



# Roland Digital Accordions. The tradition outside. The future inside.

FR-7/5 • FR-3s/3 • FR-3sW • FR-7b/5b • FR-3sb/3b • FR-3sbW





# The History

## Past and future

Around the middle of the 19th century, a new concept that involved a bellows and a free-reed mechanism was developed in Central Europe. It heralded the introduction of a totally new instrument - the acoustic accordion. Since then, its unique character, portability, and variety of sounds have made the accordion a tremendously popular instrument all over the world. Due to its complex mechanism and portability, the acoustic accordion long appeared an instrument that couldn't be improved using digital technology.

# The Technology

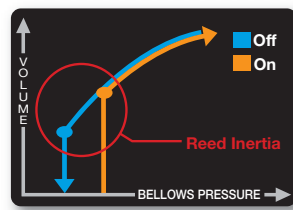
### PBM (Physical Behaviour Modelling)

At the heart of the V-Accordion is Roland's new, proprietary PBM sound engine and modelling technology. Physical Behaviour Modelling uses complex algorithms to accurately recreate an acoustic accordion's sound characteristics. The result is a faithful simulation of the actual physical behaviour and expressive nuances of an acoustic instrument.

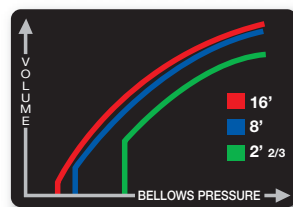
### Bellows Movement Modelling

#### PVA (Pressure Variant Amplifier)

This function controls the dynamics of each reed sound, based on the high-resolution bellows pressure sensor. Starting and stopping, hysteresis threshold, inertia, expression curve, and volume are all individually programmed to reproduce a true free-reed sound.



Hysteresis Thresholds



Expression Curve

### PVF (Pressure Variant Filter)

The tone colour of each reed sound is also shaped in real-time by the dedicated DSP (Digital Signal Processor), responding

Until Roland introduced the V-Accordion series - the first instruments of their kind to provide powerful digital modelling technology in a traditional, immediately familiar, accordion design, and with performance functions and authentic sounds that appealed to a wide range of players.

accurately to each expressive playing nuance applied by the bellows.

### PVP (Pressure Variant Pitch)

The pitch of each simulated reed is varied individually. As the bellows is pushed or pulled more forcefully, the sound becomes fatter and richer, because each simulated reed exhibits a "natural" tendency to go out of tune.



### Musette Tuning

Based on extensive research of the different tuning types used throughout the world the V-Accordion's note-by-note micro-tuning feature allows a V-Accordion to authentically reproduce many different accordion types for various genres of music.

## V-Accordion Line-up Piano-type Treble Keyboard Models

Roland is pleased to introduce another milestone in digital musical instrument history- the V-Accordion with piano-type treble keyboards. This line-up is the first to successfully integrate cutting-edge digital technology, such as our proprietary "Physical Behaviour Modelling" (PBM), into a traditional accordion design, offering performance features and authentic sounds perfect for a wide range of musical styles.

The Roland V-Accordion series of piano-type instruments comprises 5 models and 3 colour variations: FR-7 (grey/red), FR-5 (grey/red), FR-3s (grey), FR-3 (grey), and FR-3s (white).

The flagship, the FR-7, provides 41 velocity-sensitive piano-type keys, aftertouch and 40 Accordion sets, and a Master bar. The FR-5 shares these features, but comes without speakers or an amplification system. The lightweight and portable FR-3s and FR-3 are fitted with 37 velocity-sensitive keys. While the FR-3s contains an onboard digital amplifier and two speakers, the FR-3 doesn't, and is therefore the lightest member of the V-Accordion family, but just as flexible as the FR-3s.

How about treating yourself to something exclusive? With the FR-3s WHITE, you are sure to stand out from the crowd: the elegant pearl-white cabinet and gorgeously decorated bellows are complemented with highly attractive accessories (shoulder straps, bass strap cushion and bellows stop) made of real leather and Alcantara®.

All V-Accordion models offer selectable Bass & Chord modes (6 modes: 2 Bass Rows, 3 Bass Rows A7th, 3 Bass Rows A5dim, 3 Bass Rows B7th, 3 Bass Rows B5dim, 3 Bass Rows Bx) and Free Bass modes (5 modes: Minor 3rd, Bajan, Fifth, N.Europe, Finnish).

