


Roland®

FR-7*b* / FR-5*b*



Owner's Manual

WARNING – To reduce the risk of fire or electric shock, do not expose this device to rain or moisture.

 CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	



The lightning flash with 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.


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

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

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

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.
A grounding type plug has two blades and third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

For the U.K.

WARNING: THIS APPARATUS MUST BE EARTHED
IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or coloured GREEN or GREEN-AND-YELLOW.
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.



This product must be disposed of separately at your local waste recycling centre.
Do not dispose of in household waste bin.

The technology used in the FR-7b and FR-5b is covered by U.S. Patent No. 6.946.594.

Roland

FR-7_b/FR-5_b



Owner's Manual

Thank you for purchasing the Roland FR-7b/FR-5b V-Accordion. The FR-7b/FR-5b is an amazingly versatile electronic instrument that can emulate the sounds of a vast array of accordions. You may know that the term "accordion" refers to a portable musical instrument of the free reed family, that its sound is controlled by air flow from the bellows, and that there are almost as many types as there are countries. The accordion family indeed includes instruments called "Aeloine", "Aerophone", "Bayan", "Buzika", "Concertina", "Drängkammarrorgel", "Fisarmonica", "Hanuri", "Melodeon", "Pedalowka", "Schwyzerorgeli", "Squeeze Box", "Sun Fin Chin", and many others.

For the first time in history, Roland introduces an accordion instrument that can emulate (recreate) the sounds and behavior of several bellows instruments. Though it is also the most sophisticated MIDI controller to date (even more powerful than any keyboard instrument), the major advantage of the FR-7b/FR-5b is probably that it allows you to change sounds without changing instruments. Apart from the financial benefit (the FR-7b/FR-5b costs far less than what you have to pay for the emulated originals), this also means that you can use your familiar playing style and techniques while covering a host of different musical genres.

To get the most out of the FR-7b/FR-5b and to ensure many years of trouble-free service, we urge you to read through this Owner's Manual thoroughly.

Before using this instrument, carefully read the "Important notes" (p. 9). They provide information concerning the proper operation of the FR-7b/FR-5b. Be sure to keep this manual in a safe place for future reference.

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1. Features

Stand-alone electronic instrument

Though the FR-7b/FR-5b is a fully electronic instrument, you do not need to connect the FR-7b to an amplifier in order to produce sounds. Its onboard amplification system is powerful enough for small venues, restaurants, etc. (The FR-5b has no internal amplification.)

Furthermore, the FR-7b comes with a rechargeable battery (Ni-Mh) so that you do not need to connect it to a wall outlet. The battery should last ± 8 hours. (The battery is available as an optional item for the FR-5b.)

Sophisticated MIDI control

The FR-7b/FR-5b is the most versatile and "musical" MIDI controller to date, going far beyond the control possibilities of a MIDI keyboard with optional performance functions or of MIDI'd wind instruments.

PBM (Physical Behavior Modeling)

The FR-7b/FR-5b V-Accordion is based on Roland's latest sound generation technology called "PBM" (Physical Behavior Modeling) whose sonic result is very close to the sound of traditional accordions.

Super realistic accordion simulations

The FR-7b/FR-5b provides 40 memories called "Sets", with 14 treble registers, 7 bass & chord registers and 7 free bass registers each. All sounds it produces were obtained by sampling the most popular traditional acoustic accordions. Different tuning systems are also available.

This V-Accordion allows you to switch from an Italian jazz accordion to German folk, French musette or a historic bandoneon sound – without changing your technique.

Orchestral sounds

22 orchestral sounds can be used in combination with traditional accordion sounds – complete with full bellows articulation and unique keyboard modes (Solo, Dual, High and Low, as well as "M" variants of these modes).

In addition, the FR-7b/FR-5b provides 7 orchestral bass sounds for the Bass section, 7 orchestral sounds for the chord buttons, and 7 orchestral sounds for the Free Bass section that can be added to the Bass accordion sound.

The digital advantage

The V-Accordion includes all functions and sounds of a traditional accordion, thus conveying a really natural feel and sound. Yet it also provides the advantages only an electronic musical instrument can give you:

- reduced overall weight;
- possibility to choose among a wide variety of sounds;
- you can create and customize the accordion timbres (program your own sounds);
- you can choose among various bass button operation modes (Minor 3rd Free Bass, 5th, Bayan, North Europe, Finnish);
- tuning stability over time and wear resistance of all mechanical parts;
- you can sound in a different key than the one you are playing in (transpose function);
- you can play with headphones, i.e. without disturbing your neighbors or family.

Superb performance flexibility

The V-Accordion allows you to control external MIDI-compatible instruments. The Treble and chord/bass buttons are velocity-sensitive, while the bellows controller provides more articulation possibilities than any other MIDI keyboard, MIDI wind instrument, etc., you may know.

In High or Low mode (see p. 26), you can control up to 4 parts simultaneously (two sounds in the right hand/two sounds in the left).

-
- All product names mentioned in this document are trademarks or registered trademarks of their respective owners.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠ WARNING and ⚠ CAUTION Notices

⚠ WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

	The ⚠ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
	The ⚡ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
	The ● symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠ WARNING

- Before using this instrument, read the instructions below and the Owner's Manual.
- Connect the mains plug of this model to a mains outlet with a protective earthing connection.
- Do not open or perform any internal modifications on the unit.
- Do not attempt to repair the FR-7b/FR-5b or FBC-7 or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center or an authorized Roland distributor, as listed on the "Information" page.
- Never use or store the FR-7b/FR-5b or FBC-7 in places that are:
 - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
 - Damp (e.g., baths, washrooms, on wet floors); or are
 - Humid; or are
 - Exposed to rain; or are
 - Dusty; or are
 - Subject to high levels of vibration.
- When not in use, do not place the FR-5b or FR-7b vertically due to instability. If placed in the vertical position on the floor/stage, ensure that it leans against a stable vertical surface e.g. a wall or a heavy musical instrument.
- The FBC-7 should only be connected to a power supply of the type described in the operating instructions or as marked on the bottom of the FBC-7.

⚠ WARNING

- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!
- This instrument, either alone or in combination with an amplifier and headphones or speakers, 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 immediately stop using the FR-7b/FR-5b or FBC-7 and consult an audiologist.
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the FR-7b/FR-5b or FBC-7.
- In households with small children, an adult should provide supervision until the child is capable of following all rules essential for the safe operation of the FR-7b/FR-5b or FBC-7.
- Protect the FR-7b/FR-5b and FBC-7 from strong impact. (Do not drop it!)
- Immediately turn the power off, remove the power cord from the outlet and request servicing by your retailer, the nearest Roland Service Center or an authorized Roland distributor, as listed on the "Information" page when:
 - The power-supply cord or the plug has been damaged; or
 - Objects have fallen into or liquid has been spilled onto the FR-7b/FR-5b or FBC-7; or
 - The unit has been exposed to rain (or otherwise has become wet); or
 - The unit does not appear to operate normally or exhibits a marked change in performance.

- Do not force the FBC-7's power cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.



⚠ WARNING

- Before using the FBC-7 in a foreign country, consult with your retailer, the nearest Roland Service Center or an authorized Roland distributor, as listed on the "Information" page.



⚠ CAUTION

- The FR-7b/FR-5b or FBC-7 should be located so that its location or position does not interfere with its proper ventilation.



- Always grasp only the plug on the power-supply cord when plugging into or unplugging from, an outlet or this unit.



- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed out of the reach of children.



- Never climb on top of, nor place heavy objects on the FR-7b/FR-5b or FBC-7.



- Never handle the power cord or its plugs with wet hands when plugging into or unplugging from, an outlet or this unit.



- If you need to move the FBC-7, take note of the precautions listed below. Make sure to have a firm grip, to protect yourself from injury and the instrument from damage.



- Disconnect the power cord.
- Disconnect all cords coming from external devices.

- Before cleaning the FR-7b/FR-5b, turn off the power and unplug the power cord from the outlet.



- Whenever you suspect the possibility of lightning in your area, disconnect the FBC-7's power cord from the outlet.



- Should you remove screws, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.



2. Important notes

In addition to the items listed under "Using the unit safely" on p. 7, please read and observe the following:

Power supply

- Do not use this instrument on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- Before connecting the FR-7b/FR-5b to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.
- Although the LCD and LEDs are dark when the POWER switch is off, this does not mean that the unit has been completely disconnected from the power source. To turn off the power completely, first turn off the POWER switch, then unplug the power cord from the wall outlet. For this reason, the outlet to which you connect the power cord's plug should be one that is within easy reach.

Placement

- Using the FR-7b/FR-5b near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Do not place the FR-7b/FR-5b near devices that produce a strong magnetic field (e.g., loudspeakers).
- Install the FR-7b/FR-5b on a solid, level surface.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call or while conversing. Should you experience such problems, relocate such wireless devices so they are at a greater distance from this unit or switch them off.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle or otherwise subject it to temperature extremes. Also, do not allow lighting devices that normally are used while their light source is very close to the unit (such as a piano light) or powerful spotlights to shine upon the same area of the unit for extended periods of time. Excessive heat can deform or discolor the unit.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.
- Do not allow rubber, vinyl or similar materials to remain on the instrument for long periods of time. Such objects can discolor or otherwise harmfully affect the finish.
- Do not put anything that contains water (e.g., flower vases) on the instrument. Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the unit. Swiftly wipe away any liquid that spills on the unit using a dry, soft cloth.
- Do not allow objects to remain on top of the buttons. This can be the cause of malfunction, such as buttons ceasing to produce sound.
- Do not paste stickers, decals or the like on this instrument. Peeling these off, particularly when strong adhesives have been used, can damage the instrument's exterior finish (the stickers provided with this instrument feature a weak adhesive).

Maintenance

- For everyday cleaning wipe the FR-7b/FR-5b with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a mild, non-abrasive detergent. Afterwards, be sure to wipe the instrument thoroughly with a soft, dry cloth.
- Never use benzene, thinner, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Repairs and data

- Please be aware that all data contained in the instrument's memory may be lost when it is sent for repairs. In certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data. Roland assumes no liability concerning such loss of data.

Additional precautions

- Please be aware that the memory contents can be irretrievably lost as a result of a malfunction or the improper operation of the instrument. Therefore, be sure to archive important settings using the FR-7b/FR-5b's Bulk Dump function (see p. 92).
- Use a reasonable amount of care when using the instrument's buttons, other controls and jacks/connectors. Rough handling can lead to malfunctions.
- Never strike or apply strong pressure to the display.
- When connecting/disconnecting cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts or damage to the cable's internal elements.
- A small amount of heat will radiate from the instrument during normal operation. This is perfectly normal.
- To avoid disturbing your neighbors, try to keep the instrument's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially late at night).
- When you need to transport the instrument, package it in the box (including padding) that it came in. Otherwise, you will need to use equivalent packaging materials or a flightcase.
- Use only the specified expression pedal (EV-5, EV-8; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the FR-7b/FR-5b.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions. Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.

Precautions for the included (FR-7b) or optional (FR-5b) battery

- The temperature range for use of the batteries is as follows. Using them outside this range may impair battery performance and shorten battery service life. *Use (discharging):* 0~50°C, *Storage:* -20~30°C, *Charging:* 0~40°C.
- Do not use or store a battery at high temperature, such as in strong direct sunlight, in cars during hot weather or directly in front of heaters. This may cause battery fluid leakage, impaired performance and shorten the battery's service life.
- Do not charge a battery while it is cold (below 0°C) or outside when it is freezing. This may cause battery fluid leakage, impaired performance and shorten the battery's service life.
- Do not splash fresh or saltwater on a battery or allow the terminals to become damp. This may cause heat generation and formation of rust on the battery and its terminals.
- Use only the supplied FBC-7 to charge the FR-7b/FR-5b's battery. Failure to follow proper charging procedures may cause excessive current flow, loss of control during charging, leakage of battery fluid, heat generation, bursting or fire.
- For the procedure for charging the FR-7b/FR-5b's battery, please read page 36.

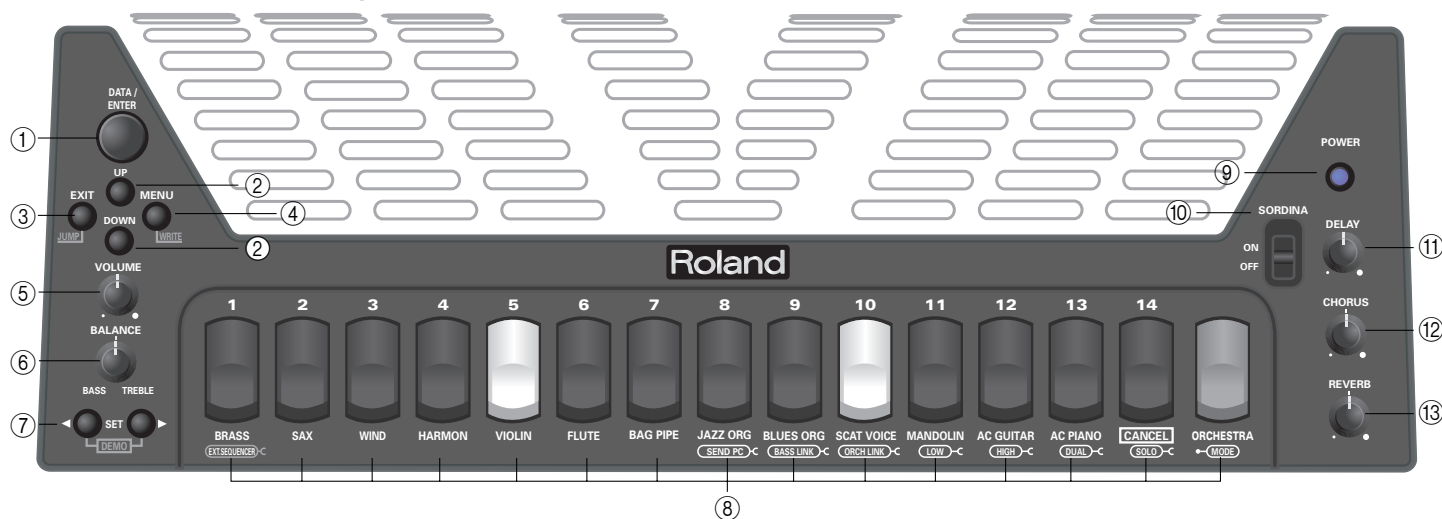
- **Do not connect the battery directly to a power outlet or insert it into a cigarette lighter socket in a car.** High voltage may cause excessive current flow, leakage of battery fluid, heat, bursting or fire.
- If a newly purchased battery exhibits rust, generates heat or seems abnormal in any other way, do not use it. Take it back to your Roland dealer.
- Be sure to fully deplete a battery before recharging it for the first time.
- Keep the battery out of reach of babies or small children. Ensure that babies or small children cannot remove a battery from the FBC-7 while it is being charged.
- Be sure to carefully instruct any person on the proper way of handling a battery.
- Never dispose of the battery in a fire. Never heat it. Doing so may melt the insulation, damage the gas release vents or protective devices, cause combustion through chemical reaction with generated hydrogen, ejection of battery fluid, bursting or fire.
- Do not charge or use the battery with the positive (+) and negative (-) terminals reversed, as this may drain the battery or cause abnormal chemical reactions. Under normal operation, this should be impossible, because the battery or cable can only be connected in one direction.
- Do not remove the outer tube from a battery or damage it.
- Do not strike or drop the battery. Strong impact can cause leakage of battery fluid, heat generation, bursting or fire.
- Never try to connect two batteries in parallel as this may cause leakage of battery fluid, heat generation, bursting or fire.
- Do not alter or remove protective mechanisms or other parts. Never disassemble the battery.
- The positive (+) terminal section of the battery is equipped with a gas release vent. Never deform this section or cover it. Do not obstruct the release of gas as this could result in leakage of battery fluid, heat generation, bursting or fire.
- Do not overcharge the battery by exceeding the predetermined charging period of the FBC-7 or indicator. Never recharge a battery that is already fully charged. This could result in leakage of battery fluid, heat generation, bursting or fire.
- If the battery is not fully charged after the predetermined charging period has elapsed, stop the charging process. Prolonged charging could result in leakage of battery fluid, heat generation, bursting or fire.
- If any fluid from a battery comes in contact with the eyes, flush the eyes immediately, washing them thoroughly with clean water from a tap or other source and consult a doctor. Strong alkaline fluid can damage the eyes and lead to permanent loss of eyesight.
- If skin or clothing comes in contact with any fluid from the battery, wash the area immediately with clean water from a tap. Battery fluid can cause skin damage.
- When a battery is no longer usable, dispose of it in accordance with all applicable local laws and regulations.
- If the battery leaks fluid, changes color or shape or changes in any other way, do not use it, otherwise it may cause heat generation, bursting or fire.

Strap holder precaution

- Never unscrew the strap holder rings to avoid damaging the FR-7b/FR-5b's plastic housing, which eventually compromises overall stability and safety.

3. Panel descriptions

Treble control panel



① **DATA/ENTER knob**
This knob allows you to enter values and to select menu entries or shortcuts by turning it. You can also press it (ENTER) to confirm a setting or to jump to another parameter in the display. It also allows you to start/stop an external MIDI device (see p. 74).

② **UP/DOWN buttons**
On the Main page, **[UP]** and **[DOWN]** allow you to select 8 important functions: TRANSPOSE (press **[UP]** once), MUSETTE DETUNE (press **[UP]** 2x), SCALE TUNING (press **[UP]** 3x), VALVE/BUTTON NOISE (press **[UP]** 4x); ORCHESTRA VOLUME (press **[DOWN]** once), ORCHESTRA BASS VOLUME (press **[DOWN]** 2x), ORCH CHORD VOLUME (press **[DOWN]** 3x), and ORCH FREEBS VOLUME (press **[DOWN]** 4x).

After selecting the MENU, **[UP]** and **[DOWN]** are used to enter values (same function as the **[DATA/ENTER]** knob).

③ **EXIT/JUMP button**
The **[EXIT/JUMP]** button allows you to return to the Main page (the display page that is shown while you are playing the FR-7b/FR-5b). After selecting a Menu function, briefly pressing **[EXIT/JUMP]** takes you back to a higher level. Press it again to return to the Main page.

By holding down **[EXIT/JUMP]** while the Main page is displayed, you activate the JUMP function (see p. 39).

④ **MENU/WRITE button**
This button allows you to select the FR-7b/FR-5b's MENU environment where you can set and view the available functions. By holding down **[MENU/WRITE]**, you activate the WRITE function, which allows you to save your settings.

⑤ **VOLUME knob**
This knob allows you to set the V-Accordion's overall volume.

⑥ **BALANCE knob**
This knob allows you to set the balance between the Bass and the Treble sections. Turn it towards "BASS" to decrease the Treble section's volume. Turn it towards "TREBLE" to decrease the Bass section's volume.

⑦ **SET buttons**
These two buttons allow you to choose among 40 accordion Sets. Each Set contains suitable settings for the 14 Treble, 7 Bass, 7 Free Bass registers, 22 orchestral sounds and 7 orchestral bass/7 orchestral Free Bass/7 orchestral chord sounds.

⑧ **Treble registers**
The Treble section provides the following 14 switches ("registers"):

1	Bassoon	8	Master
2	Bandon	9	Musette
3	Cello	10	Celeste
4	Harmon	11	Tremolo
5	Organ	12	Clarinet
6	Accord	13	Oboe
7	Violin	14	Piccolo

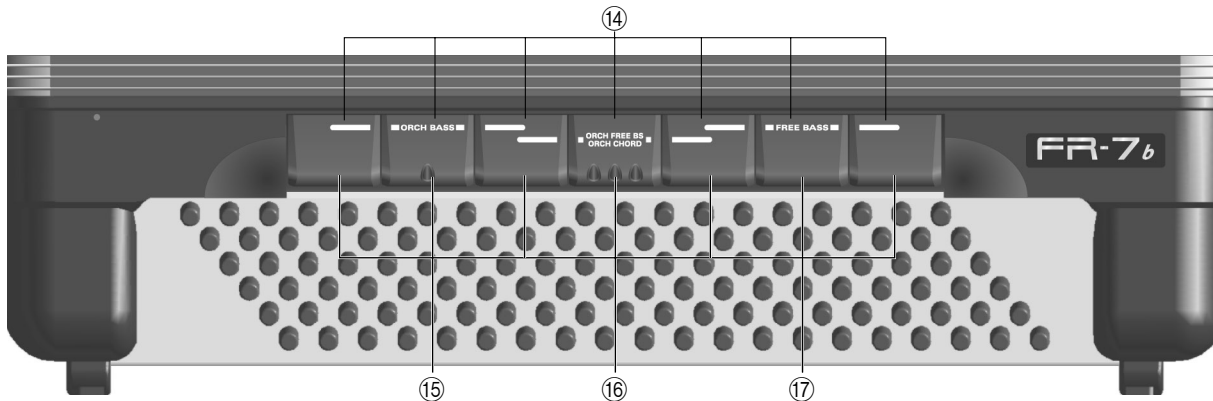
Note: By pressing and holding any register, you can switch off the Treble section. Press another register to switch it back on.

Note: In Orchestra mode the first 9 registers provide access to two sounds (A/B) of the family whose name is printed below the register. To select a "B" sound, press the corresponding register twice.

By holding down **[ORCHESTRA]**, while pressing a register 9~14, you activate the Link functions (see p. 47) or select an Orchestra mode (see p. 26). By holding down **[ORCHESTRA]** while pressing register **[8]**, you select the "Send PC" function (page 86).

- ⑨ **POWER button**
Press this button to switch the V-Accordion on (the button lights) and off (button dark).
Note: The FR-7b/FR-5b is automatically switched off after 10 minutes of inaction to save battery power. This can be changed, however (see p. 73).
- ⑩ **SORDINA switch**
This ON/OFF switch allows you to switch the simulation of the wooden resonance chamber on and off.
- ⑪ **DELAY knob**
The FR-7b/FR-5b contains three digital effects that can be used simultaneously. This knob is used to set the level of the Delay (echo) effect (see p. 67).
- ⑫ **CHORUS knob**
Use this knob to set the level of the Chorus effect (see p. 65).
- ⑬ **REVERB knob**
Use this knob to set the level of the Reverb effect (see p. 64).

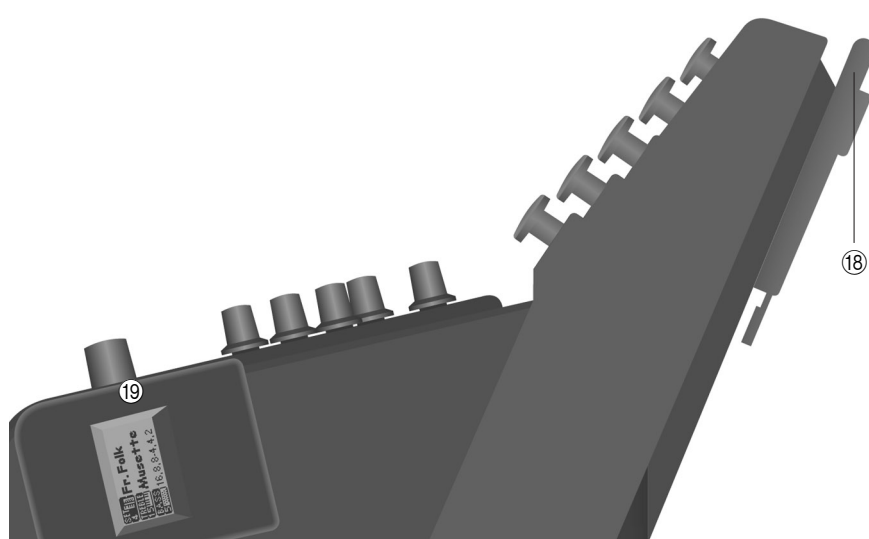
Bass control panel



- ⑭ **Bass registers**
Note: By pressing and holding any register, you can switch off the Bass (or Free Bass) section. Press another register to switch it back on.
These switches allow you to select the desired bass mix. They include the following footages:

1	2'	5	8' ¹ / ₄ ' ² '
2	4'	6	16' ⁸ / ₈ ' ⁸ -4'
3	8-4'	7	16' ¹ / ₂ '
4	16' ⁸ / ₈ ' ⁸ -4' ¹ / ₄ ' ² '		
- ⑮ **ORCH BASS registers**
Press the last three ("ORCH BASS") registers (viewed from the top) simultaneously to enter Orchestra Bass mode (see p. 28). Doing so switches off the accordion bass sound and selects an orchestral sound. Press the last three registers again simultaneously to return to normal bass mode.
- ⑯ **ORCH FREE BS/ORCH CHORD registers**
By pressing these three registers, you activate (or switch off) one of two orchestral sections: ORCH CHORD (if the Free Bass section is off) or ORCH FREE BS (if the Free Bass section is on). "ORCH CHORD" allows you to select an orchestral sound for the chord buttons, while "ORCH FREE BS" can be used to select an orchestral bass sound for the Free Bass section. See pages 29 and 30 for details.
- ⑰ **FREE BASS registers**
Press the first three ("FREE BASS") registers (viewed from the top) simultaneously to enter Free Bass mode. The FR-7b/FR-5b provides several systems for this mode (see p. 71). Press the first three registers again simultaneously to return to normal bass mode.

Display and master bar



- 18 Master bar**
In most cases, this bar (which you can press) recalls a Treble register you specify. In Dual, High or Low mode, however, it allows you to switch the Orchestra section on and off.
If pressed gently, the Master bar generates aftertouch messages for the Treble section.
- 19 Display**
The display keeps you informed about the FR-7b/FR-5b's status.

Connection panel



- 20 TO FBC-7 socket**
Use the supplied cable to connect this socket to the supplied FBC-7 power supply/footswitch unit/battery charger. This may be necessary in the following cases:
- To power the FR-7b/FR-5b without using the supplied battery. In most instances, this may be unnecessary, because the supplied battery (FR-7b) lasts up to 8 hours.
Note: See also "Connecting the FBC-7" on p. 35 for details about maximizing the life span of the battery.
If you connect the 19-pin cable, be sure to never place the FR-7b/FR-5b on the side when not using it.
 - Always stand the V-Accordion on its rubber feet (and in the corresponding direction) to avoid damaging the 19-pin plug.
 - Always handle and move the FR-7b/FR-5b with care and pay special attention to the cable slack to avoid damaging or bending the 19-pin cable.
 - If you place the FR-7b/FR-5b on your lap, ensure that the 19-pin cable runs between you legs (not sideways) to avoid damaging or bending the 19-pin cable.
 - To be able to control certain functions by foot (see p. 35).
 - To use the FR-7b/FR-5b as a MIDI controller (only the FBC-7 has MIDI sockets).
- 21 OUTPUT L/MONO (Treble) & R/MONO (Bass) sockets**
These sockets can be connected to an amplifier, a mixing console or a wireless system.
If you use both connectors, the FR-7b/FR-5b's output is stereo. If you only use one jack (connected to the "L" or "R" socket), the FR-7b/FR-5b's output is mono.
Note: If you don't want to use a wireless system, consider connecting the FR-7b/FR-5b to the FBC-7 when you need to connect it to an external amplifier.
Note: On the FR-7b, connecting jacks to these sockets does not mute the internal speakers.
- 22 PHONES socket**
This is where you can connect stereo headphones (Roland RH-25, RH-50 or RH-200). On the FR-7b, connecting a pair of headphones mutes the internal speakers.

Connection panel of the FBC-7



① **POWER ON switch**

Press it to switch the FBC-7 (but not the FR-7b/FR-5b) on and off.

② **AC connector**

This is where you need to connect the supplied power cable. See also page 16.

③ **MIDI THRU/OUT/IN sockets**

Use these sockets to connect the FR-7b/FR-5b to external MIDI gear (see p. 82).

④ **OUTPUT R/MONO & L/MONO sockets**

Connect these sockets to an external amplifier or mixing console. For stereo operation, be sure to connect both jacks.

⑤ **EXPRESSION PEDAL socket**

This is where you can connect an optional EV-series expression pedal (see p. 35).

⑥ **TO FR7/5 V-ACCORDION socket**

Use the supplied 19-pin cable to connect this socket to your FR-7b/FR-5b (see p. 35).

Note: See also "Using the FBC-7" on p. 35 for additional functions of the FBC-7.

4. Setting up

Connections


The FR-7b can be used without any connections to either an amplification system or the FBC-7 power supply/battery charger unit. An FR-5b without an optional battery needs to be connected to the supplied FBC-7, however.

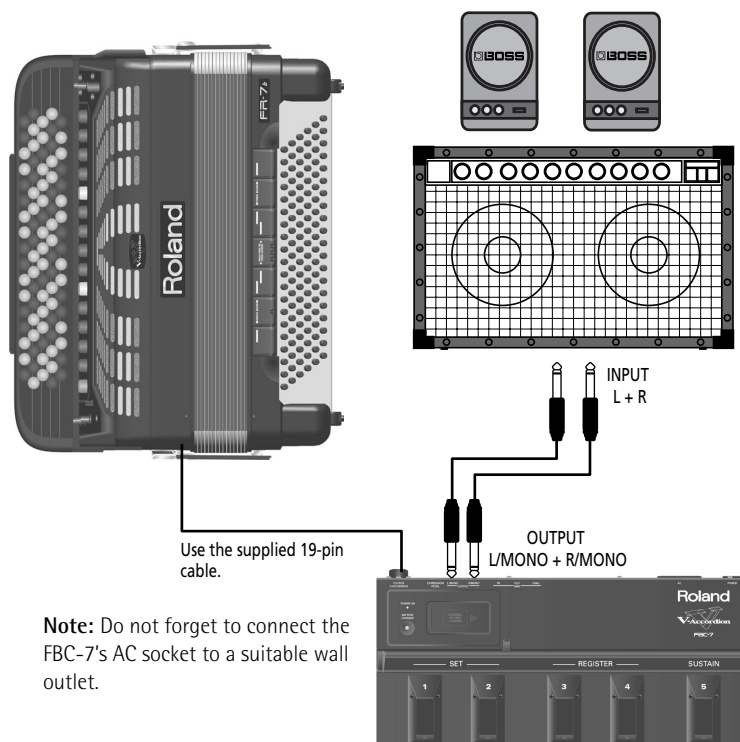
Connecting the FR-7b/FR-5b to the supplied FBC-7

If you do not have a battery (FR-5b) or prefer not to use it (FR-7b), you need to connect the V-Accordion to the FBC-7 using the supplied cable. That cable powers the FR-7b/FR-5b, transmits pedal messages and sends the FR-7b/FR-5b's audio signals to the OUTPUT L/MONO & R/MONO sockets on the FBC-7.

In that case, there is no real need to connect the OUTPUT sockets on the FR-7b/FR-5b to an external amplifier. Connect the FR-7b/FR-5b as shown in the illustration.

Note: This connection is required if you wish to take advantage of the FR-7b/FR-5b's MIDI functions (see p. 82).

The FR-7b/FR-5b's sounds have been arranged in such a way as to provide a **natural stereo image**. If you connect the V-Accordion to a mixing console, set the PAN control of the input to which the OUTPUT L socket (Treble section) is connected to "11 o'clock" and the PAN control of the channel to which the OUTPUT R socket (Bass & chord section) is connected to "3 o'clock" to preserve this balance. Something like this: . This setting can be changed, however (see p. 73).



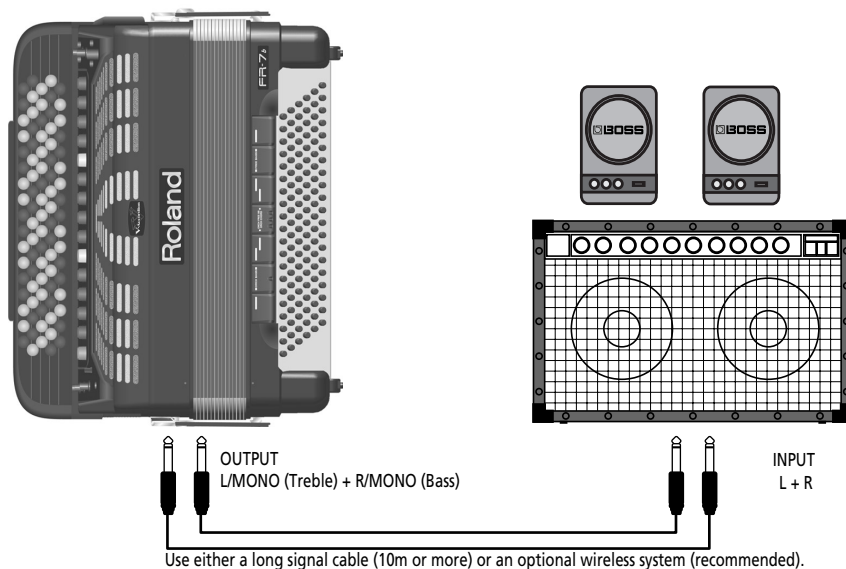
Using the OUTPUT sockets

If you are using the supplied rechargeable battery (FR-7b) and need to connect the FR-7b/FR-5b to a PA system or mixer, we recommend using a wireless system to avoid having to use excessively long signal cables.

The FR-7b is equipped with an internal speaker system and thus does not need to be connected to an amplifier at all. The FR-5b, on the other hand, always requires an audio connection. As long as it does not contain an optional battery, we recommend connecting it to the FBC-7 (see above).

You can also use a pair of headphones (Roland RH-25, RH-50 or RH-200). In the case of the FR-7b, connecting headphones switches off the internal speakers.

Note: The FR-7b/FR-5b's OUTPUT sockets are also available if you connect the FR-7b/FR-5b to the FBC-7. Do not try to connect them to any of the FBC-7's sockets, because that does not work.



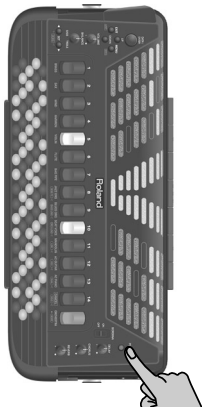
Switching the power on and off

The power-on procedure depends on whether you are using a battery or the FBC-7 Foot Pedal/DC Power/ Battery Charger Unit.

Note: Only use the battery that either came with your FR-7b or that you purchased from your Roland dealer. Using other batteries can severely damage the FR-7b/FR-5b or FBC-7. Roland assumes no responsibility for damages caused by batteries that have not been explicitly approved. Such damages are not covered by Roland's warranty regulations.

If you are using a battery and no external amplification (FR-7b only)

- (1) Press the FR-7b's **POWER** button (it lights) to switch it on.




Note: You can also connect headphones.

- (2) Start playing (see "First steps" on page 18).
- (3) Press the **POWER** button again so that it goes dark when you are finished.

If you are using a battery and an audio connection to an external device

The FR-5b needs to be connected to an amplification system of some sort (unless you want to use headphones), while you also need the FBC-7.

Note: You can also purchase a wireless transmitter from your Roland dealer and connect it to the OUTPUT sockets on the FR-7b/FR-5b.

- (1) Turn down the output volume of the receiving audio device.
You can also simply switch it off.
- (2) Connect the FR-7b/FR-5b's OUTPUT sockets to the external audio device using two 1/4" guitar cables.
Note: You can also connect headphones to the PHONES socket, in which case you do not need to establish an audio connection.
- (3) Press the FR-7b/FR-5b's **POWER** button (it lights) to switch it on.
The  icon informs you that the FR-7b/FR-5b runs on the battery (it also indicates the battery's status).
- (4) Switch on the receiving audio device.
- (5) Start playing (see "First steps" on page 18).

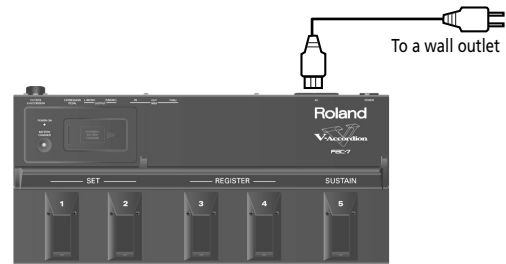
—To switch off your system—

- (6) Turn down the output volume of the receiving audio device or switch it off.
- (7) Press the FR-7b/FR-5b's **POWER** button again so that it goes dark.

If you are using the FBC-7

If the FR-7b/FR-5b is powered by the supplied FBC-7 unit, proceed as follows:

- (1) Connect the FR-7b/FR-5b to the FBC-7 using the supplied 19-pin cable.
- (2) Connect the FBC-7's AC INLET socket to a wall outlet that meets the specifications (see p. 101).



The FBC-7 should only be connected to a power source of the type marked on the bottom of the unit. For details on the power consumption, please refer to page 101.

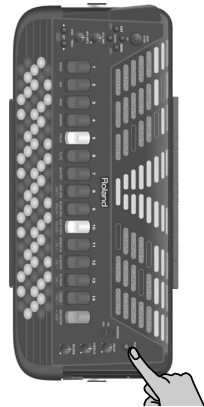
- (3) Turn down the output volume of the receiving audio device.
You can also simply switch it off.
- (4) Connect the FBC-7's OUTPUT sockets to the external audio device (amplifier, mixing console, etc.). Though you can also use the FR-7b/FR-5b's OUTPUT sockets, doing so is probably only a good idea if you are working with a wireless transmitter. Using the FBC-7's OUTPUT sockets indeed means that you only need one connection between the FR-7b/FR-5b and the FBC-7.
- (5) Press the FBC-7's **POWER ON** button to switch it on.



The POWER ON indicator on the FBC-7's top panel lights red.



- (6) Press the FR-7b/FR-5b's **POWER** button (it lights) to switch it on.



The  icon in the display means that the FR-7b/FR-5b is powered by the FBC-7.

- (7) Switch on the receiving audio device.
(8) Start playing (see "First steps" on page 18).

—To switch off you system—

- (9) Turn down the output volume of the receiving audio device or switch it off.
(10) Press the FR-7b/FR-5b's **POWER** button again so that its indicator goes dark.
(11) Switch off the FBC-7.

Listening to the demo songs



One of the most striking aspects of your V-Accordion may be that it can play all by itself! It contains indeed a series of demo songs that illustrate its wide variety of sounds and applications. Here is how to listen to the demo songs:

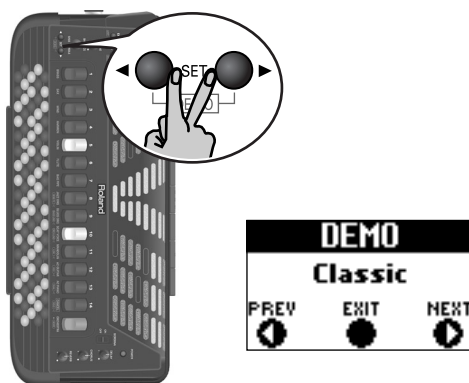
- (1) Switch on the FR-7b/FR-5b.
See "Switching the power on and off" on p. 16. The display now looks more or less as follows:







Let us agree to call this page the "Main page".

Note: If you like, you can program a short message that is displayed each time the FR-7b/FR-5b is switched on.

- (2) Simultaneously press and hold SET  and  to jump to the following display page:



Playback starts automatically with the first demo song (there are 30 demo songs in all).

- (3) If necessary, use the SET   buttons to select another demo song.
(4) Use the **VOLUME** knob to change the volume if it is too loud or too soft.
Note: All demo songs are copyright ©2005 by Roland Europe. Public performance or recording of these songs is prohibited.
(5) Press **EXIT/JUMP** (or SET  and  simultaneously) to leave the demo mode.

First steps

The sections of your FR-7b/FR-5b

Before showing you how to use the FR-7b/FR-5b, let's briefly look at the various "sections" of your instrument, as that will help you understand how your V-Accordion works.

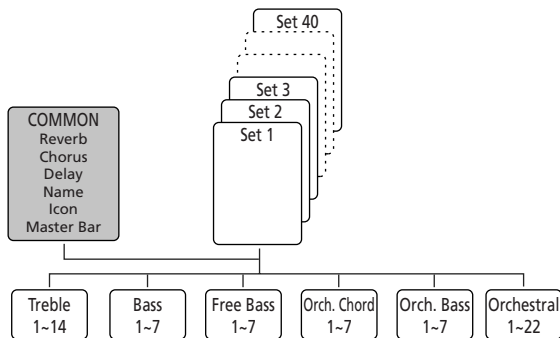
The FR-7b/FR-5b is a "virtual" accordion. That term was borrowed from synthesizers that recreate the sounds of other synthesizers using a different technology (hence the term "virtual analog synthesizer", for example).

