “Demo” printed beneath it. The light above this button, as well as the light above the Play button, will also illuminate, and the demonstration will begin playing.

The demonstration will stop automatically when it is finished. To stop it before it is finished, press the Play (Stop) button in the Recorder section. In either case, the lights above the Metronome (Demo) and Play buttons will go out and the **RG200** returns to normal playing mode.

The Keyboard

The keyboard of the **RG200** consists of 88 weighted keys, with an action designed to simulate the feel of an acoustic piano. Just as with an acoustic piano, the harder you press the keys of the **RG200** (more precisely, the faster you strike them), the louder and brighter the resulting sound is. In technical terms, this is called “velocity sensitivity.” It makes the **RG200** a truly expressive musical instrument. See page 12 for information on adjusting the velocity sensitivity to suit your preference. (NOTE: The Harpsichord and Pipe Organ sounds purposely *aren't* velocity-sensitive, because real harpsichords and pipe organs aren't velocity-sensitive.)

The Pedals

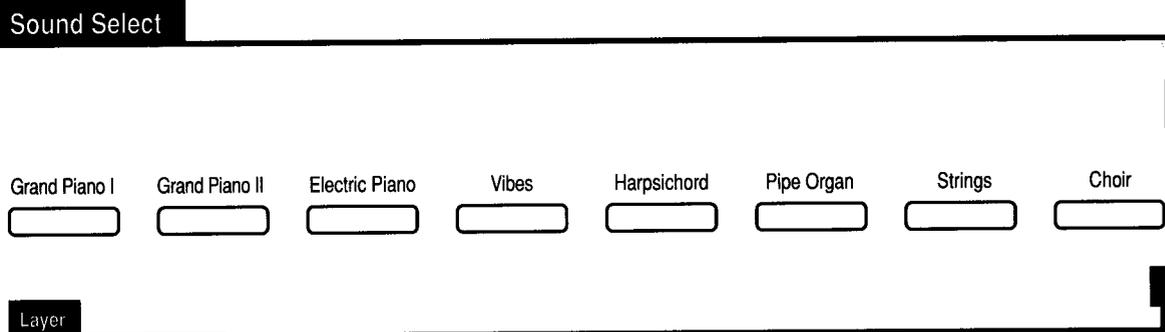
In addition to the expressiveness offered by the keyboard, there are two pedals that provide you with further control over the sounds of the **RG200**. These pedals have the same functions as those on a grand piano:

- **SUSTAIN.** Pressing the right pedal causes notes to sustain even when you lift your fingers from the keys.
- **SOFT.** Pressing the left pedal generally causes notes to sound softer and more muted when they are played. For three of the sounds, however, it produces different effects:
 - For Vibes, pressing the left pedal causes the tremolo to speed up; releasing the pedal causes the tremolo to slow down again.
 - For Harpsichord, which normally plays notes doubled at the octave, pressing the left pedal removes the octave doubling.
 - For Pipe Organ, pressing the left pedal causes the sound to become softer gradually (*decrescendo*); releasing the pedal causes the sound to *crescendo* back to its original loudness.

NOTE: Pedals for electronic keyboards, which are essentially switches, come in two varieties: normally open and normally closed. Different manufacturers make one or the other of these two types. Your **RG200** automatically senses which kind of pedal is plugged into it when it is turned on, so it works perfectly with either type—if, for example, you should use the instrument apart from the stand and its built-in pedals, and decide to buy separate pedals. If you do so, we recommend the Kurzweil K-FP2 pedals. (Because the **RG200** senses the pedals on startup, make sure you do not step on either of the pedals when you turn on the instrument; if you do, that pedal will operate in reverse. To correct this, turn the **RG200** off, then back on.)

Sound Select

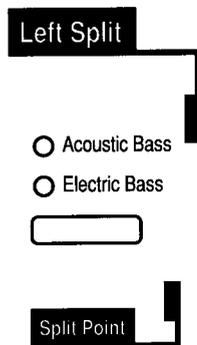
The Sound Select portion of the front panel contains buttons used for selecting from among the eight different sounds available on the **RG200**. You select a sound by pressing the corresponding button. Any notes still sounding at the time you select a new sound will complete playing the original sound. For example, select Choir and play a chord; while holding the notes (either by holding the keys down or by pressing and holding the sustain pedal), select Grand Piano I; now play some notes with the piano sound while the choir notes sustain.