Alcantara® is a registered trademark of Alcantara Spa., Italy



Sergio Scappini



# FR-7/-5 pianotype



# FR-3s/-3 pianotype



## FR-7/5 Version 2

### Super Realistic Accordion Simulations

The FR-7 and FR-5 have 41 treble keys and can simulate up to 40 different accordion instruments, each including 14 treble registers, 7 bass & chord registers, 7 free bass registers, 7 orchestral free bass, 7 orchestral bass registers, and 7 orchestral chord registers. To create these high quality sounds, Roland engineers have sampled scores of popular acoustic accordions. For the first time in history, a single instrument can faithfully reproduce various traditional accordion models, complete with their different tuning characteristics. As a result, the FR-7 and FR-5 allow you to switch instantly from an Italian Jazz to a German Folk accordion, from French Musette to a historic Bandoneon – and everything in between.



### Orchestral Sounds Combined with Traditional Accordion Sounds

Traditional accordion and orchestral sounds can be easily combined and played with full bellows articulation. Several unique keyboard modes (Solo, Dual and High/Low) provide amazing flexibility and instant sound switching. The 22 onboard orchestral treble and 7 orchestral bass sounds can be easily mixed with traditional accordion sounds.

### Version 2 is Here!

The FR-7 and FR-5 are now provided with software version 2, which adds extra value to these V-Accordions: the bass section has been expanded to include new orchestral chord and orchestral free bass sections. Moreover, the FR-7/FR-5 provides more MIDI functions and can now act as “remote control” for external arranger/sounds modules. Note: FR-7/FR-5 version 1 users can upgrade to version 2. Please, contact your nearest Roland Service Centre.

### Digital Advantages

The FR-7/FR-5 combine the familiar sounds and nuances of a traditional accordion with the versatility of a modern digital musical instrument. You can instantly select and switch between a wide range of sounds and/or types of accordions, or create your own unique timbres and tuning systems. You can plug directly into an external sound system or recording device, while the headphone socket is ideal for silent practice. Moreover, the FR-7/FR-5 combine velocity-sensitive keyboards and a high-resolution bellows pressure sensor, to create a whole new level of expressiveness. Using the High or Low mode, you can control up to 2 parts simultaneously in real time from the FR-7/FR-5's treble keyboard. Plus, the more you explore the FR-7/FR-5's capabilities, the more creative options you'll discover!

### Unique All-In-One

The FR-7 contains a digital amplification system and a rechargeable Ni-MH battery pack, and is thus a self-contained instrument. The battery pack powers the amplifier with a pair of neodymium woofers and tweeters for a consistent, full-range, low-end to high-end output. While the FR-5 comes without speakers or amplification system, you can nevertheless install an optional rechargeable Ni-MH battery pack and connect a third-party wireless system for complete mobility on stage. Both the FR-7 and the FR-5 are supplied with a multi-footswitch/battery recharger unit for even more convenient control options.



## FR-3s/FR-3

The brand-new junior members of the V-Accordion family, the FR-3s and FR-3 provide all the features of a traditional accordion and a whole lot more! With a 37-note piano-type treble keyboard, the FR-3s and FR-3 are surprisingly compact models. Lightweight and portable, they are appreciated by budding accordion players and experienced entertainers alike for their portability and flexibility!

### Realistic Accordion simulations

The FR-3s/FR-3 can simulate up to 10 different accordions, each including 12 treble registers, 7 bass & chord registers, 7 free bass registers, 7 orchestral free bass registers, 7 orchestral bass registers, 7 orchestral chord registers, and 10 orchestral sounds. The FR-3s/FR-3 faithfully respond to bellows movements and pressure. Stronger inward and outward movements create a richer, fuller sound, while lighter movements make the sound softer and quieter. There's even a unique Bellows Resistance Regulator that can be set to match the player's strength or preference. Increasing or decreasing the bellows' inertia is simply a matter of selecting one of four positions on a conveniently located wheel.

### Educational Features

The FR-3s and FR-3 are ideal for students. Not just because they are the smallest accordion in the world to provide a free bass mode, but also thanks to their adjustable metronome. They are also MIDI compatible, so students can record their performances on their computer. Practising has never been easier or more efficient!