The FR-7b/FR-5b recreates the sounds of various accordion instruments (the "virtual" part) and can even generate orchestral sounds, like trumpet, flute, etc. (the **synthesizer** part).

The sections outlined in the illustration to the right contain several functions you can set. Let us agree to call those functions "parameters".

The parameters allow you to change certain aspects of the FR-7b/FR-5b's sound: you can select a French musette, an Italian accordion, etc., specify how strongly the virtual reeds should be detuned, add digital effects and more. Each section has its own parameters, so that you can fine-tune your sounds until you really like the entire accordion sound. You can save your settings and select them each time you want to play a given piece. There is thus no need to set the parameters time and again.

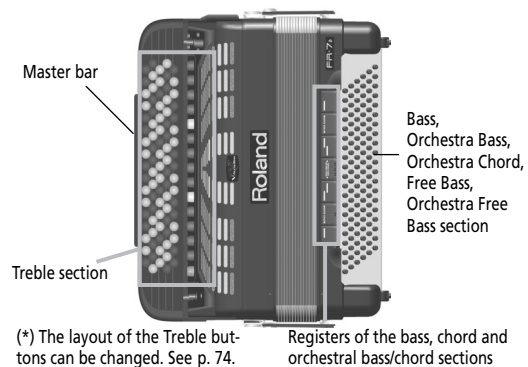
The various sections are combined into "Sets". Why is that? Because that way, you only need to select one memory (the Set) in order to save and recall the settings of all sections.



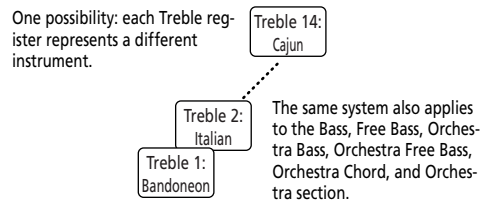
There are 40 Set memories that already contain useful settings right out of the box. But you can replace them with your own settings. (And if 40 Sets are not enough, you can archive and load new sets via MIDI, see page 92).

Sets are like the trunk of a car that contains several instruments (bandoneon, musette, etc.). The instruments themselves can be recalled via the registers.

There are 14 Treble memories, 7 Bass, Free Bass, Orchestra Chord, Orchestra Free Bass, and Orchestra Bass registers, and 22 Orchestra registers per Set. Except for the orchestral sounds, the registers *can* behave like on an acoustic accordion, i.e. they allow you to change the footage combinations.



If you are really into programming, however, you could also assign completely different instruments to each register, in which case a Set becomes a container (the aforesaid car trunk) for a variety of accordion sounds.



Another advantage of the Set structure is that it allows you to reconfigure the three digital effects processors (Reverb, Chorus, Delay) whose settings always apply to all sections.

Oh and... the Sets can be selected with the SET ◀▶ buttons on the FR-7b/FR-5b and the SET (1), (2) foot-switches on the FBC-7 (if it is connected to the FR-7b/FR-5b).

Selecting Easy or Full mode

At first, the FR-7b/FR-5b is configured to start up in "Easy" mode. In that mode, only the main parameters can be selected. It has the advantage that you do not feel overwhelmed by the FR-7b/FR-5b's possibilities. The downside, however, is that there are certain (albeit rather specialized) parameters you cannot even select. To use the full potential of your FR-7b/FR-5b, you need to select "Full" mode:

- (1) Switch on the FR-7b/FR-5b.
See "Switching the power on and off" on p. 16. The display now looks more or less as follows:



Let us agree to call this page the "Main page".

- (2) Press and hold the **EXIT/JUMP** button until the display looks as follows:

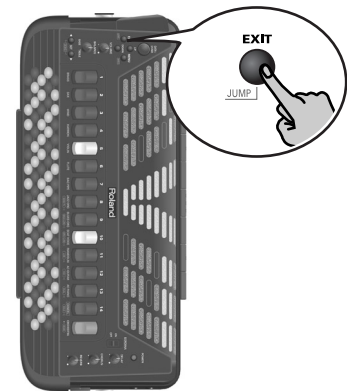


- (3) Press registers **10** and **2** to jump to the following page:



- (4) Press the **DATA/ENTER** knob.
- (5) Rotate the **DATA/ENTER** knob or press the **UP/DOWN** buttons to select either "Full" (show all parameters) or "Easy" (show only the main parameters).

- (6) Press **EXIT/JUMP** to return to the main page.



This setting is remembered until you switch off the FR-7b/FR-5b. If you want to keep it, proceed as follows:

- (7) Press and hold the **MENU/WRITE** button until the following page appears:



- (8) Rotate the **DATA/ENTER** knob (or use the **UP/DOWN** buttons) to select "Global".



- (9) Press the **DATA/ENTER** knob to confirm your selection.



Note: The GLOBAL page shows all parameters that are saved to the Global memory (there is only one such memory).

- (10) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



Note: If you don't save the edited Global settings, they will be used until you switch off the FR-7b/FR-5b (or change the settings again).

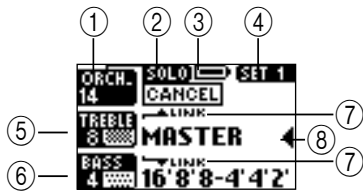
- (11) Press the **EXIT/JUMP** button to return to the Main page.

About the Main page

You may have realized by now that, with the exception of the display as well as the additional buttons and knobs, the FR-7b/FR-5b looks like a conventional accordion. The display contains important clues about the settings that are currently in effect.

What's shown in the display depends on the function you select. When you switch on the FR-7b/FR-5b, or if you press the **[EXIT/JUMP]** button several times, the Main page appears. In some cases, it may also reappear automatically after changing a parameter. The Main page must be displayed whenever you wish to play the FR-7b/FR-5b without changing any of its "internal" settings.

A typical Main page display looks like this:



The exact contents depend on the Set that is currently selected and on how the various sections and performance functions are set. The ①~⑧ fields, however, are always there:

① Selected Orchestra register (here "14").

② Orchestra mode.

③ Power source (here the battery).

If you are working with a battery, this field also indicates the remaining battery power.

④ Number of the currently selected Set.

⑤ Selected Treble register (here "8").

⑥ Bass, Free Bass, Orchestra Bass, Orchestra Chord, Orchestra Free Bass register (here "4").

Only one of the two available Bass sections (Free Bass or Bass) can be active at any one time.

⑦ Link symbols. These symbols mean that the Orchestra (upper entry) and Bass registers change whenever you select a different Treble register (page 47). The Bass Link function also applies to the Orchestra Chord section (or the Orchestra Free Bass section).

⑧ Part Select indicator. It tells you whether the Treble buttons play the accordion or orchestral sound.

Note: The information shown in the display may change when you rotate a knob or press a button. In such cases, however, the Main page reappears after a few seconds.

Touring the FR-7b/FR-5b's sections

It's time we put the FR-7b/FR-5b through its paces, because that's what you purchased it for. We'll work section by section.

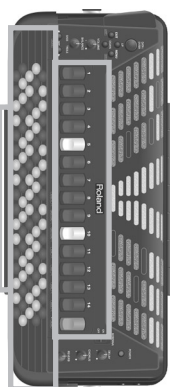
Treble section

The Treble section can be played using the 92 Treble buttons.

The sound it produces is determined by the register (1~14) you pressed last. This section can be used as "accordion", to play an orchestral sound or both.

Note: The layout of the Treble buttons can be changed. See "10.15 Treble Mode" on p. 74.

Note: By pressing and holding any register, you can switch off the Treble section. (Even in that case, the Treble section continues to send MIDI commands.) Press another register to switch it back on.



- (1) Connect the FR-7b/FR-5b (if necessary) and switch it on.

See pages 15 and 16.

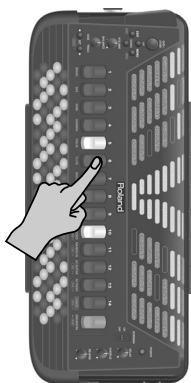
- (2) Grab the FR-7b/FR-5b, press a Treble register and start playing on the Treble buttons.



Though the FR-7b/FR-5b is an electronic musical instrument, it only produces sound if you move the bellows. As long as you don't move the bellows, you hear nothing at all (like on an acoustic accordion).

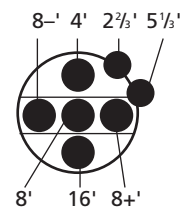
Note: When the FR-7b/FR-5b is controlled via MIDI, there is no need to move the bellows.

- (3) Press one of the registers to change the sound.



The display briefly confirms your setting and indicates which footage you selected.



These indications refer to the octaves (vertical direction, ) and the number of slightly detuned reeds that are used (horizontal direction, ). The detuned reeds are only available for the central register (8').



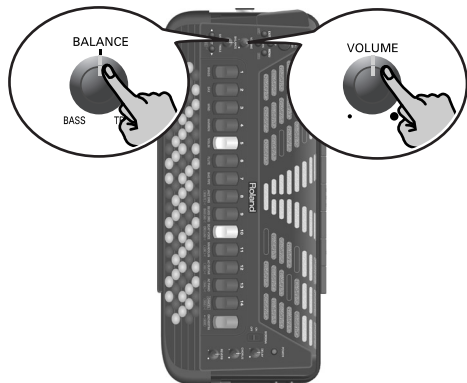
Black dots mean that the Cassotto function (see p. 46) is off, hollow dots mean that the Cassotto function is on. Here is what the registers and display indications mean (bear in mind that the dots can either be black or white):

Treble registers					
1		Bassoon	8		Master
2		Bandon	9		Musette
3		Cello	10		Celeste
4		Harmon	11		Tremolo
5		Organ	12		Clarinet
6		Accord	13		Oboe
7		Violin	14		Piccolo

On the Main page, the number of the selected register appears in the TREBLE field:



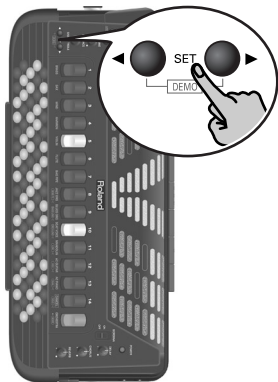
- (4) If you think the sound is too loud or too soft, you can change the setting of the **VOLUME** knob.



- (5) If you still can't hear the Treble notes, set the **BALANCE** knob to the center position. This knob is used to set the balance between the Treble and Bass registers. When it is turned all the way to BASS, the Treble section is inaudible. When you change the Balance setting, the display briefly confirms your setting:



- (6) Use the **SET** buttons to select another Set and again play a few notes.



The number of the selected Set is shown in the upper right corner of the display. Note that you can also use the FBC-7's SET footswitches to select Sets.

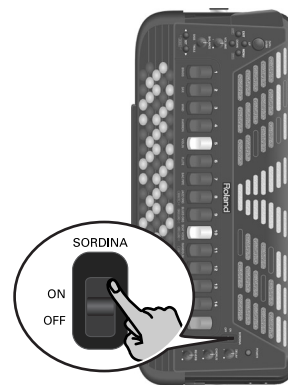


■ Using the Sordina

The **SORDINA** switch allows you to attenuate the sound (make it softer). On an acoustic accordion, this closes the wooden resonance chamber inside the instrument.

The FR-7b/FR-5b simulates this effect electronically (it contains not a single reed!).

When you switch on the Sordina, the display briefly confirms your selection:



Note: The Sordina only applies to the Treble section.

Note: If you add an organ sound (8A~9B) to the Treble register (using the Orchestra section), the Sordina function is no longer available. Organ sounds use a Rotary effect that blocks the Sordina function (in order to add the modulation of an organ speaker cabinet). You can use aftertouch, to switch between the fast and slow Rotary speeds. To do so, gently press the Master bar.

■ Using the FR-7b/FR-5b's digital effects

While playing on the Treble buttons, you may have noticed that the accordion sounds were enhanced by effects (probably reverb). It may also have struck you that the effects change whenever you select a different Set. That's because the effect settings are part of the parameters you can save for each Set independently.

The FR-7b/FR-5b contains 3 digital effects:

Reverb: This effect gives the impression that you are playing in a concert hall, a church or a room. It adds "depth" to the sound.

Chorus: This effect gives the impression that several instruments of the same type are playing at the same time (it is similar to detuning several reeds of a register).

Delay: This effect creates echoes, i.e. repetitions. Short intervals (called "slapback") create an effect similar to reverb. Longer intervals, on the other hand, create real echoes.

The **[DELAY]**, **[CHORUS]** and **[REVERB]** knobs allow you to set the volume of these three effects. Turn them all the way towards the left (the small dot) if you don't need the effect in question.

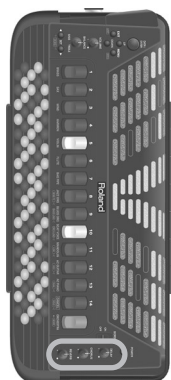
Turn them towards the right (the big dot) to increase the effect volume.



Note: The settings of these knobs apply to all sections and all Sets.

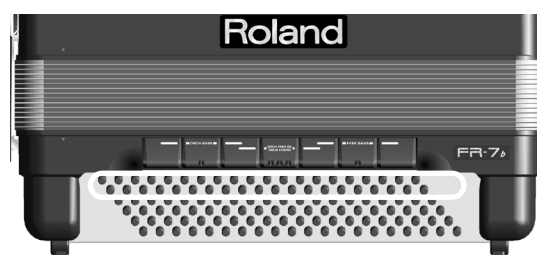
After familiarizing yourself with the FR-7b/FR-5b's parameters, you will realize that these knobs should only be used as a last resort (i.e. on stage). You can indeed program the effect level for each section separately, so that the **[DELAY]**, **[CHORUS]** and **[REVERB]** knobs can be left in the center position, while the effect amount changes with every Set you select.

Note: In certain cases, changing the knob position of an effect may not produce any audible result. This is due to the Send Level settings of the sections (see page 47, for example). It means that a given section was programmed not to send any signal to the effect in question. Even setting the corresponding knob to the maximum therefore produces no change.



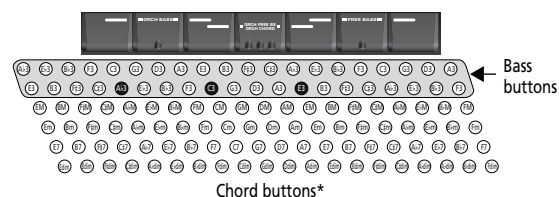
Bass section

The Bass section can be played via the "Stradella" buttons.



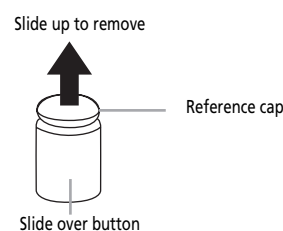
The buttons in this section allow you to play *both* bass notes *and* chords. The chords use the (sound) register selected for the Bass section – hence the name of this section. The "real" bass notes are assigned to the two circled rows. The remaining buttons are used to play chords. (You can also play an orchestral sound using the chord buttons, while playing accordion with the bass buttons, and vice versa.)

The FR-7b/FR-5b is supplied with *several reference caps* (concave and with lines) designed to help you locate the bass and chord buttons without looking at them. At the factory, three caps are installed on the black buttons in the following illustration. Feel free to remove them and to slide them over other buttons if that feels more comfortable.



(*) This can be changed to 3 bass and 3 chord rows. See "10.5 Bass & Chord Mode" on p. 70.

Here is what the caps look like:



The sound the Bass section produces is determined by the register you pressed last. This section can be used as "accordion", to play orchestral sounds, or both.

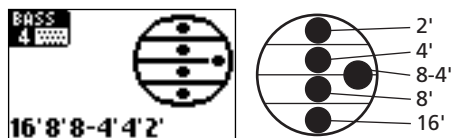
- (1) Connect the FR-7b/FR-5b (if necessary) and switch it on.
See pages 15 and 16.
- (2) Grab the FR-7b/FR-5b, press a register and start playing on the Bass (button) keyboard.
Though the FR-7b/FR-5b is an electronic musical instrument, it only produces sound if you move the bellows.

Note: By pressing and holding any register, you can switch off the Bass section. (Even in that case, the Bass section continues to send MIDI commands.) Press another register to switch it back on.

- (3) Press another register to change the sound.



The display briefly confirms your setting and indicates which footage you selected:



These indications refer to the octaves (vertical direction) and the number of slightly detuned reeds that are used (horizontal direction).

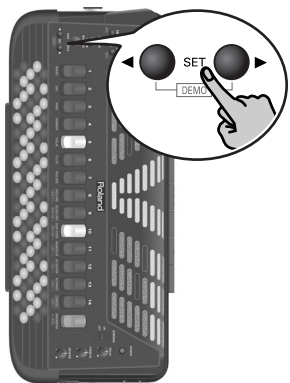
On the Main page, the number of the selected register appears in the BASS field:



- (4) If you think the sound is too loud or too soft, you can change the setting of the **VOLUME** knob.



- (5) If you still can't hear the bass and chord notes you are playing, change the **BALANCE** knob's setting. This knob is used to set the balance between the Treble and Bass registers. When it is turned all the way to TREBLE, you won't be able to hear the Bass section.
- (6) Use the SET buttons to select another Set and again play a few notes.



The number of the selected Set is shown in the upper right corner of the display. You can also use the FBC-7's SET footswitches to select Sets.



■ Playing in Free Bass mode

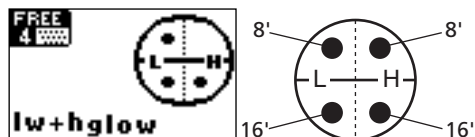
The FR-7b/FR-5b also provides a Free Bass mode, which is chiefly used by professionals who prefer to play the left-hand notes (Bass section) differently. You may never need it, but if you wish to experiment with it...

Note: See page 71 for how to select the note system for Free Bass mode. That setting is shared by all Sets.

- (1) Simultaneously press the three registers labeled "FREE BASS".



The display now briefly responds with:



"L" refers to the low range and "H" to the high range. The exact ranges depend on the FREE BASS mode you selected. See also the illustration on page 72 where the high range is indicated by means of black buttons, and the low range by means of white buttons.

Note: See page 71 for the assignment of the bass buttons to the available Free Bass notes.

- (2) Use the Bass registers to select another registration (if necessary).
- (3) Press the three FREE BASS registers again to return to the normal Bass mode.

Note: You can add an orchestral sound to the Bass, chord or Free Bass section. See page 28 for details.

■ Using the FR-7b/FR-5b's digital effects

While playing on the Bass keyboard, you may have noticed that the accordion sounds were enhanced by effects (probably reverb). It may also have struck you that the effects change whenever you select a different Set.

The FR-7b/FR-5b contains 3 digital effects that apply to all sections. See page 23 for details and how to set them.

Note: In certain cases, changing the knob position of an effect may not produce any audible result. This is due to the Send Level settings of the sections. It means that a given section (or all sections) was programmed not to send any signal to the effects processor in question. Even setting the corresponding knob to the maximum therefore produces no change.

Using the orchestral sounds

Your FR-7b/FR-5b also contains PCM sounds (samples) of various instruments that are not related to accordion sounds. Those sounds allow you to expand your musical endeavours without using external MIDI devices. Of course, you are free to add external MIDI tone generators to your setup and to control them from your FR-7b/FR-5b. See page 82 for details. Let us first look at how to use the on-board orchestral sounds, however.

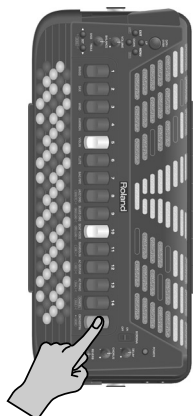
The FR-7b/FR-5b's Orchestra functionality actually comprises four sections: one for the Treble buttons (called "Orchestra") and three for the Bass buttons (called "Orchestra Bass/Orchestra Chord/Orchestra Free Bass").

You can specify for each keyboard whether the orchestral sounds should be used alongside the accordion sounds (so that each note or chord you play results in a combination of accordion + instrument sound) or in isolation (no accordion).

Orchestral sounds for the Treble section

Note: Only one orchestral sound can be selected at any one time.

- (1) Press the **ORCHESTRA** register.



The display now responds with:



The arrow moves from the TREBLE to the ORCH line. By pressing a register, you therefore select an orchestral sound.

Let us quickly analyze the information you get on this page:

- "SOLO" means that the mode of the same name is currently selected (there are four different modes, see below).

- "CANCEL" means that the Orchestra part is not active. When you play on the Treble buttons, you only hear the Treble accordion sound. To activate the Orchestra part at this stage, you need to select a sound (see below).
 - The TREBLE field contains a keyboard icon. It means that the Treble buttons are assigned to the Treble accordion part. The ORCH field, on the other hand, contains no keyboard icon, which confirms the "CANCEL" message.
 - The sound name ("Celeste") refers to the register that was selected for the TREBLE section's accordion part.
- (2) Press one of the registers to select the desired orchestral sound (see the names below the Treble registers). This activates the Orchestra part. The display now changes (the sound name may be different on your instrument):



Compare the information discussed above with what you see now:

- A sound name is displayed next to the ORCH field ("Ac Guitar"). That's the sound you'll hear when you play on the Treble keyboard.
- The keyboard icon has moved from the TREBLE to the ORCH field.

The 22 available orchestral sounds and associated registers are:

Orchestral Treble sounds			
1A	Trombone	7A	HighLand*
1B	Trumpet	7B	Zampogna*
2A	Tenor Sax	8A	PercOrgan
2B	Alto Sax	8B	JazzOrgan
3A	Clarinet	9A	RotOrgan
3B	Oboe	9B	TremOrg
4A	Harmonica	10	ScatVoice
4B	Mute Harm	11	Mandolin
5A	Violin	12	AcGuitar
5B	Pizzicato	13	AcPiano
6A	Flute		
6B	Pan Flute		

[*] See "About the 'HighLand' and 'Zampogna' sounds" on p. 26.

The first nine registers allow you to select two sounds ("A" and "B"). To select a "B" sound, press the corresponding register again.

If you select a "B" sound (5B "Pizzicato", for example), then press another register (12 "AcGuitar"), and again the previous register (5), the FR-7b/FR-5b automatically recalls the "B" sound ("Pizzicato"). This "configuration" is retained until you switch the FR-7b/FR-5b off. If you need the 5A "Violin" sound at this stage, press register [5] once more.

The display briefly confirms your selection and shows both the name of the sound you selected and the number of the register you pressed:



(3) Play a few notes using the Treble buttons.

The Treble keyboard is **velocity sensitive**. The volume and timbre of the notes played by the Orchestra part depend on how hard/fast you press the treble keys (for sounds 11, 12 or 13).

Note: The Treble accordion does not respond to velocity information generated by the buttons. You can, however, vary its volume and timbre by pressing/pulling the bellows harder and softer (like on a "real" accordion).

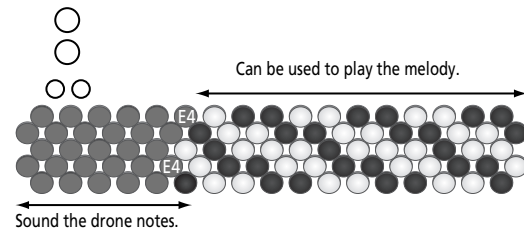
You can use the Master bar to simulate an **after-touch** effect: play a note, and keep holding the corresponding button while you gently press the Master bar. For some orchestral sounds (guitar, flute, etc.) as well as for the Treble accordion section, this effect allows you to bend the pitch down (temporarily lower the note). If you select an organ sound, the Master bar can be used to switch between the fast and slow Rotary effect speeds.

Note: This aftertouch effect applies to all notes that are sounding simultaneously. All notes are bent by the same amount. (MIDI buffs call this "channel aftertouch".)

■ **About the 'HighLand' and 'Zampogna' sounds**

Your FR-7b/FR-5b contains two bagpipe-instrument sounds, one called "HighLand", the other called "Zampogna". The instruments on which those sounds are based use one or several drone notes over which the melody is played.

To recreate the same sensation on the FR-7b/FR-5b, the lowest octave on the Treble keyboard is assigned to the drone notes when you select one of these sounds:



Note: This example is based on the "C-Griff Europe" setting (see "10.15 Treble Mode" on p. 74). The "E4" note is always the highest drone note. Depending on the selected mode, that note may be assigned to different buttons, however.

Here is how the drone function works:

- If you press a single gray button (see the illustration), only that note is held. You can release that button immediately after playing the note – it will be held indefinitely.
- If you press two (or more) buttons simultaneously, those notes are held (the drone function is poly-phonic).
- To switch off the currently sounding drone note(s), either press another button key in the gray area (switch to another drone note) or press the button(s) of the sounding drone notes again to stop the drone.

Note: This drone system is only available for the "HighLand" and "Zampogna" sounds.

■ **Selecting the Orchestra mode**

Depending on the settings of the Set you selected, the Orchestra part may sound together with the Treble accordion section. That's because there are four ways in which the Orchestra section can be combined with the Treble accordion section.

If the Orchestra part is off (set to CANCEL), the Master bar always recalls the Treble register selected with "Master Bar Recall" (page 68). After selecting one of the modes (DUAL, HIGH, LOW, or SOLO) and switching on the Orchestra part (CANCEL off), the Master bar allows you to switch the Orchestra part on and off. In SOLO mode, this means that you alternate between the Treble and Orchestra parts.

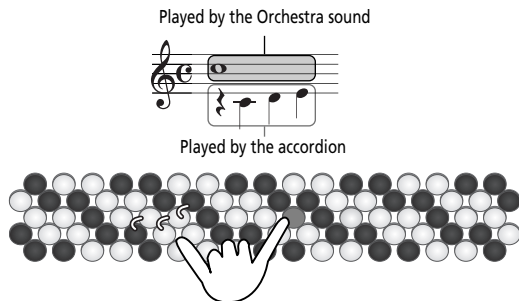
SOLO [14]: When you switch on the Orchestra section (see step (2) above), you only hear the orchestral instrument sound. Press [CANCEL] to return to the Treble accordion sound.

DUAL [13]: The orchestral sound is added to the Treble accordion, so that each note you play sounds like an accordion, with the selected instrument playing in unison.

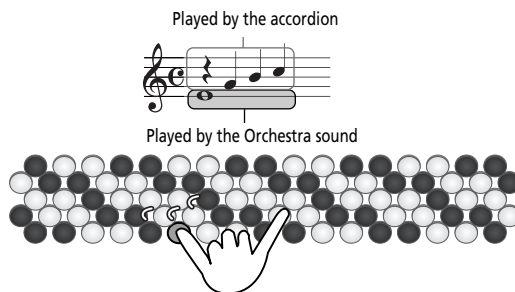


Just as a reminder: here, both the ORCH and TREBLE fields contain a keyboard icon to indicate that they sound simultaneously.

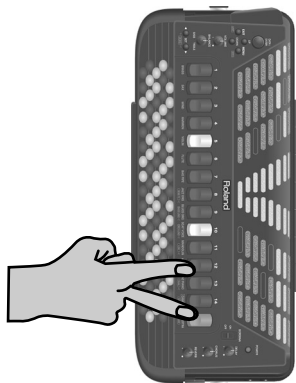
HIGH [12]: Now it becomes a little more complicated – but very interesting indeed. If you select this mode and play just one note, it is sounded by the orchestral sound. If you keep holding that button while pressing another (lower) button to its left, the upper note is played by the orchestral sound. Lower notes, however, are played by the Treble accordion sound. This is perfect for situations where you need to play chords and a solo line using different sounds. Something like this:



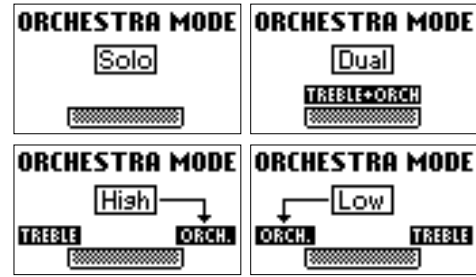
LOW [11]: This is the opposite of HIGH and can be used in situations where the melody (or counter-melody) lies above the notes you wish to hold.



- (4) While holding down the **ORCHESTRA** register, press [11], [12], [13] or [14] to select the desired mode.



The display briefly confirms your selection (only one of the following messages is actually displayed):



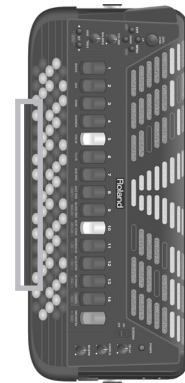
- (5) Again play a few notes and listen to the result.
Note: The Orchestra mode setting can be saved to a Set (see p. 48). The saved mode is recalled when you activate the Orchestra part.

■ Quickly adding and muting the orchestral sound

After activating the Orchestra section and selecting a mode, you can play certain phrases using the accordion sound and then add the selected orchestral sound to it when you repeat such a phrase.

The following switches the Orchestra part on and off in DUAL, HIGH or LOW mode. The Treble accordion part goes on sounding, however.

- (6) Press the Master bar that protrudes from underneath the Treble keyboard to switch the Orchestra part on or off.



The display now looks as follows (same system for the HIGH and LOW modes):

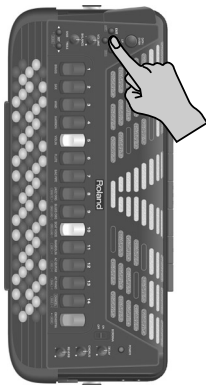


Note which field contains a keyboard icon, then press the Master bar again and look at the display. Play a few notes to understand what happens.

■ Setting the volume of the (Treble) orchestral sound

There may be times (in DUAL, HIGH or LOW mode) when the ORCHESTRA sound is too loud or too soft with respect to the Treble accordion sound. In that case, you can change its volume:

- (7) Press the **DOWN** button once.



- (8) Use the **DATA/ENTER** knob to set the desired value.

This is actually a balance parameter with a setting range of "Off", -40~"Std"~+40. "Std" means that the Orchestra part uses its "normal" volume. Negative values (-) make the Orchestra part softer, while positive values (+) make it louder.

You can save the new value (and the remaining changes you make). See page 95.

- (9) Return to the Main page by pressing **EXIT/JUMP**.

■ Switching off the Orchestra part

To return to a state where only the Treble accordion section sounds:

- (10) Press the **CANCEL** register. Now, the FR-7b/FR-5b is a normal accordion again.

To activate the Orchestra part again, repeat steps (1) and (2) on page 25.

Orchestral sounds for the Bass section

The orchestral bass part can be used instead of the Bass section (thus replacing the accordion sound played by the bass rows of the button keyboard). There are no clever modes (DUAL, SOLO, etc.) here.

Furthermore, the ORCH BASS part does what its name implies: it **only applies to the bass rows** (the ones closest to the bellows) and has no effect on the chord buttons.

- (1) Simultaneously press the three registers labeled "ORCH BASS".



The display now briefly responds with:



- (2) Use the Bass registers to select the desired sound.

Orchestra Bass sounds			
1	Acoustic	5	Picked
2*	Bowed*	6*	Tuba*
3	Fingered	7	Tuba Mix
4	Fretless		

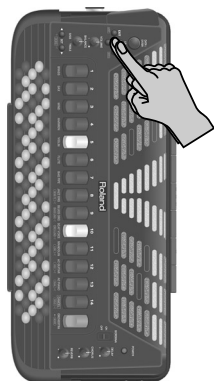
Note: The dynamics of sounds marked with an asterisk (*) can only be controlled by bellows movements. Those sounds are not velocity sensitive. For the other sounds, see also "10.12 Orch. Bs&Ch Touch" on p. 74.

Note: The numbers shown in the illustration above do not appear on the registers themselves. They have been added for your reference.

■ Setting the volume of the Bass Orchestra sound

There may be times when the Orchestra Bass sound is too loud or too soft with respect to the Bass/Free Bass accordion sound. In that case, you can change its volume:

- (3) Press the **DOWN** button twice.



The display now responds with:



- (4) Use the **DATA/ENTER** knob to set the desired value.

This is actually a balance parameter with a setting range of "Off", -40~"Std"~+40. "Std" means that the Orchestra Bass part uses its "normal" volume. Negative values (-) make the Orchestra Bass part softer, while positive values (+) make it louder.

You can save the new value (and the remaining changes you make). See page 95.

- (5) Return to the Main page by pressing **EXIT/JUMP**.

■ Switching off the Orchestra Bass part

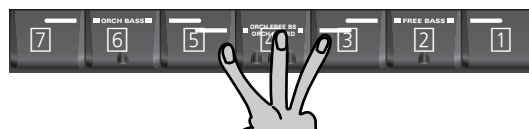
- (6) Press the three ORCH BASS registers again to return to the normal Bass mode.

Orchestral sounds for the Chord section

The Orchestra Chord part can replace the accordion sound played by the *chord rows* of the bass keyboard. There are no clever modes (DUAL, SOLO, etc.) here.

The ORCH CHORD part does what its name implies: it **only applies to the chord rows** and has no effect on the bass rows. The ORCH CHORD part is not available in Free Bass mode (because there are no chord buttons in that mode).

- (1) Simultaneously press the three registers labeled "ORCH CHORD".



The display now briefly responds with:



- (2) Use the Bass registers to select the desired sound.

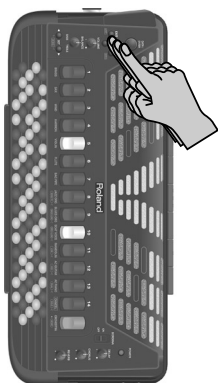
ORCH CHORD sounds			
1*	Trombone	5*	Voice
2*	Tenor Sax	6	Ac Guitar
3*	Clarinet	7	Ac Piano
4*	Trem Organ		

Note: The dynamics of sounds marked with an asterisk (*) can only be controlled by bellows movements. Those sounds are not velocity sensitive.

■ Setting the volume of the ORCH CHORD sound

There may be times when the orchestral chord sound is too loud or too soft with respect to the other available sections. In that case, you can change its volume:

- (3) Press the **[DOWN]** button three times.



The display now responds with:



- (4) Use the **[DATA/ENTER]** knob to set the desired value.

This is actually a balance parameter with a setting range of "Off", -40~"Std"~+40. "Std" means that the Orchestra Chord part uses its "normal" volume. Negative values (-) make the Orchestra Chord part softer, while positive values (+) make it louder.

You can save the new value (and the remaining changes you make). See page 95.

- (5) Return to the Main page by pressing **[EXIT/JUMP]**.

■ Switching off the ORCH CHORD part

- (6) Press the three ORCH CHORD registers again to return to the normal (accordion) chord mode.

Orchestral sounds for the Free Bass section

The orchestral Free Bass part can replace the accordion sound played by the button keyboard while Free Bass mode is active. In that case, all bass buttons play bass notes – no chords. There are no clever modes (DUAL, SOLO, etc.) here.

- (1) Simultaneously press the three registers labeled "FREE BASS" to switch to the accordion mode of the same name.



This is not necessary if you are already in Free Bass mode.

- (2) Simultaneously press the three registers labeled "ORCH FREE BS".



The display now briefly responds with:



- (3) Use the Bass registers to select the desired sound.

ORCH FREE BS sounds			
1*	Trombone	5*	Perc Organ
2*	Clarinet	6	Ac Guitar
3*	Oboe	7	Ac Piano
4*	Flute		

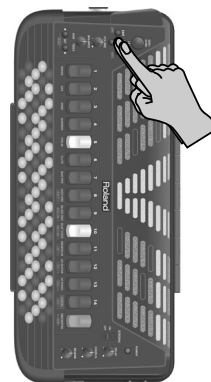
Note: The dynamics of sounds marked with an asterisk (*) can only be controlled by bellows movements. Those sounds are not velocity sensitive.

Note: The numbers shown in the illustration above do not appear on the registers themselves. They have been added for your reference.

■ Setting the volume of the ORCH FREE BS sound

There may be times when the orchestral Free Bass sound is too loud or too soft with respect to the Treble accordion and/or orchestral sound. In that case, you can change its volume:

- (4) Press the **[DOWN]** button four times.



The display now responds with:



- (5) Use the **[DATA/ENTER]** knob to set the desired value.

This is actually a balance parameter with a setting range of "Off", -40~"Std"~+40. "Std" means that the Orchestra Free Bass part uses its "normal" volume. Negative values (-) make the Orchestra Free Bass part softer, while positive values (+) make it louder.

You can save the new value (and the remaining changes you make). See page 95.

- (6) Return to the Main page by pressing **EXIT/JUMP**.

■ **Switching off the ORCH FREE BS part**

- (7) Press the three ORCH FREE BS registers again to return to the normal Free Bass mode.
(Press them yet again to leave Free Bass mode and return to Bass mode.)

Other practical functions

Let us now have a look at the first "purely electronic" functions of your FR-7b/FR-5b.

Your FR-7b/FR-5b is what we call a "virtual instrument". Though its physical appearance is similar to that of its acoustic ancestor, it is based on an altogether different concept (technology) – and it can do a lot more. In this section, we will look at functions that may be new to you but may come in handy once you know what they do and how they work.

General remark

The functions discussed here can be selected via the front panel, because we figured that you might need them more often than the other parameters.

The changes you make here are not saved automatically. That's because these shortcuts are mainly intended for temporary adjustments. If you want to keep them forever (or until you change them again), you must save them (see p. 95).

The functions discussed here can also be set using the FR-7b/FR-5b's MENU.

Pitch-related functions

■ Transpose

The FR-7b/FR-5b contains a Transpose function that allows you to change the key of the music you are playing. The advantage of this system is that you can play a song in E major (for example), while using the fingering of the C major scale (for example). This may come in handy when you are used to playing a given song in one key and suddenly need to play it in a different key.

Let's look at an example:

This is what you play...

...and this is how it sounds.

- (1) While the Main page is displayed, press the **[UP]** button once.



- (2) Use the **[DATA/ENTER]** knob to select the key your music should sound in.
The note indication ("C#" in the example above) always refers to the C key, which may make it difficult for you to transpose to F# (for example) while playing in Bb. We therefore recommend you use the value as your main guide, because it represents the interval. This can be calculated as follows:
 - In what key do you want to play? (This is your "0" value.)
Example → C major
 - What key does the song use?
Example → E major
 - How many semitones do you need to "shift" the notes?
Example → [C#, D, Eb, E] = 4 up, so "4".
- (3) Press **[EXIT/JUMP]** to return to the Main page.

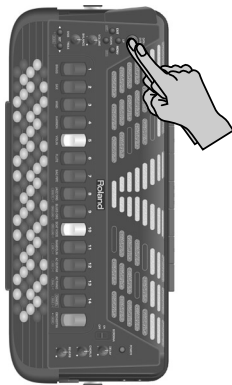
■ Musette Detune

This parameter already hints at the power of the FR-7b/FR-5b's virtual technology... You probably know that an accordion's 8' Treble register may consist of 2 or even 3 reeds that are usually tuned apart to provide a richer sound (accordionists call it the "musette effect"). One reed is tuned slightly above, the other slightly below the correct pitch, and the third (if available) is tuned "properly".

Tuning reeds is a specialist job and usually not performed by accordion players themselves.

On the FR-7b/FR-5b, however, "tuning" the "reeds" (that do not really exist) is a matter of turning the **[DATA/ENTER]** knob.

- (1) While the Main page is displayed, press the **[UP]** button twice.



- (2) Use the **[DATA/ENTER]** knob to select the a different tuning for the Treble reeds.
The possibilities are: Off (no detune), Dry, Classic, F-Folk, American L, American_H, North Eur, German L, D-Folk L, Italian L, German H, Alpine, Italian H, D-Folk H, French, Scottish.
- (3) Press **[EXIT/JUMP]** to return to the Main page.

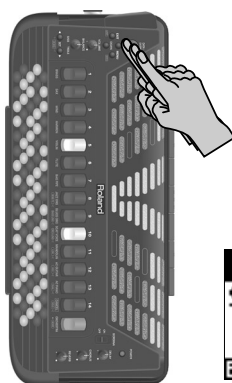
■ Scale (Tuning)

Almost each music culture has its own accordion variety. Arabic, Indonesian and other musical cultures do not use the equal temperament that is favored in Europe, the Americas, etc.