NOTE: While in Function mode, you can *layer* any two sounds from the Sound Select section. That is, you can play two sounds simultaneously with each key you strike. For example, select Grand Piano I, press the Function Select button, then select Choir. Now the two sounds are layered together. See pages 9 and 10 for more information.

When you turn the Power switch ON, the Grand Piano I sound is automatically active (with no additional layered sound) and ready to play.

Left Split



The Left Split button lets you “split” the keyboard into two parts. The right-hand part of the keyboard plays whatever sound (or layer of two sounds) is currently selected in the Sound Select section; the left-hand part plays a bass sound.

Press the Left Split button repeatedly to “cycle” among the Left Split options. You can choose Acoustic Bass or Electric Bass (the corresponding light illuminates), or no split (no light). With no split selected, the entire keyboard plays the sound[s] selected from the Sound Select section.

The Electric Bass sound responds to your playing dynamics in the following way: when you strike the keys softly, you hear a plucked bass sound; when you strike the keys hard, you hear a “slap” bass sound, useful for playing contemporary dance and R&B music.

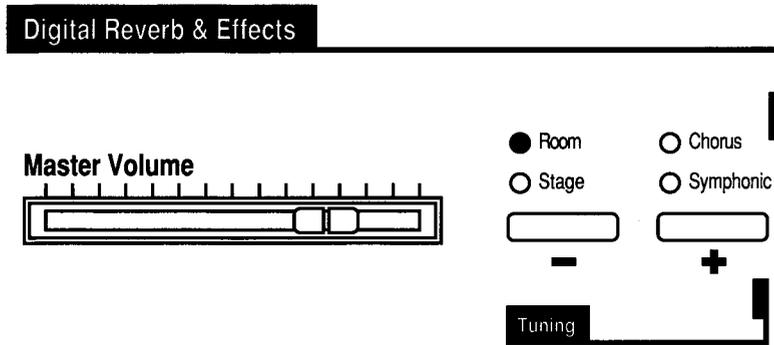
Splits are an easy way to make one performer sound like two. When you play the keyboard, your left hand plays one sound and your right hand plays another.

The sustain pedal does not affect the left split sound. This allows you to play moving bass lines without the notes blurring together.

Press a different Sound Select button while a split is active to change the right sound but not the left one. Press the Left Split button to change the left sound but not the right one, or to turn the split off.

You can set the split point—the place on the keyboard where the left and right sounds meet—in Function mode (see page 11). The **RG200** remembers the split point when you turn the power off.

When you turn on the **RG200**, the Left Split is OFF.



Digital Reverb & Effects

The Digital Reverb & Effects section of the panel contains controls that affect the sound of the **RG200**.

The Master Volume slider controls the overall volume (loudness) of the **RG200**. Move it to the right to increase the volume, and to the left to decrease the volume; when moved all the way to the left, it silences the instrument.

Master Volume affects not only the volume produced by the internal sound system, but also the volume produced by equipment connected to the Headphone or Audio Out jacks (see page 13). **CAUTION:** Turn the Master Volume down before connecting headphones or using the Audio Out jacks.

WARNING: Master Volume does not affect the signal that comes in through the Audio In jacks; this signal will play at full volume! If you wish to be able to control the level of the external device connected to these inputs, the device must have a volume control of its own.

For a heightened sense of sonic realism, the **RG200** provides you with two independent types of digital signal processing: Reverb and Effects. Each is controlled by its own button—Reverb on the left and Effects on the right. Pressing a button lets you select one of the two “flavors” available for that type, as indicated by the lights above the button, or to turn it off (when neither of the lights is lit).

Reverb, or reverberation, occurs naturally when sound undergoes multiple reflections off the walls of an enclosed space. These reflections blend together into a “wash” of sound that adds warmth and presence to music. The reverb button provides you with reverberation that represents two different room sizes:

- Room—The intimacy of a chamber-music room.
- Stage—The ambience of a performance stage.

The effects are as follows:

- Chorus—The effect of many instruments playing together instead of one.
- Symphonic—A unique combination of chorus and many echoes.