The FR-7b/FR-5b also features a "Scale" parameter that allows you to select the tuning system that best fits the music you want to play. If the tuning system you need is not among the factory settings, you can program it yourself (see p. 42) and then select it here.

Note: See "1.1 Master Tune" on p. 42 for how to change the FR-7b/FR-5b's reference pitch (i.e. "really" tune it).

- (1) While the Main page is displayed, press the **[UP]** button three times.



- (2) Use the **[DATA/ENTER]** knob to select the a different tuning system.
The possibilities are:

Equal (Off): This tuning divides each octave into 12 equal steps (intervals).

User 1~3: These settings refer to the tuning systems programmed by yourself (or someone else). See "1.4 Scale Edit" on p. 42 for details.

Arabic 1 & 2: As the name implies, these two settings refer to Arabic tuning systems. Select "1" to lower the E and B notes by a quarter tone (-50 cents). "2" represents a scale where the E and A are tuned down a quarter tone.

Just Major: This is a classical (western) tuning that resolved the ambiguity of fifths and thirds. Quite beautiful sonorities are produced with chords, but the scale is unbalanced, so it is not well-suited for melodies.

Just Minor: This is a Just scale for pieces in minor keys.

Pythagorean: This system was invented in ancient Greece. It resolves the ambiguity of fourths and fifths. Though thirds are somewhat imperfect, melodies sound clearer.

Mean-Tone: A temperament that adds some compromises to the Just temperament and facilitates transposition.

Werckmeister: A combination of the Mean Tone and Pythagorean temperaments, this tuning allows for playing in any key.

Kirnberger: As a result of improvements made to the Mean Tone and Just temperaments, it is relatively tolerant towards transposition and can be used to play in all keys.

Except for "Equal", you also need to specify the root/fundamental ("C" for major and "A" for minor) according to the key of the song to be played.

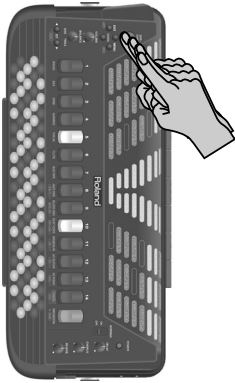
- (3) Press the **[DATA/ENTER]** knob to activate the "KEY" field (so that it is displayed in reverse).
- (4) Turn the **[DATA/ENTER]** knob to select the desired root note (C~B).
- (5) Press **[EXIT/JUMP]** to return to the Main page.

■ Noise Edit (Valve & Button)

You will probably agree that electronic sounds must not only reproduce the basic timbre of an existing sound, but also the original instrument's behavior and typical "noises" in order to be perceived as authentic. In the case of a guitar that would be the sliding noise of the fingers. An accordion, on the other hand, produces mechanical valve and button noises (clicks) that cannot be suppressed on an acoustic instrument.

On the FR-7b/FR-5b, the volume of those noises can be changed if you think they are too prominent or too soft. Note that the parameters on this Jump page belong to two different MENU sections and can be found on separate pages: "Valve Level" is a Treble parameter, "Button Level" is a Bass/Free Bass parameter.

- (1) While the Main page is displayed, press the **[UP]** button four times.



- (2) Press the **[DATA/ENTER]** knob to select either "Valve Level" or "Button Level", depending on which parameter you want to set.
- (3) Turn the **[DATA/ENTER]** knob (or use the **[UP]/[DOWN]** buttons) to select the desired noise level (Off, -40~"Std"~+40).
A negative (-) value decreases the level of the selected noise parameter, a positive (+) value increases it. Select "Std" to return to the factory value, and "Off" if you do not need the noise in question.
- (4) Press **[EXIT/JUMP]** to return to the Main page.

Volume-related functions

The remaining "shortcuts" allow you to quickly change the balance of the orchestral sections. Use the **[DOWN]** button to select them.

■ Orchestra Volume, Orc. Bass Volume, Orc. Chord Volume, Orc. FBass Volume

These parameters allow you to set the volume of the Treble, Bass Orchestra, Orchestra Chord, and Orchestra Free Bass sections relative to the associated accordion part. See pages 27, 29, 30, and 30 for details.

5. About the FBC-7

Your FR-7b/FR-5b comes with an FBC-7 footswitch unit that doubles as power supply for your V-Accordion and also allows you to recharge a battery. If you purchased an FR-5b, you must connect it to the FBC-7 (or purchase an optional battery). FR-7b users, on the other hand, can also play their instrument without connecting it to the FBC-7.

Using the FBC-7

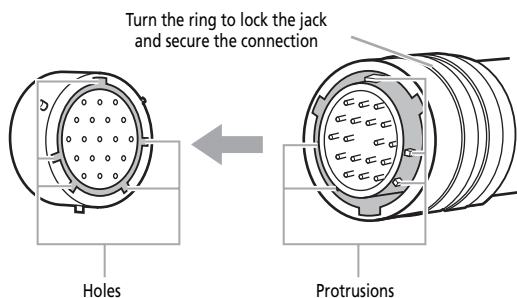
When do you need the FBC-7?

- If you own an FR-5b and did not purchase an optional battery, you always need the FBC-7.
- If you want to select registers and Sets using the SET and REGISTER footswitches.
- If you want to use the SUSTAIN footswitch and possibly also an optional expression pedal.
- If you want to take advantage of the FR-7b/FR-5b's MIDI functionality. This may include starting and stopping an external arranger module, selecting other Style divisions, etc.
- If you do not own an optional wireless system and do not want to use excessively long audio cables that run from the FR-7b/FR-5b to your amplifier or mixing console.
- If you need to recharge the (optional) battery.

Connecting the FBC-7

See page 16 for how to connect the FR-7b/FR-5b to the FBC-7, and the FBC-7 to a wall outlet that matches its voltage.

The 19-pin cable can only be connected in one way, so you can't go wrong. Just be sure to align the protrusions on the jack with the corresponding holes on the FBC-7's and FR-7b/FR-5b's socket:



Using the footswitches

The FBC-7 has five footswitches that grant you even more flexibility:



Use the **SET** switches (1 and 2) to select Sets. The 1 switch allows you to select the preceding Set (e.g. Set 18 if you are currently using Set 19), while the 2 switch is used to select the next Set (e.g. 20 if you are currently using Set 19).

If you press 2 again after selecting Set 40, the FR-7b/FR-5b jumps to Set 1. Likewise, if you press 1 after selecting Set 1, the FR-7b/FR-5b jumps to Set 40.

The **REGISTER** switches (3 and 4) allow you to select Treble registers (1~14). They work the same way as the SET footswitches: 3 selects the preceding register, while 4 selects the next one. These footswitches are most effective when you combine them with the Link function (see p. 47), because that allows you to reconfigure the Bass/Free Bass and Orchestra sections simply by selecting another Treble register.

The **SUSTAIN** footswitch allows you to hold the notes of orchestral sounds if that section is on. It also transmits CC64 messages via MIDI. If you assign it to another section (page 69), it only transmits MIDI messages on the channel of the selected section (Treble, Bass, Orchestra Bass, Chord, Orchestra Chord, and/or Orchestra Free Bass). Its main use is to generate legato notes for piano and similar sounds like on an acoustic or digital piano. Notes whose keys are pressed when you press the footswitch will be held until you release the SUSTAIN footswitch.

Connecting an optional expression pedal

You can also connect an optional EV-5 or EV-8 expression pedal to the EXPRESSION PEDAL jack. That pedal applies to the Treble Orchestra part only (again for the piano, mandolin and guitar sounds; these, by the way, are the only sounds whose expression cannot be controlled via the bellows). It allows you to create swell effects in much the same way as an organ or guitar player does.

The reason why the Treble and Bass sections do not respond to this pedal is that you can control their volume via the strength with which you press and pull the bellows (like on any accordion).



The expression pedal can be used to fade the Orchestra part in and out, which is probably most effective in DUAL mode (see p. 26). When the expression pedal is all the way up (heel down), the Orchestra part does not sound. Press the expression pedal down (toe down) to increase the Orchestra section's volume.

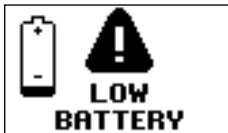
Note: The expression pedal can also transmit CC11 messages via MIDI. See page 91.

Charging the battery

The FR-7b comes with one Ni-Mh battery that can be recharged when it is depleted. Such a battery is optional for the FR-5b. If you decide to purchase one (to play with a wireless system and no cables on stage), you should also read the following.

General remarks about the battery

- Be sure to dispose of used batteries in accordance with local regulations.
- First, read the precautions on page 9 and following.
- The FR-7b's battery is fully charged (and installed in the FR-7b's battery compartment). It can be used right away.
- Be sure to fully deplete the battery (wait until the FR-7b/FR-5b goes off) before recharging it for the first time. It would actually be a good idea to repeat this the first three times to avoid the dreaded "memory effect".
- A fully charged battery should last about 8 hours (continuous use).
- When the battery is fully drained, the following message appears and the FR-7b/FR-5b goes off:



Note: The FR-7b/FR-5b contains an energy saving function that switches off the instrument when it is left unattended for more than 10 minutes. You may therefore have to switch it on again from time to time. You can specify how long the FR-7b/FR-5b should wait before powering off automatically. See "10.8 Auto Power OFF" on p. 73.

- Never try to insert other batteries into the FR-7b/FR-5b than the one it came with (or suitable replacement batteries purchased from your Roland dealer). Only use "BP-24-45" batteries, part no. K2568101.



Warning: The battery body may become hot during and after charge. Handle it with care to avoid burns.

About the BATTERY CHARGER and EXTERNAL BATTERY CHARGER indicators

The FBC-7 has two buttons (**BATTERY CHARGER** and **EXTERNAL BATTERY CHARGER**) that light or flash in various ways to indicate the current status. Here is how to "decode" those indications:

- **Lights red:** The battery is being charged. Depending on the button that lights, this refers to the battery in the FR-7b/FR-5b (BATTERY) or the battery attached to the FBC-7 (EXTERNAL BATTERY).
- **Lights green:** The battery is fully charged and can be used again.
- **Flashes yellow right away:** The charging operation cannot be started because the ambient temperature lies outside the 0°~40°C range. This is nothing to worry about: just take the FBC-7 to a place where the ambient temperature is acceptable, wait a little, and repeat the charging operation.
- **Flashes yellow after a while:** If the indicator first lights red and then starts flashing yellow after a while, the battery is overheating. Disconnect the FR-7b/FR-5b (or the battery) from the FBC-7 and use the battery until it is depleted. Then, recharge it.
- **Flashes red:** The battery cannot be fully recharged, i.e. it takes more time than expected to reach full charge. If this happens once, wait at least half an hour, then try charging it again. If the button again flashes red, the battery may have reached the end of its life cycle. Replace it with a new one if the button keeps flashing red.

Recharging the battery without removing it from the FR-7b/FR-5b

There is no need to remove the battery from the FR-7b/FR-5b in order to recharge it. Recharging the battery takes $\pm 3\sim 5$ hours and is therefore not something you should do a few minutes before you intend to use the FR-7b/FR-5b.

- (1) Connect the FR-7b/FR-5b to the FBC-7 using the supplied 19-pin cable.
- (2) Connect the FBC-7 to a suitable wall outlet.
- (3) Switch on the FBC-7 by pressing its **POWER ON** button (its red **POWER ON** indicator lights).
- (4) Press the **BATTERY CHARGER** button on the FBC-7.



The **BATTERY CHARGER** button now lights red.

- (5) Wait until the **BATTERY CHARGER** button lights green, then switch off the FBC-7 and disconnect the 19-pin cable from both the FBC-7 and the FR-7b/FR-5b.

Disconnecting the FR-7b/FR-5b is only necessary if you do not want to use the FBC-7 during your next performance.

Note: You can use the FR-7b/FR-5b while its battery is being recharged, provided you leave the V-Accordion connected to the FBC-7.

Recharging the battery on the FBC-7

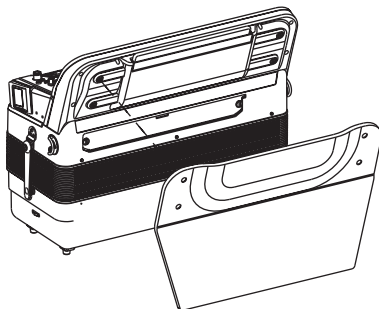
The battery installed in the FR-7b/FR-5b's compartment can also be removed and recharged on the FBC-7 itself. That is more tedious, though, and does not speed up the recharging procedure.

The main use for the method described below is therefore to recharge a spare battery (which is optional) while using the battery inside the FR-7b/FR-5b. If that is what you want to use the connector on the FBC-7 for, skip to step (7) below.

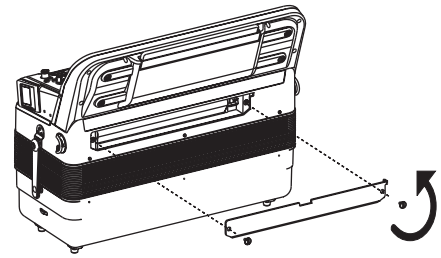


Warning: Before removing the battery, be sure to power off the FR-7b/FR-5b (the blue indicator must be dark).

- (1) Switch off the FR-7b/FR-5b.
- (2) Prepare a coin.
- (3) Remove the cushion located between the Treble keyboard and the bellows.



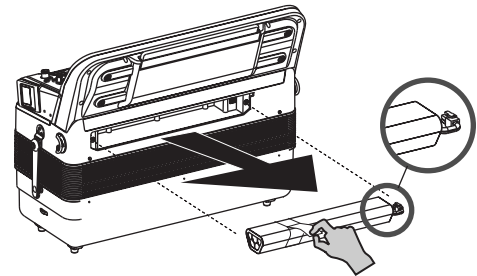
- (4) Use the coin to loosen the two screws of the compartment cover.



- (5) Remove the cover from the FR-7b/FR-5b's battery compartment.

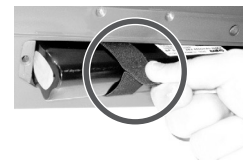
Note: While the compartment cover is open, the FR-7b/FR-5b cannot be switched on.

- (6) Pull the battery strip so that the battery protrudes a little from the battery case, and then remove the connector and take the battery out of the battery case.

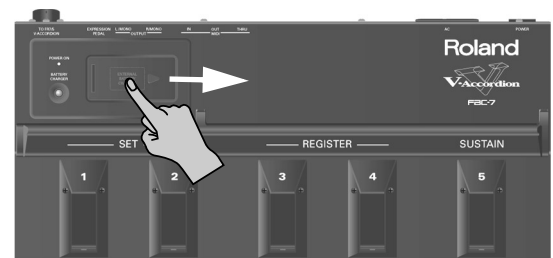


The battery is connected to the FR-7b/FR-5b by means of a cable. You need to disconnect the cable from the battery by pressing the clip on the connector before fully removing the battery.

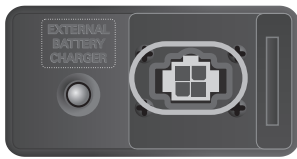
Note: Please pull the strip installed on the battery and take the battery out.



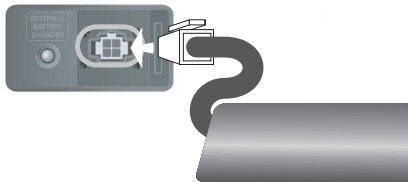
- (7) Slide the FBC-7's **EXTERNAL BATTERY CHARGER** cover to the right and remove it:



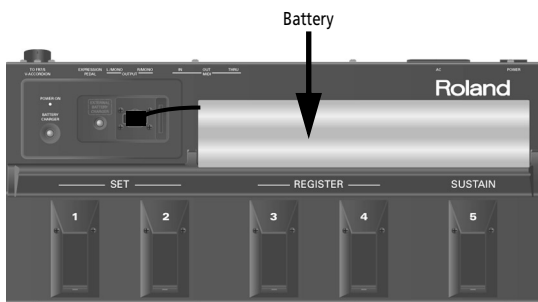
That portion on the FBC-7 now looks as follows (note the connector):



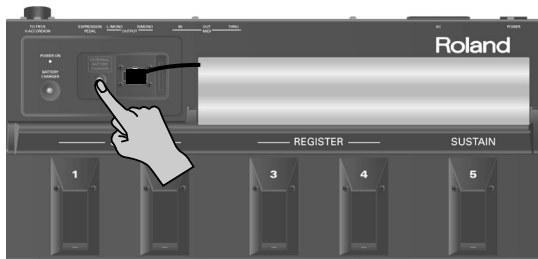
(8) Connect the battery's cable to the charger's socket.



(9) Slide the battery into the holder on the FBC-7.



- (10) Connect the FBC-7 to a suitable wall outlet.
(11) Switch on the FBC-7 by pressing its **POWER ON** button (its red **POWER ON** indicator lights).
(12) Press the **EXTERNAL BATTERY CHARGER** button on the FBC-7.



The button now lights red.

(13) Wait until the **EXTERNAL BATTERY CHARGER** button lights green, then switch off the FBC-7 and disconnect the cable from the socket on the FBC-7 and from the battery.

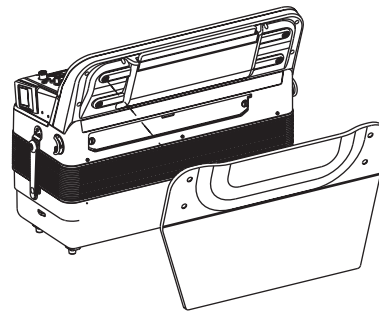
You can leave the battery where it is until you actually need it.

Note: You can use the FR-7b/FR-5b while the battery is being recharged externally.

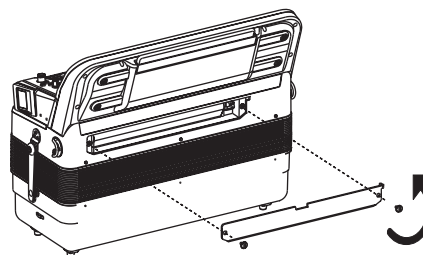
(14) Reinstall the cover on the **EXTERNAL BATTERY RECHARGER** compartment and slide it to the left until it clicks into place.

■ Using the recharged battery

- (15) Switch off the FR-7b (or FR-5b).
(16) Prepare a coin.
(17) Remove the cushion located between the Treble keyboard and the bellows.



(18) Use the coin to loosen the two screws of the compartment cover.



Note: While the compartment cover is open, the FR-7b/FR-5b cannot be switched on.

- (19) Remove the depleted battery and disconnect its cable.
(20) Connect the cable to the new battery and insert the charged battery into the FR-7b/FR-5b's compartment.
(21) Close the FR-7b/FR-5b's battery compartment and re-install the cushion.

Note: Be sure to tighten the two screws all the way to establish firm contact between the compartment cover and the instrument. Otherwise, you won't be able to use your FR-7b/FR-5b.

If the battery fails to last 8 hours (or slightly less)

The FR-7b's battery (and an optional battery for the FR-5b) can be recharged about 300 times before it needs to be replaced with a new one. Note that it is normal for the battery to last increasingly shorter as time goes by. At the end of its life cycle, it may only last one hour, for example. But that is a gradual process.

Note: If the red indicator goes off while the battery is being recharged, this means that there has been a power failure and that the battery has probably only been partially recharged. In that case, you need to recharge it again.

6. Editing sounds

Almost all sound aspects of your FR-7b/FR-5b can be changed ("edited") to your liking. On p. 32 we already showed you how to quickly edit the most important aspects of a sound. All changes you make are temporary. If you want to preserve them, you need to use the WRITE function.

Selecting parameters

■ Easy and Full modes

Be aware that the availability of a parameter may depend on the display mode that is currently selected (page 19). If you can't seem to find the parameter you need, switch to "Full" mode.

■ Important note

Before changing your settings, be sure to select the Set the changes should apply to using the SET buttons (or the SET footswitches on the FBC-7). That will help you avoid a lot of confusion at a later stage.

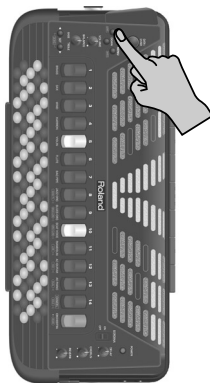
Selecting parameters using the Jump function

The FR-7b/FR-5b's parameters can be selected like on a mobile phone (by entering their numbers) or using the Menu structure. Let us first look at using the mobile phone approach:

- (1) Switch on the FR-7b/FR-5b.
See "Switching the power on and off" on p. 16. The display now looks more or less as follows:



- (2) In the descriptions below, locate the parameter you wish to edit and look at its number.
- (3) Press and hold the [EXIT/JUMP] button until the display looks as follows:



JUMP TO?
Select page MENU
[] . []
via Treble Register

- (4) Press a register [1]~[12] to specify the parameter group.

JUMP TO?
Select page MENU
[1] . []
via Treble Register

The menu contains the following function groups:

Group	Explanation
1 TUNING*	Parameters related to the overall pitch of your FR-7b/FR-5b. The Treble, Bass/Free Bass and Orchestra groups contain additional pitch parameters that only apply to those sections.
2 TREBLE EDIT	Parameters for the Treble section (including MIDI parameters).
3 BASS EDIT	Parameters for the Bass section (including MIDI parameters).
4 FREE BASS EDIT	Parameters for the Free Bass section (including MIDI parameters).
5 ORC BASS EDIT	Parameters for the Orchestra Bass section (including MIDI parameters).
6 ORCHESTRA EDIT	Parameters for the Treble Orchestra section (including MIDI parameters).
7 ORC CHORD EDIT	Parameters for the Orchestra Chord section (including MIDI parameters).
8 ORC FREEBS EDIT	Parameters for the Orchestra Free Bass section (including MIDI parameters).
9 SET COMMON	General Set parameters (effects types, name, Master bar function).
10 SYSTEM*	Parameters that apply to all sections (and hence to the entire FR-7b/FR-5b).
11 UTILITY	Parameters for checking the battery, copying and archiving settings. This group also contains a function for restoring some or all factory Sets.
12 MIDI*	MIDI channels, MIDI remote control.

Parameter groups with an asterisk (*) are not saved along with the Set parameters. They are global parameters that can be saved to a special memory.

- (5) Press a register [1~14] to specify a parameter within the selected group.



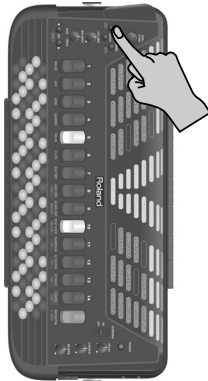
See the table on page 41. Press the [ORCHESTRA] register to select parameter "15" (only available for groups "2" and "10").

You can only select sections that are active (and thus sound when you play on the Treble or Bass keyboard). If you select a function of a section that is currently off, the display tells you that its parameters cannot be changed. In that case, switch the section on and try again – or select another group.



(The message above means that the Orchestra section is not active and therefore cannot be edited.)

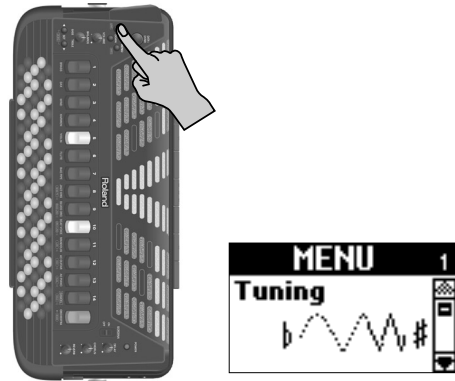
- (6) Proceed with "Setting parameter values" on p. 41.
(7) Press [EXIT/JUMP] several times to return to the main page.



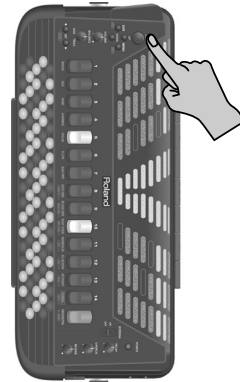
Selecting parameters via the menu

A second way of selecting parameters goes like this:

- (1) Press the [MENU] button.



- (2) Use the [DATA/ENTER] knob or the [UP]/[DOWN] buttons to select one of the function groups. See the previous page for a list with short explanations.
(3) Press the [DATA/ENTER] knob to enter that group.



The display now responds with (this depends on the function group you selected):



You can only select sections that are active (and thus sound when you play on the Treble or Bass keyboard). If you select a function of a section that is currently off, the display tells you that its parameters cannot be changed. In that case, switch the section on and try again – or select another group.



(The message above means that the Orchestra section is not active and therefore cannot be edited.)

- (4) Use the [DATA/ENTER] knob or the [UP]/[DOWN] buttons to select the parameter you wish to edit.
(5) Proceed with "Setting parameter values".

- (6) Press the **[EXIT/JUMP]** button once to return to the function group ("TUNING" in our example) and again to return to the Main page.

The various groups contain the following parameters (entries in italics are not available in "Easy" mode).

1. TUNING

1.1 Master Tune p. 42
1.2 Transpose p. 42
1.3 Scale p. 42
1.4 Scale Edit p. 42
1.5 Scale Assign p. 43

2. TREBLE EDIT

2.1 Reed Type p. 45
2.2 Register p. 46
2.3 Reed Volume p. 46
2.4 Treble Octave p. 46
2.5 Valve Noise p. 46
2.6 Musette Detune p. 46
2.7 Bellows Detune p. 47
2.8 Reverb Send p. 47
2.9 Chorus Send p. 47
2.10 Delay Send p. 47
2.11 Aftertouch Pitch p. 47
2.12 Bass Link p. 47
2.13 Orchestra Link p. 48
2.14 Orchestra Chord Link p. 48
2.15 Treble MIDI TX p. 49

3. BASS EDIT

3.1 Reed Type p. 51
3.2 Register p. 51
3.3 Reed Volume p. 51
3.4 Button Noise p. 51
3.5 Reed Growl p. 52
3.6 Bellows Detune p. 52
3.7 Reverb Send p. 52
3.8 Chorus Send p. 52
3.9 Delay Send p. 52
3.10 Bass MIDI TX p. 52
3.11 Chord MIDI TX p. 52

4. FREE BASS EDIT

4.1 Reed Type p. 54
4.2 Register p. 54
4.3 Reed Volume p. 54
4.4 Button Noise p. 54
4.5 Reed Growl p. 54
4.6 Bellows Detune p. 55
4.7 Reverb Send p. 55
4.8 Chorus Send p. 55
4.9 Delay Send p. 55
4.10 Free Bass MIDI TX p. 55

5. ORC BASS EDIT

5.1 Lowest Note p. 56
5.2 Orc Bass Release Time p. 57
5.3 Orc Bass Volume p. 57
5.4 Reverb Send p. 57
5.5 Chorus Send p. 57
5.6 Delay Send p. 57
5.7 Orc Bass MIDI TX p. 57

6. ORCH. EDIT

6.1 Orchestra Octave p. 58
6.2 Orchestra Volume p. 58
6.3 Bellows Detune p. 59
6.4 Reverb Send p. 59
6.5 Chorus Send p. 59
6.6 Delay Send p. 59
6.7 Aftertouch Pitch p. 59
6.8 Orchestra MIDI TX p. 59

7. ORC CHD EDIT

7.1 Orc Chord Volume p. 60
7.2 Reverb Send p. 61
7.3 Chorus Send p. 61
7.4 Delay Send p. 61
7.5 Orc Chord MIDI TX p. 61

8. ORC FBS EDIT

8.1 Orc FreeBs Volume p. 62
8.2 Reverb Send p. 62
8.3 Chorus Send p. 62
8.4 Delay Send p. 62
8.5 Orc FreeBs MIDI TX p. 63

9. SET COMMON

9.1 Reverb Macro Type p. 64
9.2 Reverb Parameters p. 65
9.3 Chorus Macro Type p. 65
9.4 Chorus Parameters p. 66
9.5 Delay Macro Type p. 67
9.6 Delay Parameters p. 67
9.7 Name p. 68
9.8 Master Bar Recall p. 68
9.9 Icon p. 68

10. SYSTEM

10.1 LCD Contrast p. 69
10.2 Parameter Access p. 69
10.3 Bellows Curve p. 69
10.4 Pedal Controller p. 69
10.5 Bass & Chord Mode p. 70
10.6 Free Bass Mode p. 71
10.7 Stereo Width p. 73
10.8 Auto Power OFF p. 73
10.9 Startup p. 73
10.10 Startup Name p. 73
10.11 Orchestra Touch p. 73
10.12 Orch. Bs&Ch Touch p. 74
10.13 Start/Stop MIDI TX p. 74
10.14 Treble Release T. p. 74
10.15 Treble Mode p. 74

11. UTILITY

11.1 Battery Status p. 76
11.2 Copy ALL Effects p. 77
11.3 Copy Reverb p. 77
11.4 Copy Chorus p. 77
11.5 Copy Delay p. 77
11.6 Copy SET p. 77
11.7 Bulk Dump ALL p. 78
11.8 Bulk Dump SET p. 78
11.9 Restore SET p. 78
11.10 Treble Reg. on current Set p. 78
11.11 Bass Reg. on current Set p. 79
11.12 FreeBass Reg. on current Set p. 80

12. MIDI

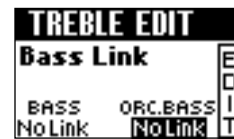
12.1 RealTime RX-TX p. 84
12.2 Ext. Seq. Playback p. 85
12.3 Bellows TX Resolution p. 88
12.4 Bank for 'Send PC' p. 86

Setting parameter values

- (1) Select the parameter you wish to edit (see above).
- (2) Press the **[DATA/ENTER]** knob to activate that parameter for editing.
Notice how the display changes: the arrows are replaced by an EDIT message and the parameter value is displayed on a dark background.



If a display page contains two (or three) adjustable parameters, you may have to press **[DATA/ENTER]** again to activate the desired parameter for editing. Here is an example:



- (3) Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to change the value.
- (4) Press the **[EXIT/JUMP]** button once to return to the function group.

1. TUNING parameters



The parameters of the TUNING group apply to the entire FR-7b/FR-5b and are not saved to a Set. You can save most of them to the FR-7b/FR-5b's Global memory, however. See pages 39 and 41 for how to select and adjust the parameters.

Press **[UP]** and **[DOWN]** simultaneously to select the value that is indicated as "Default setting".

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost when you switch off the FR-7b/FR-5b.

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- Press and hold the **[MENU/WRITE]** button until the following page appears:



- Rotate the **[DATA/ENTER]** knob (or use the **[UP]**/**[DOWN]** buttons) to select "Global".



- Press the **[DATA/ENTER]** knob to confirm your selection.



Note: The GLOBAL page shows all parameters that are saved to the Global memory (there is only one such memory).

- Press the **[MENU/WRITE]** button to save your changes. The display briefly shows a confirmation:



Note: If you don't save the edited Global settings, they will be used until you switch off the FR-7b/FR-5b (or change the settings again).

1.1 Master Tune

(415.3~466.2, Default setting: 440.0) This parameter allows you to change the FR-7b/FR-5b's overall tuning, which may be necessary when you play with acoustic instruments that cannot be tuned easily or if you use a CD or cassette tape as accompaniment. The factory default, "440.0Hz", represents the reference pitch used by all electronic musical instruments.



1.2 Transpose

(F# -6, G -5, Ab -4, A -3, Bb -2, B -1, C 0, C# 1, D2, Eb 3, E 4, F 5) This parameter allows you to transpose all sections of the FR-7b/FR-5b. See page 32 for details.



1.3 Scale

This page contains two parameters. The first one allows you to select the tuning system and the second one to specify the fundamental/root of the key you want to play in. This was already discussed on page 33.

Type: Equal (Off), User 1, User 2, User 3, Arabic1, Arabic2, Just Major, Just Minor, Pythagorean, Mean-Tone, Werckmeister, Kirnberger
Key: C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B



1.4 Scale Edit

Here comes a display page with three selectable and adjustable parameters. You may have noticed that there are three "User" scales. They refer to tuning systems you can program yourself. Obviously, you only need to do this if none of the factory scales corresponds to the system you would like to use (a gamelan tuning, for example).

As this is a rather complex matter, the procedure for programming your tuning is a little different from the adjustment of other parameters:

- After selecting this page, pressing **[DATA/ENTER]** will do nothing.
- Instead, you need to press the **[MENU/WRITE]** button to jump to the following page:



- Use the **DATA/ENTER** knob or the **UP/DOWN** buttons to select the User memory that should contain your customized tuning system.
- Press **MENU/WRITE** again to jump to the following page.



(-64~63, Default setting: 0 for all notes) These parameters allow you to stray away from the usual semitone-interval scale (used in western music) by changing the pitch of the notes so as to accommodate other musical cultures.

You will notice that every note can be selected only once. That is because the value you specify applies to all notes of the same name. If you change the tuning of the "C", that value will be added to or subtracted from all Cs (C1, C2, C3, etc.). Most of the time, you will probably select the value "50" or "-50" as they correspond exactly to half a semitone up or down (quarter tone). Other settings may also be interesting, though.

- Press the **DATA/ENTER** knob to select either the note (left field) or the tuning value (right field) and change the entry using the **DATA/ENTER** knob or the **UP/DOWN** buttons.
- Press the **MENU/WRITE** button to memorize your new tuning (or **EXIT/JUMP** to return to the previous settings, in which case your changes are lost). If you press **MENU/WRITE**, the display briefly shows a confirmation:



1.5 Scale Assign

(Treble, Orchestra, Treble&Orchestra, Bass&Chord, ALL, Default setting: Treble&Orchestra) This parameter allows you to specify which section should be affected by the tuning system you select on the "1.3 Scale" page. It is perfectly possible to select a single section (e.g. only the Treble accordion).



2. TREBLE EDIT parameters



The parameters of the TREBLE EDIT group apply to the Treble section and are saved to the selected Set. They allow you to build your own (virtual) accordion. After setting these parameters, you probably also need to adjust the BASS EDIT or FREE BS EDIT parameters (which are also saved to the Set). See pages 39 and 41 for how to select and adjust the parameters.

Press **[UP]** and **[DOWN]** simultaneously to select the value that is indicated as "Default setting".

Introduction

While familiarizing yourself with and using the following parameters, try to think of yourself as an accordion manufacturer. The first parameters in this group indeed rely on the power of Roland's "virtual" technology (called "PBM" or "Physical Behavior Modeling") and are in fact a warehouse with all kinds of accordion components from which you can build your personal accordion or to customize an existing "model".

Though experimenting with the available options may teach you a lot about usable sound combinations, always start out by asking yourself questions like: "Does it sound OK?", "Does it make sense for a Cajun accordion to use a Bandoneon valve noise?", etc.

Another piece of advice is the following: after spending two hours programming a new register, save it, take a break, then listen to it again (or even wait until the next day). Also try it in combination with the other registers/sections and even instruments (if you play in a band).

Important note

All changes you make here apply to the last Treble register you selected. So be sure to press the register (**[1]**~**[14]**) whose settings you wish to change before selecting and editing any of the TREBLE EDIT parameters. You can, however, decide to save your settings to a different register (see below) if you realize that you've been editing the wrong one.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
- When you switch off the FR-7b/FR-5b

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **[MENU/WRITE]** button until the following page appears:



This is the page we need, so you don't need to scroll through the available options.

- (2) Press the **[DATA/ENTER]** knob to confirm your selection.



- (3) Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to specify what you want to save:

Current: The register you are currently editing.

Currt + SCom: The register you are currently editing as well as the Set Common settings (page 64).

ALL: All registers. This is probably the safest bet, because it ensures that no Treble register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

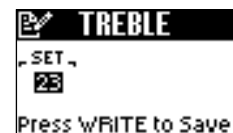
- (4) Press the **[DATA/ENTER]** knob to confirm your selection.

Depending on what you chose in step (3) above, the display now looks as follows:

If you selected "Current" or "Currt+SCom"



If you selected "ALL"



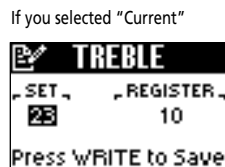
→ Skip to step (7)

- (5) Enter a name for the register you are about to save.

This is only necessary if you don't agree with the name that appears in the display.

- Select the character position (indicated by a dark square) by pressing **[UP]** (previous character), **[DOWN]** (next character) or the **[DATA/ENTER]** knob (next character).
- Turn the **[DATA/ENTER]** knob to select the desired character.
- Press **[UP]** and **[DOWN]** simultaneously to erase the currently selected character (it will become a space). Example: To replace the "s" in "Celeste" with a space ("Cele te"), position the cursor on the "s" and simultaneously press **[UP]/[DOWN]**.

- To insert a space before the currently selected character and push all subsequent characters one position to the right, select the character that should follow the space, then press and hold **[UP]**. Example: To insert a space before the "s" in "Celeste" (creating the name "Cele ste"), position the cursor on the "s" and hold down **[UP]** for a while.
Note: If the name already contains 8 characters ("Bandoneo"), the last character is erased (example: "Band one").
 - To delete the character indicated by the cursor and move subsequent characters one position to the left, select it (example: "Celeste") and press and hold **[DOWN]** ("Celete").
- (6) Press the **[MENU/WRITE]** button to jump to the following page:



- (7) Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select the Set that should contain your changed version(s).
Change this setting only if you do *not* want to save your settings to the current Set.
- (8) (Only for "Current":)
Press the **[DATA/ENTER]** knob to select "REGISTER", then turn it to select the number of the register where you want to save your edited version (1~14).
- (9) Press the **[MENU/WRITE]** button to save your changes. The display briefly shows a confirmation:



- (10) Press the **[EXIT/JUMP]** button to return to the Main page.
Note: See pages 39 and 41 for how to select and adjust the parameters below.

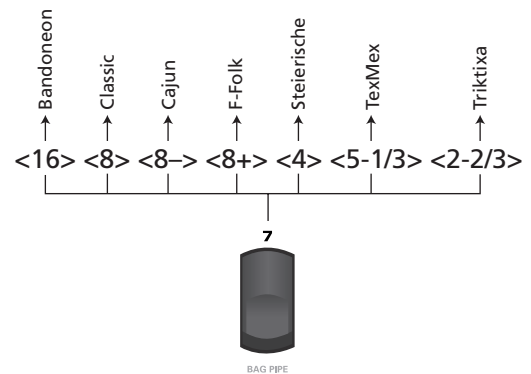
2.1 Reed Type

This parameter allows you to do two things that are impossible with an acoustic accordion: you can (a) transform the selected register into a different instrument and (b) assign different sounds to each footage the register plays.

Note: Each FOOT can be assigned one TYPE (combinations like "16= Bandoneon, 16= TexMex, 16= Organetto" are impossible).
A register, as you may know, may contain several reeds tuned to different pitches ("feet"), so that you hear the 16', 8' and 4' reeds when you select it, for example. The "Register" parameter below allows you to select the



desired footage(s). Here, you specify how each reed (that can be assigned to a register) should sound. This allows for complex combinations like the following:



We'll let you decide whether such a combination really makes sense, but it is possible... For each of the 14 Treble registers, that is.

- If necessary, press the **[DATA/ENTER]** knob to select the "FOOT" parameter, then rotate the **[DATA/ENTER]** knob to select the reed you wish to assign another sound to.
The options are: ALL, 16, 8, 8-, 8+, 4, 5-1/3, 2-2/3
- Press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select a type ("instrument").
The TYPE options are: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trikitixa.

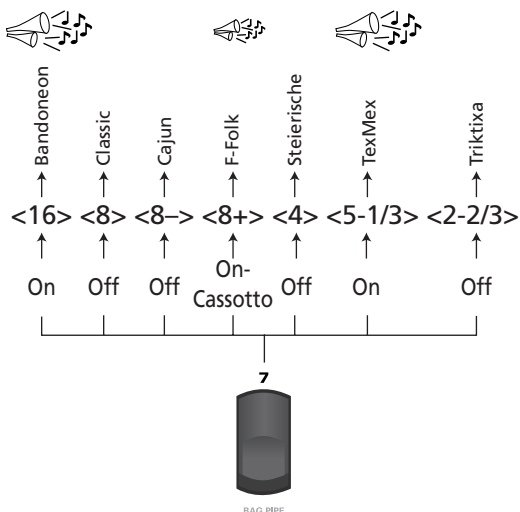
To save time while changing the TYPE for one or several reeds, you could proceed as follows: suppose all reeds are currently set to the "wrong" TYPE and you want to use 16', 8' and 4' as "Bandoneon". In that case, set FOOT to "ALL" and TYPE to "Bandoneon". Next, use STATUS on the "Register" page to switch off the reeds you do not need.

Note: Whenever you select "ALL" and set a different reed type, the "Valve Noise" setting is automatically adapted to the reed type you select here. You may have to change it afterwards if you wish to use a different noise type.

2.2 Register

The parameters on this page are used in combination with the settings above. Here, you decide which feet should be audible and how they should be played. It is therefore on this page that you specify whether the sounds you selected above will indeed be used.

Here comes another illustration:



In our example, only 16', 8'+ and 5-1/3' are used. 8'+ is slightly softer than the other two reeds, because the Cassotto function is on. "Cassotto" is similar to the "Sordina" function discussed on page 22, but it only muffles the reed/footage in question (making the sound darker). The SORDINA switch, on the other hand, applies to all accordion sounds of the Treble section.

- If necessary, press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the reed you wish to assign another sound to. The options are: 16, 8, 8-, 8+, 4, 5-1/3, 2-2/3
- Press the **DATA/ENTER** knob to select the "STATUS" parameter, then rotate the **DATA/ENTER** knob to specify whether the selected reed should sound and whether it should be muffled. The STATUS options are: Off (no sound), On (sounds), On-Cassotto (muffled sound).

2.3 Reed Volume

(Off, -40~"Std"~40, Default setting: Std) Here comes the last parameter that can be set for each reed/footage individually. It allows you to create the desired "mix" (volume balance) for the active reeds (see the "2.2 Register" page).

This is a relative parameter, which means that its value is added to or subtracted from the standard value ("Std"). As a rule, it would be wise to decide which reed is most important and set its Volume parameter to "Std". Then reduce or increase the volume of the "ancillary" reeds to create the desired balance.



- Press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the reed whose volume you want to set. The options are: ALL (all reeds simultaneously), 16', 8', 8-, 8+, 4', 5-1/3', 2-2/3'
- Press the **DATA/ENTER** knob to select the "LEVEL" parameter, then rotate the **DATA/ENTER** knob to set the volume.

Note: The overall volume of the Treble section (all registers) can be changed using the **BALANCE** knob.

2.4 Treble Octave

(-1, 0, 1, Default setting: 0) This parameter allows you to transpose the selected register one octave up ("1") or down ("-1"). This can be used for two purposes: to quickly correct the pitch that results from the active reeds (see above) or to avoid overlaps of the selected register when using a Treble Orchestra sound. (The Orchestra section also provides an Octave parameter.)



2.5 Valve Noise

Here comes a more elaborate version of the Noise parameter discussed on page 33, because it allows you not only to set the level of the "typical" valve noises, but also to specify what kind of instrument should generate the noise. Though you are free to experiment with any noise type you like, using the noise related to the selected instrument (see "Reed Type") is usually more realistic.



There is only one TYPE for the entire register (i.e. all 7 reeds). The options are: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trikitixa.

Use the LEVEL parameter to specify how prominent the noise should be (Off, -40~"Std"~40, Default setting: Std).

Note: Whenever you select "ALL" for "2.1 Reed Type" and set a different reed type, this noise setting is automatically adapted to the reed type. It would therefore be a good idea to first select the reed type and only then change the noise type.

2.6 Musette Detune

This parameter allows you to choose the system used for detuning the 8' reeds. See page 32 for details. The options are: Off, Dry, Classic, F-Folk, American_L, American_H, North_Eur, German_L, D-Folk_L, Italian_L, German_H, Alpine, Italian_H, D-Folk_H, French, Scottish.



2.7 Bellows Detune

(Off, Low, Standard, High, Default setting: Standard) This parameter further adds to the realism of the sounds emulated by your FR-7b/FR-5b. Here, you can specify how strongly the pitch of the simulated Treble reed(s) changes when you open or close the bellows faster than usual.



If the "Standard" setting seems too mild, try "High". If it is too strong, use "Low". If you don't want any detuning effect, select "Off". The most convincing setting usually depends on the selected instrument(s) (see "2.1 Reed Type").

2.8 Reverb Send, 2.9 Chorus Send, 2.10 Delay Send

(0~127 for all three) Use these parameters to set the Reverb, Chorus or Delay send level (how much effect should be applied to the Treble section). The higher the value you set, the more the Treble section is processed by the effect in question.



It works much the same way as a cathedral: the louder you sing, the more reverb (chorus or delay) you hear. In the case of the cathedral, singing louder means that you increase the effect send level, i.e. the level of the signal (your voice) that will be processed by the acoustic environment.

The other sections (Bass, Free Bass, etc.) have the same parameters, so that you can create a sound image with various "levels" (foreground, background).

The effects themselves can be edited on separate pages (see p. 65).

2.11 Aftertouch Pitch

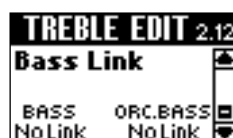
(Off, 1/4 Down, 1/2 Down, 1/4 Up, 1/2 Up, Default setting: Off) As stated earlier, the FR-7b/FR-5b's Master bar also generates aftertouch messages when pressed gently. This effect allows you to bend the pitch down (temporarily lower the note) by a quarter ("1/4 Down") or a semi-tone ("1/2 Down"). Select "1/4 Up" or "1/2 Up" to bend the notes up a quarter or a semi-tone. Select "Off" to switch off the Master bar's aftertouch recognition.



Note: This aftertouch effect applies to all notes that are sounding simultaneously. (MIDI buffs call this "channel aftertouch".)

2.12 Bass Link

Here are two parameters that allow you specify which Bass and/or Orchestra Bass register/ sound are selected whenever you press the Treble register you are currently editing. That way, you only need to press one register instead of at least two (one Treble, one



Bass). There are other parameters that allow you to associate a Treble Orchestra and/or Chord/Free Bass Orchestra sounds with the currently selected accordion register (see below).

The options for the parameters on this page are:

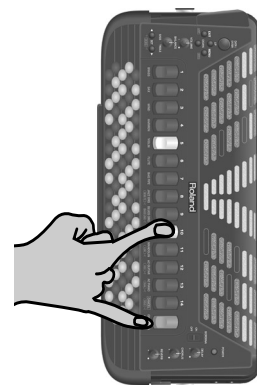
- BASS: No Link, Bass 1~7, Free 1~7 (This selection also influences the options for the "2.14 Orchestra Chord Link" parameter.)
- ORC.BASS: No Link, Acoustic, Bowed, Fingered, Fretless, Picked, Tuba, Tuba Mix

If you define a "Free" register, the Bass section automatically switches to Free Bass mode when you press the Treble register while the Bass Link function is active. (If you define a "Bass" register, the Bass section switches from Free Bass to Bass mode at that time, if necessary.)

If you also define an ORC.BASS sound (other than "No Link"), the Bass section automatically activates the Orchestra Bass part when you press the Treble register while the Bass Link function is active.

Select "No Link" if there should be no connection between the currently selected Treble register and the Bass or Orchestra Bass section.

Note that this automatic link is not activated when you define it on this page – it is merely enabled and "pre-set". To activate the Bass Link function, press and hold down the [ORCHESTRA] register and press [LINK]:



Note: Simply activating the link does nothing at all (i.e. the Bass/Free Bass/Orchestra Bass/Orchestra Chord/Orchestra Free Bass register does not change right away). You need to select another Treble register whose Bass Link function is on for the link to work.

Repeat this procedure to defeat the Bass Link function if you no longer need it.

On the Main page, links are indicated as follows:



Note: You can specify that this function should be activated automatically each time you switch the FR-7b/FR-5b on. See "10.9 Startup" on p. 73.

2.13 Orchestra Link

This function allows you to associate an orchestral sound with the Treble register you are currently editing and to specify which mode should be used. See also "Selecting the Orchestra mode" on p. 26 for an explanation of the available modes.



The options for these parameters are:

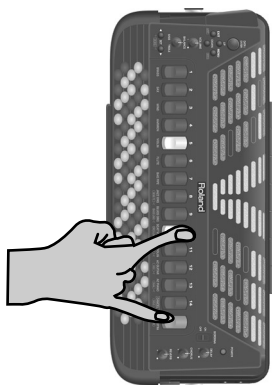
- REGISTER: No Link, 1A Trombone, 1B Trumpet, 2A TenorSax, 2B AltoSax, 3A Clarinet, 3B Oboe, 4A Harmonica, 4B MuteHarm, 5A Violin, 5B Pizzicato, 6A Flute, 6B PanFlute, 7A HighLand, 7B Zampogna, 8A PercOrgan, 8B JazzOrgan, 9A RotOrgan, 9B TremOrg, 10 ScatVoice, 11 Mandolin, 12 AcGuitar, 13 AcPiano
- MODE: ----, Solo, Dual, Low, High, Solo M, Dual M, Low M, High M

Select "No Link" if there should be no connection between the currently selected Treble register and the Orchestra Treble section.

"--" means that the currently selected mode does not change. So if LOW mode is selected when you press this register, the orchestral sound you select here can be played in LOW mode.

The "M" options work more or less the same. There is one major difference, however: they do not switch on the Orchestra part if it is currently off (while the options without the "M" do). So if you set MODE to "Dual M" and then select this register, the orchestral sound (assigned to "REGISTER") changes, and so does the MODE setting – but the Orchestra part is not switched on (if it is off).

Note that this automatic link is not activated when you define it on this page – it is merely enabled and "pre-set". To activate the Orchestra Link function, you need to press and hold down the [ORCHESTRA] register and press [10]:



Note: Simply activating the link does nothing at all (i.e. the orchestral sound does not change right away). You need to select another Treble register whose Orchestra Link function is on for the link to work.

Repeat this procedure to defeat the Orchestra Link function if you no longer need it (or assign "CANCEL" to another Treble register and press it).

On the main page, links are indicated as follows:



Note: You can specify that this function should be activated automatically each time you switch the FR-7b/FR-5b on. See "10.9 Startup" on p. 73.

2.14 Orchestra Chord Link

This parameter that allows you to specify which Orchestra Chord or Orchestra Free Bass sound is selected whenever you press the Treble register you are currently editing. That way, you only need to press one register instead of at least two (one Treble, one Bass).



The Orchestra Chord and Orchestra Free Bass sections are mutually exclusive (there are no chord buttons in Free Bass mode).

- CHORD-FREEBS:
No Link, CHD-Trombone, CHD-TenorSax, CHD-Clarinet, CHD-TremOrg, CHD-Voice, CHD-AcGuitar, CHD-AcPiano
FBS-Trombone, FBS-Clarinet, FBS-Oboe, FBS-Flute, FBS-PercOrgan, FBS-AcGuitar, FBS-AcPiano
- The options depend on the "2.12 Bass Link" setting, because the Orchestra Chord and Orchestra Free Bass sections are not always available:

"2.12 Bass Link" setting	Possibilities for "2.14 Orchestra Chord Link"
No Link	No Link, CHD-Trombone, CHD-TenorSax, CHD-Clarinet, CHD-TremOrg, CHD-Voice, CHD-AcGuitar, CHD-AcPiano, FBS-Trombone, FBS-Clarinet, FBS-Oboe, FBS-Flute, FBS-PercOrgan, FBS-AcGuitar, FBS-AcPiano
Bass 1~7	No Link, CHD-Trombone, CHD-TenorSax, CHD-Clarinet, CHD-TremOrg, CHD-Voice, CHD-AcGuitar, CHD-AcPiano
Free 1~7	No Link, FBS-Trombone, FBS-Clarinet, FBS-Oboe, FBS-Flute, FBS-PercOrgan, FBS-AcGuitar, FBS-AcPiano

"Bass" and "Free Bass" are two different modes. In "Free Bass" mode, all bass buttons play bass accordion sounds, so that the "CHD" options here wouldn't make sense. That is why you cannot even select them. Similarly, when "Bass" mode is activated (by selecting one of the seven Bass registers for "2.12 Bass Link"), the Orchestra Free Bass sounds cannot be used. That is why you cannot even select them here.

Conversely, since the "2.12 Bass Link" determines what's possible or not, changing its setting may correct your "2.14 Orchestra Chord Link" setting. Here's an example:

Suppose you first set "2.14 Orchestra Chord Link" to "FBS-Flute" (while "2.12 Bass Link" is set to "No Link"). You then change your mind and set "2.12 Bass Link"

to "Bass 6". This means that "FBS-Flute" is no longer supported (because it's a Free Bass orchestral sound that is not available in Bass mode). The FR-7b/FR-5b therefore changes "2.14 Orchestra Chord Link" to "No Link".

For this reason, we recommend that you first set 2.12 Bass Link "BASS" (if you need it), and only then "2.14 Orchestra Chord Link".

Note: The 2.12 Bass Link "ORC.BASS" setting does not influence the options available for 2.14 Orchestra Chord Link.

Note that this automatic link is not activated when you define it on this page – it is merely enabled and "pre-set". To activate the Bass Link function (which also applies to the Orchestra Chord or Orchestra Free Bass sections), you need to press and hold down the [ORCHESTRA] register and press [9]:



Note: Simply activating the link does nothing at all (i.e. the Orchestra Chord or Orchestra Free Bass sound does not change right away). You need to select another Treble register whose Bass Link function is on for the link to work.

Note: The Orchestra Chord and Orchestra Free Bass Link functions need to be activated/deactivated using the "Bass Link" procedure. There is no separate switching function for the Orchestra Chord or Orchestra Free Bass section.

Repeat this procedure to defeat the Bass Link function if you no longer need it (or assign "CANCEL" to another Treble register and press it).

On the main page, links are indicated as follows:



2.15 Treble MIDI TX

This page contains a series of MIDI parameters for the selected register you need to set one by one. See page 89 for details about the MIDI parameters. These parameters are saved along with all other Set parameters, which allows you to use different MIDI settings for each Set – and even each register within a Set.



3. BASS EDIT parameters



The parameters of the BASS EDIT group apply to the Bass section (bass and chord notes) and are saved to the selected Set. They allow you to build your own (virtual) accordion. After setting these parameters, you probably also need to adjust the TREBLE EDIT or FREE BS EDIT parameters (which are also saved to the Set). See pages 39 and 41 for how to select and adjust the parameters.

Press **[UP]** and **[DOWN]** simultaneously to select the value that is indicated as "Default setting". See also "Introduction" on p. 44 for some general hints.

Important note

All changes you make here apply to the last Bass register you selected. So be sure to press the register whose settings you wish to change before selecting and editing any of the BASS EDIT parameters. You can, however, decide to save your settings to a different register (see below) if you realize that you've been editing the wrong one.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
- When you switch off the FR-7b/FR-5b

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **[MENU/WRITE]** button until the following page appears:



- (2) Rotate the **[DATA/ENTER]** knob (or use the **[UP]/[DOWN]** buttons) to select "Bass".



- (3) Press the **[DATA/ENTER]** knob to confirm your selection.



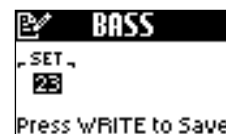
- (4) Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to specify what you want to save:
 - Current: The register you are currently editing.
 - Currt + SCom: The register you are currently editing as well as the Set Common settings (page 64).
 - ALL: All registers. This is probably the safest bet, because it ensures that no Bass register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

- (5) Press the **[DATA/ENTER]** knob to confirm your selection. Depending on what you chose in step (3) above, the display now looks as follows:

If you selected "Current" or "Currt+SCom"



If you selected "ALL"



→ Skip to step (8)

- (6) Enter a name for the register you are about to save. See p. 44 for details. Changing the name is only necessary if you don't agree with the name that appears in the display.
- (7) Press the **[MENU/WRITE]** button to jump to the following page:

If you selected "Current" or "Currt+SCom"



- (8) Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select the Set that should contain your changed version(s). Change this setting only if you do *not* want to save your settings to the current Set.
- (9) (Only for "Current":) Press the **[DATA/ENTER]** knob to select "REGISTER", then turn it to select the number of the register where you want to save your edited version (1~7).

- (10) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



- (11) Press the **EXIT/JUMP** button to return to the Main page.

Note: See pages 39 and 41 for how to select and adjust the parameters below.

3.1 Reed Type

This parameter allows you to transform the selected register into a different instrument, and assign different sounds to each reed the register plays. See "2.1 Reed Type" on p. 45 for a discussion of the possibilities and the aspects you need to pay attention to. Bear in mind, however, that the parameter on this page applies to the selected *Bass* register.



- If necessary, press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the reed you wish to assign another sound to.
The options are: ALL, 16', 8', 8'-4', 4', 2'
- Press the **DATA/ENTER** knob to select the "TYPE" parameter, then rotate the **DATA/ENTER** knob to select a type ("instrument").
The TYPE options are: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
To save time while changing the TYPE of one or several reeds, you could proceed as follows: suppose all reeds are currently set to the wrong TYPE and you want to use 16', 8' and 4' as "Bandoneon". In that case, set FOOT to "ALL" and TYPE to "Bandoneon". Next, use STATUS on the "Register" page to switch off the reeds you do not need.

3.2 Register

The parameters on this page are used in combination with the parameters above. Here, you decide which reeds should be audible and how they should be played. It is therefore on this page that you specify whether the sounds you selected above will be used.



- If necessary, press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the desired reed.
The options are: 16', 8', 8'-4', 4', 2'
- Press the **DATA/ENTER** knob to select the "STATUS" parameter, then rotate the **DATA/ENTER** knob to specify whether the selected reed should sound and whether you can or cannot use it to play chords.

The STATUS options are: Off, Bass, Chord, Bass&Chord. The available options depend on the selected footage, however:

	16	8	8-4	4	2
Off	yes	yes	yes	yes	yes
Chord	no	no	yes	yes	yes
Bass	yes	yes	no	no	no
Bass&Chord	no	no	yes	yes	yes

Note: You cannot assign "Bass&Chord" to "8-4", or "Chord" to "2". All reeds (16 & 8 for the bass, 8-4, 4 & 2 for the chords) must use the same assignment. If you select "Bass&Chord" for "4" and then set "2" to "Chord", "4" automatically switches to "Chord" (the last selection you make is adopted by all reeds of the same "yes" group). You can, however, select "Off" for each reed individually.

Note: Whenever you select "ALL" and set a different reed type, the "3.4 Button Noise" and "3.5 Reed Growl" settings are automatically adapted to the reed type you select here. You may have to change those settings afterwards if you wish to use different noise type.

3.3 Reed Volume

(Off, -40~"Std"~40, Default setting: Std) This is the last parameter that can be set for each reed individually. It allows you to create the desired "mix" (volume balance) for the active reeds (see the "Register" page).



This is a relative parameter, which means that its value is added to or subtracted from the standard value ("Std"). As a rule, it would be wise to decide which reed is most important and set its Volume parameter to "Std". Then reduce or increase the volume of the "ancillary" reeds to create the desired balance.

- Press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the reed whose volume you want to set.
The options are: ALL (all reeds simultaneously), 16', 8', 8'-4', 4', 2'
- Press the **DATA/ENTER** knob to select the "LEVEL" parameter, then rotate the **DATA/ENTER** knob to set the volume.

Note: The overall volume of the Bass section (all registers) can be changed using the **BALANCE** knob.

3.4 Button Noise

The bass section of almost all accordion instruments can be played via buttons. Such buttons produce a typical noise when pressed. On this page, you can specify the instrument whose button noises should be used when you select this register while playing. (Note that other Bass registers can be assigned different noises.)



There is only one TYPE for the entire register (i.e. all 5 reeds). The options are: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa.

Use the LEVEL parameter to specify how prominent the noise should be ("Off", -40~"Std"~40, Default setting: Std).

Note: Whenever you select "ALL" for "Reed Type" and set a different reed type, this noise setting is automatically adapted to the reed type. It would therefore be a good idea to first select the reed type and only then change the noise type.

3.5 Reed Growl

This parameter allows you to simulate the typical noise a bass reed makes just before it stops vibrating altogether (a kind of "musical flatulence" if you will).



Each instrument of the accordion family produces its own typical growl. The growl that matches the sound selected with "Reed Type" probably yields the most realistic effect – but feel free to select another one if you like it better.

- If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select one of the available instrument types: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
- Press the **[DATA/ENTER]** knob to select the "LEVEL" parameter, then rotate the **[DATA/ENTER]** knob to set the volume of the Reed Growl sound (Off, -40~"Std"~40).

Note: Whenever you select "ALL" for "Reed Type" and set a different reed type, this growl setting is automatically adapted to the reed type. It would therefore be a good idea to first select the reed type and only then change the growl type.

3.6 Bellows Detune

(Off, Low, Standard, High, Default setting: Standard) This parameter further adds to the realism of the sounds emulated by your FR-7b/FR-5b. Here, you



can specify how strongly the pitch of the simulated Bass reed(s) changes when you open or close the bellows faster than usual.

If the "Standard" setting seems too mild, try "High". If it is too strong, use "Low". If you do not want any detuning effect, select "Off". The most convincing setting usually depends on the selected instrument(s) (see "Reed Type").

3.7 Reverb Send, 3.8 Chorus Send, 3.9 Delay Send

(0~127 for all three) Use these parameters to set the Reverb, Chorus or Delay send level (how much effect should be applied to the Bass section). The higher the value you set, the more the Bass section will be processed by the effect in question.



The other sections (Treble, Free Bass, etc.) have the same parameters, so that you can create a sound image with various "levels" (foreground, background).

The effects themselves can be edited on separate pages (see p. 65).

3.10 Bass MIDI TX, 3.11 Chord MIDI TX

These pages contain a series of MIDI parameters for the selected register you need to set one by one. One page allows you to specify which MIDI messages the bass notes (i.e. the two or three button rows closest to the bellows) should transmit, the other does the same for the chords (the remaining buttons in the Bass section).



See page 89 for details about the MIDI parameters. These parameters are saved along with all other Set parameters, which allows you to use different MIDI settings for each Set – and even each register within a Set.

4. FREE BASS EDIT parameters



The parameters of the FREE BS EDIT group apply to the Bass section when it is used in Free Bass mode (see p. 24) and are saved to the selected Set. They allow you to build your own (virtual) accordion. After setting these parameters, you probably also need to adjust the TREBLE EDIT parameters (which are also saved to a Set). See pages 39 and 41 for how to select and adjust the parameters.

Press **[UP]** and **[DOWN]** simultaneously to select the value that is indicated as "Default setting". See also "Introduction" on p. 44 for some general hints.

Important notes

- All changes you make here apply to the last Free Bass register you selected. So be sure to press the register whose settings you wish to change before selecting and editing any of the FREE BS EDIT parameters. You can, however, decide to save your settings to a different register (see below) if you realize that you've been editing the wrong one.
- See page 71 for how to select the note system for Free Bass mode. That setting is shared by all Sets.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
- When you switch off the FR-7b/FR-5b

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **[MENU/WRITE]** button until the following page appears:



- (2) Rotate the **[DATA/ENTER]** knob (or use the **[UP]/[DOWN]** buttons) to select "Free Bass".



- (3) Press the **[DATA/ENTER]** knob to confirm your selection.



- (4) Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to specify what you want to save:
 - Current: The register you are currently editing.
 - Currt + SCom: The register you are currently editing as well as the Set Common settings (page 64).
 - ALL: All registers. This is probably the safest bet, because it ensures that no Free Bass register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

- (5) Press the **[DATA/ENTER]** knob to confirm your selection. Depending on what you chose in step (3) above, the display now looks as follows:

If you selected "Current" or "Currt+SCom"



If you selected "ALL"



→ Skip to step (8)

- (6) Enter a name for the register you are about to save. See p. 44 for details. Changing the name is only necessary if you don't agree with the name that appears in the display.
- (7) Press the **[MENU/WRITE]** button to jump to the following page:

If you selected "Current" or "Currt+SCom"



- (8) Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select the Set that should contain your changed version(s). Change this setting only if you do *not* want to save your settings to the current Set.
- (9) (Only for "Current":) Press the **[DATA/ENTER]** knob to select "REGISTER", then turn it to select the number of the register where you want to save your edited version (1~7).

- (10) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



- (11) Press the **EXIT/JUMP** button to return to the Main page.

Note: See pages 39 and 41 for how to select and adjust the parameters below.

4.1 Reed Type

This parameter allows you to transform the selected register into a different instrument and assign different sounds to each footage the register plays.



Note: You will notice that there are fewer options here than for the Bass section. That's because you cannot play chords in Free Bass mode.

- If necessary, press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the reed you wish to assign another sound to. The options are: ALL, 16', 8'
- Press the **DATA/ENTER** knob to select the "TYPE" parameter, then rotate the **DATA/ENTER** knob to select a type ("instrument").

The TYPE options are: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa

Note: Whenever you select "ALL" and set a different reed type, the "4.4 Button Noise" and "4.5 Reed Growl" settings are automatically adapted to the reed type you select here. You may have to change those settings afterwards if you wish to use different noise type.

4.2 Register

The parameters on this page are used in combination with the parameters above. Here, you decide which reeds should be audible and how they should be played. It is therefore on this page that you specify whether the sounds you selected above will be used.



- If necessary, press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the reed you wish to assign another sound to. The options are: ALL, 16', 8'
- Press the **DATA/ENTER** knob to select the "STATUS" parameter, then rotate the **DATA/ENTER** knob to specify whether the selected reed should sound and which buttons can be used to play it.

The STATUS options are: Off (no sound), Low (the lower half), High (upper half), Whole (all buttons).

These options allow you to program what keyboard players would call a "split". You can create several nifty combinations, like "High" for 8' and "Low" for 16' (or vice versa) or "Whole" for 16' (all buttons) and "High" for 8' (only the upper three rows).

Note: Assigning the same partial STATUS ("High" or "Low") to both reeds is a bit odd, because it leaves you with only half the number of active bass buttons. But it is possible...

4.3 Reed Volume

(Off, -40~"Std"~40, Default setting: Std) This is the last parameter that can be set for each reed individually. It allows you to create the desired "mix" (volume balance) for the active reeds.



This is a relative parameter, which means that its value is added to, or subtracted from the standard value ("Std"). As a rule, it would be wise to decide which reed is most important and set its Volume parameter to "Std". Then reduce or increase the volume of the "ancillary" reed to create the desired balance.

- Press the **DATA/ENTER** knob to select the "FOOT" parameter, then rotate the **DATA/ENTER** knob to select the reed whose volume you want to set. The options are: ALL (both reeds simultaneously), 16', 8'
- Press the **DATA/ENTER** knob to select the "LEVEL" parameter, then rotate the **DATA/ENTER** knob to set the volume.

Note: The overall volume of the Free Bass section (all registers) can be changed using the **BALANCE** knob.

4.4 Button Noise

The bass section of almost all accordion instruments can be played via buttons. Such buttons produce a typical noise when pressed. On this page, you



can select the instrument whose button noises should be used when you select this register. (Note that other Free Bass registers can be assigned different noises.)

Notice that there is only one TYPE for the entire register. The options are: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa

Use the LEVEL parameter to specify how prominent the noise should be (Off, -40~"Std"~40, Default setting: Std).

Note: Whenever you select "ALL" for "Reed Type" and set a different reed type, this noise setting is automatically adapted to the reed type. It would therefore be a good idea to first select the reed type and only then change the noise type.

4.5 Reed Growl

This parameter allows you to simulate the typical noise a bass reed makes just before it stops vibrating altogether. Each instrument of the accordion family produces its own typical growl. The growl that matches the sound selected with "Reed Type" probably yields the most realistic effect – but feel free to select another one if you like it better.



- If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select one of the available instrument types: Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
- Press the **[DATA/ENTER]** knob to select the "LEVEL" parameter, then rotate the **[DATA/ENTER]** knob to set the volume of the Reed Growl parameter (Off, -40~"Std"~40).

Note: Whenever you select "ALL" for "Reed Type" and set a different reed type, this growl setting is automatically adapted to the reed type. It would therefore be a good idea to first select the reed type and only then change the growl type.

4.6 Bellows Detune

(Off, Low, Standard, High, Default setting: Standard) This parameter further adds to the realism of the sounds emulated by your FR-7b/FR-5b. Here, you can specify how strongly the pitch of the simulated Free Bass reed(s) changes when you open or close the bellows faster than usual.



If the "Standard" setting seems too mild, try "High". If it is too strong, use "Low". If you do not want any detuning effect, select "Off". The most convincing setting usually depends on the selected instrument(s) (see "Reed Type").

4.7 Reverb Send, 4.8 Chorus Send, 4.9 Delay Send

(0~127 for all three) Use these parameters to set the Reverb, Chorus or Delay send level (how much effect should be applied to the Free Bass section). The higher the value you set, the more the Free Bass section will be processed by the effect in question. The other sections (Treble, Bass, etc.) have the same parameters, so that you can create a sound image with various "levels" (foreground, background).



The effects themselves can be edited on separate pages (see p. 65).

4.10 Free Bass MIDI TX

This page contains a series of MIDI parameters for the selected register you need to set one by one.



See page 89 for details about the MIDI parameters. These parameters are saved along with all other Set parameters, which allows you to use different MIDI settings for each Set – and even each register within a Set.

5. ORC BASS EDIT parameters



The parameters of the ORC.BASS EDIT group allow you to edit the Orchestra Bass section. See page 28 for details about the Orchestra Bass section. See pages 39 and 41 for how to select and adjust the parameters.

Press **UP** and **DOWN** simultaneously to select the value that is indicated as "Default setting".

Important note

The selection of Orchestra Bass sounds can be automated on the "2.12 Bass Link" page (page 47) – for each Treble register.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
- When you switch off the FR-7b/FR-5b

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **MENU/WRITE** button until the following page appears:



- (2) Rotate the **DATA/ENTER** knob (or use the **UP**/**DOWN** buttons) to select "Orch. Bass".



- (3) Press the **DATA/ENTER** knob to confirm your selection.



- (4) Use the **DATA/ENTER** knob or the **UP**/**DOWN** buttons to specify what you want to save:

Current: The register you are currently editing.

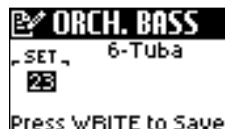
Currt + SCom: The register you are currently editing as well as the Set Common settings (page 64).

ALL: All registers. This is probably the safest bet, because it ensures that no Orchestra Bass register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

- (5) Press the **DATA/ENTER** knob to confirm your selection.

Depending on what you chose in step (3) above, the display now looks as follows:

If you selected "Current" or "Currt+SCom"



(You cannot select a different register, or change the name of the current one.)

If you selected "ALL"



- (6) Use the **DATA/ENTER** knob or the **UP**/**DOWN** buttons to select the Set that should contain your changed version(s).

Change this setting only if you do *not* want to save your settings to the current Set.

- (7) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



- (8) Press the **EXIT/JUMP** button to return to the Main page.

Note: See pages 39 and 41 for how to select and adjust the parameters below.

5.1 Lowest Note

This parameter allows you to specify the lowest note the selected sound can play. If you have ever worked with a Roland arranger module, you may be familiar with the term "Wrap". That is precisely what this parameter does.

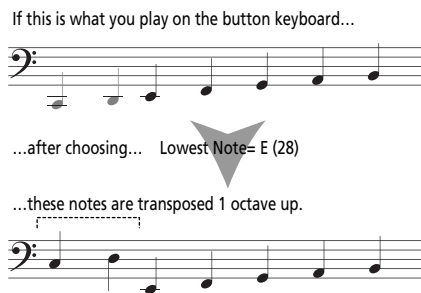


The Orchestra Bass sounds (like the orchestral sounds of the Treble section) are PCM waveforms (samples) of acoustic instruments. Each acoustic instrument has a set range: it cannot sound notes below or above that range. A normally tuned 4-string bass guitar allows you to play a low E, but not the D below it, for instance:



Samples (PCM waveforms), on the other hand, can lower the pitch of a recorded sound almost indefinitely. But that doesn't sound very natural. The "Lowest Note" parameter allows you to specify the lowest pitch the sample can use. If you nevertheless play a lower note

on the button keyboard, it will be sounded one octave above the corresponding pitch – and sound natural. Here is an example:



The Orchestra Bass sound therefore sometimes changes octaves. For some songs, the default setting (E 28) may yield odd results, especially if you need to play walking bass lines, etc. In that case, you can change the "Lowest Note" setting to achieve a satisfactory result.

The options are: E 28, F 29, F# 30, G 31, A♭ 32, A 33, B♭ 34, B 35, C 36; Default setting: E 28. (The figures refer to the MIDI note numbers – each MIDI note has its own "address".)

5.2 Orc Bass Release Time

(0~63, Default setting: 0) This parameter allows you change the way in which a note stops when you release the corresponding button. Though all Orchestra Bass sounds have been prepared in such a way as to decay naturally when a button is released, there may be situations where the end of the notes is too sudden for comfort.



In that case, you can increase this value. "0" means that you agree with the preprogrammed Release value. All other values cause the notes to linger increasingly longer.

5.3 Orc Bass Volume

(Off, -40~"Std"~40, Default setting: Std) This parameter allows you to set the level of the Orchestra Bass part. See also page 29.



5.4 Reverb Send, 5.5 Chorus Send, 5.6 Delay Send

(0~127 for all three) Use these parameters to set the Reverb, Chorus or Delay send level (how much effect should be applied to the Orchestra Bass section). The higher the value you set, the more the Orchestra Bass section will be processed by the effect in question.



The other sections (Treble, Bass, etc.) have the same parameters, so that you can create a sound image with various "levels" (foreground, background). Do note, however, that reverb or delay effects are hardly ever used for bass sounds.

The effects themselves can be edited on separate pages (see p. 65).

5.7 Orc Bass MIDI TX

This page contains a series of MIDI parameters for the Orchestra Bass part you need to set one by one.



See page 89 for details about the MIDI parameters. These parameters are saved along with all other Set parameters, which allows you to use different MIDI settings for each Set.

6. ORCH. EDIT parameters



The parameters of the ORCH. EDIT group apply to the Treble Orchestra section. See page 25 for details about the Orchestra section. You may remember that it contains 22 sounds (because some registers provide access to an "A" and a "B" sound). See pages 39 and 41 for how to select and adjust the parameters.

Press **UP** and **DOWN** simultaneously to select the value that is indicated as "Default setting".

Important note

The selection of orchestral sounds and modes can be automated using the "2.13 Orchestra Link" parameter (page 48) – for each Treble register.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
- When you switch off the FR-7b/FR-5b

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **MENU/WRITE** button until the following page appears:



- (2) Rotate the **DATA/ENTER** knob (or use the **UP**/**DOWN** buttons) to select "Orchestra".



- (3) Press the **DATA/ENTER** knob to confirm your selection.



- (4) Use the **DATA/ENTER** knob or the **UP**/**DOWN** buttons to specify what you want to save:

Current: The register you are currently editing.

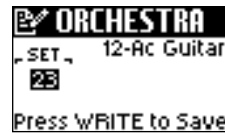
Currt + SCom: The register you are currently editing as well as the Set Common settings (page 64).

ALL: All registers. This is probably the safest bet, because it ensures that no Orchestra register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

- (5) Press the **DATA/ENTER** knob to confirm your selection.

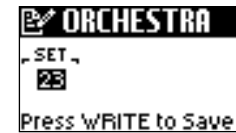
Depending on what you chose in step (3) above, the display now looks as follows:

If you selected "Current" or "Currt+SCom"



(You cannot select a different register, or change the name of the current one.)

If you selected "ALL"



- (6) Use the **DATA/ENTER** knob or the **UP**/**DOWN** buttons to select the Set that should contain your changed version(s).
Change this setting only if you do *not* want to save your settings to the current Set.
- (7) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



- (8) Press the **EXIT/JUMP** button to return to the Main page.

Note: See pages 39 and 41 for how to select and adjust the parameters below.

6.1 Orchestra Octave

(-1~0~1, Default setting: 0) This parameter allows you to transpose the Orchestra section (i.e. the currently selected orchestral sound) up or down.



This can be interesting when you are using the Orchestra part in Dual mode (page 26) and want it to sound above or below the selected Treble accordion register.

6.2 Orchestra Volume

(Off, -40~"Std"~40, Default setting: Std) This parameter allows you to create the desired "mix" (volume balance) between the Treble accordion and the Orchestra section.



This is a relative parameter, which means that its value is added to or subtracted from the standard value ("Std").

6.3 Bellows Detune

(Off, Low, Standard, High, Default setting: Standard) This parameter allows you to specify how strongly the orchestral sound's pitch should be influenced by opening and closing the bellows faster than usual. This may further add to the realism of sounds like 1A~4B, 6A, 6B and 10~12.



If the "Standard" setting seems too mild, try "High". If it is too strong, use "Low". If you do not want any detuning effect, select "Off". The most convincing setting usually depends on the selected sound.

6.4 Reverb Send, 6.5 Chorus Send, 6.6 Delay Send

(0~127 for all three) Use these parameters to set the Reverb, Chorus or Delay send level (how much effect should be applied to the Orchestra section). The higher the value you set, the more the Orchestra section will be processed by the effect in question.



It works much the same way as a cathedral: the louder you sing, the more reverb (chorus or delay) you hear. In the case of the cathedral, singing louder means that you increase the effect send level, i.e. the level of the signal (your voice) that will be processed by the acoustic environment.

The other sections (Bass, Free Bass, etc.) have the same parameters, so that you can create a sound image with various "levels" (foreground, background).

The effects themselves can be edited on separate pages (see p. 65).

6.7 Aftertouch Pitch

(Off, 1/4 Down, 1/2 Down, 1/4 Up, 1/2 Up, Default setting: Off) The FR-7b/FR-5b's Master bar also generates aftertouch messages when pressed gently. This effect allows you to bend the pitch down (temporarily lower the note) by a quarter ("1/4 Down") or a semi-tone ("1/2 Down"). Select "1/4 Up" or "1/2 Up" to bend the notes up a quarter or a semi-tone. Select "Off" to switch off the Orchestra section's aftertouch recognition.



The Treble section also contains this parameter. You are thus free to decide whether both the accordion and the orchestral sounds should be affected by aftertouch messages or only one of them.

The Treble section also contains this parameter. You are thus free to decide whether both the accordion and the orchestral sounds should be affected by aftertouch messages or only one of them.

Note: This aftertouch effect applies to all orchestral notes that are sounding simultaneously. (MIDI buffs call this "channel aftertouch".)

Note: For organ sounds (8A PercOrgan, 8B JazzOrgan, 9A RotOrgan and 9B Trem Org), aftertouch allows you to alternate between the fast and slow speeds of the Rotary effect. (That effect is automatically assigned to an organ sound when you select it.) The speed switching function cannot be deactivated. You can, however, also add pitch control to this switching function, and so control two functions via the aftertouch.

6.8 Orchestra MIDI TX

This page contains a series of MIDI parameters for the Orchestra section you need to set one by one. See page 89 for details about the MIDI parameters.



These parameters are saved along with all other Set parameters, which allows you to use different MIDI settings for each Set.

7. ORC CHD EDIT parameters



The parameters of the ORC CHORD EDIT group apply to the chord button rows of the Bass section. As stated earlier, the FR-7b/FR-5b allows you to play an accordion sound with the bass rows and an orchestral sound with the chord rows of the bass keyboard (and vice versa). See page 29 for details about the Orchestra Chord section. (You can also combine the Orchestra Chord section with the Orchestra Bass section if you like.) See pages 39 and 41 for how to select and adjust the parameters. Press **UP** and **DOWN** simultaneously to select the value that is indicated as "Default setting".

Important note

The selection of Orchestra Chord can be automated using the "2.14 Orchestra Chord Link" parameter (page 48) – for each Treble register.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
- When you switch off the FR-7b/FR-5b

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **MENU/WRITE** button until the following page appears:



- (2) Rotate the **DATA/ENTER** knob (or use the **UP**/**DOWN** buttons) to select "Orc. Chord".



- (3) Press the **DATA/ENTER** knob to confirm your selection.



- (4) Use the **DATA/ENTER** knob or the **UP**/**DOWN** buttons to specify what you want to save:

Current: The register you are currently editing.