When Symphonic is used with Room or Stage Reverb, it increases the reverb that is already present. In other words, it makes the size of the room or stage appear to be larger.

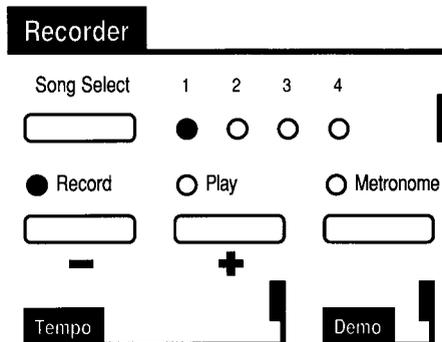
When you turn the **RG200** on, Reverb is set to Room, and Effects are OFF.

The Reverb and Effects affect all sounds from the **RG200**, but not sounds coming from the Audio In jacks.

MASTER VOLUME

REVERB AND EFFECTS

Recorder



The Recorder lets you record and play back your performances on the **RG200**. You can store up to four different performances in the **RG200** memory at a time.

Press the Song Select button to select one of the four songs (memory locations) into which you wish to record. The four numbered lights tell you which is the current song. Press Record; the red Record light illuminates. The Recorder waits for you to start playing before it starts recording. It records notes, pedals, and button presses (except the Function Select button). (HINT: To play back your recording with a specific sound select, reverb, or effect, select the sound or effect *after* you press Record.) To stop recording, press Record again; the Record light goes out. If you reach the capacity of the Recorder (about 6,000 notes), recording stops automatically and the Record light goes out.

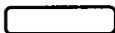
Press Play to play back your recording; the green Play light illuminates and playback begins. You can play along with the recording. You can also use the pedals as well as change sounds and effects. (This will change the sound of the playback.) Playback stops automatically, and the Play light goes out, when you reach the end of the recording. If you wish to stop playback before the end, press Play again; playback stops and the Play light goes out.

NOTE: You can change the tempo of playback in Function mode (see page 11).

Whenever the power supply of the **RG200** is plugged into the instrument and an AC outlet, your songs remain saved in the internal memory of the **RG200**. If the power supply is ever unplugged from the instrument or the wall, your songs will be erased in two to four days. While the power supply is connected, a recording remains in memory until you press Record again for that song number.

Metronome

Metronome



You'll find the Metronome button in the Recorder section. Press this button to hear the Metronome click; the Metronome light flashes in time with the click. Press the button again to turn the Metronome off.

You can use the Metronome while recording, to help you keep a steady beat. You can also use it as a stand-alone practice aid.

You do not have to use or follow the Metronome when you record; the Metronome will not follow you. But if the Metronome is on, it restarts its click when the Record or Play button is pressed.

Although you can turn the Metronome on and off during recording or playback, the Metronome clicks will not be recorded. If you recorded in sync with the Metronome and wish to play back your recording in sync with the Metronome, start the Metronome *first* and listen to the beat, *then* press Play.

NOTE: You can change the Metronome tempo in Function mode (see page 11). You can also change the Metronome volume in Function mode (see page 12).

When you turn the **RG200** on, the Metronome is off.

The **RG200** has a special Function mode, from which you can do the following:

- listen to the built-in demonstration;
- layer two sounds;
- select the left split point;
- change the Recorder and Metronome tempo;
- tune the instrument;
- change the Metronome volume;
- transpose the keyboard;
- adjust the velocity sensitivity of the keyboard;
- select the MIDI channel on which MIDI messages are transmitted and received;
- reset all Function parameters back to their factory defaults.

Some of these functions are accessed from the keyboard. Others are indicated on the control panel by labels *beneath* buttons, color-coded red—the same color as the label over the Function Select button. The Function Select button works something like the shift key on a typewriter—giving the buttons a second set of uses.

Press the Function Select button to enter Function mode; the light above the button illuminates.

Selecting a layered sound, split point, transposition, velocity sensitivity, Metronome volume, MIDI channel, or parameter reset will cause the **RG200** to exit Function mode automatically. To exit Function mode after listening to the demo, tuning the instrument, or setting the tempo, press the Function Select button again; the light above the button goes out and the **RG200** is returned to normal play mode.

Following is a description of the operations in Function mode.

While in Function mode, press the Metronome (Demo) button, in the Recorder section, to hear the built-in demonstration of the **RG200**; the Metronome and Play lights will illuminate. The demo stops automatically when it is finished. To stop it before it is finished, press Play (Stop) in the Recorder section. In either case, the Metronome and Play lights go out and the **RG200** returns to normal playing mode.

For added variety and richness of sound, you can *layer* two sounds across the keyboard—that is, each key will play two sounds at the same time. The result is similar to when two different sections of an orchestra play the same notes.

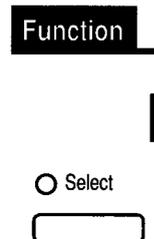
To layer two sounds, first (before entering Function mode) select one of the sounds in the Sound Select section. Then press the Function Select button to enter Function mode, and select the second sound. The **RG200** automatically returns to normal play mode, and the keyboard now plays both sounds together. If a Left Split is active, only the right-hand portion of the keyboard will play the layered sounds.

When layering two sounds, it doesn't matter which sound is selected first. That is, selecting Grand Piano I and layering Strings with it will produce the same result as selecting Strings and layering Grand Piano I with it.

For Electric Piano, Vibes, Harpsichord, and Pipe Organ, layering the sound with itself will result in just the normal single sound. For Grand Piano I, Grand Piano II, Strings, and Choir, layering the sound with itself will result in a special version of the sound, as described on page 10.

When you turn the **RG200** on, the sound is always set to Grand Piano I (with no additional layered sound).

Function



DEMO

LAYER

Intelligent Layering

The **RG200** employs a special *intelligent layering* feature for the best possible layered sounds. When layering sounds, specially tailored versions of the sounds are used. For example:

- Grand Piano I layered with Strings uses a special mellow Strings sound.
- Electric Piano with Choir uses a specially tailored Choir sound.
- Grand Piano I with Grand Piano II yields a big sound, ideal for ballads.
- Choir with Strings produces a dreamy effect.
- Grand Piano II with Vibes transposes Vibes up an octave for a lively sound.
- Pipe Organ with Strings uses special versions of both sounds.

Special Tunings for Grand Piano I & II

The Grand Piano I and Grand Piano II are tuned differently than other sounds on the **RG200**; they use what is known as “stretch tuning.” In this tuning, which is employed on acoustic pianos, octaves are slightly wider than theoretically pure, so that the notes on the keyboard line up more precisely with each other’s overtones. (The overtones are farther apart than theoretically pure because of the stiffness of piano strings.) This makes for a more agreeable sound, especially for solo playing.

But when you layer Grand Piano I or Grand Piano II with another sound, the **RG200** substitutes a special version of the piano sound that is *not* stretch-tuned, so that it is in tune with the other layered sound.

When you select Grand Piano I, then Function Select, and then Grand Piano I again, the result is *not* the normal stretch-tuned piano sound: it is the special non-stretch-tuned version of the piano sound. This also applies to Grand Piano II. This may be useful if, for example, you are playing with other musicians.

Special Strings and Choir Sounds

When you select Strings, then Function Select, and then Strings again, the result is not the normal Strings sound: it is a special version of the sound more appropriate for slow playing. This also applies to the Choir sound.

MIDI Program Change Numbers

Below is a chart showing the MIDI program change numbers for the sounds on the **RG200**. (For more information about MIDI, see page 14.)

Layered Sound	[none]	Grand Piano I	Grand Piano II	Electric Piano	Vibes	Harpichord	Pipe Organ	Strings	Choir
Grand Piano I	0	8	16	24	32	40	48	56	64
Grand Piano II	1	9	17	25	33	41	49	57	65
Electric Piano	2	10	18	26	34	42	50	58	66
Vibes	3	11	19	27	35	43	51	59	67
Harpichord	4	12	20	28	36	44	52	60	68
Pipe Organ	5	13	21	29	37	45	53	61	69
Strings	6	14	22	30	38	46	54	62	70
Choir	7	15	23	31	39	47	55	63	71
Acoustic Bass (Left Split)	72								
Electric Bass (Left Split)	73								
Metronome	74								

MIDI Program Number

 = duplicates a sound available with a lower program number

SPLIT POINT

While in Function mode, press the Left Split (Split Point) button and strike a key on the keyboard to set the split point—the top key to be played by the Left Split sound. The keystroke does not sound, and the **RG200** automatically returns to normal playing mode. (Remember that in order to hear a Left Split sound, you must select one in normal playing mode.)