Current + SCom: The register you are currently editing as well as the Set Common settings

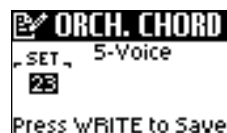
(page 64).

ALL: All registers. This is probably the safest bet, because it ensures that no Orchestra Chord register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

- (5) Press the **DATA/ENTER** knob to confirm your selection.

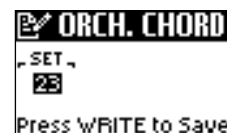
Depending on what you chose in step (3) above, the display now looks as follows:

If you selected "Current" or "Current+SCom"



(You cannot select a different register, or change the name of the current one.)

If you selected "ALL"



- (6) Use the **DATA/ENTER** knob or the **UP**/**DOWN** buttons to select the Set that should contain your changed version(s).

Change this setting only if you do *not* want to save your settings to the current Set.

- (7) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



- (8) Press the **EXIT/JUMP** button to return to the Main page.

Note: See pages 39 and 41 for how to select and adjust the parameters below.

7.1 Orc Chord Volume

(Off, -40~"Std"~40, Default setting: Std) This parameter allows you to create the desired "mix" (volume balance) between the Orchestra Chord section and the other active sections.



This is a relative parameter, which means that its value is added to or subtracted from the standard value ("Std").

7.2 Reverb Send, 7.3 Chorus Send, 7.4 Delay Send

(0~127 for all three) Use these parameters to set the Reverb, Chorus or Delay send level (how much effect should be applied to the Orchestra Chord section). The higher the value you set, the more the Orchestra section will be processed by the effect in question.

It works much the same way as a cathedral: the louder you sing, the more reverb (chorus or delay) you hear. In the case of the cathedral, singing louder means that you increase the effect send level, i.e. the level of the signal (your voice) that will be processed by the acoustic environment.

The other sections (Bass, Free Bass, etc.) have the same parameters, so that you can create a sound image with various "levels" (foreground, background).

The effects themselves can be edited on separate pages (see p. 65).



7.5 Orc Chord MIDI TX

This page contains a series of MIDI parameters for the Orchestra section you need to set one by one. See page 89 for details about the MIDI parameters.

These parameters are saved along with all other Set parameters, which allows you to use different MIDI settings for each Set.



8. ORC FBS EDIT parameters



The parameters of the ORC FBS EDIT group apply to the Bass buttons while Free Bass mode is active. See page 30 for details about the Orchestra Free Bass section. This section is not available while Bass mode is active. See pages 39 and 41 for how to select and adjust the parameters. Press **UP** and **DOWN** simultaneously to select the value that is indicated as "Default setting".

Important note

The selection of Orchestra Free Bass can be automated using the "2.14 Orchestra Chord Link" parameter (page 48) – for each Treble register.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
- When you switch off the FR-7b/FR-5b

Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **MENU/WRITE** button until the following page appears:



- (2) Rotate the **DATA/ENTER** knob (or use the **UP/DOWN** buttons) to select "Orc. FreeBs".



- (3) Press the **DATA/ENTER** knob to confirm your selection.



- (4) Use the **DATA/ENTER** knob or the **UP/DOWN** buttons to specify what you want to save:

Current: The register you are currently editing.

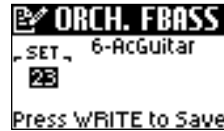
Currt + SCom: The register you are currently editing as well as the Set Common settings (page 64).

ALL: All registers. This is probably the safest bet, because it ensures that no Orchestra Free Bass register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

- (5) Press the **DATA/ENTER** knob to confirm your selection.

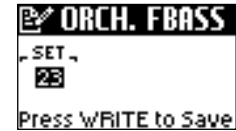
Depending on what you chose in step (3) above, the display now looks as follows:

If you selected "Current" or "Currt+SCom"



(You cannot select a different register, or change the name of the current one.)

If you selected "ALL"



- (6) Use the **DATA/ENTER** knob or the **UP/DOWN** buttons to select the Set that should contain your changed version(s).

Change this setting only if you do *not* want to save your settings to the current Set.

- (7) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



- (8) Press the **EXIT/JUMP** button to return to the Main page.

Note: See pages 39 and 41 for how to select and adjust the parameters below.

8.1 Orc FreeBs Volume

(Off, -40~"Std"~40, Default setting: Std) This parameter allows you to create the desired "mix" (volume balance) between the Orchestra Free Bass section and the other active sections.



This is a relative parameter, which means that its value is added to or subtracted from the standard value ("Std").

8.2 Reverb Send, 8.3 Chorus Send, 8.4 Delay Send

(0~127 for all three) Use these parameters to set the Reverb, Chorus or Delay send level (how much effect should be applied to the Orchestra Free Bass section). The higher the value you set, the more the Orchestra section will be processed by the effect in question.



The other sections (Bass, Free Bass, etc.) have the same parameters, so that you can create a sound image with various "levels" (foreground, background).

The effects themselves can be edited on separate pages (see p. 65).

8.5 Orc FreeBs MIDI TX

This page contains a series of MIDI parameters for the Orchestra section you need to set one by one. See page 89 for details about the MIDI parameters.



These parameters are saved along with all other Set parameters, which allows you to use different MIDI settings for each Set.

9. SET COMMON parameters



The SET COMMON group contains parameters that apply to all sections, but only within the framework of the currently selected Set, most notably the parameters that specify the sound/character of the Reverb, Chorus and Delay effects.

Important note

Never switch off the FR-7b/FR-5b or select another Set before saving the settings you wish to keep, because doing so will erase your changes.

Be aware that the save function explained below *only saves the SET COMMON parameters*. It does not save the settings of the various sections and/or registers.

Saving your changes

Any changes you make can be saved using the WRITE function. Though there is no need to save your changes right after performing them, please bear in mind that they will be lost in the following cases:

- When you select another Set
 - When you switch off the FR-7b/FR-5b
- Changes you want the FR-7b/FR-5b to remember must be saved as soon as possible. Here is how:

- (1) Press and hold the **[MENU/WRITE]** button until the following page appears:



- (2) Rotate the **[DATA/ENTER]** knob (or use the **[UP]/[DOWN]** buttons) to select "Set Common".



- (3) Press the **[DATA/ENTER]** knob to confirm your selection.



- (4) If necessary, select another Set by turning the **[DATA/ENTER]** knob.

For your reference (and to avoid overwriting the wrong SET COMMON settings), the display also shows the name of the target Set memory (below the arrow).

- (5) Press the **[MENU/WRITE]** button to save your changes. The display briefly shows a confirmation:



- (6) Press the **[EXIT/JUMP]** button to return to the Main page.

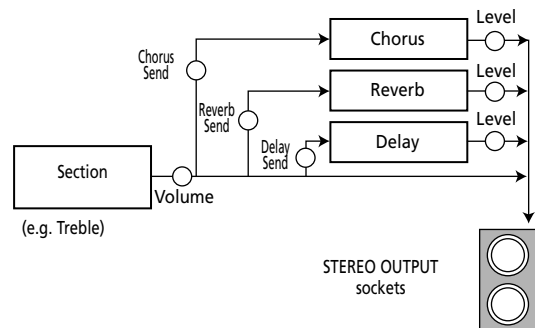
Note: See pages 39 and 41 for how to select and adjust the parameters below.

About the effects parameters

The settings you perform here apply to all sections that use the effect in question. Especially for the reverb and chorus effects, it is therefore wise to work with universally usable settings. Try to consider these two as "general" effects that will be used by several parts at once.

The delay effect, on the other hand, is probably only useful when applied to one part (because too many repeated sounds clutter up the sound image).

The connection of the sections with the effects processors is as follows:



9.1 Reverb Macro Type

This is where you specify what kind of effect the Reverb processor should generate and how loud it should be.



Note: You can also copy the Reverb (or even all effects) settings from another Set. See page 77.

- (1) If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select an effect type. The TYPE parameter on this page is a "Macro" function, i.e. it recalls suitable preset values for all Reverb parameters (Pre-LPF~RevPre DlyTm) on the "Reverb Parameters" page. The Macro therefore also selects a "Character". In many instances, editing only the parameters on this page is enough.

The available options are:

Room1, Room2, Room3	These types simulate the reverberation of a room. They provide a well-defined spacious reverberation.
Hall1, Hall2	These types simulate the reverberation of a concert hall with a deeper reverberation than the Room Reverbs.
Plate	This effect type simulates a plate Reverb (a studio device using a metal plate to simulate natural reverb).
Delay	This is a conventional delay that produces echo effects.
Panning Dly	This is a special delay in which the delayed sounds move left and right. It is effective when you are listening in stereo.

Note: Seeing that a delay effect usually only works for one part, we recommend using the dedicated Delay processor for echo effects. That way, the reverb effect can be used to "deepen" the sound field.

- Press the **[DATA/ENTER]** knob to select the "LEVEL" parameter, then rotate the **[DATA/ENTER]** knob to set the Reverb processor's output volume (0~127). The important thing to remember here is that the overall reverb volume depends on three things: the Send level of the various sections, the output level of the Reverb processor and the setting of the **[REVERB]** knob.

If one of them is set to "0", there will be no reverb. If the Send level of a section (Orchestra, for example) is set to "0", only the selected sound will have no reverb. Other sections (whose Send value is different from "0"), however, can still be processed by the Reverb effect. If the LEVEL parameter on this page is set to "0", the Reverb processor is effectively off for all sections.

9.2 Reverb Parameters

This page contains several parameters that need to be selected using the TYPE entry.

Be sure to *first* select the parameter you want to change and *then* set its value.



- If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select a parameter.

■ **Character (0~7)**—*Character* only specifies the Reverb type you need (see the table above). It does not load preset values for the Pre-LPF~RevPreDlyTm parameters. Selecting another Character thus does not reset the other parameter values to their factory settings. A Macro, on the other hand, calls up a Reverb type *and* suitable settings for that effect.

■ **Pre-LPF (0~7)**—A low-pass filter can be applied to the high-frequency range before the signals coming from the various sections are processed by the reverb. Higher values make the Send signals darker, which results in a mellower reverberation. Note that this parameter only applies to the signals that are sent to the Reverb processor. It does not alter the sound of the active sections.

■ **Time (0~127)**—This parameter sets the duration of the reverb effect. Higher values result in longer reverberation.

■ **Level (0~127)**—This parameter sets the output volume of the Reverb processor. It is linked to its namesake on the "Reverb Macro Type" page. Higher values result in louder reverberation.

■ **Dly Fback (0~127)**—This parameter is only available when you set Character to "6" or "7". It specifies the number of echoes: higher values result in more repetitions.

■ **Pre-Dly T. (0~127)**—This parameter sets the time interval between the original ("dry") signal and the onset of the selected reverb effect. Higher values result in a longer pre-delay time, simulating a larger reverberant space.

- Press the **[DATA/ENTER]** knob to select the "VALUE" parameter, then rotate the **[DATA/ENTER]** knob to set the parameter value (see the indications between brackets).

If you change one of the above parameter values, an "(E)" appears next to the "TYPE" name to signal that you are no longer using the presets of the macro in question.



If you then select another TYPE, however, your changes are lost and replaced by the settings of the newly selected macro.

Note: Simultaneously press the **[UP]** and **[DOWN]** buttons to recall the factory setting for the currently active parameter.

9.3 Chorus Macro Type

Chorus broadens the spatial image of the sound, adding richness. You can choose from 8 types of chorus. The "Macro" label still does what its name implies. Be aware, however, that there is no "Character" parameter on page "9.4".



Note: You can also copy the Chorus (or even all effects) settings from another Set. See page 77.

- If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select an effect type.

The TYPE parameter on this page is a "Macro" function, i.e. it recalls suitable preset values for all Chorus parameters on the "Chorus Parameters" page. In many instances, editing only the parameters on this page is enough.

The available options are:

Chorus 1~4	These are conventional Chorus effects that add spaciousness and depth to the sound.
FBack Chr	This is a Chorus with a Flanger-like effect and a soft sound.
Flanger	This is an effect that sounds somewhat like a jet airplane taking off or landing.

Short Delay	This is a delay with a short Delay time.
ShortDly FB	This is a short delay with many repeats.

Note: Seeing that a delay effect usually only works for one part, we recommend using the dedicated Delay processor for echo effects. That way, the chorus effect can be used to widen the stereo image.

- Press the **[DATA/ENTER]** knob to select the "LEVEL" parameter, then rotate the **[DATA/ENTER]** knob to set the Chorus processor's output volume (0~127). The important thing to remember here is that the overall chorus volume depends on three things: the Send level of the various sections, the output level of the Chorus processor and the setting of the **[CHORUS]** knob.

If one of them is set to "0", there will be no chorus. If the Send level of a section (the BASS section, for example) is set to "0", only that section will have no chorus. Other sections (whose Send value is different from "0"), however, can still be processed by the Chorus effect. If the LEVEL parameter on this page is set to "0", the Chorus processor is effectively off for all sections.

9.4 Chorus Parameters

This page contains several parameters that need to be selected using the TYPE entry. Be sure to *first* select the parameter you want to change and *then* set its value.



- If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select a parameter.

■ **Pre-LPF (0~7)**—A low-pass filter can be applied to the high-frequency range before the signals coming from the various sections are processed by the chorus. Higher values make the Send signals darker, resulting in a mellower chorus sound. Note that this parameter only applies to the signals that are sent to the Chorus processor. It does not alter the sound of the active sections.

■ **Level (0~127)**—This parameter sets the output volume of the Chorus processor. It is linked to its namesake on the "Chorus Macro Type" page. Higher values result in a more prominent Chorus effect.

■ **Feedback (0~127)**—This parameter sets the level at which the Chorus sound is re-input (fed back) into the Chorus. By using Feedback, a denser Chorus sound can be created. Higher values result in a greater feedback level.

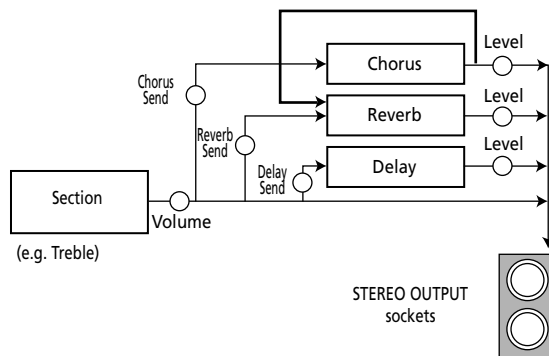
■ **Delay (0~127)**—This parameter sets the delay of the Chorus effect. Higher values will cause greater deviation in pitch of the chorus sound.

■ **Rate (0~127)**—This parameter sets the speed (frequency) at which the chorus sound is modulated. Higher values result in faster modulation.

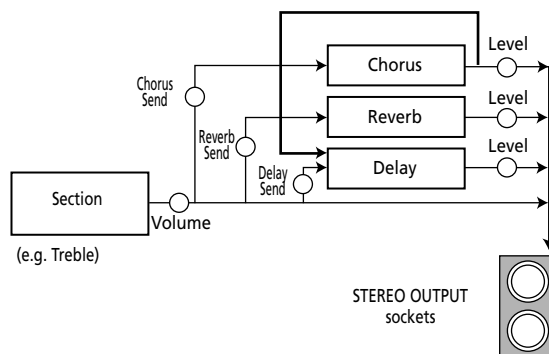
■ **Depth (0~127)**—This parameter sets the depth at which the chorus sound is modulated. Higher values result in a more pronounced modulation.

■ **Chr► Rev (0~127)**—This parameter sets the amount of chorus sound that is sent to the Reverb processor. The value "127" effectively allows you to connect the Chorus

and Reverb effects in series (Chorus before Reverb). If you do not want the chorus signal to be processed by the Reverb effect, set this value to "0".



■ **Chr► Dly (0~127)**—This parameter sets the amount of chorus sound that is sent to the Delay processor. Higher values result in more sound being sent. The value "127" effectively allows you to connect the Chorus and Delay effects in series (Chorus before Delay). If you do not want the chorus signal to be processed by the Delay effect, set this value to "0".



- Press the **[DATA/ENTER]** knob to select the "VALUE" parameter, then rotate the **[DATA/ENTER]** knob to set the value (see the indications between brackets above).

If you change one of the above parameter values, an "(E)" appears next to the "TYPE" name to signal that you are no longer using the presets of the macro in question.

If you then select another TYPE, however, your changes are lost and replaced by the settings of the newly selected macro.

Note: Simultaneously press the **[UP]** and **[DOWN]** buttons to recall the factory setting for the currently active parameter.

9.5 Delay Macro Type

A delay effect creates echoes. It can also broaden a sound by adding a slightly delayed copy to the original sound (a technique often used for rock-'n'-roll songs and in Karaoke bars).



The "Macro" label still does what its name implies. Be aware, however, that there is no "Character" parameter on page "9.6".

Note: You can also copy the Delay (or even all effects) settings from another Set. See page 77.

- (1) If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select an effect type.

The TYPE parameter on this page is a "Macro" function, i.e. it recalls suitable preset values for all Delay parameters on the "Delay Parameters" page. In many instances, editing only the parameters on this page is enough.

The available options are:

Delay 1~3	These are conventional Delays. 1, 2 and 3 have progressively longer delay times.
Delay 4	This is an effect with a rather short delay time (a kind of "slap back" effect).
Pan Delay 1~3	The repetitions move between left and right. This is effective when listening in stereo. 1, 2 and 3 have progressively longer delay times.
Pan Delay 4	This is a rather short delay with the echoes moving between left and right. It is effective when listening in stereo (a kind of stereo "slap back" effect).
Delay▶ Rev	Reverb is added to the Delay sound which moves between left and right. It is effective when listening in stereo.
Pan Repeat	The delay signal moves between the left and right channels, yet the stereo position is different from the effects listed above. It is effective when listening in stereo.

- (2) Press the **[DATA/ENTER]** knob to select the "LEVEL" parameter, then rotate the **[DATA/ENTER]** knob to set the Delay processor's output volume (0~127). The overall delay volume depends on three things: the Send level of the various sections, the output level of the Delay processor and the setting of the **[DELAY]** knob.

If one of them is set to "0", there will be no delay effect. If the Send level of a section (the Treble section, for example) is set to "0", the sound of that section is not repeated. Other sections (whose Send value is different from "0"), however, can still be processed by the Delay effect. If the LEVEL parameter on this page is set to "0", the Delay processor is effectively off for all sections. This parameter is connected to the **[DELAY]** knob.

9.6 Delay Parameters

This page contains several parameters that need to be selected using the TYPE entry. Be sure to *first* select the parameter you want to change and *then* set its value.



- (1) If necessary, press the **[DATA/ENTER]** knob to select the "TYPE" parameter, then rotate the **[DATA/ENTER]** knob to select a parameter.

■ **Pre-LPF (0~7)**—A low-pass filter can be applied to the high-frequency range before the signals coming from the various sections are processed by the Delay processor. Higher values make the Send signals darker, resulting in a mellower delay sound. Note that this parameter only applies to the signals that are sent to the Delay processor. It does not alter the sound of the active sections.

■ **Level (0~127)**—This parameter sets the overall volume of the three delay lines (center, left and right). Higher values result in a louder delay effect.

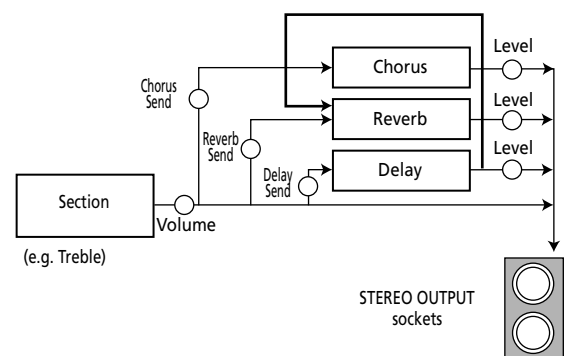
■ **Time C (0.1~1000)**—The Delay effect of the FR-7b/FR-5b allows you to set three delay times: center (C), left (L) and right (R). "Time C" sets the delay time of the Delay located at the center.

■ **Time L/R (4%~500%)**—These parameters sets the delay time of the left- or right-channel delay line as a percentage of the central Delay. The value "100%" means that the left or right delay repeats at the same speed as the center delay (see above).

■ **Level C/L/R (0~127)**—These parameters set the volume of the central, left and right delays individually, allowing you to create the desired "mix".

■ **Feedback (-64~0~+63)**—This parameter specifies the number of times the delay will repeat. If you select "0", the delay will not repeat. Higher values result in more repetitions. With negative (-) values, the center delay will be fed back with inverted phase. This is especially effective for small "Time C" values.

■ **Dly▶ Rev (0~127)**—This parameter sets the amount of delay sound that is sent to the Reverb. Higher values mean that the echoes will be more prominent in the reverb signal. Be careful not to overdo this effect because it tends to blur the sound image.



If you change one of the above parameter values, an "(E)" appears next to the "TYPE" name to signal that you are no longer using the presets of the macro in question.

If you then select another TYPE, however, your changes are lost and replaced by the settings of the newly selected macro.

9.7 Name

This function allows you to name the selected Set (8 characters). It would be a good idea to use the name of the instrument you "built" using the TREBLE, BASS, FREE BASS, etc., group parameters – or the name of the Song you wish to use this Set for.



- (1) Select the character position (indicated by a dark square) by pressing **UP** (previous character), **DOWN** (next character) or the **DATA/ENTER** knob (next character).
- (2) Turn the **DATA/ENTER** knob to select the desired character.
 - Press **UP** and **DOWN** simultaneously to erase the currently selected character (it will become a space). Example: To replace the period (".") in "Fr.Folk" with a space ("Fr Folk"), position the cursor on the "." and simultaneously press **UP/DOWN**.
 - To insert a space before the currently selected character and push all subsequent characters one position to the right, select the character that should follow the space, then press and hold **UP**. Example: To insert a space after the "." in "Fr.Folk" (creating the name "Fr. Folk"), position the cursor on the second "F" and hold down **UP** for a while.

Note: If the name already contains 8 characters ("Bandoneo"), the last character is erased (example: "Band one").

- To delete the character indicated by the cursor and move subsequent characters one position to the left, select it (example: "Fr.Folk") and press and hold **DOWN** ("FrFolk").

9.8 Master Bar Recall

This parameter allows you to choose the Treble register (1~14) that can be activated by pressing the Master bar. Note that this is only possible while the Treble section is in Solo mode (page 26) or while the Orchestra part is set to "CANCEL".



In all other cases (Dual, High, Low modes), the Master bar is indeed used to mute the Orchestra part. And in Solo mode, the first press allows you to return from the Orchestra (if it's on) to the Treble section.

Note: If you also take advantage of the Treble register's "Link" functions (see p. 47), this "Recall" parameter actually allows you to reconfigure your entire FR-7b/FR-5b simply by pressing the Master bar.

9.9 Icon

This parameter allows you to assign an icon to your Set, which is displayed above its name on the Main page. In most cases, you will probably choose a picture that somehow illustrates the contents of your settings, but that is entirely up to you. The FR-7b/FR-5b contains 40 preset icons (stored in its internal memory).



10. SYSTEM parameters



The **SYSTEM** group contains parameters that are related to all Sets and all sections: they apply to the FR-7b/FR-5b as a whole. See pages 39 and 41 for how to select and adjust the parameters. Press **UP** and **DOWN** simultaneously to select the value that is indicated as "Default setting".

Saving your changes

Any changes you make can be saved using the WRITE function.

- (1) Press and hold the **MENU/WRITE** button until the following page appears:



- (2) Rotate the **DATA/ENTER** knob (or use the **UP/DOWN** buttons) to select "Global".



- (3) Press the **DATA/ENTER** knob to confirm your selection.



Note: The GLOBAL page shows all parameters that are saved to the Global memory (there is only one such memory).

- (4) Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



Note: If you don't save the edited Global settings, they will be used until you switch off the FR-7b/FR-5b (or change the settings again).

10.1 LCD Contrast

(1~7, Default setting: 5) The information in the LCD display may be difficult to view after turning on your FR-7b/FR-5b or after extended use. Your viewing angle and the current lighting conditions can also affect the appearance of the display.

In such cases, use this parameter to adjust the contrast. The smaller the value, the darker the "background" becomes.



10.2 Parameter Access

This function was already discussed on page 19: it allows you to specify how many MENU parameters should be accessible. "Full" mode is ideal for in-depth programming of your FR-7b/FR-5b. "Easy" mode appears a sensible choice for quick adjustments during a concert, performance, etc.

Note that the FR-7b/FR-5b also provides functions you can set without even entering its MENU structure (see p. 32). They have the advantage that you do not need to specify whether or not to save them (so that you won't have to keep your audience waiting). If you do want to save those settings, press the **WRITE** button.



10.3 Bellows Curve

(Fixed Low, Fixed Med, Fixed High, X-Light, Light, Standard, Heavy, X-Heavy) This parameter allows you to specify how the FR-7b/FR-5b should react to the bellows' movements. You may remember that there are several functions that can be controlled via the strength/speed with which you push or pull the bellows (2.7 Bellows Detune, 3.6 Bellows Detune, 3.5 Reed Growl, 4.6 Bellows Detune, 6.3 Bellows Detune).

If you think those parameters do not respond the way you would like them to, try another curve that better "translates" your movements.

There are three "Fixed" curves that always use the same value, no matter how hard or lightly you push/pull the bellows (no dynamic control). "Low" means that a low value is used, "Med" represents a medium value and "High" a high value. These three options also mean that you do not need to move the bellows in order to hear the notes you play.

Note: By selecting a "Fixed" option here, you effectively switch off the bellows sensor. This also means that any setting that includes "Bellows" for "10.11 Orchestra Touch" or "10.12 Orch. Bs&Ch Touch" no longer works, because the FR-7b/FR-5b no longer "listens" to the bellows' movements. Moreover, "Fixed L+Bellows", "Fixed M+Bellows", or "Fixed H+Bellows" is deactivated altogether (even the "Fixed" part is ignored).

The remaining settings do depend on the strength with which you push/pull the bellows, but in different ways: "Light" means that you do not need to push/pull hard to achieve a meaningful effect. "X-Light" requires even less strength (the "X" stands for "extra"). "Standard"



refers to a normal response (or so we believe). "Heavy" provides a greater variety of nuances and "X-Heavy" is even more detailed. It would be a good idea to select each curve without the "Fixed" addition, play a few notes, select the next curve, etc. until you find the response that feels just right.

10.4 Pedal Controller

This page allows you to assign functions to the FBC-7's footswitches. As you will notice below, there are also functions for remotely controlling external instruments, like an arranger module or any other sequencer that understands the messages transmitted by the FBC-7.

Note: The assignments you program here are only meaningful if you connect the FR-7b/FR-5b to the supplied FBC-7.

- (1) If necessary, press the **DATA/ENTER** knob to select the "SWITCH" parameter, then rotate the **DATA/ENTER** knob to select the footswitch on the FBC-7 whose function you wish you define.



- (2) Press the **DATA/ENTER** knob to select the "ASSIGN" parameter, then rotate the **DATA/ENTER** knob to select one of the following functions:

- **Set Up/Set Down**—The footswitch allows you to select the next (Down) or previous (Up) Set memory. After selecting Set 01 (or 40), pressing the footswitch again takes you to Set 40 (or 01). These are the default functions of footswitches [1] and [2].

Note: There is also a function that allows you to assign a specific Set number to a footswitch (see "Set 1~40" below).

- **Regist Up/Regist Dwn**—The selected footswitch allows you to select the next (Down) or previous (Up) Treble register. If you combine this with the "2.12 Bass Link" and "2.13 Orchestra Link" parameters, this allows you to reconfigure almost all sections simply by pressing this footswitch.

Note: There is also a function that allows you to assign a specific register number to a footswitch (see "Register 1~14" below).

- **Treble Sust**—The footswitch can be used to hold the Treble notes (accordion) transmitted via MIDI whose keys you are holding down when you press the footswitch. You can then release the keys – the notes go on sounding until you release the footswitch. This is for MIDI control only.

- **Bass Sust**—The footswitch can be used to hold the bass notes of the Bass section transmitted via MIDI (but not the chords). This is for MIDI control only.

- **Chord Sust**—The footswitch can be used to hold the chord notes of the Bass section transmitted via MIDI (but not the bass notes). This is for MIDI control only.

- **Orch Sust**—The footswitch can be used to hold the orchestral notes of the Treble section. This also applies to the note messages transmitted via MIDI. At the same time, the internal orchestral notes are held (if that section is on).

- **Orch Bs Sust**—The footswitch can be used to hold the orchestral notes of the Bass section that are transmitted via MIDI. This is for MIDI control only.
- **OrchFB Sust**—The footswitch can be used to hold the orchestral notes of the Free Bass section that are transmitted via MIDI. This is for MIDI control only.
- **OrchCh Sust**—The footswitch can be used to hold the orchestral notes of the chord section that are transmitted via MIDI. This is for MIDI control only.
- **Orch On/Off**—The footswitch can be used to switch the Orchestra Treble section on and off. This has no effect on the Orchestra's mode setting, nor can you specify which orchestral sound should be used. (You can, however, use "2.13 Orchestra Link" for that.)
- **Start/Stop**—This setting only makes sense if you connect the FBC-7's MIDI OUT socket to the MIDI IN socket of an external sequencer, arranger module, drum machine or DisCover 5M. Pressing the footswitch once will cause the external device to start playback. Obviously, you need to load the desired song, select a Music Style, etc., beforehand. Press the footswitch again to stop playback.
- **Intro**—This setting only makes sense if you connect the FBC-7's MIDI OUT socket to the MIDI IN socket of an arranger module. In this case, the footswitch can be used to select the "Intro" pattern of the active Music Style.
Note: Arranger instruments of other manufacturers may not understand this message. If in doubt, see their MIDI implementation section for details. The MIDI message transmitted by this footswitch is PC83 (program change) on MIDI channel 10.
- **Fill Up**—This setting only makes sense if you connect the FBC-7's MIDI OUT socket to the MIDI IN socket of an arranger module. In this case, the footswitch can be used to select a fill-in pattern of the active Music Style that selects a more richly orchestrated accompaniment pattern upon completion.
Depending on the arranger instrument you're controlling, you could use this footswitch up to three times to jump to the most complex level. If you then press the footswitch again, however, nothing happens. You thus cannot cycle back to the lowest level (which is called "Original" on older Roland arranger instruments).
Note: Some arranger instruments provide only two accompaniment levels.
Note: Arranger instruments of other manufacturers may not understand this message. The MIDI message transmitted by this footswitch is PC81 (program change) on MIDI channel 10.
- **Fill Down**—This setting only makes sense if you connect the FBC-7's MIDI OUT socket to the MIDI IN socket of an arranger module. In this case, the footswitch can be used to select a fill-in pattern of the active Music Style that selects a more scarcely orchestrated accompaniment pattern upon completion.
Certain arranger instruments provide four accompaniment levels, so that you could use this footswitch up to three times to return to the most fundamental level (please see the manual of the arranger instrument you're controlling to find out how many levels it provides). If you then press the footswitch again, however, nothing happens. You thus cannot cycle back to the highest level (which is called "Variation" on older Roland arranger instruments).
Note: Some arranger instruments provide only two accompaniment levels.
Note: Arranger instruments of other manufacturers may not understand this message. The MIDI message transmitted by this footswitch is PC82 (program change) on MIDI channel 10.

- **Ending**—This setting only makes sense if you connect the FBC-7's MIDI OUT socket to the MIDI IN socket of an arranger module. The footswitch can be used to select the "Ending" pattern of the active Music Style.
Note: Arranger instruments of other manufacturers may not understand this message. If in doubt, see their MIDI implementation section for details. The MIDI message transmitted by this footswitch is PC84 (program change) on MIDI channel 10.
- **Set 1~40**—The selected footswitch can be used to recall the specified Set (i.e. the Set whose number you choose). Consider using "Set Up/Set Down" if you prefer to cycle through all available Sets.
- **Register 1~14**—The footswitch can be used to recall the selected Treble register. That is why you must specify a number here. Consider using "Regist Up/Regist Dwn" if you prefer to cycle through all available registers.

10.5 Bass & Chord Mode

(Default setting: 2 Bs Rows) This parameter allows you to specify the number of button rows for playing bass notes. The default is 2 bass rows and 4 chord rows.



By selecting "3 Bs Rows", you thus gain 20 bass buttons (an entire row) and lose the "dim" chord buttons – but that may just be more convenient for you. See also the illustration on page 71.

There are four "3 Bs Rows" options: "A-7th" and "B-7th" mean that the 6th chord row plays seventh chords ("7") that don't contain the fifth. In the case of a C7 chord, you therefore hear C-E-B \flat (but not the G). "A-7th" and "B-7th" differ in the arrangement of the bass notes (see the illustration on page 71).

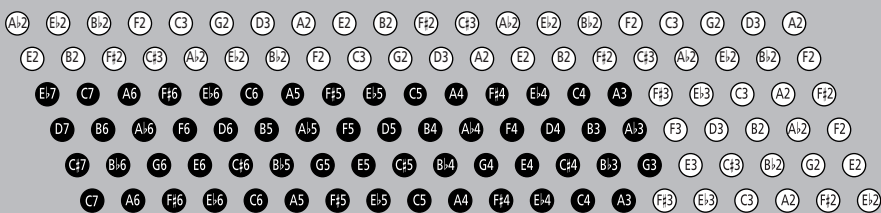
The "Bx-7th" option reverses the "B-7th" settings (from right to left), so that the C3 note shifts from 9th to 12th position.

The "A-5dim" and "B-5dim" options mean that those seventh chords don't contain the root note. A C7 chord is then sounded with the notes E-G-B \flat (but not the C). "A-5dim" and "B-5dim" differ in the arrangement of the bass notes (see the illustration on page 71).

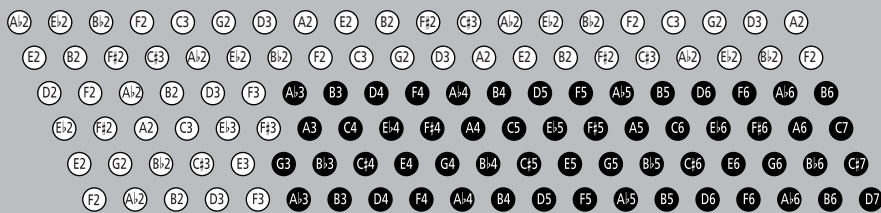
Note: The FR-7b/FR-5b is supplied with several reference caps designed to help you locate the bass and chord buttons without looking at them. See also page 23.

10.6 Free Bass Mode

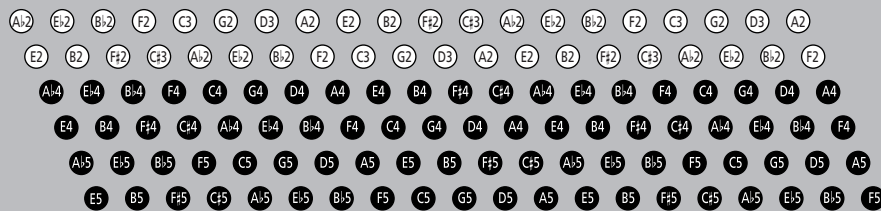
Minor 3rd



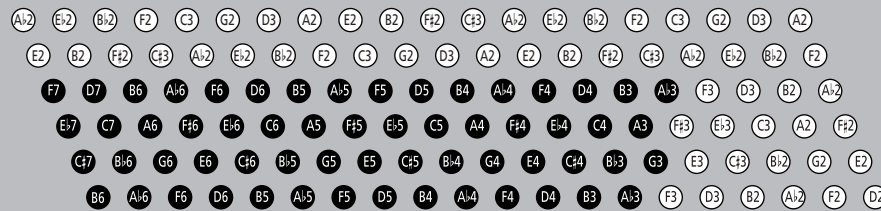
Bajan



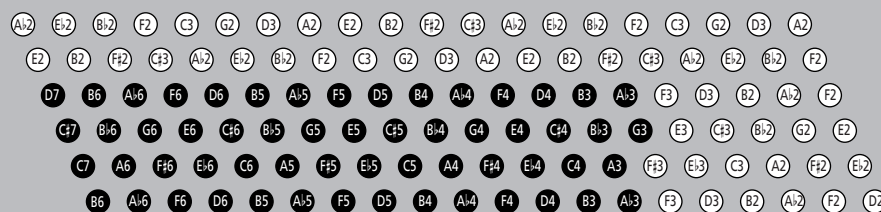
Fifth



N. Europe



Finnish



(C3= note number 48)

Note: The note names on the bass buttons correspond to the MIDI note numbers. The note range of the Bass part is 1 octave.
Note: The actual sound range depends on the type of reed and footage.

10.7 Stereo Width

(-1~63, Full, Default setting: -15) As stated on p. 15, much care has been taken to provide a natural stereo image for the accordion sounds. If you think the stereo image is too wide for comfort (or if you prefer to set the Pan controls on your mixing console differently), you can use this parameter to reduce the stereo image.



"Full" means that the original stereo image is used, while "-63" corresponds to an extremely narrow stereo image. All other values represent slight (or increasingly drastic) reductions of the stereo width.

10.8 Auto Power OFF

(Disabled, 10 min, 15 min, 20 min, Default setting: 10 min) This parameter allows you to specify how long the FR-7b/FR-5b should wait before deciding that you won't be using it for a while. If you have ever worked with a computer, you may remember that a similar function is called "sleep", "energy saver", or the like.



Obviously, this is meant to preserve battery power, and so this function only applies when the FR-7b/FR-5b is not connected to the FBC-7. To "wake" the FR-7b/FR-5b after it has fallen asleep, press its **POWER** button. Select "Disabled" to switch this function off.

Note: See p. 36 for how to recharge the battery.

10.9 Startup

This page contains several parameters that allow you to specify what the FR-7b/FR-5b should do when you switch it on.



Be sure to *first* select the parameter you want to change and *then* set its value.

- If necessary, press the **DATA/ENTER** knob to select "TYPE", then rotate the **DATA/ENTER** knob to choose the parameter you want to set. The possibilities are:

Parameter	Settings	Meaning
Set	1~40	Allows you to specify which Set should be loaded at power-on.
Orchestral Link	On, Off	Allow you to specify which Link function (see p. 47) should be activated at power-on: Orchestral Link, Orchestral Chord Link, Orchestra Free Bass Link, and/or Bass Link.
Bass Link	On, Off	

- Press the **DATA/ENTER** knob to select the "ASSIGN" parameter, then rotate the **DATA/ENTER** knob to select the desired setting.

10.10 Startup Name

Here comes a parameter that may prove invaluable if you regularly play with other V-Accordion users. It allows you to enter a short message (your name, for example) that is displayed each time you switch the FR-7b/FR-5b on. If you also own a cell phone, this parameter probably sounds familiar.



See p. 44 for details about entering names. You can enter up to 8 characters.

Here is what your message could look like (it is displayed during ±2 seconds each time the FR-7b/FR-5b is switched on):



10.11 Orchestra Touch

(Fixed Low, Fixed Med., Fixed High, Low, Medium, High, Fixed L+Bellows, Fixed M+Bellows, Fixed H+Bellows, Bellows, Default setting: Medium) This



parameter allows you to specify the velocity sensitivity of the Treble buttons when they are used to play the following orchestral sounds: AcPiano, AcGuitar, Mandolin.

There are three "Fixed" curves that always use the same value, no matter how hard or lightly you press the buttons (no dynamic control). "Low" means that a low value is used, "Med" represents a medium value and "High" a high value.

"Low" means that even relatively light button presses already allow you to play loud notes. "High" represents the most responsive velocity curve that requires a considerable amount of strength for fortissimo notes, but it also provides more expressive options.

"Fixed L+Bellows" and "Fixed H+Bellows" mean that the selected orchestral sound uses fixed velocity values but can also be controlled by the bellows movements.

"Bellows" means that the selected orchestral sound is controlled by the bellows movements – not the velocity values generated by the buttons.

Note: By selecting a "Fixed" option for "10.3 Bellows Curve" on p. 69, you effectively switch off the bellows sensor. This also means that any setting that includes "Bellows" no longer works, because the FR-7b/FR-5b no longer "listens" to the bellows' movements. Moreover, "Fixed L+Bellows", "Fixed M+Bellows", or "Fixed H+Bellows" is deactivated altogether (even the "Fixed" part is ignored).