The most recent split point is stored in memory, even when you turn the **RG200** off. (The default split point set at the factory is G below middle C.)

When you turn the **RG200** on, the Left Split is turned off.

You can change the tempo (speed) of the Metronome and the currently selected song in the Recorder, which is useful for practicing, because it lets you start slowly and gradually increase speed as you become more proficient. It also lets you record a song at one speed and then play it back at a faster or slower speed.

While in Function mode, press the Record (Tempo –) or Play (Tempo +) button to slow the tempo down or speed it up, respectively. Each press of one of these buttons changes the tempo of the Metronome by one beat per minute, down to a minimum of 40 beats per minute or up to a maximum of 240 beats per minute. The tempo of the currently selected song will change proportionately.

Each of the four songs can have its own independent tempo, which is stored in memory with the song, even when the **RG200** is turned off. The Metronome always plays at the tempo of the currently selected song.

Once you have reached the desired tempo, press the Function Select button to exit Function mode.

The factory default tempo is 120 beats per minute for all four song locations.

The **RG200** will never go out of tune. However, when playing with recordings or other musical instruments, you may desire to shift the tuning so that everything is playing at the same pitch. You can do so by as much as a quarter tone (half a half step) down or a quarter tone up.

While in Function mode, press the Reverb (Tuning –) or Effects (Tuning +) button to shift the tuning down or up, respectively. The first button press causes the Function Select light to flash and the tuning to reset to standard concert pitch (A 440). Each subsequent button press lowers (–) or raises (+) the pitch by one *cent*—a hundredth of a half step—up to a maximum of 50 cents below or 50 cents above A 440.

While you are tuning, you can play the keyboard to hear the effect of the tuning change.

Once you have reached the desired tuning, press the Function Select button to exit Function mode.

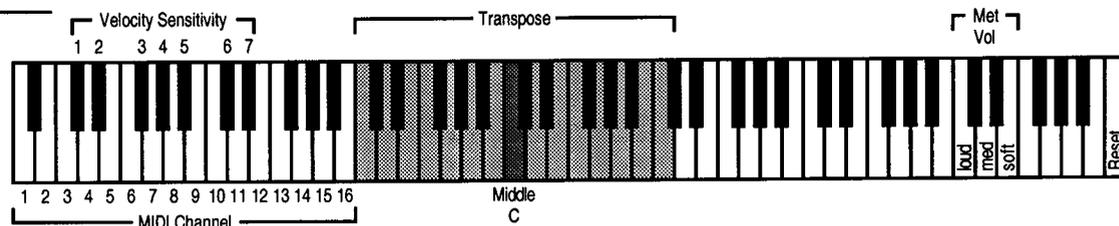
To return to A 440 pitch, press the Function Select button (to re-enter Function mode) and press either one of the Tuning buttons once.

When you turn the **RG200** on, the tuning is always reset to A 440.

TEMPO

TUNING

KEYBOARD OPERATIONS (see below)



METRONOME VOLUME

You can adjust the Metronome volume (loudness) in Function mode by striking one of the three keys that govern this setting. This keystroke (which does not sound a note), in addition to setting the Metronome volume, causes the **RG200** to exit Function mode. The Function Select light goes out, and the instrument is returned to normal play mode.

You can select a loud, medium, or soft volume. Your setting is stored in memory, even when the **RG200** is turned off. The default Metronome volume set at the factory is medium.

TRANPOSE

Transpose lets you play in one key and have the notes sound in another. This is useful when accompanying singers for whom the written music is too high or low, or when playing music written for a transposing instrument, such as a clarinet.

To change the transposition while in Function mode, strike a key on the keyboard within the octave above or the octave below Middle C. This keystroke (which does not sound a note) transposes the keyboard so that the Middle C key will now sound the note you selected, and the instrument will be transposed by the interval between Middle C and that note. (For example, to transpose up a fifth, strike G above Middle C.) The keystroke also causes the **RG200** to exit Function mode. The Function Select light goes out, and the instrument is returned to normal play mode.

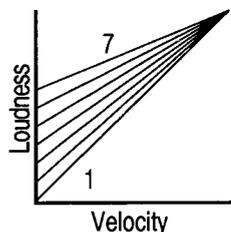
When the **RG200** is transposed, the transposition affects not only the sounds played from the keyboard, but also the note messages recorded into the Recorder or sent to another instrument or sequencer via the MIDI Out port.

NOTE: The sounds in the **RG200** are designed to play over the full 88-note range of the keyboard. When the **RG200** is transposed, some keys at one end of the keyboard may be silent.

To return the **RG200** to no transposition, press the Function Select button (to re-enter Function Mode) and strike Middle C.

The **RG200** is reset to have no transposition when power is turned on.

VELOCITY SENSITIVITY



You can adjust the velocity sensitivity of the keyboard (how the dynamics of the sounds respond to key velocity) in Function mode by striking one of the seven keys that govern this setting. This keystroke (which does not sound a note), in addition to setting the velocity sensitivity of the keyboard, causes the **RG200** to exit Function mode. The Function Select light goes out, and the instrument is returned to normal play mode.

A setting of 1 has the greatest dynamic range, but requires high velocities to obtain loud notes; a setting of 7 has a narrower range, but makes it easier to play moderately loudly (see the graph). For example, a child beginning piano lessons may benefit from a high setting, while an experienced player may prefer a lower setting.

When power to the **RG200** is turned on, the velocity sensitivity is set to 4.

While the **RG200** is in Function mode, you can select the MIDI channel on which information is transmitted and received by striking one of the 16 keys that govern this setting. (See page 14 for more information about MIDI channels.)

The number of the key in the illustration corresponds to the number of the MIDI channel selected when that key is struck. This keystroke (which does not sound a note), in addition to setting the MIDI channel, causes the **RG200** to exit Function mode. The Function Select light goes out, and the instrument is returned to normal play mode.

The MIDI channel is reset to 1 every time the **RG200** is turned on.

You can reset all the parameters back to their factory default values while in Function mode by striking the top key on the keyboard. (This keystroke will not sound a note.) Then turn the **RG200** off and then on again to complete the procedure.

Resetting the parameters is an easy way to erase all the songs in the Recorder.

This section of the manual discusses three main areas: 1) Connections to the **RG200**; 2) Service; and 3) Specifications.

A 1/4" stereo headphone jack is located on the left front of the instrument, providing you with a means to play or practice at the **RG200** in privacy. Inserting a plug into the jack disables the internal speakers (although it does not disconnect the signal sent through the Audio Out jacks—see below).

The rear panel of the **RG200** is the location of connectors for such things as the DC power adaptor, audio outputs and inputs, pedals, and MIDI.

On the DC power adaptor is a plug that fits in the Power In receptacle on the rear panel; the other end of the adaptor plugs into a standard AC wall outlet.

Two RCA jacks provide audio output to external equipment, such as a home stereo, a PA system, or a tape recorder. They consist of a Left and a Right output for a complete stereo signal. They provide line-level signals.

Two RCA jacks accept line-level audio signals from external equipment, such as a tone module, a CD player, or a tape recorder. These inputs are directed to the Left and Right channels of the internal audio system, as well as the external Audio Out jacks.

These inputs are inserted after the digital reverb and effects; that is, the internal effects will not be applied to the signal from an external source.

WARNING: The signal that comes in through these jacks will play at full volume! These inputs are not affected by the Master Volume control of the **RG200**. If you wish to be able to control the level of the external device connected to these inputs, the device must have a volume control of its own.

The Pedals connector is where you plug in the cord from the pedals (located in the base of the stand). Without this connection, the **RG200** will not respond to the pedals.

MIDI CHANNEL

RESET PARAMETERS

Additional Information

HEADPHONE JACK

REAR PANEL

Power In

Audio Out

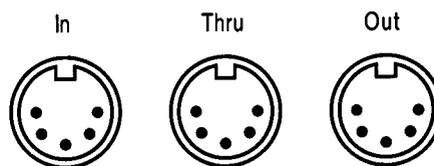
Audio In

Pedals

MIDI

“MIDI” stands for “Musical Instrument Digital Interface.” It is an international specification that allows electronic musical instruments to communicate with each other, using a simple cable connection. It ensures that the **RG200** will remain compatible with the instruments of today and tomorrow.