10.12 Orch. Bs&Ch Touch

(Fixed Low, Fixed Med., Fixed High, Low, Medium, High, Fixed L+Bellows, Fixed M+Bellows, Fixed H+Bellows, Bellows, Default setting: Medium)



This parameter allows you to specify the velocity sensitivity of the bass and chord buttons when they are used to play one of the following orchestral sounds: AcPiano, AcGuitar.

See above for an explanation of the various options.

Note: By selecting a "Fixed" option for "10.3 Bellows Curve" on p. 69, you effectively switch off the bellows sensor. This also means that any setting that includes "Bellows" no longer works, because the FR-7b/FR-5b no longer "listens" to the bellows' movements. Moreover, "Fixed L+Bellows", "Fixed M+Bellows", or "Fixed H+Bellows" is deactivated altogether (even the "Fixed" part is ignored).

10.13 Start/Stop MIDI TX

(Off, On, Default setting: Off)

This parameter allows you to specify whether or not pressing the **[DATA/ENTER]** knob while the Main page is displayed sends a MIDI Start message the first time, and a MIDI Stop message the second time.



This may come in handy when you use the FR-7b/FR-5b with a MIDI sequencer, a drum machine, or a module like the DisCover 5M. Note that this function is only available if you connect the FR-7b/FR-5b to the FBC-7, and the FBC-7's MIDI OUT port to the MIDI IN socket of your sequencer or module.

Here's what happens if you select "On" and return to the Main page: the first time you press the **[DATA/ENTER]** knob, the display briefly shows:



This means that a MIDI Start message was sent to the external sequencer, etc.

The second time you press the **[DATA/ENTER]** knob, the display briefly shows:



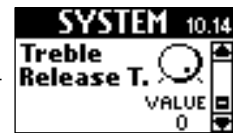
Set this parameter to "Off" if you don't want to use the **[DATA/ENTER]** knob for transmitting MIDI Start/Stop messages.

Note: You can also assign the MIDI Start/Stop functionality to one of the FBC-7's foot switches. See "10.4 Pedal Controller" on p. 69.

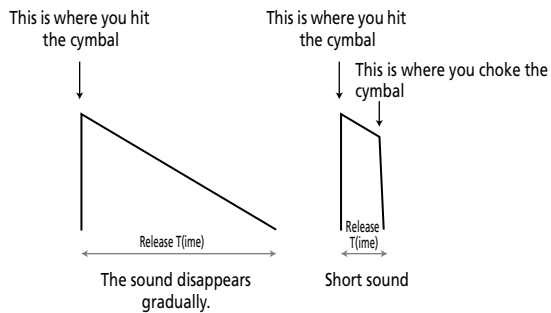
10.14 Treble Release T.

(-64~0~63, Default setting: 0)

Here is parameter that allows you to shorten the Treble accordion sounds if you feel the virtual reeds linger a bit long after you release a note button. To do so, select a negative value. The term "Release" is taken from synthesizers and refers to the speed at which the notes you play disappear when you release the keys.



Just think of the difference between a cymbal you hit with and without muting ("choking") it:



Of course, the difference is far less dramatic here, but it may just be what you are looking for. You can also make the notes longer by selecting a positive value. "0" means that the original release time doesn't change.

10.15 Treble Mode

(C-Griff Europe, C-Griff 2, B-Griff Bajan, B-Griff Fin, D-Griff 1, D Griff 2, Default setting: C-Griff Europe) Like for the accordion instrument itself, there are different varieties of chromatic instruments, with different Treble button layouts. See the illustrations below.

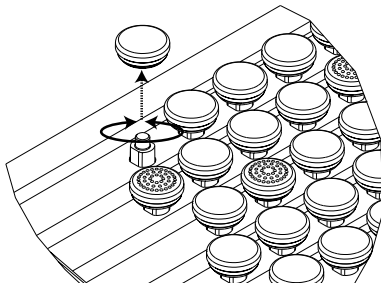


Since your FR-7b/FR-5b is an electronic musical instrument, changing the note assignments to the button keys is a matter of selecting the preset that best suits your playing style. You'll probably only change this setting once. But it's nice to know that it exists in case you let a fellow accordion player from another country play your FR-7b/FR-5b.

Please look at the illustrations on the following pages to identify the setting you need. Pay attention to the note names (all Cs appear on a grey background) and look at how they are arranged, then make your selection. The numbers next to the letters refer to the octave. The numbers below the note names represent the corresponding MIDI note numbers.

You may have noticed that the Treble buttons are colored white (for notes without alteration) and black (notes with alteration, i.e. #/b). This coloring doesn't change when you select another system.

(You can, however, unscrew the buttons and install the in the right places so as to make the white and black buttons correspond to the notes being played.)



The FR-7b/FR-5b is supplied with additional white and black buttons that may come in handy. The white buttons come in two varieties: normal buttons and knurled buttons. The latter are usually used to indicate the "C" notes.

10.15 Treble Mode (1/2)

C-Griff Europe					C-Griff 2					B-Griff Bajon				
	C#3	C3				D3	Eb3				C#3	D3		
Eb3	49	D3	48	C#3	Eb3	50	E3	51	F3	D3	49	Eb3	50	E3
51	E3	50	Eb3	49	51	F3	52	F#3	53	50	E3	51	F3	52
F#3	52	F3	51	E3	54	G3	55	A3	G#3	52	F3	53	F#3	G3
54	G3	53	F#3	52	56	G#3	56	57	56	53	G3	54	G#3	55
A3	55	G#3	54	G3	A3	57	Bb3	58	B3	55	A3	56	A3	Bb3
57	Bb3	56	A3	55	57	B3	58	C4	59	56	Bb3	57	B3	58
C4	58	B3	57	Bb3	C4	59	C#4	60	D4	59	B3	58	C4	59
60	C#4	B3	57	Bb3	60	D4	61	Eb4	62	60	C#4	60	D4	61
Eb4	61	D4	60	C#4	Eb4	62	E4	63	F4	61	D4	61	Eb4	62
63	E4	62	Eb4	61	63	F4	64	F#4	65	62	E4	62	E4	64
F#4	64	F4	63	E4	66	F4	65	G4	F#4	64	E4	63	F4	65
66	G4	65	F#4	64	66	G4	67	A4	G#4	65	F4	64	F#4	G4
A4	67	G#4	66	G4	69	G#4	68	A4	69	67	G4	66	G#4	67
69	Bb4	68	A4	67	69	Bb4	70	B4	71	68	G#4	67	A4	Bb4
C5	70	B4	69	Bb4	C5	71	C#5	72	D5	68	Bb4	69	B4	70
72	C#5	B4	69	Bb4	72	D5	73	Eb5	74	71	B4	70	C5	71
Eb5	73	D5	72	C#5	Eb5	74	E5	75	F5	71	C#5	72	D5	73
75	E5	74	Eb5	73	75	E5	76	F5	77	74	D5	73	Eb5	74
F#5	76	F5	75	E5	F#5	77	G5	78	G#5	75	E5	75	F5	76
78	G5	77	F#5	76	78	G5	79	A5	80	76	F5	76	F#5	77
A5	79	G#5	78	G5	A5	80	Bb5	81	B5	77	F5	77	G5	78
81	Bb5	80	A5	79	81	Bb5	82	C6	83	78	G5	78	F#5	G5
C6	82	B5	81	Bb5	C6	83	C#6	84	D6	79	G#5	79	A5	Bb5
84	C#6	B5	81	Bb5	84	C6	85	Eb6	86	80	G#5	80	A5	Bb5
Eb6	85	D6	84	C#6	87	D6	86	E6	87	80	Bb5	82	C6	B5
87	E6	86	Eb6	85	87	E6	88	F6	89	83	B5	82	C6	B5
F#6	88	F6	87	E6	89	F6	89	G6	F#6	86	B5	83	C6	B5
90	G6	89	F#6	88	90	F#6	90	A6	G#6	86	C#6	85	Eb6	D6
A6	91	G#6	90	G6	92	G#6	92	Bb6	93	88	E6	87	Eb6	D6
93	Bb6	92	A6	91	93	Bb6	94	B6	95	89	F6	88	F6	F6
C7	94	B6	93	Bb6	C7	95	C#7	96	D7	89	G6	89	F#6	G6
96	C#7	B6	93	Bb6	96	C7	97	Eb7	98	92	G#6	91	A6	G#6
Eb7	97	D7	96	C#7	99	D7	98	E7	99	92	Bb6	94	A6	Bb6
99	E7	98	Eb7	97	99	E7	99	F7	101	95	B6	94	B6	94
F#7	100	F7	99	E7	101	F7	100	F#7	101	97	B6	94	C7	B6
102	G7	101	F#7	102	102	F#7	101	G7	103	98	C7	97	C7	C#7
										98	C#7	97	D7	98
										99	D7	98	Eb7	D7
										99	E7	99	E7	E7
										101	F7	100	F7	101
										101	F7	101	F#7	G7
										102	G7	102	G#7	103
										103	G#7	103	A7	105
										104	A7	105		

10.15 Treble Mode (2/2)

B-Griff Fin	D-Griff 1	D-Griff 2
E3 52	D3 50	C#3 49
G3 55	F3 53	E3 52
Bb3 58	G#3 56	F3 53
C#4 61	A3 57	G3 55
E4 64	B3 59	A3 57
G4 67	C#4 61	Bb3 58
Bb4 70	D4 62	B3 59
C#5 73	F4 65	C#4 61
E5 76	G#4 68	D4 62
G5 79	A4 69	E4 64
Bb5 82	B4 71	F4 65
C#6 85	D5 74	G4 67
E6 88	F5 77	A4 69
G6 91	G#5 80	Bb4 70
Bb6 94	A5 81	B4 71
C#7 97	B5 83	C#5 73
E7 100	C6 84	D5 74
G7 103	D6 86	E5 76
	F6 89	F5 77
	G#6 92	G5 79
	A6 93	A5 81
	B6 95	Bb5 82
	C7 96	B5 83
	D7 98	C#6 85
	Eb7 99	D6 86
	F7 101	E6 88
	G#7 104	F6 89
		G6 91
		A6 93
		Bb6 94
		B6 95
		C#7 97
		D7 98
		E7 100
		F7 101
		G7 103
		F#7 102

11. UTILITY parameters

MENU 11 The UTILITY group contains three kinds of parameters: those that keep you informed (to check the battery status), several parameters that allow you to copy settings and three parameters for archiving your settings via MIDI. See pages 39 and 41 for how to select and adjust the parameters.

11.1 Battery Status

The FR-7b comes with a Ni-Mh battery that allows you to use it without connecting it to the supplied FBC-7. The FR-5b provides the same battery compartment as the FR-7b, but the battery is an option. (As long as you do not purchase such a battery, you need to connect the FR-5b to the supplied FBC-7.)

Note: There is no "EDIT" page here, because there is no parameter you can set.



Depending on how the FR-7b/FR-5b is powered, the display shows one of the following messages:



This message means that the FR-7b/FR-5b is powered by the battery in its compartment. The battery icon shows how much power is left.

It would be a good idea, however, to stop by this page before you go on stage or start playing, because what you see then might just convince you to use the FBC-7.



This message means that the battery is being recharged by the FBC-7. This is not performed automatically. You need to connect the FR-7b/FR-5b's "TO FBC-7" socket to the "TO FR-7/FR-5 V-ACCORDION" socket on the FBC-7 and press the BATTERY CHARGER button (so that it lights). The battery icon indicates the amount of energy already available.

When the battery is fully charged, the display briefly shows a "Recharge Complete" message.

While the FR-7b/FR-5b is connected to the FBC-7, the latter supplies the power to your V-Accordion (the battery in the FR-7b/FR-5b's compartment is therefore bypassed). However, while the BATTERY CHARGER button lights, the FR-7b/FR-5b cannot be used, because the FBC-7 "concentrates" on recharging the FR-7b/FR-5b's battery.



This message means that the FR-7b/FR-5b contains a battery, which is not used, because the FR-7b/FR-5b is connected to the FBC-7. The FBC-7 therefore supplies the power to your V-Accordion. The battery icon nevertheless informs you about the battery's current charge.



This message means that the FR-7b/FR-5b contains no battery. It is connected to the FBC-7, however (otherwise you would not be able to switch it on). In the case of an FR-5b without an optional battery, this is the only message you'll ever see.

11.2 Copy ALL Effects

This parameter allows you to copy the settings of all three effects processors from one Set to another. This may help you save time, because the effects processors contain an impressive number of parameters. **Careful!** there are also parameters that allow you to copy just the Reverb, Chorus or Delay settings. Do not use this parameter if you only wish to reuse the Reverb settings of another Set, for example.



- (1) After selecting this page, press the **[DATA/ENTER]** knob until the following page appears:



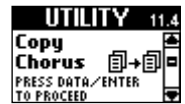
- (2) Use the **[DATA/ENTER]** knob to select the Set whose effects settings you wish to copy to the current Set.
You can also select another memory for "TO" if you want to copy the settings to another Set than the one that is currently selected.
- (3) Press **[MENU/WRITE]** to copy the settings.

The display confirms this operation:



11.3 Copy Reverb, 11.4 Copy Chorus, 11.5 Copy Delay

These three parameters allow you to copy the Reverb, Chorus or Delay settings of another Set to the currently selected Set. Unlike the "Copy ALL Effects" parameter, which copies all effects settings, these three parameters only import the selected processor's settings. That way, you can use the Reverb settings of Set 1, the Chorus settings of Set 10 and the Delay settings of Set 28 in Set 5.



- (1) After selecting the page that corresponds to the effects processor whose settings you wish to copy, press the **[DATA/ENTER]** knob until the relevant page appears:



- (2) Use the **[DATA/ENTER]** knob to select the Set whose effects settings you wish to copy to the current Set.
You can also select another memory for "TO" if you want to copy the settings to another Set than the one that is currently selected.
- (3) Press **[MENU/WRITE]** to copy the settings.
The display confirms this operation:



11.6 Copy SET

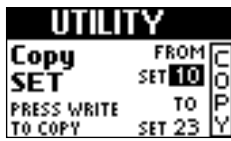
This parameter allows you to copy the settings of one Set to another Set memory. It copies everything related to a Set: the Common parameters (including the effects) as well as the parameters of the various sections (Treble, Orchestra, Bass, etc.).



Warning: All settings of the target memory are overwritten. It might therefore be a good idea to archive the target Set using "11.8 Bulk Dump SET" before proceeding.

- On the page shown above, press the **DATA/ENTER** button.

The display now changes to:



- Press the **DATA/ENTER** knob to select the "FROM" parameter, then turn it to select the Set whose settings you wish to copy. By default, the FR-7b/FR-5b selects the number of the Set you are currently using.
- Press the **DATA/ENTER** knob to select the "TO" parameter, then turn it to select the Set memory to which the settings should be copied. Carefully check whether you have selected the correct Set memory, then...
- Press **MENU/WRITE** to copy the settings. The display confirms this operation:



11.7 Bulk Dump ALL, 11.8 Bulk Dump SET

These two functions allow you to transmit all of the FR-7b/FR-5b's settings or just the settings of the currently selected Set to an external MIDI device (which could be a second FR-7b/FR-5b). See page 92 for details.

11.9 Restore SET

This function allows you to load the settings of one of the pre-programmed Sets into the currently selected Set memory.

Warning: This command overwrites all settings of the current Set, i.e. the parameters of the following sections: TREBLE EDIT, BASS EDIT, FREE BASS EDIT, ORC BASS EDIT, ORCH. EDIT, ORC CHD EDIT, ORC FBS EDIT and SET COMMON.

It may come in handy, though, if you want to return to one of the factory Sets and use it as is, or as a starting point for new edits.

- On the page shown above, press the **DATA/ENTER** button. The display now changes to:



- Rotate the **DATA/ENTER** knob to select the factory Set you want to load.
- Press **MENU/WRITE** to load the settings.

The display confirms this operation:



11.10 Treble Reg. on current Set

This is an environment in its own right rather than a parameter. It allows you to set five parameters for all Treble registers of the currently selected Set simultaneously. This may help you save a lot of time, especially for increasing or decreasing the volume of some or all reeds, or for selecting a different noise type. But be careful not to overuse this functionality.



Here's how to take advantage of this environment:

- Select the Set whose Treble registers you want to edit simultaneously.
- Select this parameter ("11.10 Treble Reg. on current Set"). See p. 39 for the two possible approaches (one via the JUMP menu, the other using the registers).
- Turn the **DATA/ENTER** knob to select the parameter to be edited for all Treble registers.

The possibilities are:

Reed: Reed ALL, Reed 16', Reed 8', Reed 8'-, Reed 8'+, Reed 4', Reed 5-1/3', Reed 2-2/3'

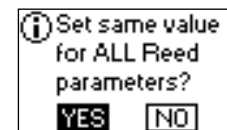
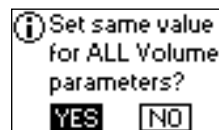
Volume: Vol ALL, Vol 16', Vol 8', Vol 8'-, Vol 8'+, Vol 4', Vol 5-1/3', Vol 2-2/3'

Others: Noise, Noise Vol, Valve Vol, MusDetune

As you see, this step may involve two actions:

- You first need to decide which parameter type you want to edit ("Reed", "Vol", "Noise", "Noise Vol" or "MusDetune");
- Select the reeds your change should apply to (only for "Reed" and "Vol"). Here's an example: to set the volume of all 5-1/3' reeds (one per register) of the current Set to "10", turn the **DATA/ENTER** knob until "Vol 5-1/3'" is displayed, then proceed with the next step.

■ **Meaning of the warning that may appear**—If you select "Reed ALL" or "Vol ALL", the following warning may be displayed:



This only occurs if the "VALUE" next to it is currently "---", which means that the reeds of your Set use different settings, which is very likely indeed. By proceeding with "ALL", you would assign them the same value – for all registers of the current Set. Use the **UP/DOWN** buttons, or rotate the **DATA/ENTER** knob to select "YES" (set the same value for all reeds) or "NO" (do not use the "ALL" setting), then press the **DATA/ENTER** knob.

Note: The "Vol" values you set here directly affect the volume parameters of the respective edit modes. In other words: selecting "5" here means that the corresponding reeds' volume is set to "5".

- (4) Press the **[DATA/ENTER]** knob to select "VALUE", then rotate the **[DATA/ENTER]** knob to select the desired setting.

The possibilities depend on the choice you made in step (3) above.

Parameter	Setting range
Reed	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trikitixa
Vol	Off, -40~Std~40
Noise	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trikitixa
Noise Vol	Off, -40~Std~40
Detune	Off, Dry, Classic, F-Folk, American_L, American_H, North_Eur, German_L, D-Folk_L, Italian_L, German_H, Alpine, Italian_H, D-Folk_H, French, Scottish

Note: Reeds that are currently off (see "2.2 Register" on p. 46) adopt the new setting but are not switched on by this operation.

- (5) Press **[EXIT/JUMP]** to return to the Main page and try out all 14 Treble registers.

Note: Do not change Sets at this stage, because that would erase the changes you have just made.

- (6) If you like your new settings, save them:

- Press and hold the **[MENU/WRITE]** button until the following page appears:

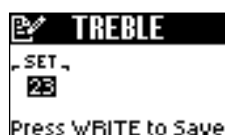


- Press the **[DATA/ENTER]** knob to confirm your selection.



- Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select "ALL".
- Press the **[DATA/ENTER]** knob to confirm your selection.

The display now looks as follows:



- Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select the Set that should contain your changed version(s).

Change this setting only if you do *not* want to save your settings to the current Set.

- Press the **[MENU/WRITE]** button to save your changes. The display briefly shows a confirmation:



- Press the **[EXIT/JUMP]** button to return to the Main page.

11.11 Bass Reg. on current Set

This is an environment in its own right rather than a parameter. It allows you to set six parameters for all Bass registers of the currently selected Set



simultaneously. This may help you save a lot of time, especially for increasing or decreasing the volume of some or all reeds, or for selecting a different noise type. But be careful not to overuse this functionality.

Here's how to take advantage of this environment:

- (1) Select the Set whose Bass registers you want to edit simultaneously.
- (2) Select this parameter ("11.11 Bass Reg. on current Set").
- (3) Turn the **[DATA/ENTER]** knob to select the parameter to be edited for **all Bass registers**.

The possibilities are:

Reed: Reed ALL, Reed 16', Reed 8', Reed 8'-4', Reed 4', Reed 2'

Volume: Vol ALL, Vol 16', Vol 8', Vol 8'-4', Vol 4', Vol 2'

Others: Noise, Noise Vol, Reed Growl, Growl Vol

As you see, this step may involve two actions:

- (a) You first need to decide which parameter type you want to edit ("Reed", "Vol", "Noise", "Noise Vol", "Reed Growl", or "Growl Vol");
- (b) Select the reeds your change should apply to (only for "Reed" and "Vol").

Here's an example: to set the reed type of all 16' reeds (one per register) of the current Set to "Organetto", turn the **[DATA/ENTER]** knob until "Reed 16'" is displayed, then proceed with the next step.

See also "Meaning of the warning that may appear" on p. 78.

- (4) Press the **[DATA/ENTER]** knob to select "VALUE", then rotate the **[DATA/ENTER]** knob to select the desired setting.

The possibilities depend on the choice you made in step (3) above.

Parameter	Setting range
Reed	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
Vol	Off, -40~Std~40
Noise	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
Noise Vol	Off, -40~Std~40
Reed Growl	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
Growl Vol	Off, -40~Std~40

Note: Reeds that are currently off (see "3.2 Register" on p. 51) adopt the new setting but are not switched on by this operation.

- (5) Press **[EXIT/JUMP]** to return to the Main page and try out all 7 Bass registers.

Note: Do not change Sets at this stage, because that would erase the changes you have just made.

- (6) If you like your new settings, save them:

- Press and hold the **[MENU/WRITE]** button until the following page appears:



- Rotate the **[DATA/ENTER]** knob (or use the **[UP]/[DOWN]** buttons) to select "Bass".

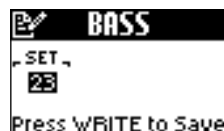


- Press the **[DATA/ENTER]** knob to confirm your selection.



- Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select "ALL".
- Press the **[DATA/ENTER]** knob to confirm your selection.

The display now looks as follows:



- Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select the Set that should contain your changed version(s).
Change this setting only if you do *not* want to save your settings to the current Set.
- Press the **[MENU/WRITE]** button to save your changes. The display briefly shows a confirmation:



- Press the **[EXIT/JUMP]** button to return to the Main page.

11.12 FreeBass Reg. on current Set

This page allows you to set six parameters for all Free Bass registers of the currently selected Set simultaneously. You will notice that it is very similar to the "Bass Reg. on current Set" parameter above, except that there are fewer reeds.



Here's how to take advantage of this environment:

- Select the Set whose Free Bass registers you want to edit simultaneously.
- Select this parameter ("11.12 FreeBass Reg. on current Set").
See p. 39 for the two possible approaches (one via the JUMP menu, the other using the registers).
- Turn the **[DATA/ENTER]** knob to select the parameter to be edited for **all Free Bass registers**.

The possibilities are:

Reed: Reed ALL, Reed 16', Reed 8'

Volume: Vol ALL, Vol 16', Vol 8'

Others: Noise, Noise Vol, Reed Growl, Growl Vol

As you see, this step may involve two actions:

- You first need to decide which parameter type you want to edit ("Reed", "Vol", "Noise", "Noise Vol", "Reed Growl", or "Growl Vol");
- Select the reeds your change should apply to (only for "Reed" and "Vol").

Here's an example: to set the reed type of all 16' reeds (one per register) of the current Set to "Steierische", turn the **[DATA/ENTER]** knob until "Reed 16'" is displayed, then proceed with the next step.

See also "Meaning of the warning that may appear" on p. 78.

- Press the **[DATA/ENTER]** knob to select "VALUE", then rotate the **[DATA/ENTER]** knob to select the desired setting.

The possibilities depend on the choice you made in step (3) above.

Parameter	Setting range
Reed	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
Vol	Off, -40~Std~40
Noise	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
Noise Vol	Off, -40~Std~40
Reed Growl	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
Growl Vol	Off, -40~Std~40

Note: Reeds that are currently off (see "4.2 Register" on p. 54) adopt the new setting but are not switched on by this operation.

- (5) Press **[EXIT/JUMP]** to return to the Main page and try out all 7 Free Bass registers.

Note: Do not change Sets at this stage, because that would erase the changes you have just made.

- (6) If you like your new settings, save them:

- Press and hold the **[MENU/WRITE]** button until the following page appears:



- Rotate the **[DATA/ENTER]** knob (or use the **[UP]/[DOWN]** buttons) to select "Free Bass".



- Press the **[DATA/ENTER]** knob to confirm your selection.



- Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select "ALL".
- Press the **[DATA/ENTER]** knob to confirm your selection.

The display now looks as follows:



- Use the **[DATA/ENTER]** knob or the **[UP]/[DOWN]** buttons to select the Set that should contain your changed version(s).
- Press the **[MENU/WRITE]** button to save your changes. The display briefly shows a confirmation:

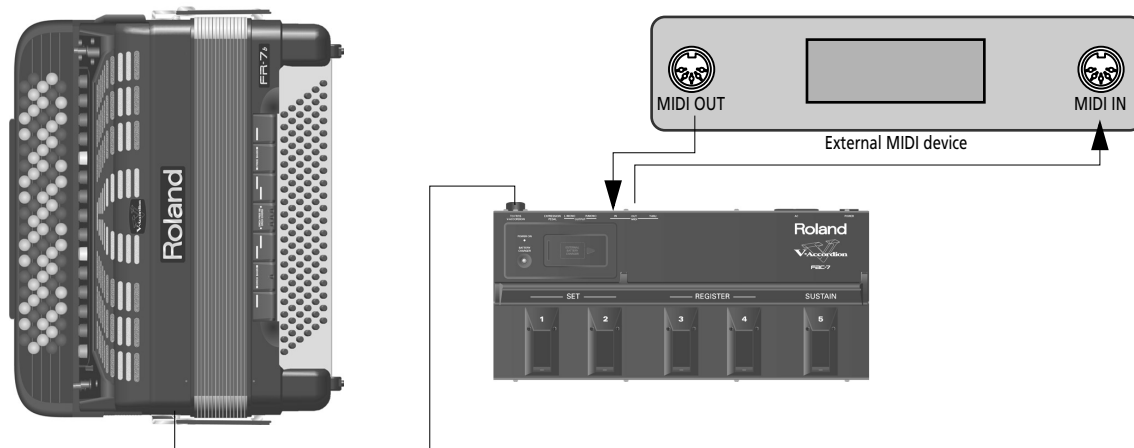


- Press the **[EXIT/JUMP]** button to return to the Main page.

7. MIDI functions

Your FR-7b/FR-5b also transmits and receives MIDI data. In this chapter we'll look at what MIDI is and does and which MIDI functions are available on the FR-7b/FR-5b.

IMPORTANT REMARK: To take advantage of the FR-7b/FR-5b's MIDI functions, you must connect it to the supplied FBC-7, because the FR-7b/FR-5b itself has no MIDI sockets.



About MIDI

Even though your FR-7b/FR-5b is already a remarkably flexible instrument (quite unlike any other accordion available today), you may also want to use it with other MIDI-compatible instruments, sequencers and computers to record your performances in the same way as keyboard players, drummers, guitarists, etc., have been doing for a while.

Another important application for the FR-7b/FR-5b's MIDI functions is controlling an arranger module that supplies the accompaniment. "Arranger modules" use short accompaniment patterns that can be selected in real-time and whose key depends on the note information they receive. You can select those patterns by assigning the corresponding MIDI messages to the FBC-7's footswitches (see p. 69), so that you do not have to stand or sit next to your arranger module.

Both module types (and all MIDI-compatible sound sources) also allow you to use the FR-7b/FR-5b's Treble and Bass keyboards for playing sounds the FR-7b/FR-5b does not provide.

This is possible thanks to a common language for musical applications, which is called "**Musical Instrument Digital Interface**" or "**MIDI**" for short. MIDI has a lot in common with the internet: you can link one or several instruments to one another via a cable (but you don't need a telephone line).

You can also use the FR-7b/FR-5b as "master keyboard", i.e. an instrument that transmits MIDI messages to a device (or software program) that can record MIDI messages. Such a device or program is called a "sequencer".

To take advantage of the FR-7b/FR-5b's MIDI functions, you must connect the FBC-7 as follows:

MIDI OUT: This socket transmits messages describing actions (such as playing on a keyboard) to the MIDI IN jack on the external device. The receiving MIDI device executes the incoming MIDI messages and plays notes, selects other sounds, etc.

MIDI IN: This socket receives the MIDI messages transmitted by an external MIDI device.

MIDI THRU: This socket retransmits the MIDI messages received via the FBC-7's MIDI IN port. You can connect it to the MIDI IN port of another MIDI device.

Note: The MIDI THRU port does not transmit the MIDI messages generated by the FR-7b/FR-5b. Those messages are only sent to the FBC-7's MIDI OUT port.

MIDI can simultaneously transmit and receive messages on 16 channels, so that up to 16 instruments (or parts of a module or synthesizer) can be controlled. Nowadays, most instruments –like your FR-7b/FR-5b– are multitimbral, which means that they can play several musical parts with different sounds. This requires the use of several MIDI channels. The FR-7b/FR-5b, for instance, has several accordion and orchestral sections that can be played simultaneously. They can transmit and receive on different channels.

The FR-7b/FR-5b's sections use the following MIDI channels:

Part	Channel
Treble	1
Bass/Free Bass	2
Chord	3
Orchestra (Treble)	4
Orchestra Bass	5
Orchestra Chord	6
Orchestra Free Bass	7
Basic channel (for selecting Sets and sending program changes)	13

As you see, there are separate channels for the chord and bass buttons, even though they both belong to the Bass section. That separation may look distracting at first, but it actually makes sense. It allows you to use the bass buttons for controlling an external bass sound, while the chord buttons could control a piano sound, for example. If they used the same MIDI channel, the bass line would have to be played by a piano, or the chords would be played by a bass sound (unless you own a MIDI instrument that allows you to program note ranges for incoming MIDI messages).

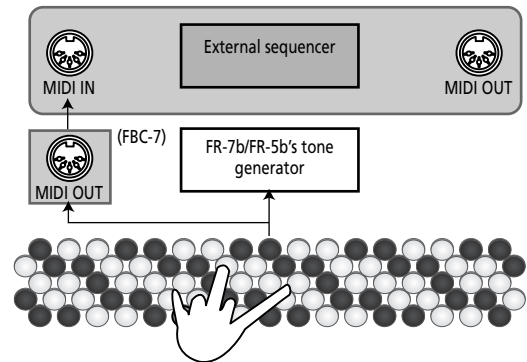
Working with a sequencer and other tone generators

The FR-7b/FR-5b can be used as "input device" for recording your music. In the case of a keyboard instrument, such a device is usually called a "master keyboard". For other kinds of MIDI input sources, the term "controller" is used. There are actually two kinds of master keyboards: those that only transmit MIDI data and contain no tone generator, and those that can also be used for playing back music (synthesizers, digital pianos, organs, etc.).

Sequencers do not record the audio of the notes you play. They only register "events" whose position and distance specify when the notes are to be played. The sequencer as such usually cannot sound what you record – you need an instrument with a tone generator for that. A sequencer must therefore be connected to an electronic sound source, like your FR-7b/FR-5b, for example.

The FR-7b/FR-5b can be used for two things: to "input" new parts (i.e. MIDI events) and to play them back.

When you play on the FR-7b/FR-5b's keyboards, it sends MIDI data to the FBC-7's MIDI OUT socket. That socket must be connected to the sequencer's MIDI IN port. MIDI data always go from OUT to IN:



If the FR-7b/FR-5b is used as tone generator for an external sequencer, you must connect the sequencer's MIDI OUT socket to the FBC-7's MIDI IN port (because MIDI data always go from OUT to IN).

Though you can also play the FR-7b/FR-5b from another MIDI instrument, we do not really recommend doing so, because your V-Accordion has far more versatile performance functions than any other MIDI controller available today: the FR-7b/FR-5b translates all known accordion techniques and physical effects into MIDI messages to precisely reproduce the natural behavior of an acoustic accordion. Conversely, it might be interesting to try out the FR-7b/FR-5b with a Roland Fantom-XR module (or a DisCover 5M), because the FR-7b/FR-5b's countless expressive "gizmos" are bound to further enhance the stunning realism of the module's sounds.

If you use the FR-7b/FR-5b as a MIDI controller while recording a sequence, all actions you perform on the FR-7b/FR-5b (including the bellows pressure strength) are included in the recorded part. They can therefore be sent back to the FR-7b/FR-5b (by the sequencer) – and then, all expression details are preserved. Be aware, however, that you also need a versatile sound source (like the FR-7b/FR-5b's) to use the recorded MIDI events to their full potential.

A "sequencer" can also be a software program running on a computer. Most computers do not have MIDI sockets to which you can connect the FBC-7's MIDI IN and OUT sockets. You therefore also need one of the following:

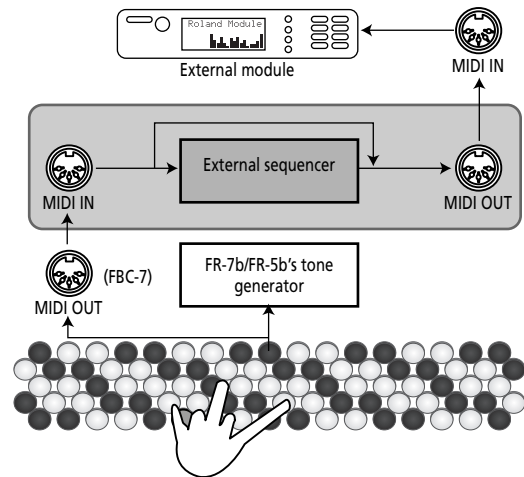
- A sound card with a joystick port to which you can connect MIDI cables;
- A card called a "MIDI interface" that is installed in your computer;
- An external device to which you connect the MIDI cables coming from the FBC-7 at one end and whose other end is connected to the computer's USB port (companies like Edirol, www.edirol.com, offer several models with a varying number of inputs and outputs).

You also need a software program that allows you to record and play back your music. Such programs are available from companies like Cakewalk. Please ask your Roland dealer for details. And finally, you may need to install applications called "drivers" on your computer to ensure that it can talk and listen to the MIDI interface.

Final note regarding sequencers

If you use the FR-7b/FR-5b as MIDI controller for recording new songs, there is one more thing you need to be aware of. Always ask yourself which MIDI sound source should play back the part you are recording.

- If the FR-7b/FR-5b's tone generator is **not** used for the part you are recording, you need to connect the external module's MIDI IN socket to the sequencer's MIDI OUT port and activate the sequencer's "MIDI Soft Thru" function:



Note that this is only necessary for recording new material. You do not have to worry about them during playback.

Global MIDI parameters

The parameters discussed here are part of a separate mode (called "MIDI"). Their settings, however, are saved to the FR-7b/FR-5b's Global memory (there is no separate MIDI memory). Let us first look at the parameters that apply to all Sets. See page 89 for the parameters that can be set for each section individually and saved to a Set.

MIDI channel numbers (12.1 RealTime RX-TX)

The table on page 83 specifies the default MIDI channel assignments the FR-7b/FR-5b uses. Those choices are based on how most accordion players prefer (or are allowed) to use their instrument. You can, however, change the MIDI channel assignments. An obvious candidate for such a change would be the Treble section if you want it to conform to a generally accepted (i.e. standardized) usage, whereby the melody part transmits on MIDI channel 4.

There is indeed a format called "General MIDI" that requires you to use MIDI channel 4 for the melody. General MIDI-compatible musical instruments use that channel for the most important part of a song, so it may be a good idea to assign it to the Treble section. The table on page 83 states that channel 4 is already used by the (Treble) ORCHESTRA section. That is not really a problem as long as you don't use that section. If you use it alongside the Treble section, changing the Treble accordion's MIDI channel to "4" would mean that both sections transmit on the same MIDI channel. And that would be a problem – or rather one of two problems:

- In Dual mode (page 26), each note you played would be transmitted twice and recorded like that (or played back by the external tone generator).

- In High or Low mode, the "accompaniment" and "solo line" would control the same sound on an external module, which may not correspond to what you had in mind.

In such cases, either assign a different MIDI channel to the ORCHESTRA section – or select "Off" (no transmission).

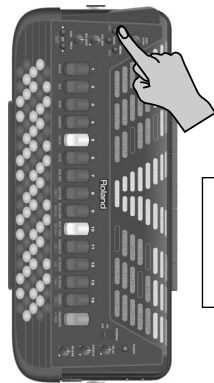
Note that such changes are only necessary when you want to add the sound of an external tone generator to the Treble section's accordion sound. If you are working with an arranger module whose sole function is to provide an accompaniment, you may have to select "Off" for all of the FR-7b/FR-5b's sections.

And even that is only necessary if you use the FBC-7's switches to remotely control the external instrument (page 69) and therefore connected the FBC-7's MIDI OUT socket to the module's MIDI IN port.

Also bear in mind that **the channel assignments set here apply both to the transmission ("TX") and reception ("RX")** of MIDI data.

And finally: in DUAL, HIGH and LOW modes (page 26), the Treble keyboard transmits on two channels simultaneously – the Treble and Orchestra channels. If you add the Orchestra Bass part to the Bass or Free Bass section, the same applies to the bass notes. As stated earlier, the chord buttons of the Bass keyboard use a separate MIDI channel.

- (1) Press and hold the **[EXIT/JUMP]** button until the display looks as follows:



JUMP TO?
Select page MENU
[EXIT/JUMP]
via Treble Register

- (2) Press register **[12]** to specify the function group. The MIDI channels can be set via a parameter of the "MIDI" group, which is why you need to select that group.
- (3) Press register **[1]** to select the following page:



- (4) Press the **[DATA/ENTER]** knob to select "PART" (left entry), then turn it to select the part whose MIDI channel you want to set. The entries you can select are: "Treble", "Bass/Free", "Chord", "OrcBass", "Orchestra", "Orc Chord", "Orc FreeBs", "Basic Ch", and "Control Ch". The "Basic Ch" (default setting "13") can be used for selecting Sets from an external MIDI device (using program change numbers 1~40). If your external source sends Bank Select messages along with the program change number, CC00 and CC32 must both be set to "0". The "Control Ch" (default setting "13") can only be used for sending program change messages (see below).
- (5) Press the **[DATA/ENTER]** knob to select "CHANNEL" (right entry), then turn it to select a MIDI channel. The options are: "Off" and 1~16. Select "Off" if the part in question should neither receive nor transmit MIDI data. Though it is perfectly possible to assign the same MIDI channel to several sections, the result is usually disappointing and may lead to a lot of confusion.
- (6) If necessary, repeat steps (4) and (5) to assign different MIDI channels to the remaining parts.
- (7) Press **[EXIT/JUMP]** to return to the Main page.
- (8) To save your changes, proceed as follows:

Saving your changes

- Press and hold the **[MENU/WRITE]** button until the following page appears:



- Rotate the **[DATA/ENTER]** knob (or use the **[UP]/[DOWN]** buttons) to select "Global".



- Press the **[DATA/ENTER]** knob to confirm your selection.



Note: The GLOBAL page shows all parameters that are saved to the Global memory (there is only one such memory).

- Press the **[MENU/WRITE]** button to save your changes. The display briefly shows a confirmation:

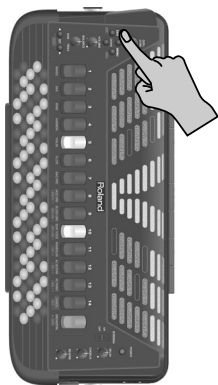


- Press the **[EXIT/JUMP]** button to return to the Main page.

Preventing sections from sending MIDI data (12.2 Ext. Seq. Playback)

There may be situations where you use a MIDI sequence as accompaniment for your accordion solo. If such a sequence already contains the bass part (for example), you may not want to play it again, yet not doing anything with your left hand may feel a little strange. By selecting "On" for a section, you switch off its connection with the internal tone generator (this is what MIDI buffs call "Local Off"). The section now *receives* MIDI data from a sequencer or other instrument you connect to the FBC-7's MIDI IN port. (It also transmits MIDI messages to the FBC-7's MIDI OUT port.)

- Press and hold the **[EXIT/JUMP]** button until the display looks as follows:



JUMP TO?
Select page MENU
via Treble Register

- Press register **[12]** to specify the function group. The "Ext. Seq. Playback" parameters can be set via a parameter of the "MIDI" group, which is why you need to select that group.
- Press register **[2]** to select the following page:



- Press the **[DATA/ENTER]** knob to select "PART" (left entry), then turn it to select the part whose setting you want to change. The parts you can select here are: "Treble", "Bass&Chord", "Orchestra", and ALL". Select "ALL" to change the status (also called "Local" in the MIDI world) of all available sections.
Note: "ALL" can also be selected from the Main page by simultaneously pressing the **[ORCHESTRA/MODE]** + **[1]** registers.
Note: The "Bass&Chord" entry also includes the Orchestra Chord and Orchestra Free Bass sections.
- Press the **[DATA/ENTER]** knob to select "VALUE" (right entry), then turn it to select "On" (disconnect the part from the internal tone generator) or "Off" (normal operation).
A part you disconnect from its keyboard is flagged as "EXT. MIDI" on the Main page:



(In this example, all sections are disconnected from the FR-7b/FR-5b's tone generator, which is probably a highly unlikely configuration.)

Note: When you select "On", the FR-7b/FR-5b's registers no longer transmit the sound selection clusters you may have programmed using "CC00, CC32, PC" on p. 90. Instead, they transmit their "Std" values.

- Press **[EXIT/JUMP]** to return to the Main page.
- See "Saving your changes" on p. 85 if you want to save these settings.
If you don't save them, they are reset when you switch off the FR-7b/FR-5b.

Sending program change messages when necessary

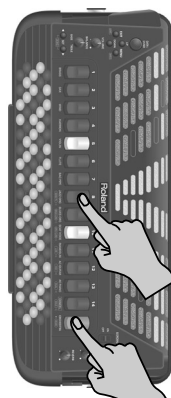
(12.4 Bank for 'Send PC')

Though each register can transmit a program change/bank select cluster when pressed (see "CC00, CC32, PC" on p. 90), you can also transmit sound select messages on the fly – without changing registers on the FR-7b/FR-5b. These are MIDI messages that cause an external instrument or device to select a different memory (i.e. another sound or effect).

This functionality is mainly intended for selecting setting groups of various sounds on external instruments. Such setting groups may be called "Performances", "Multis", which you may want to select while playing, because working with "finished" Performances, etc., does away with the need to program sound select addresses for the FR-7b/FR-5b's registers (see "CC00, CC32, PC" on page 90). Using those multitimbral memories has the advantage that all sound addresses and MIDI channels are configured "automatically" simply by sending the correct "PC" address from the FR-7b/FR-5b. As the first half of the name ("Send PC") suggests, this function only *transmits* messages to an external device whose MIDI IN port is connected to the FBC-7's MIDI OUT socket.

Here is how to take advantage of that function:

- Connect the FR-7b/FR-5b to the FBC-7, and the FBC-7's MIDI OUT socket to the MIDI IN port of the module, synthesizer, etc., you wish to control.
- Set the module's MIDI receive channel (often called "RX") to "13".
See its manual for details. If you are unable to change the receiver's MIDI channel, set the FR-7b/FR-5b's "Control Ch" to match the external instrument's "RX" channel. (See "MIDI channel numbers" on p. 84 for how to set the "Control Ch" parameter.)
- Hold down the **[ORCHESTRA/MODE]** register and press register **[8]** (SEND PC).



SEND PC ?
enter by Treble Reg
PRG NUM
Press 'WRITE to Send

- Use Treble registers **[1]~[10]** to enter the **sound number**.
You may have to look in the owner's manual of the module or synthesizer you are controlling to find out which number you need to transmit for the sound (or memory) you want to select. You can enter any number from "1" to "512".

The [10] register acts as "0" here. To enter "502", for example, press registers [5], [10], and [2].

- (5) If necessary, press the [EXIT/JUMP] button to erase the last entry you made.

If you entered "55", for example, while the second figure should have been a "2", press [EXIT/JUMP] once (so that the display indicates "5__" again), then press register [2] ("52_").

Note: The FR-7b/FR-5b uses a smart entry system: after entering "52" (or "53", "54", "55",... "59"), you can't add a third figure, because the highest number supported by the SEND PC function is "512".

Note: The [EXIT/JUMP] button has two functions here: when pressed lightly, it deletes the last entry you made ("backspace"). By holding it for ±1 second, you delete all figures and return to the Main page.

- (6) Press the [MENU/WRITE] button to transmit the number you entered.

Bear in mind that despite the function's name ("Send PC"), the value you enter here is *not* really a program change number, but rather the memory number used by the receiving device.

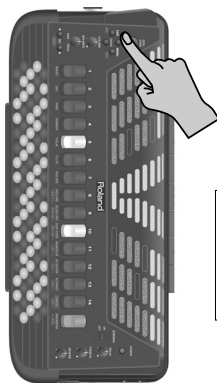
"502" therefore refers to Performance number 502 of the receiver, but that number cannot be conveyed as such via MIDI.

The MIDI standard provides only 128 program change numbers (for selecting memories) and two messages called "Bank Select" that allow you to select 128 banks each. Two bank addresses ("MSB" and "LSB") with 128 possibilities each, plus 128 Program Change numbers provide 128 x 128 x 128 values= 2,097,152 possible memories.

The numbers you enter on the page shown above should therefore be taken to mean "memory XX of the receiving device". But how does the FR-7b/FR-5b then convert it to a MIDI address that conforms to the CC00/CC32/PC format (each of which supports a maximum of 128 possibilities)? Enter the following parameter:

Defining the 'PC' format

- (1) Press and hold the [EXIT/JUMP] button until the display looks as follows:



JUMP TO?
Select page MENU
[] . []
via Treble Register

- (2) Press register [12] to specify the function group.

- (3) Press register [4] to select the following page:



- (4) Press the [DATA/ENTER] knob to select "PRG NUM" (left entry), then turn it to select the memory group whose "real" MIDI address you want to define.

The possibilities are: 1~128, 129~256, 257~384, 385~512.

You probably noticed that each entry represents a group of 128 possibilities. By selecting an entry, you tell the FR-7b/FR-5b: "Whenever I select a memory number between 257 and 384 on the 'Send PC?' page, please convert that to a program change number 1~128, and add the two CC values to the right."

Note: This function can also be used to select the Patches on an SRX-series expansion board which you installed in a G-70, for example.

- (5) Press the [DATA/ENTER] knob to select "CC00" (top right entry), then turn it to select a value (0~127). "0" corresponds to the first bank (called the "Capital bank" on GM2/GS-compatible instruments).

Be sure to select this number based on the information given in the owner's manual of the instrument you wish to control. Be sure to also specify the correct CC32 number.

- (6) Press the [DATA/ENTER] knob to select "CC32", then turn it to select a value (0~127).

Again, the value to enter here depends on the information you find in the manual of the instrument you want to control. Some manufacturers don't use CC32 messages for sound selection, others use them to define modes, and still others rely on them as complementary bank information.

- (7) Press the [DATA/ENTER] knob to select "PRG NUM" again (left entry), then turn it to select the next memory group, and repeat steps (5) and (6).

- (8) Press [EXIT/JUMP] to return to the Main page.

- (9) See "Saving your changes" on p. 85 if you want to save these settings.

If you don't save them, they are reset when you switch off the FR-7b/FR-5b.

- (10) Now use the "Send PC?" page to test your assignments. See step (1) and following on p. 86.

Solving MIDI buffer problems (12.3 Bellows TX Resolution)

This parameter allows you to specify how many data the FR-7b/FR-5b's bellows may transmit for expression purposes (see also "Expression" on p. 91). As long as the external sequencer you work with does not display a "MIDI buffer overflow" message, you can leave its setting at "High". If, however, the bellows' data amount is too much for the receiving sequencer (because such data are transmitted on several channels simultaneously), select a different setting. In that case, the amount of data will be reduced. This leads to a coarser resolution, and maybe even audible steps, but at least, your sequencer will be able to record the data. If "Medium" still generates too many data, select "Low". "TX" means that this parameter only applies to data sent by the FR-7b/FR-5b. Its own MIDI buffer is big enough to receive high-resolution data.

- (1) Press and hold the **[EXIT/JUMP]** button until the display looks as follows:



- (2) Press register **[12]** to specify the function group.
- (3) Press register **[3]** to select the following page:



- (4) Rotate the **[DATA/ENTER]** knob to select "High" (high resolution), "Medium", or "Low" (low resolution).
- (5) Press **[EXIT/JUMP]** to return to the Main page.
- (6) See "Saving your changes" on p. 85 if you want to save these settings.
If you don't save them, they are reset when you switch off the FR-7b/FR-5b.

MIDI parameters for the various sections/parts

The MIDI parameters discussed below belong to separate groups and are saved for the corresponding sections. This means that each Set can use different MIDI settings and thus control external MIDI devices in various ways. If you are serious about using the FR-7b/FR-5b's MIDI potential, carefully read the following before editing the available parameters.

Important remarks

The parameters discussed below apply to the transmission of MIDI data ("TX") and therefore only to MIDI messages that are generated when you yourself play on the FR-7b/FR-5b.

Bear in mind that the MIDI messages discussed below are only executed by an external tone generator if its MIDI receive ("RX") channel is set to the number you assigned to the section in question (page 84).

Sections

The parameters discussed here are available in the following sections: Treble, Bass (and Chord, which is considered a separate section on the MIDI level), Free Bass, Orchestra, Orchestra Bass, Orchestra Chord and Orchestra Free Bass.

The reason why they are included in the section parameters rather than the MIDI group is that the MIDI group applies to the entire FR-7b/FR-5b (all sections, all Sets), while the parameters below can vary from Set to Set. You can change the way external MIDI devices are controlled simply by selecting another Set – and still use exactly the same internal sounds: after setting the various section parameters (and saving them), copy the Set to a different memory (page 77) and only change the MIDI parameters.

Procedure for setting these parameters

To access the parameters discussed below, proceed as follows:

- (1) Select the parameter group of the section you wish to edit.

Either press the **MENU/WRITE** button and select the parameter group with the **DATA/ENTER** knob or use the JUMP TO function (press and hold the **EXIT/JUMP** button, then enter the parameter address using the Treble registers, see p. 39).

- (2) Select the parameter.

(If you used the JUMP TO function above, the parameter is already selected.) Press the **MENU/WRITE** button and select the parameter with the **DATA/ENTER** knob.

The following are MIDI functions:

2.15 Treble MIDI TX	6.8 Orchestra MIDI TX
3.10 Bass MIDI TX	7.5 Orc Chord MIDI TX
3.11 Chord MIDI TX	8.5 Orc FreeBs MIDI TX
4.10 Free Bass MIDI TX	
5.7 Orc Bass MIDI TX	

- (3) Press the **DATA/ENTER** knob to select "MESSAGE" (left entry), then turn it to select the parameter you want to set.

The parameters are explained below.

- (4) Press the **DATA/ENTER** knob to select "VALUE" (right entry), then turn it to set the desired value. (Press **DATA/ENTER** again, select another parameter and edit its value.)
- (5) Press **EXIT/JUMP** to return to the Main page.
- (6) Save your changes:
 - Press and hold the **MENU/WRITE** button until the following page appears:



- Rotate the **DATA/ENTER** knob (or use the **UP/DOWN** buttons) to select "ALL".



Selecting this option has the advantage that you can wait until all sections have been edited before saving them in one go (for the entire Set).

- Press the **DATA/ENTER** knob to confirm your selection.



- If necessary, rotate the **DATA/ENTER** knob to select another destination Set (1~40).
- Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:



- Press the **EXIT/JUMP** button to return to the Main page.

Parameters

Here are the MIDI parameters that can be set for each register of a section separately. Remember that they only apply to MIDI messages the FR-7b/FR-5b sends to external devices. Do not forget to select the register whose MIDI parameters you wish to edit before actually changing them.

■ **Note**

(On, Off, Default setting: On) The MIDI standard translates almost all actions performed on a musical instrument into commands that can be sent to another instrument. The result of such a transmission is that your actions are either recorded by a sequencer or faithfully replicated by the receiving instrument.

The most fundamental information that travels across a MIDI cable is related to the notes you are playing. That information is conveyed using so-called Note-on messages. (Each note has a unique MIDI number.)

Set this parameter to "Off" if the external instrument should not double the notes you are playing on the Treble or Bass keyboard.

■ **Octave**

(-3~0~3) This parameter allows you to transpose the Note-on messages transmitted by the section in question (if "Note" is set to "On") up to three octaves up or down.

This can be used for songs where an accordion register of the Treble section (for example) should be doubled by a piccolo flute played by an external module whose notes would be far too low if they were used as is. As stated above, each MIDI note has a unique number. This parameter allows you to add (or subtract) 12 ("1" octave), 24 ("2" octaves) or 36 ("3" octaves) to (from) the note numbers generated by your playing.

Another application for this parameter could be to use the bass notes you play on the FR-7b/FR-5b both as (accordion) bass and counter-melody played by a digital piano, for example. In that case, you probably need to transpose the Bass register 3 octaves up.

■ **CC00, CC32, PC**

(Std, Off, 0~127 for CC00 & CC32; Std, Off, 1~128 for PC) These three messages belong together. The "oldest" message is called "program change" or "PC" for short. It has been around since the inception of the MIDI standard. It is used to select sounds or memories on the receiving instrument simply by recalling another sound (or memory) on the transmitting instrument.

What you set here is transmitted to the FR-7's MIDI OUT port whenever you select the register you are currently editing. (You can set separate addresses for each register.) This allows you to cause an external module to select the sounds that match the accordion, etc., sounds you defined.

Select "Off" if a register should not send CC00, CC32 and/or PC messages. Select "Std" to transmit the MIDI address of the register you assign this setting to (register [12], for example, which would then send PC "12" for CC00= 00/CC32= 00). When you select "Std"

for one of the three parameters (CC00, CC32, or PC), the other two parameters also adopt the "Std" setting. See the following table:

Bank Select & Program Change TX "Std"			
BANK SELECT		PROGRAM CHANGE	Section
MSB CC00	LSB CC32		
0	0	1-14	Treble Registers
0	0	1-7	Bass Registers
0	1	1-7	Free Bass Registers
0	0	1-7	Orch Bass Registers
0	0	1-7	Orch Chord Registers
0	0	1-7	Orch FreeBs Registers
0	0	1-22	Orchestra Registers
0	0	1-40	Sets

Why are there three messages? When the MIDI standard was developed, some 20 years ago, 128 memories seemed a lot, which is why it was decided to use a dedicated message type (program change) for selecting memories on an external device.

The entire MIDI standard evolves around the magic number "128". Given that there is no way of expanding that number, so-called Bank Select messages were later added to accommodate the growing number of memories (modules with more than 2,000 sounds are quite common these days).

At the time, neither CC00, nor CC32 had dedicated functions, and so these two control change messages were picked for bank selection.

Two bank addresses ("MSB" and "LSB"), with 128 possibilities each, plus 128 Program Change numbers provide 128 x 128 x 128 values= 2,097,152 possible memories.

Transmitting only Bank Select messages does nothing at all, while working only with program change messages means that you are limited to the 128 memories of the currently active memory bank.

To switch banks and select a memory on the external module you need to transmit:

- A value for control change CC00 (MSB)
 - A value for control number CC32 (LSB)
 - A program change number
- See the manual of the receiving MIDI instrument for the MSB and LSB values it supports.

Be aware that this system allows you to send program change numbers to an external instrument that lie outside the range of the FR-7b/FR-5b's registers (see the table above). Such "excess" program numbers are ignored by the FR-7b/FR-5b when you transmit them back (from a sequencer, for example). Example: if you select PC= 49 and transmit that value to a sequencer (to select a strings sound on an external module, for instance), the external module behaves as you expect when the sequencer track transmits that value. If you then decide to use the FR-7b/FR-5b's ORCHESTRA section for your string part, that section will not switch sounds (because it only recognizes program numbers 1~22).

Note: If PC is set to "Off", the CC00 and CC32 values are not transmitted (CC00/CC32 must always be followed by a program change number).

Note: If one of these parameters is set to "Std", the register in question sends its own MIDI address.

Note: When you set the "12.2 Ext. Seq. Playback" parameter to "On", the FR-7b/FR-5b's registers no longer transmit the sound selection clusters you have programmed here. Instead, they transmit their "Std" values. This will return to normal operation when you set "12.2 Ext. Seq. Playback" back to "Off".

■ Volume

(Off, 0~127, Default setting: 100) This parameter allows you to specify the volume value (CC07) the register should send to an external device whenever you press it. That way, the MIDI instrument you are controlling is automatically set to the desired level. Remember that selecting "0" silences the receiving MIDI instrument. Select "Off" if the register should not transmit this message. Note that the FR-7b/FR-5b does not execute this message if it is returned to the FR-7b/FR-5b via the external device's "Soft Thru" function.

■ Panpot

(Off, 0~127, Default setting: 64) This parameter allows you to specify the Pan value (CC10) the register should send to an external device whenever you press it. That way, the MIDI instrument you are controlling automatically selects the desired stereo position. "0" correspond to hard left, "64" to dead center, and "127" to hard right. Note that the FR-7b/FR-5b does not execute this message if it is returned to the FR-7b/FR-5b via the external device's "Soft Thru" function. Select "Off" if the register should not transmit this message.

■ Reverb

(Off, 0~127, Default setting: 40) This parameter allows you to specify the Reverb Send Level value (CC91) the register should send to an external device whenever you press it. Selecting "0" will set the receiving MIDI instrument to "dry" (no reverb), while "127" represents the maximum Reverb Send level. Select "Off" if the register should not transmit this message.

Note: If there is no audible change, you may have to check the reverb effect settings on the receiving MIDI instrument.

Note: Not all MIDI instruments have a reverb effect, and even if they do, they may not support this control change number (this is especially true of older instruments).

■ Chorus

(Off, 0~127, Default setting: 0) This parameter allows you to specify the Chorus Send Level value (CC93) the register should send to an external device whenever you press it. "0" will set the receiving MIDI instrument to "dry" (no chorus), while "127" represents the maximum Chorus Send level. Select "Off" if the register should not transmit this message.

Note: If there is no audible change, you may have to check the chorus effect settings on the receiving MIDI instrument.

Note: Not all MIDI instruments have a chorus effect, and even if they do, they may not support this control change number (this is especially true of older instruments).

■ Velocity

(On, 1~127) Your FR-7b/FR-5b is velocity sensitive. That is a very learned term for the fact that the volume and brightness of the notes you play on the Treble or Bass keyboard depend on how hard (or fast) you press the buttons. The accordion sounds do not respond to these playing dynamics, but the Orchestra (Treble, Bass, Chord, Free Bass) sounds do and so do most MIDI-compatible sound modules.

Even though the MIDI standard recognizes 128 different velocity values, only 127 can actually be used for expression purposes. That explains why the setting range is 1~127. Value "0" is usually used to signal the end of a note (i.e. when you release a key or button).

This parameter allows you to specify whether the velocity values corresponding to the strength with which you press a key/button should be transmitted ("On") or whether your playing dynamics should not be translated as such.

In the latter case, you need to select a value (1~127) that will be applied to all notes that are transmitted via MIDI. "64" is still relatively soft. Even lower values are probably not what you want in most cases. Fixed velocity values can be useful for playing organ sounds on an external module.

Note that the setting you select here has no effect when the "Note" parameter is set to "Off", because note numbers are always transmitted along with a velocity value (any value different from "0" also means "start playing this note"). Sending only a velocity value without specifying the note to which it applies doesn't make sense.

■ Expression

(Off, Bellows, Pedal) You probably noticed that the strength/speed with which the bellows is pressed or pulled influences the sound – which corresponds to an acoustic accordion's response.

This effect can be translated into a MIDI message most external instruments understand. The MIDI standard provides a message ("control change") for remotely controlling the volume of an external instrument: CC11. It is chiefly used for expression purposes (similar to the way in which a guitarist or organ player uses a volume pedal).

If you want to use the bellows for expressive purposes, set this parameter to "Bellows".

If you don't (because the external instrument is too sensitive and therefore changes its volume too often), select "Off".

If you purchased an optional EV-5 expression pedal, which you connected to the FBC-7's EXPRESSION PEDAL socket, you can also control the relative volume by foot. In that case, set this parameter to "Pedal".

■ AfterT (only for the Treble and Orchestra sections)

The Master bar generates aftertouch messages. Aftertouch is usually used for temporary changes to a sound's volume, timbre or pitch (this needs to be set on the receiving instrument). Used right, it can be a very powerful expressive tool.

The downside is, however, that aftertouch messages usually represent a massive amount of data, which makes it a lot harder to find the MIDI messages you

want to edit on an external sequencer, not to mention the fact that your song files become a lot heavier than they need to be.

Besides, many sounds/parts on external MIDI instruments are set to ignore these messages by default, so that you would end up sending a lot of information for nothing. That is why we recommend setting this parameter to "Off", and only select "On" if you really mean to take advantage of the Master bar's aftertouch capability.

Archiving your settings via MIDI (Bulk Dump)

MIDI can also be used for transmitting parameter and memory settings from the FR-7b/FR-5b to an external MIDI device and back.

Archiving your settings with a sequencer

The Bulk Dump parameters allow you to transmit the contents of one or all Set memories to a second FR-7b or FR-5b, an external sequencer, computer or data filer. Sending these data to other instruments (a digital piano, synthesizer, etc.) does nothing at all. That's because the setting data are special MIDI messages only one model (or model family) understands. They are called "system exclusive messages" – or "SysEx" for short. By transmitting them to a second FR-7b/FR-5b, however, you can "copy" the settings of your V-Accordion to that of a friend, colleague or student.

A sequencer or data filer does not know what the messages mean and so does not use them in any way. It merely records them. Afterwards, you only need to start playback on your sequencer or data filer to transmit the settings back to the FR-7b/FR-5b.

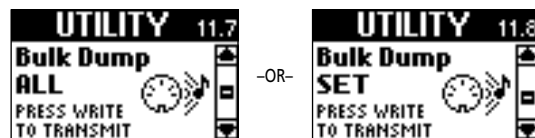
Note: The FR-7b/FR-5b's SysEx data are fully compatible with the FR-7/FR-5 (piano keyboard versions).

- (1) Connect the FBC-7's MIDI OUT socket to the sequencer's/computer's MIDI IN socket.
See page 82 for a connection diagram. Obviously, you also need to connect the FR-7b/FR-5b to the FBC-7.
Note: Your computer needs to be equipped with (or connected to) an appropriate MIDI interface.
- (2) If you are working with a computer, launch the sequencer program.
- (3) Create or select an empty song.
- (4) Create (or select) an empty track.
The track's MIDI channel is of no importance here. You need to ensure, however, that the sequencer/program accepts SysEx data. If necessary, switch off the MIDI filter in question (see the manual of your sequencer or software).
- (5) Switch off the sequencer's MIDI Echo (or Soft Thru) function.
If that's too tedious, disconnect the MIDI cable from the sequencer's/computer's MIDI OUT socket. This is to ensure that the sequencer doesn't transmit the SysEx data back to the FR-7b/FR-5b right away, which might cause problems.

- (6) Activate the record-ready mode of the track you selected/created.
Note: It would be wise not to change the tempo on your sequencer/in the software. By default, most sequencers/programs use the tempo value ♩ = 120. Leave it that way (or else do whatever is necessary to ensure that the new tempo value is stored along with the data).
- (7) If you want to archive the settings of just one Set (11.8 Bulk Dump SET), select it on the FR-7b/FR-5b using the SET ◀▶ buttons.
- (8) On the FR-7b/FR-5b, press and hold the [EXIT/JUMP] button, then press register [11].

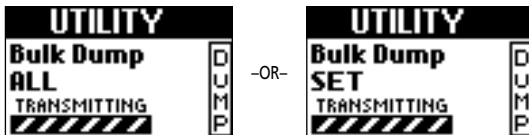


Depending on whether you want to archive all Sets or just the settings of one Set, either press register [7] (Bulk Dump ALL) or [8] (Bulk Dump SET). The display now responds with:



- (9) Start recording on your sequencer/computer. Wait until the count-in (one or two measures) is finished, then...
- (10) Press [MENU/WRITE] on the FR-7b/FR-5b to start the transmission of the bulk data.

The display now responds with:



Press **[EXIT/JUMP]** if you do not want to transmit your settings after all.

- (11) Wait until the following message appears, then stop recording on your sequencer.



- (12) Name the "song" (it may only contain data so far) and save it to hard or floppy disk.
See below for how to transmit the settings back to the FR-7b/FR-5b at a later stage.

Sending Bulk data (back) to the FR-7b/FR-5b

The FR-7b/FR-5b not only sends SysEx data to external devices (see above), it also receives them. In fact, the FR-7b/FR-5b accepts several kinds of Bulk data:

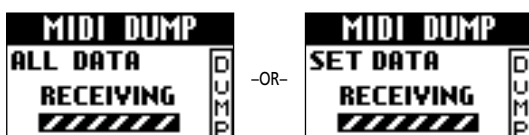
- Entire sets that overwrite the contents of all internal Set memories. If you don't want to lose the settings that currently reside in the FR-7b/FR-5b's internal memories, archive them first using the procedure described on page 92.
- One Set: in this case, you can choose where to save the received Set data.

- (1) Connect the FBC-7's MIDI IN socket to the sequencer's/computer's MIDI OUT socket.
See page 82 for a connection diagram. Obviously, you also need to connect the FR-7b/FR-5b to the FBC-7.
Note: Your computer needs to be equipped with (or connected to) an appropriate MIDI interface.
- (2) If you are working with a computer, launch the sequencer program.
- (3) Load the song that contains the data you want to transmit.
- (4) On your sequencer, perform all necessary actions to ensure that it transmits SysEx data.
See its manual for details.

Note: If you are about to transmit a group of 40 Sets ("ALL") to the FR-7b/FR-5b, ask yourself whether you have archived the Set data that currently reside in the internal memories, or whether it is OK to overwrite them. Be aware that by proceeding with an "ALL DATA" file, you replace all internal settings.

- (5) Start playback of the data file or song on your sequencer, etc.

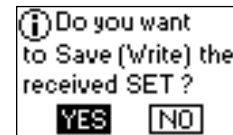
The display now responds with:



Note: When transmitting an "ALL DATA" file to the FR-7b/FR-5b, wait until the "WRITE COMPLETE" message appears before stopping playback on your sequencer. Failure to do so will render your FR-7b/FR-5b inoperable. If that happens, you need to initialize it (see "Restoring the factory defaults" on p. 97).

- (6) Stop playback of your sequencer.

If you transmitted one Set to the FR-7b/FR-5b, the display now responds with:

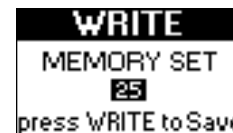


This message means that the corresponding data currently reside in the FR-7b/FR-5b's temporary memory but that you need to save them if the FR-7b/FR-5b should remember them. A Set received in this way can be used until you select another (internal) Set. If you think you'll need the Set at a later stage, be sure to save it. If you only need it temporarily, you can select "NO". The FR-7b/FR-5b will then use the sound (and MIDI) settings received from the computer, but they will be "forgotten" when you switch the FR-7b/FR-5b off or select another Set.

"YES" is selected by default. If you want to save your changes, proceed as described below. (If you don't, turn the **[DATA/ENTER]** knob to select "NO", then press the **[DATA/ENTER]** knob.)

To save the Set data:

- (7) Press the **[DATA/ENTER]** knob. The display now responds with:



- (8) Rotate the **[DATA/ENTER]** knob to select the target memory for the received Set (1~40).
Be aware that the data in the memory you select here will be overwritten.
- (9) Press the **[WRITE]** button to save your changes. The display briefly shows a confirmation:



In some cases, the display may show the following message. It means that the SysEx data were incomplete or that the checksum was missing or wrong.

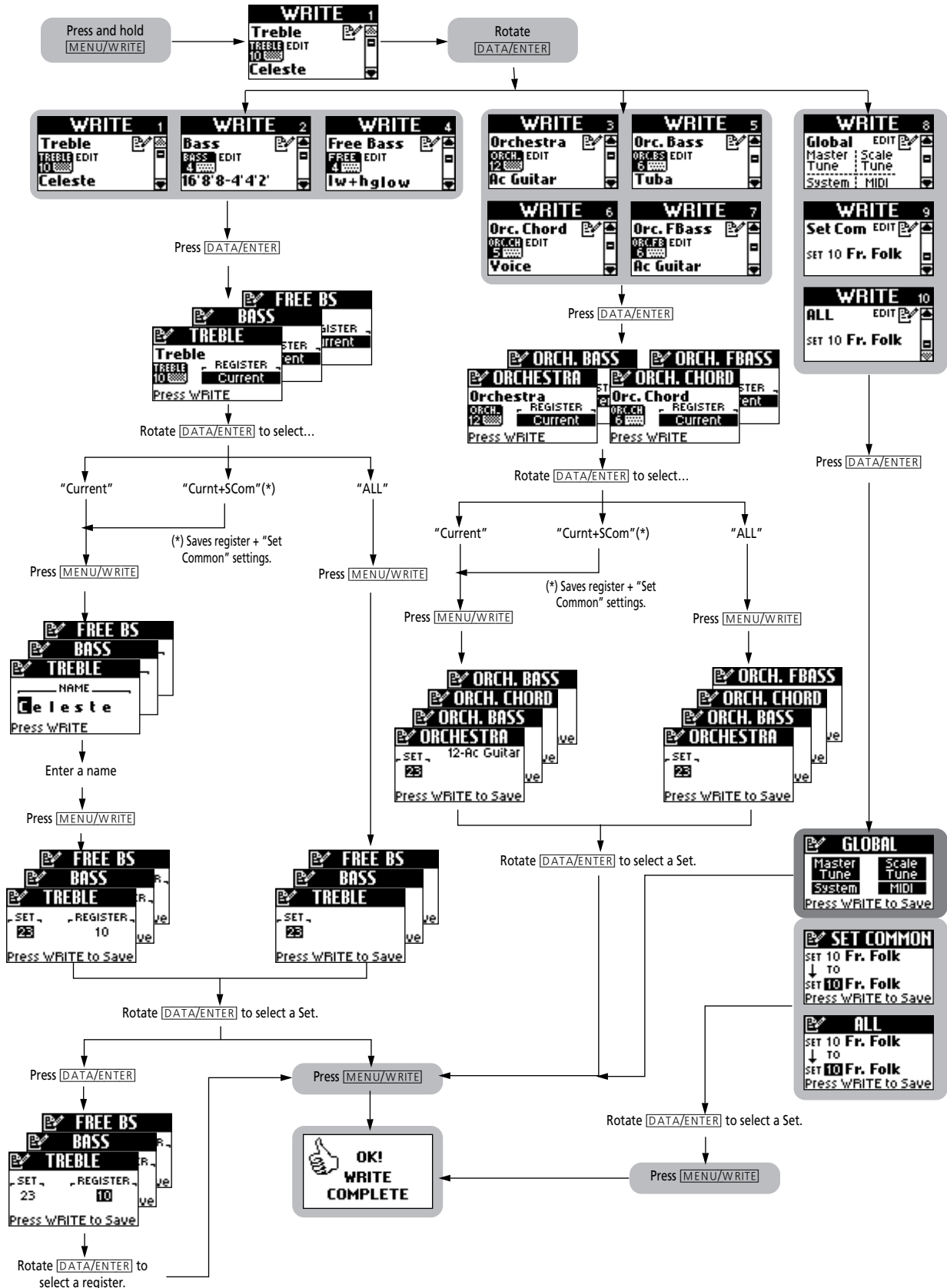


Press **[EXIT/JUMP]** to return to the Main page, reduce the speed at which the data are transmitted by your sequencer, and try again. If that does not help, check the data file you are transmitting.

8. Miscellaneous functions

Saving settings using the WRITE function

All WRITE functions are discussed where it makes sense to mention them. That's why we'll stick to some general remarks here.



Using WRITE

- Press and hold the **MENU/WRITE** button until the following page appears:



Sections whose settings you changed without saving them are flagged with an "EDIT" message.

Note: If there is no "EDIT" message, there is nothing that needs to be saved. Consequently, you can leave this page by pressing **EXIT/JUMP** again.

- Rotate the **DATA/ENTER** knob to select the section whose settings you want to save.
The possibilities are: Treble, Bass, Orchestra, Free Bass, Orc. Bass, Orc. Chord, Orc. FBass, Global, Set Com, ALL. "Set Com" allows you to save the "Common" parameters of the current Set. "ALL" saves all registers and the "Set Common" parameters – but not the "Global" settings.

The GLOBAL page shows all parameters that are saved to the Global memory (there is only one such memory): the Master Tune and Scale Tune parameters of the TUNING group (the Transpose setting is never saved) as well as the SYSTEM and MIDI groups.

- Press the **DATA/ENTER** knob to jump to the page of the selected function.
Note: To save the Global settings, skip to step (10). For the Orchestra, Orchestra Bass and Set Common parameters, skip to step (7).

- Use the **DATA/ENTER** knob or the **UP/DOWN** buttons to specify what you want to save:

Current: The register you are currently editing.

Current + SCom: The register you are currently editing as well as the Set Common settings (page 64).

ALL: All registers. This is probably the safest bet, because it ensures that no register will be forgotten. (It is perfectly possible to edit several registers without saving them.)

- Press the **DATA/ENTER** knob to confirm your selection.
- If necessary, change the name of the register you have just edited. (This is only possible on the three "accordion" pages: TREBLE, BASS and FREE BS.)
 - Select the character position (indicated by a dark square) by pressing **UP** (previous character), **DOWN** (next character) or the **DATA/ENTER** knob (next character).
 - Turn the **DATA/ENTER** knob to select the desired character.

- Press **UP** and **DOWN** simultaneously to erase the currently selected character (it will become a space). Example: To replace the "s" in "Celeste" with a space ("Cele te"), position the cursor on the "s" and simultaneously press **UP/DOWN**.
- To insert a space before the currently selected character and push all subsequent characters one position to the right, select the character that should follow the space, then press and hold **UP**. Example: To insert a space before the "s" in "Celeste" (creating the name "Cele ste"), position the cursor on the "s" and hold down **UP** for a while.
Note: If the name already contains 8 characters ("Bandoneo"), the last character is erased (example: "Band one").
- To delete the character indicated by the cursor and move subsequent characters one position to the left, select it (example: "Celeste") and press and hold **DOWN** ("Celete").

- Press the **MENU/WRITE** button.
- Use the **DATA/ENTER** knob or the **UP/DOWN** buttons to select the Set that should contain your changed version(s).
Change this setting only if you do *not* want to save your settings to the current Set.

Note: For the Orchestra, Orchestra Bass and Set Common parameters, skip to step (10).

- (Only for "Current":)
Press the **DATA/ENTER** knob to select "REGISTER", then turn it to select the number of the register where you want to save your edited version (1~7).
- Press the **MENU/WRITE** button to save your changes. The display briefly shows a confirmation:

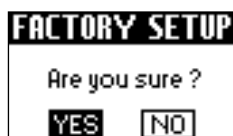


- Press the **EXIT/JUMP** button to return to the Main page.

Restoring the factory defaults

You can reset the FR-7b/FR-5b to its factory settings, which means that your own Sets and Global settings are replaced by the settings the FR-7b/FR-5b contained when you first got it. You may wish to archive your settings before initializing the FR-7b/FR-5b (see p. 92).

- (1) Switch on the FR-7b/FR-5b while holding down the **MENU/WRITE** button.
The display changes to:



- (2) Press the **DATA/ENTER** knob to initialize the FR-7b/FR-5b ("YES" is selected by default).
If you decide against initializing the FR-7b/FR-5b, rotate the **DATA/ENTER** knob to select "NO", then press it.

If you selected "YES" and pressed the **DATA/ENTER** knob, the display now briefly confirms that your V-Accordion has been initialized:



The FR-7b/FR-5b now sounds and behaves like when you first bought it.

Troubleshooting

This section provides an overview of points to check and actions to take when the FR-7b/FR-5b does not function as you expect. Feel free to contact your Roland dealer if your issue remains unsolved after reading through this section.

The screen is difficult or impossible to read

If you have trouble reading the information in the display, change the "10.1 LCD Contrast" setting (page 69).

No sound

■ **Did you turn the VOLUME knob all the way to the small dot?**

Set it to a higher value.

■ **Did you turn the BALANCE knob all the way to one side?**

Change its setting and try again.

■ **Are you moving the bellows while triggering accordion sounds?**

The Treble and Bass/Free Bass sections only produce sound if you move the bellows while playing notes (like on an acoustic accordion).

■ **Did you connect the FR-5b to an external amplifier?**

The FR-5b doesn't contain internal speakers and therefore needs to be connected to an external amplification system. Alternatively, you can use a pair of headphones.

■ **Did you connect the audio cables to the correct sockets?**

If so, check whether the external amplifier, mixing console, etc., is switched on. Also check the cables for possible damage.

No power

■ **Did you remove the supplied (FR-7b) battery?**

Be sure to install it again. Alternatively, connect the FR-7b to the supplied FBC-7.

■ **Did you install the cover of the FR-7b/FR-5b's battery compartment?**

You need to install it before you can switch on the FR-7b/FR-5b (page 38). Be sure to tighten the screws all the way.

■ **Did you connect the FR-5b to the FBC-7?**

If you did not purchase an optional battery, the FR-5b needs to be powered by the FBC-7.

The FR-7b/FR-5b does not respond to your playing

■ **You may have selected "Ext. Seq. Playback" mode for one or all sections.**

Those sections therefore only respond to MIDI messages received from other instruments. Switch off the "Ext. Seq. Playback" function (page 85).

■ **Are you moving the bellows while triggering accordion sounds?**

The Treble and Bass/Free Bass sections only produce sound if you move the bellows while playing notes (like on an acoustic accordion).

The chord rows of the bass keyboard don't play accordion sounds

■ **You probably switched on the Orchestra Chord section.**

Switch it off (see p. 29).

Certain parameters cannot be selected

■ **Is the FR-7b/FR-5b currently in "Easy" mode?**

In that mode, only a basic set of parameters is available. Switch to "Full" mode (page 19).

■ **Does the FR-7b/FR-5b display a message to inform you that a parameter or section is not available?**

If so, the section is off, which is why its parameters cannot be edited. Switch the section on and try again.

One section sounds off (flat)

Did you set "1.5 Scale Assign" to just one section? Set it to "ALL" and try again (page 43).

Issues related to the bass buttons

■ **Why do the bass buttons only provide three chord rows?**

Because you set the "Bass & Chord Mode" parameter to "3 Bs Rows" (page 70). Set it to "2 Bs Rows".

■ **Why can't I play diminished chords using the bass buttons?**

Because you set the "10.5 Bass & Chord Mode" parameter to "3 Bs Rows" (page 70). Set it to "2 Bs Rows".

■ **In Free Bass mode, the bass buttons play the wrong notes.**

You may have changed the "Free Bass Mode" setting. Be sure to select the system that best suits your playing style (page 71).

■ **In Free Bass mode, only half the buttons play notes.**

That's because the "STATUS" entry of the "4.2 Register" parameter uses the same ("High" or "Low") setting for both reeds (or "Off" for one of them and "High"/"Low" for the other). Choose complementary settings ("High" for one, "Low" for the other) or set at least one to "Whole" (page 54).

Why does the Orchestra mode change when I press a given Treble register?

Because you established a Link with the Treble section and also specified a mode using the "MODE" entry of the "2.13 Orchestra Link" parameter. Set it to "---" (page 48).

My settings have changed

■ Did you establish a "Link"?

If you change the Bass, Free Bass, and/or Orchestra settings without saving them, and then select another Treble register while the Link function is on, the FR-7b/FR-5b selects different settings for the linked sections. Your changes are therefore lost.

■ Did you save the "SET COMMON" parameters?