On the rear panel of the **RG200** are three five-pin MIDI ports:



- In receives MIDI information from other equipment.
- Thru duplicates the information received by In and passes it to other equipment.
- Out sends MIDI information to other equipment.

Standard MIDI cables provide the connections between the MIDI ports of one piece of equipment and those of another.

The simplest use of MIDI is to play two instruments at a time from the keyboard of one of them. Use a MIDI cable to connect the MIDI Out port of the instrument whose keyboard you'll play (called the “master”) to the MIDI In port of the other instrument (the “slave”). You probably will want to use the **RG200** as your master keyboard.

If the slave doesn't have built-in amplification and speakers, you can connect its audio outputs to the Audio In jacks on the **RG200**.

It is important to explain that what is sent over the MIDI cable is information (data), not sound. Each connected instrument produces its own sounds; this “layering” of different sounds is one of the benefits of MIDI. For the **RG200**, the information transmitted and received falls into three categories:

- Playing notes. This involves MIDI Note On and Note Off messages.
- Selecting sounds. This makes use of MIDI Program Change messages (see page 10 for a chart showing program change numbers for the **RG200**).
- Operating the pedals, changing the Reverb and Effects settings, and layering or splitting sounds. All of these utilize MIDI Controller messages.

Another application of MIDI is in using an external *sequencer* to record and play back your performances. The sequencer can be a special hardware unit designed for that purpose, or it can be a personal computer running special sequencing software. In either case, the MIDI connections are the same—Out to In and In to Out.

A MIDI sequencer can control several instruments, each playing a different part, at the same time. To do this, it relies on MIDI *channels*. MIDI channels are like TV channels: an instrument has to be “tuned” to the correct one or it won't receive what is being transmitted. There are 16 channels available, numbered 1–16; the **RG200** can be set to any one of them. (Information on setting the MIDI channel of the **RG200** can be found on page 13.) The channel is set to 1 when the **RG200** is turned on.

Page 32 shows the complete MIDI Implementation Chart for the **RG200**.

The **RG200** contains no user-serviceable parts. In the event that you should experience a problem with the operation of the instrument, see your local Young Chang/Kurzweil dealer.

SERVICE

Following are physical, audio, and power supply specifications for the **RG200**.

SPECIFICATIONS

- Height: 31" (79 cm)
- Depth: 17.75" (43 cm)
- Length: 51.75" (131 cm)
- Weight:
 - RG200** 71 lbs. (32 kg)
 - RGS** (stand) 43 lbs. (20 kg)
 - TOTAL** 114 lbs. (52 kg)
- 20-Watt Amplification: 2 x 10 Watts
- 4 Speakers: 2 x 4.5" (11 cm) woofers
2 x 2.5" (6 cm) tweeters
- AC Adaptor: 15 Volts DC, 2.5 Amps
- Power Consumption: 1.2 Amps nominal

Physical

Audio

Power Supply

WARNING: Be sure the DC power adaptor is labeled "**RG200**". Use of any other DC power adaptor, including the power adaptor for the **RG100**, may damage your instrument or result in seriously degraded performance.

MIDI Implementation Chart

Manufacturer:
Young Chang

Date: Feb. 94

Model: Kurzweil RG200

Digital Piano

Function	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 1-16	1 1-16
Mode	Default Messages Altered	X X X	X X X
Note Number	True Voice	0-127 12-108	0-127 12-108
Velocity	Note ON Note OFF	O X	O X
After Touch	Keys Channel	X X	X X
Pitch Bender		X	X
Control Change	7 64 66 67 80 81 83	X O X O O O O	O O O O O O O*
Program Change	True #	O 0-75	O 0-75
System Exclusive		X	X
System Common	Song Pos Song Sel Tune	X X X	X X X
System Real Time	Clock Messages	X X	X X
Aux Messages	Local Control All Notes Off Active Sense Reset	X O X X	X O X X
Notes	* 0-8: 0 = none 3 = chorus 6 = symphonic 1 = room 4 = room, chorus 7 = room, symphonic 2 = stage 5 = stage, chorus 8 = stage, symphonic		

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

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

O = yes
X = no