Doing so only saves the general Set parameters, not the settings of the various registers.

■ Did a "Noise" setting change?

Whenever you select "ALL" for "2.1 Reed Type", and set a different reed type, the "2.5 Valve Noise" setting is automatically adapted to that reed type. You may have to change it afterwards if you wish to use a different noise type.

Whenever you select "ALL" for "Reed Type" and set a different reed type, the "3.5 Reed Growl" setting is automatically adapted to that reed type. It would therefore be a good idea to first select the reed type and only then change the growl type. The same applies to "4.4 Button Noise" and "Reed Type".

■ Did the effects parameters change unexpectedly?

Each effects processor (Reverb, Chorus, Delay) has a "Macro" parameter (pages 65 and 67) that not only recalls a different effect type, but also appropriate settings for that type. If you select another Macro, the settings for the previous effect type are lost.

MIDI-related issues

■ I selected the "Ext. Seq. Playback" mode, yet the section in question does not respond to MIDI messages.

Does the section's MIDI channel correspond to the transmit channel of the external device (page 84)? Do not select "Off" for a section that should receive MIDI messages.

■ What MIDI channels does the FR-7b/FR-5b use by default?

See the table on page 83.

■ The MIDI channel setting is correct, yet the section in question does not transmit notes.

You probably set its "Note" parameter to "Off" (page 90).

■ The FR-7b/FR-5b seems to transmit the wrong bank select and program change numbers.

This is not a malfunction. When you set the "12.2 Ext. Seq. Playback" parameter to "On" (see p. 85), the FR-7b/FR-5b's registers no longer transmit the sound selection clusters you programmed (see p. 90).

Instead, they transmit their "Std" values. This will return to normal operation when you set "12.2 Ext. Seq. Playback" back to "Off".

■ The FR-7b/FR-5b does not change sounds when my sequencer transmits program change numbers, even though I used the FR-7b/FR-5b to send those numbers to the sequencer.

You can send program change numbers to an external instrument that lie outside the range of the FR-7b/FR-5b's registers (1~14 for Treble, 1~7 for Bass/Free Bass/Orch. Bass/Orch Chord/Orch Free Bass, 1~22 for Orchestra). Such "excess" program numbers are ignored by the FR-7b/FR-5b when you transmit them back (from a sequencer, for example).

■ I cannot find the MIDI sockets on my FR-7b/FR-5b.

The FR-7b/FR-5b does not have MIDI sockets. You need to connect it to the FBC-7 using the supplied 19-pin cable (page 82).

■ The FR-7b/FR-5b does not receive the MIDI messages I recorded for it.

That's because the "Ext. Seq. Playback" parameter of the sections in question is set to "Off". You need to activate it if you wish to use the FR-7b/FR-5b as MIDI tone generator (page 85).

■ All the FR-7b/FR-5b's settings have changed.

You probably transmitted a "Bulk" file containing 40 Sets ("ALL") to the FR-7b/FR-5b. The settings of that file have replaced your own settings. We regret that your settings cannot be restored. Be sure to archive the internal settings before transmitting bulk data to the FR-7b/FR-5b (page 92).

■ The external sequencer keeps displaying a "MIDI buffer overflow" message

The bellows sends too many data at once (its data are transmitted on five channels simultaneously). Select a different setting ("Medium" or "Low"). This leads to a coarser resolution, and maybe to audible steps, but at least, your sequencer will be able to record the data. See "Solving MIDI buffer problems" on p. 88.

While saving data, the FR-7b/FR-5b displays the following message



It means that the data could not be saved in the FR-7b/FR-5b's internal memory. Press **[EXIT/JUMP]** to leave this page. **WARNING:** this will take you to the Main page. **Do not** select other registers or Sets. First try to save your settings using the WRITE function (page 95). If the above message appears again, contact your Roland dealer to have your FR-7b/FR-5b's memory checked.

At power-on, the FR-7b/FR-5b displays the following message



The FR-7b/FR-5b was switched off while it was saving data (possibly because the battery was depleted, or because of a power failure). When you switch it on again, it attempts to recover everything it can. It may, however, also load the data of the corresponding factory set. In any case, you will have to program some or all settings again.

Specifications

■ Keyboards

Right hand: 92 buttons, with velocity (aftertouch via Master bar)

Left hand: 120 velocity-sensitive bass buttons,
Modes: Standard, Free Bass, Orch.Bass, Orch.Chord, Orch.
Free Bass

Treble button modes: C-Griff Europe, C-Griff 2, B-Griff
Bajan, B-Griff Fin, D-Griff 1, D-Griff 2

Free Bass modes: Minor 3rd, Bajan, 5th, North Europe,
Finnish

Bass & Chord modes: 2 Bs Rows, 3 Bs Rows (A-7th, A-5dim,
B-7th, B-5dim), 3 Bs Row Bx

■ Bellows

Real pneumatic detection of bellows pressure (high-resolution pressure sensor)

■ Sound source

Max polyphony: 128 voices

Wave ROM: 32MB of waveforms

Tones: 40-user programmable accordion Sets, each one including: 14 Treble registers, 7 Bass registers, 7 Free Bass registers, 7 Orchestra Bass registers, 7 Orchestra Chord registers, 7 Orchestra Free Bass registers, 22 Orchestra sounds

Treble reed footages: 7

Bass reed footages: 5

Chord reed footages: 3

Free Bass footages: 2

■ PBM (Physical Behavior Modeling)

Noises: stopping-reed growl, closing valve noise, left button noise

Individual reed simulation: hysteresis threshold, Expression curve, pressure-variant filter, pressure-variant pitch deviation

Reed sound wave switching: by bellows acceleration, by note repetition speed

■ Musette tuning

Micro tuning presets: 16 (Off, Dry, Classic, F-Folk, American L/H, North Europe, German L/H, D-Folk L/H, Alpine, Italian L/H, French, Scottish)

■ Effects

Reverb: 8 types, Chorus: 8 types,

Delay: 10 types, Rotary for orchestral organ sounds (slow/fast)

"Cassotto" and "Sordina" simulation

■ Panel controls

Knobs: Volume, Treble/Bass balance, Reverb, Chorus, Delay,
Encoder: DATA/ENTER

Panel Switches: 14 Treble registers + Master* + Orchestra,
7 Bass registers

Navigation switches: UP/DOWN, MENU/WRITE, EXIT/JUMP

Other switches: SET UP/DOWN, SORDINA ON/OFF, POWER

(*) The Master bar can also generate aftertouch messages.

■ Display

48 x 84 graphic, backlit LCD

■ Rated power output (FR-7b)

2 x 25W RMS

■ Speakers (FR-7b)

2 x 10cm speakers (neodymium transducer magnets),
2 tweeters

■ Others

Connectors on instrument: HEADPHONE socket (stereo),
OUTPUT sockets (stereo), multi-connector (towards external FBC-7 power supply/footswitch unit/battery charger)

Power Supply: rechargeable Ni-Mh battery pack (24V-4500mAh) (optional for FR-5b)

External FBC-7 power supply/battery charger: AC 117 V, AC 230 V, AC 240 V (50/60 Hz), AC 220 V (60 Hz)

Power consumption: 96W

Dimensions (mm): 405 (H) x 506 (W) x 270 (D) mm

Weight: FR-7b: 11.7kg (without straps, with battery),

FR-5b: 9.5kg (without straps, without optional battery)

■ Supplied accessories

External FBC-7 power supply/battery charger: 5 programmable foot switches (SET UP/DOWN, REGISTER UP/DOWN, SUSTAIN), multi-core connector cable (towards accordion), expression pedal socket, MIDI IN/OUT/THRU sockets, OUTPUT sockets (L/Mono, R), connector for charging a battery, AC inlet

Owner's Manual

Power cable

Reference caps for the Treble & Bass buttons

19-pin multicore cable

Accordion cloth

Straps

Battery (FR-7b)

■ Options

Accordion soft bag

Battery (for FR-5b, spare part for FR-7b)

Pedal Board Soft Bag

Note: In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

Parameter list

VOLUME AND EFFECT		
BALANCE		The default value corresponds to the current physical position of potentiometer. The central position is 0. The values range from 0 to 64 regardless of whether the arrow symbol indicates BASS or TREBLE.
REVERB		The default value corresponds to the current physical position of potentiometer. Range: 0~127
CHORUS		The default value corresponds to the current physical position of potentiometer. Range: 0~127
DELAY		The default value corresponds to the current physical position of potentiometer. Range: 0~127
FULL MODE MENU (all parameters)		
1. TUNING		
1.1 Master Tune*	Value	415.3Hz~440.0Hz~466.2Hz
1.2 Transpose	Value	F# -6, G -5, Ab -4, A -3, Bb -2, B -1, C 0, C#1, D2, Eb3, E4, F5
1.3 Scale*	Type	Equal (Off), User 1, User 2, User 3, Arabic1, Arabic2, Just Major, Just Minor, Pythagorean, Mean-Tone, Werckmeister, Kirnberger
	Key	C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B
1.4 Scale Edit*	Type	User 1, User 2, User 3
	Tune Note	C, C#, D, Eb, E, F, F#, G, Ab, A, Bb, B
	Tune Value	-64~0~63 for each note
1.5 Scale Assign*	Part	Treble, Orchestra, Treb&Orch, Bass&Chord, ALL
2. TREBLE EDIT		
2.1 Reed Type	Foot	ALL, 16', 8', 8'-, 8'+, 4', 5-1/3', 2-2/3'
	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trikitixa
2.2 Register	Foot	16', 8', 8'-, 8'+, 4', 5-1/3', 2-2/3'
	Status	Off, On, On-Cassotto
2.3 Reed Volume	Value	ALL, 16', 8', 8'-, 8'+, 4', 5-1/3', 2-2/3'
	Level	Off, -40~Std~40
2.4 Treble Octave	Value	-1, 0, 1
2.5 Valve Noise	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trikitixa
	Level	Off, -40~Std~40
2.6 Musette Detune	Type	Off, Dry, Classic, F-Folk, American_L, American_H, North_Eur, German_L, D-Folk_L, Italian_L, German_H, Alpine, Italian_H, D-Folk_H, French, Scottish
2.7 Bellows Detune	Type	Off, Low, Standard, High
2.8 Reverb Send	Level	0~127
2.9 Chorus Send	Level	0~127
2.10 Delay Send	Level	0~127
2.11 Aftertouch Pitch	Mode	Off, 1/4 Down, 1/2 Down, 1/4 Up, 1/2 Up Pitch
2.12 Bass Link	Bass	No Link, Bass 1~Bass 7, Free 1~Free 7
	Orc.Bass	No Link, Acoustic, Bowed, Fingered, Fretless, Picked, Tuba, TubaMix
2.13 Orchestra Link	Register	No Link, 1A Trombone, 1B Trumpet, 2A TenorSax, 2B AltoSax, 3A Clarinet, 3B Oboe, 4A Harmonica, 4B MuteHarm, 5A Violin, 5B Pizzicato, 6A Flute, 6B PanFlute, 7A HighLand, 7B Zampogna, 8A PercOrgan, 8B JazzOrgan, 9A RotOrgan, 9B TremOrg, 10 ScatVoice, 11 Mandolin, 12 AcGuitar, 13 AcPiano
	Mode	----, Solo, Dual, Low, High, Solo M, Dual M, Low M, High M
2.14 Orchestra Chord Link	Chord	No Link, CHD-Trombone, CHD-TenorSax, CHD-Clarinet, CHD-TremOrg, CHD-Voice, CHD-AcGuitar, CHD-Ac Piano
	FreeBS	No Link, FBS-Trombone, FBS-Clarinet, FBS-Oboe, FBS-Flute, FBS-PercOrgan, FBS-AcGuitar, FBS-AcPiano
2.15 Treble MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC 32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal], AfterT. [On, Off]

3. BASS EDIT		
3.1 Reed Type	Foot	ALL, 16', 8', 8'-4', 4', 2'
	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
3.2 Register	Foot	16', 8', 8'-4', 4', 2'
	Status	Off, Bass, Chord, Bass&Chord Note: With the 16' and 8' feet selected the "Status" can only be either "Off" or "Bass". With the 8'-4', 4' and 2' feet selected the "Status" can only be "Off", "Chord" or "Bass&Chord".
3.3 Reed Volume	Value	ALL, 16', 8', 8'-4', 4', 2'
	Level	Off, -40~Std~40
3.4 Button Noise	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
	Level	Off, -40~Std~40
3.5 Reed Growl	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
	Level	Off, -40~Std~40
3.6 Bellows Detune	Type	Off, Low, Standard, High
3.7 Reverb Send	Level	0~127
3.8 Chorus Send	Level	0~127
3.9 Delay Send	Level	0~127
3.10 Bass MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal]
3.11 Chord MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal]
4. FREE BASS EDIT		
4.1 Reed Type	Foot	ALL, 16', 8'
	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
4.2 Register	Foot	16', 8'
	Status	Off, Low, High, Whole
4.3 Reed Volume	Foot	ALL, 16', 8'
	Level	Off, -40~Std~40
4.4 Button Noise	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
	Level	Off, -40~Std~40
4.5 Reed Growl	Type	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
	Level	Off, -40~Std~40
4.6 Bellows Detune	Type	Off, Low, Standard, High
4.7 Reverb Send	Level	0~127
4.8 Chorus Send	Level	0~127
4.9 Delay Send	Level	0~127
4.10 Free Bass MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal]
5. ORC BASS EDIT		
5.1 Lowest Note	Lowest Note	E=28, F=29, F#=30, G=31, Ab=32, A=33, Bb=34, B=35, C=36
5.2 Orc Bass Release Time	Release Time	0~63
5.3 Orc Bass Volume	Level	Off, -40~Std~40
5.4 Reverb Send	Level	0~127
5.5 Chorus Send	Level	0~127
5.6 Delay Send	Level	0~127

5.7 Orc Bass MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal]
6. ORCHESTRA EDIT		
6.1 Orchestra Octave	Value	-1~0~1
6.2 Orchestra Volume	Level	Off, -40~Std~40
6.3 Bellows Detune	Type	Off, Low, Standard, High
6.4 Reverb Send	Level	0~127
6.5 Chorus Send	Level	0~127
6.6 Delay Send	Level	0~127
6.7 Aftertouch Pitch	Mode	Off, 1/4 Down, 1/2 Down, 1/4 Up, 1/2 Up
6.8 Orchestra MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal], AfterT. [On, Off]
7. ORC CHD EDIT		
7.1 Orc Chord Volume	Level	Off, -40~Std~40
7.2 Reverb Send	Level	0~127
7.3 Chorus Send	Level	0~127
7.4 Delay Send	Level	0~127
7.5 Orc Chord MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal]
8. ORC FBS EDIT		
8.1 Orc FreeBs Volume	Level	Off, -40~Std~40
8.2 Reverb Send	Level	0~127
8.3 Chorus Send	Level	0~127
8.4 Delay Send	Level	0~127
8.5 Orc FreeBs MIDI TX	Message & value	Note [On, Off], Octave [-3~0~3], CC 00 [Std, Off, 0~127], CC32 [Std, Off, 0~127], PC [Std, Off, 1~128], Volume [Off, 0~127], Panpot [Off, 0~127], Reverb [Off, 0~127], Chorus [Off, 0~127], Velocity [On, 1~127], Express [Off, Bellows, Pedal]
9. SET COMMON		
9.1 Reverb Macro Type	Type	Room1, Room2, Room3, Hall1, Hall2, Plate, Delay, Panning Dly
	Level	0~127
9.2 Reverb Parameters	Parameters	Character [0~7], Pre-LPF [0~7], Time [0~127], Level [0~127], DlyFback [0~127], Pre-DlyT. [0~127]
9.3 Chorus Macro Type	Macro Type	Chorus1, Chorus2, Chorus3, Chorus4, FBackChr, Flanger, ShortDelay, ShortDlyFB
	Level	0~127
9.4 Chorus Parameters	Parameters	Pre-LPF [0~7], Level [0~127], Feedback [0~127], Delay [0~127], Rate [0~127], Depth [0~127], Chr>Rev [0~127], Chr>Dly [0~127]
9.5 Delay Macro Type	Type	Delay1, Delay2, Delay3, Delay4, PanDelay1, PanDelay2, PanDelay3, PanDelay4, Delay>Rev, PanRepeat
	Level	0~127
9.6 Delay Parameters	Parameters	Pre-LPF [0~7], Level [0~127], Time L(%) [4%~500%], Time C(ms/s) [0.1~1000], Time R(%) [4%~500%], Level L [0~127], Level C [0~127], Level R [0~127], Feedback [-64~0~63], Dly>Rev [0~127]
9.7 Name	Characters	See the character table below.
9.8 Master Bar Recall	Register	1~14
9.9 Icon	Bitmap	1~40, preset
10. SYSTEM		
10.1 LCD Contrast*	Value	1~7 (Default setting: 5)
10.2 Parameter Access	Mode	Easy, Full
10.3 Bellows Curve*	Type	Fixed Low, Fixed Med, Fixed High, X-Light, Light, Standard, Heavy, X-Heavy
10.4 Pedal Controller*	Switch	1~5
	Assign	Set Up, Set Down, Regist Up, Regist Dwn, Treble Sust, Bass Sust, Chord Sust, Orch.Sust, OrchBs Sust, OrchCh Sust, OrchFB Sust, Orch.On/Off, Start/Stop, Intro, Fill Up, Fill Down, Ending, Set 1~40, Register 1~14 independent for each switch

10.5 Bass & Chord Mode*	Type	2 Bs Rows, 3 Bs Rows A-7th, 3 Bs Rows A-5dim, 3 Bs Rows B-7th, 3 Bs Rows B-5dim 3 Bs Rows Bx
10.6 Free Bass Mode*	Type	Minor 3rd, Bajan, Fifth, N.Europe, Finnish
10.7 Stereo Width*	Type	-63~-1, Full
10.8 Auto Power OFF*	Type	Disabled, 10 min., 15 min., 20 min.
10.9 Startup*	Type	Set [1~40], Bass Link [On/Off], Orch Link [On/Off],
	Assign	1~40 only for Set type, On/Off
10.10 Startup Name*	Name	8 characters [_____ default]
10.11 Orchestra Touch	Value	Fixed Low, Fixed Med, Fixed High, Low, Medium, High, Fixed L+Bellows, Fixed M+Bellows, Fixed H+Bellows, Bellows
10.12 Orch. Bs&Ch Touch	Value	Fixed Low, Fixed Med, Fixed High, Low, Medium, High, Fixed L+Bellows, Fixed M+Bellows, Fixed H+Bellows, Bellows
10.13 Start/Stop MIDI TX	Value	Off, On
10.14 Treble Release T.	Value	-64~0~63
10.15 Treble Mode	Type	C Griff Europe, C Griff 2, B Griff Bajan, B Griff Fin, D Griff 1, D Griff 2
11. UTILITY		
11.1 Battery Status	Adapter, Recharging, NO BATTERY	
11.2 Copy ALL Effects	From	Set 1~40
	To	Set 1~40
11.3 Copy Reverb	From	Set 1~40
	To	Set 1~40
11.4 Copy Chorus	From	Set 1~40
	To	Set 1~40
11.5 Copy Delay	From	Set 1~40
	To	Set 1~40
11.6 Copy SET	From	Set 1~40
	To	Set 1~40
11.7 Bulk Dump ALL	Press WRITE to transmit	
11.8 Bulk Dump SET	Press WRITE to transmit	
11.9 Restore SET	Factory Set 1~40	
11.10 Treble Reg. on current Set	Type	Reed ALL, Reed 16', Reed 8', Reed 8'-, Reed 8'+, Reed 4', Reed 5'-1/3', Reed 2'-2/3', Vol ALL, Vol 16', Vol 8', Vol 8'-, Vol 8'+, Vol 4', Vol 5'-1/3', Vol 2'-2/3', Noise, Noise Vol, MusDetune
	Value	Reed Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trititixa Vol Off, -40~Std~40
	Noise	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, OldItaly, TexMex, Trititixa
	Noise Vol	Off, -40~Std~40
	Detune	Off, Dry, Classic, F-Folk, American_L, American_H, North_Eur, German_L, D-Folk_L, Italian_L, German_H, Alpine, Italian_H, D-Folk_H, French, Scottish
11.11 Bass Reg. on current Set	Type	Reed ALL, Reed 16', Reed 8', Reed 8'-4', Reed 4', Reed 2', Vol ALL, Vol 16', Vol 8', Vol 8'-4', Vol 4', Vol 2', Noise, Noise Vol, Reed Growl, Growl Vol
	Value	Reed Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trititixa Vol Off, -40~Std~40
	Noise	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trititixa
	Noise Vol	Off, -40~Std~40
	Reed Growl	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trititixa
	Growl Vol	Off, -40~Std~40

Character table

16'	8'	8'-4'	4'	2'	(Only for Bass and Free Bass)				
	!	"	#	\$	%	&	<	>	*
+	-	.	/	0	1	2	3	4	5
6	7	8	9	:	;	<	=	>	?
@	A	B	C	D	E	F	G	H	I
J	K	L	M	N	O	P	Q	R	S
T	U	V	W	X	Y	Z	[\]
^	`	a	b	c	d	e	f	g	h
i	j	k	l	m	n	o	p	q	r
s	t	u	v	w	x	y	z		

11.12 FreeBass Reg. on current Set	Type	Reed ALL, Reed 16', Reed 8', Vol ALL, Vol 16', Vol 8', Noise, Noise Vol, Reed Growl, Growl Vol
	Value	Reed Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
		Vol Off, -40~Std~40
	Noise	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
	Noise Vol	Off, -40~Std~40
	Reed Growl	Bandoneon, I-Folk, I-Folk2, Classic, Cajun, Jazz, F-Folk, D-Folk, Organetto, F-Folk2, Classic2, Studio, Tradition, Steierische, Trikitixa
	Growl Vol	Off, -40~Std~40
12. MIDI		
12.1 RealTime RX-TX	Part	Treble (1), Bass/Free (2), Chord (3), OrcBass (5), Orchestra (4), Orc Chord (6), Orc FreeBs (7), Basic Ch (13), Control Ch (13) only TX
	RX-TX *	Off, 1~16 (can be set for each part)
12.2 Ext. Seq. Playback*	Part	Treble, Bass-Chord, Orchestra, ALL
	Value	On, Off (can be set for each part)
12.3 Bellows TX Resolution*	Value	High, Medium, Low
12.4 Bank for 'Send PC'*	PRG NUM	1~128, 129~256, 257~384, 385~512
	CC00	0~127
	CC32	0~127

(*) are Global parameters

Factory Sets

01 CONCERTO	11 CAJUN	21 SCOTTISH	31 FRANCE
02 CLASSIC	12 TEX MEX	22 IRISH	32 FRANCE Ac
03 JAZZ	13 OldPARIS	23 CELTIC	33 EMPTY
04 "I" FOLK (Italian Folk)	14 CiaoROME	24 XLowReed	34 EMPTY
05 "D" FOLK (German Folk)	15 DiatFOLK	25 HalfVALV	35 EMPTY
06 "F" FOLK (French Folk)	16 STUDIO	26 FUTURE	36 EMPTY
07 "SP" FOLK (Spanish Folk)	17 TRDITION	27 MUSETTE	37 EMPTY
08 BallROOM	18 BAROQUE	28 BASSOON	38 EMPTY
09 BANDNEON	19 ROMANTIC	29 MASTER	39 EMPTY
10 ALPINE	20 CONCERTN	30 EXAMPLES	40 V-Set

Demo Songs

#	DISPLAYED NAME*	SONG TITLE	PERFORMED BY
01	OldPARIS	Walking in old Paris by S. Scappini	Sergio Scappini
02	"I" FOLK	Carnival in Venice - Traditional	Sergio Scappini
03	BANDNEON	Passionate Red Rose by S. Scappini	Sergio Scappini
04	"D" FOLK	Bezaubernder Sinaklia by S. Scappini	Sergio Scappini
05	NAPLES	O Sole Mio - Traditional	Sergio Scappini
06	CLASSIC	Sonata in C Maj by D. Scarlatti	Sergio Scappini
07	ALPINE	Edelweiss by S. Scappini	Sergio Scappini
08	TEX MEX	Mexican Hat Dance - Traditional	Luigi Bruti
09	BAROQUE	Smells from Toccata by J. S. Bach	Sergio Scappini
10	CAPRICCIO	Capriccio 13 by N. Paganini	Sergio Scappini
11	GarageTNGO	Salvador by L. Bruti	Luigi Bruti
12	JAZZ	Scattered Jazz by S. Scappini	Sergio Scappini
13	BellwSHAKE	Figaro by G. Rossini	Sergio Scappini
14	CELTIC	Trinity Knots by L. Bruti	Luigi Bruti

#	DISPLAYED NAME*	SONG TITLE	PERFORMED BY
15	MUSETTE	Rêve d'amour by L. Bruti	Luigi Bruti
16	CAJUN	Sugar cane by L. Bruti	Luigi Bruti
17	DiatFOLK	To my beloved teacher by S. Scappini	Sergio Scappini
18	El Paso	Dancing in the courtyard by L. Beier	Ludovic Beier
19	Bal Musette	Sotto i ponti della Senna	Ludovic Beier
20	Mr Gus	Sunny Grasslands by L. Beier	Ludovic Beier
21	Django Swing	Hanging Around by L. Beier	Ludovic Beier
22	Cool Keys	Lights And Shadows Of The Moon by L. Beier	Ludovic Beier
23	Jazz Musette	Acrobat by L. Beier	Ludovic Beier
24	Islands	Islands by L. Beier	Ludovic Beier
25	Bop Swing	Fence Jumper by L. Beier	Ludovic Beier
26	Bolero	Passion In The Atmosphere by L. Beier	Ludovic Beier
27	9th Bossa	9th Bossa by Yoshiaki Sato	Yoshiaki Sato
28	Sng FarEast	Song from Far East by Yoshiaki Sato	Yoshiaki Sato
29	ZakZak Funk	Zak-Zak Funk by Yoshiaki Sato	Yoshiaki Sato
30	O&B 4Beat	O&B 4Beat by Yoshiaki Sato	Yoshiaki Sato

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Unauthorized use of the demo songs for purposes other than private enjoyment is a violation of applicable laws.

Note: The performance data of the demo songs are not transmitted to the MIDI OUT socket.

9. MIDI implementation

1. Received data

■ Channel Voice Messages

● Note off

Status	2nd byte	3rd byte
8nH	kkH	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)	
kk = note number:	00H-7FH (0-127)	
vv = note off velocity:	00H-7FH (0-127)	

● Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)	
kk = note number:	00H-7FH (0-127)	
vv = note on velocity:	01H-7FH (1-127)	

● Control Change

- The value specified by a Control Change message is not reset by a Program Change, etc.

○ Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH
n = MIDI channel number:	0H-FH (Ch.1-16)	
mm = Bank number MSB:	00H-7FH	
ll = Bank number LSB:	00H-7FH	

- Only for Free Bass.

○ Expression (Controller number 11)

Status	2nd byte	3rd byte
BnH	0BH	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)	
vv = Expression:	00H-7FH (0-127)	

- This adjusts the volume of a Part. It can be used independently from Volume (CC07) messages. Expression messages are used for musical expression within a performance, e.g., expression pedal movements, crescendo and decrescendo.

○ Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)	
vv = Control value:	00H-7FH (0-127)	00H-63H= Off/64H-7FH= On

○ Program Change

Status	2nd byte
CnH	ppH
n = MIDI channel number:	0H-FH (Ch.1-16)
pp = Program number:	00H-0DH: Treble Register 1-14 00H-15H: Orchestra Register 1-22 00H-06H: Bass/FreeBass/Orch.Bass/Orch Chord, Orch Free Bass Register 1-7 00H-27H: Set 1-40

○ Channel Pressure

Status	2nd byte
DnH	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)
vv = Channel Pressure:	00H-7FH (0-127)

■ System Realtime Messages

○ Active Sensing

Status
FEH
When Active Sensing is received, the FR-7b/FR-5b starts monitoring the intervals of all further messages. While monitoring, if the interval between messages exceeds 420 ms, the same processing will be carried out as when All Sounds Off, All Notes Off and Reset All Controllers are received, and message interval monitoring will be halted.

○ Start

Status
FAH
When an FA message is received from an external MIDI device such as sequencer, the FR-7b/FR-5b sends all necessary MIDI information for a song header set-up: Treble, Orchestra, Bass/Free, Orchestra Bass, sound setup.

■ System Exclusive Messages

Status	Data byte	Status
F0H	iiH, ddH,, eeH	F7H
F0H:	System Exclusive Message status	
ii = ID number:	An ID number (manufacturer ID) to indicate the manufacturer whose Exclusive message this is. Roland's manufacturer ID is 41H.	
dd, ..., ee = data:	00H-7FH (0-127)	
F7H:	EOX (End Of Exclusive)	

The System Exclusive Messages received by the FR-7b/FR-5b are messages related to Data Set (DT).

● Data Set 1 DT1 (12H)

Status	Data byte	Status
F0H	41H, dev, 42H, 12H, aaH, bbH, ccH, ddH, ... eeH, ffH, sum	F7H
Byte	Explanation	
F0H	Exclusive status	
41H	ID number (Roland)	
10H	Device ID	
00H	Model ID #1 (FR-7b/FR-5b V-Accordion)	
7CH	Model ID #2 (FR-7b/FR-5b V-Accordion)	
12H	Command ID (DT1)	
aaH	Address MSB: upper byte of the starting address of the data to be sent	
bbH	Address: upper middle byte of the starting address of the data to be sent	
ccH	Address: lower middle byte of the starting address of the data to be sent	
ddH	Address LSB: lower byte of the starting address of the data to be sent	
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.	
::	::	
ffH	Data	
sum	Checksum	
F7H	EOX (End of Exclusive)	

- The amount of data that can be received at one time depends on the type of data, and data will be transmitted from the specified starting address and size.
- Data larger than 256 bytes must be divided into packets of 256 bytes or less, and each packet must be sent at an interval of about 20ms.

2. Transmitted data

■ Channel Voice Messages

● Note off

Status	2nd byte	3rd byte
8nH	kkH	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)	
kk = note number:	00H-7FH (0-127)	
vv = note off velocity:	00H-7FH (0-127)	

● Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)	
kk = note number:	00H-7FH (0-127)	
vv = note on velocity:	01H-7FH (1-127)	

● Control Change

○ Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH
n = MIDI channel number:	0H-FH (Ch.1-16)	
mm = Bank number MSB:	00H-7FH	
ll = Bank number LSB:	00H-7FH	

○ Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH
n = MIDI channel number:	0H-FH (Ch.1-16)	
vv = Volume:	00H-7FH (0-127), Initial value = 64H (100)	

- Volume messages are used to adjust the volume balance of each Part.

○ Pan (Controller number 10)

Status	2nd byte	3rd byte
BnH	0AH	vvH

n = MIDI channel number: 0H~FH (Ch.1~16)
 vv = pan: 00H~40H~7FH (Left~Center~Right), Initial value = 40H (Center)

○ Expression (Controller number 11)

Status	2nd byte	3rd byte
BnH	0BH	vvH

n = MIDI channel number: 0H~FH (Ch.1~16)
 vv = Expression: 00H~7FH (0~127)

- This adjusts the volume of a Part. Expression messages are used for musical expression within a performance, e.g., expression pedal movements, crescendo and decrescendo.

○ Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH

n = MIDI channel number: 0H~FH (Ch.1~16)
 vv = Control value: 00H~7FH (0~127)
 00H~63H= Off/64H~7FH= On

○ Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd byte	3rd byte
BnH	5BH	vvH

n = MIDI channel number: 0H~FH (Ch.1~16)
 vv = Reverb Send Level: 00H~7FH (0~127), Initial value = 28H (40)

- This message adjusts the Reverb Send Level of each Part.

○ Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd byte	3rd byte
BnH	5DH	vvH

n = MIDI channel number: 0H~FH (Ch.1~16)
 vv = Chorus Send Level: 00H~7FH (0~127), Initial value = 00H (0)

○ Program Change

Status	2nd byte
CnH	ppH

n = MIDI channel number: 0H~FH (Ch.1~16)
 pp = Program number: 00H~7FH: program no. 1~128

○ Channel Pressure

Status	2nd byte
DnH	vvH

n = MIDI channel number: 0H~FH (Ch.1~16)
 vv = Channel Pressure: 00H~7FH (0~127)

■ System Realtime Messages

○ Active Sensing

Status	
FEH	Transmitted about every 250ms.

○ Start

Status	
FAH	This message is transmitted when a footswitch of FBC-7 Pedal, programmed as Start/Stop, is pressed, or when "10.13 Start/Stop MIDI TX" is used.

○ Stop

Status	
FCH	This message is transmitted when a footswitch of FBC-7 Pedal, programmed as Start/Stop, is pressed, or when "10.13 Start/Stop MIDI TX" is used.

■ System Exclusive Messages

Status	Data byte	Status
F0H	iiH, ddH,,eeH	F7H

F0H: System Exclusive Message status
 ii = ID number: An ID number (manufacturer ID) to indicate the manufacturer whose Exclusive message this is. Roland's manufacturer ID is 41H.
 dd,....,ee= data: 00H~7FH (0~127)
 F7H: EOX (End Of Exclusive)

The System Exclusive Messages transmitted by the FR-7b/FR-5b are messages related to Data Set (DT).

● Data Set 1 DT1 (12H)

Status	Data byte	Status
F0H	41H, dev, 42H, 12H, aaH, bbH, ccH, ddH, ... eeH, fFH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
10H	Device ID
00H	Model ID #1 (FR-7b/FR-5b V-Accordion)
7CH	Model ID #2 (FR-7b/FR-5b V-Accordion)
12H	Command ID (DT1)

Status	Data byte	Status
aaH	Address MSB: upper byte of the starting address of the data to be sent	
bbH	Address: upper middle byte of the starting address of the data to be sent	
ccH	Address: lower middle byte of the starting address of the data to be sent	
ddH	Address LSB: lower byte of the starting address of the data to be sent	
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.	
::	::	
ffH	Data	
sum	Checksum	
F7H	EOX (End of Exclusive)	

- The amount of data that can be transmitted at one time depends on the type of data, and data will be transmitted from the specified starting address and size.
- Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20ms.

3. Bulk Dump

Bulk Dump allows you to transmit a large amount of data at once, and is convenient for storing settings for the entire unit on a computer or sequencer. The FR-7b/FR-5b is able to transmit and receive a SET.

4. Program change messages

Bank Select & Program Change TX "Std"			
BANK SELECT MSB CC00	LSB CC32	PROGRAM CHANGE	Section
0	0	1~14	Treble Registers
0	0	1~7	Bass Registers
0	1	1~7	Free Bass Registers
0	0	1~7	Orch Bass Registers
0	0	1~7	Orch Chord Registers
0	0	1~7	Orch FreeBs Registers
0	0	1~22	Orchestra Registers
0	0	1~40	Sets

BANK SELECT MSB CC00	LSB CC32	PROGRAM CHANGE	Register
TREBLE REGISTER RX			
--	--	1	Bassoon
--	--	2	Bandon
--	--	3	Cello
--	--	4	Harmon
--	--	5	Organ
--	--	6	Accord
--	--	7	Violin
--	--	8	Master
--	--	9	Musette
--	--	10	Celeste
--	--	11	Tremolo
--	--	12	Clarinet
--	--	13	Oboe
--	--	14	Piccolo
ORCHESTRA REGISTER RX			
--	--	1	Trombone
--	--	2	Trumpet
--	--	3	Tenor Sax
--	--	4	Alto Sax
--	--	5	Clarinet
--	--	6	Oboe
--	--	7	Harmonica
--	--	8	Mute Harm
--	--	9	Violin
--	--	10	Pizzicato
--	--	11	Flute
--	--	12	Pan Flute
--	--	13	HighLand
--	--	14	Zampogna
--	--	15	PercOrgan
--	--	16	JazzOrgan
--	--	17	RotOrgan
--	--	18	TremOrg
--	--	19	ScatVoice
--	--	20	Mandolin
--	--	21	AcGuitar
--	--	22	AcPiano
BASS REGISTER RX			
--	--	1	2'
--	--	2	4'
--	--	3	8-4'
--	--	4	16'/8'/8-4'/4'/2'
--	--	5	8'/4'/2'
--	--	6	16'/8'/8-4'
--	--	7	16'/2'

SET RX (PC)	
1	CONCERTO
2	CLASSIC
3	JAZZ
4	"I" FOLK
5	"D" FOLK
6	"F" FOLK
7	"SP" FOLK
8	BallROOM
9	BANDNEON
10	ALPINE
11	CAJUN
12	TEX MEX
13	OldPARIS
14	CiaoROME
15	DiatFOLK
16	STUDIO
17	TRDITION
18	BAROQUE
19	ROMANTIC
20	CONCERTN
21	SCOTTISH
22	IRISH
23	CELTIC
24	XLowReed
25	HalfVALV
26	FUTURE
27	MUSETTE
28	BASSOON
29	MASTER
30	EXAMPLES
31	FRANCE
32	FRANCE Ac
33	EMPTY
34	EMPTY
35	EMPTY
36	EMPTY
37	EMPTY
38	EMPTY
39	EMPTY
40	EMPTY

FREE BASS REGISTER RX			
0	1	1	low
0	1	2	high
0	1	3	low+high
0	1	4	lw+hglow
0	1	5	lwlow+hi
0	1	6	highlw+h
0	1	7	lowhigh
ORCH BASS REGISTER RX			
--	--	1	Acoustic
--	--	2	Bowed
--	--	3	Fingered
--	--	4	Fretless
--	--	5	Picked
--	--	6	Tuba
--	--	7	Tuba Mix
ORCH CHORD REGISTER RX			
--	--	1	Trombone
--	--	2	Tenor Sax
--	--	3	Clarinet
--	--	4	Trem Organ
--	--	5	Voice
--	--	6	AcGuitar
--	--	7	AcPiano
ORCH FREE BASS REGISTER RX			
--	--	1	Trombone
--	--	2	Clarinet
--	--	3	Oboe
--	--	4	Flute
--	--	5	Perc Organ
--	--	6	AcGuitar
--	--	7	AcPiano

MIDI Implementation Chart

[V-Accordion]

Model: FR-7b/FR-5b

Date: November 2005

Version: 1.00

Function...		Transmitted		Recognized		Remarks
Basic Channel	Default Changed	1~16 1~16, Off		1~16 1~16, Off		7 Parts: 1= Treble, 2= Bass/Free Bass, 3= Chord, 5= Orchestra Bass, 4= Orchestra, 6= Orchestra Chord, 7= Orchestra Free Bass, 2 Logical parts: 13= Basic MIDI Channel for SET change, 13= Control MIDI Channel only TX
Mode	Default Message Altered	Mode 3 ***** *****		Mode 3 *****		
Note Number	True Voice	0~127 *****	*1	0~127 0~127		
Velocity	Note ON Note OFF	O O	*1	O O		
After Touch	Key's Ch's	X O	*1	X O		
Pitch Bend		X		X		
Control Change		0,32 7 10 11 64 91 93	O O O O O O O	*1 *1 *1 *1 *1 *1 *1	O X X O O X X	Bank Select Volume Panpot Expression Hold 1 Reverb Send Chorus Send
Program Change	True #	O 0~127	*1	O 0~39		Program Number 1~128 transmitted Recognized: 1~40: - 1~14 TrebleRegister - 1~7 Bass - 1~7 Free Bass - 1~7 Orchestra Bass - 1~7 Orchestra Chord - 1~7 Orchestra Free Bass - 1~22 Orchestra - 1~40 SET
System Exclusive		O		O	*3	
System Common	Song Position Pointer Song Sel Tune	X X X		X X X		
System Real Time	Clock Commands	X O	*4	X X		
Aux Messages	All Sounds Off Reset All Controllers Local On/Off All Notes Off Active Sense Reset	X X X X O X		X X X X O X		
Notes		*1 O X is selectable *2 Recognized as M=1 even if M≠1 *3 SysEx used for Bulk Dump only *4 Transmit Start (FA), Stop (FC)				

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

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

O: Yes
X: No

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This product complies with the requirements of European Directives EMC 89/336/EEC and LVD 73/23/EEC.

For EU Countries

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

For the USA

This equipment 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 equipment 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment 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 equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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