### Orchestral Sounds

The FR-3s/FR-3 includes 10 orchestral sounds (e.g. trombone, trumpet, sax, clarinet, flute, violin) that can be used together with the traditional accordion sounds in one of four selectable combinations.

### Connections

The FR-3s/FR-3 can be connected to various external devices

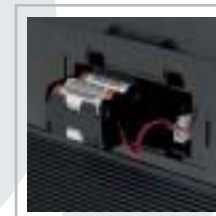
(sequencers, arranger keyboards, etc.) using the onboard MIDI socket. Combined with an optional wireless system connected to the external outputs, the FR-3s/FR-3 can be used on the biggest stages, granting the player absolute freedom of movement. Both models are provided with a compartment for optional AA-type rechargeable batteries. Of course, the FR-3s and FR-3 also provide a headphone socket. In addition to this, the FR-3s comes with a set of professional-grade neodymium speakers (hence the “s” in “FR-3s”).



Multicolour Roland Logo



LED Display



Compartment for optional AA-type batteries (rechargeable)





# FR-3s W pianotype



## FR-3s WHITE

The exclusive, limited edition, pearl-white FR-3s is the star of the piano-keyboard V-Accordion series. Lightweight, compact, and equipped with the same features as the standard FR-3s, the “WHITE” model looks gorgeous, with a beautifully decorated bellows and genuine leather and Alcantara® straps. With 37 velocity-sensitive keys, super realistic traditional accordion and orchestra sounds, this bellows instrument feels truly “real”, while providing a host of digital advantages: perfect flexibility, MIDI, a headphone socket, and a metronome, to name but a few.

- Pearl White coloured cabinet
- Two-toned bellows: white/purple red
- Shoulder strap: leather/Alcantara®
- Bass strap: leather/Alcantara®
- Bellows stops: leather
- Cushion: Alcantara®



All other features of the FR-3s WHITE are the same as those of the FR-3s.

Alcantara® is a registered trademark of Alcantara Spa., Italy.

## V-Accordion Line-up Button-type Treble Keyboard Models

Equipped with a velocity-sensitive 92-button right-hand keyboard and 120 bass buttons, the “b” models of Roland’s V-Accordion line-up provide the same feature set as their piano-type counterparts – with a few extras. The most important addition are the selectable treble-button modes (C-Griff Europe, C-Griff 2, B-Griff Bajan, B-Griff Fin, D-Griff 1, D-Griff 2) that allow players to use the system they have grown accustomed to. After all, the button keyboard layouts of acoustic accordions are as diverse as the sounds themselves.

The FR-7b (grey/red), FR-5b (grey/red), FR-3sb (grey), FR-3b (grey), and FR-3sb WHITE provide the perfect combination of traditional accordion sounds and nuances with the versatility and flexibility of a digital instrument.

*Ludovic Beier*  
Ludovic Beier







## FR-7b/5b

The FR-7b and FR-5b feature a velocity-sensitive 92-button keyboard, a Master Bar with aftertouch functions, and 120 velocity-sensitive bass buttons.

You can easily change the note assignments to the buttons (6 treble modes, 6 bass & chord modes, and 5 free bass modes) to suit your playing style. You can even unscrew the black and white treble buttons and install them in the right places so that the button layout corresponds to the notes being played. You can also change the position of the bass reference caps.

### Sounds

The FR-7b/FR-5b features a 128-voice polyphonic sound engine, 428 tones in 40 Accordion sets (each including 14 treble registers, 7 bass & chord registers, 7 free bass registers, 7 orchestral bass registers, 7 orchestral chord registers, 7 orchestral free bass registers and 22 orchestral sounds).

### Accordion Simulations

The FR-7b and FR-5b are capable of simulating up to 40 different accordions (or to create as many virtual instruments), based on samples of popular traditional acoustic accordions, each with its own idiosyncratic tuning. This allows you to switch from an Italian Jazz accordion to German Folk, French Musette, or a historic Bandoneon sound - without physical modifications to the instrument itself. On top of that, each sound can be played using your familiar accordion technique.

### Orchestral Sounds

The FR-7b/FR-5b incorporates 22 of Roland's acclaimed orchestral sounds for the treble keyboard, while each bass section (bass, chord, free bass) can trigger its own orchestral sounds.

### Unique All-in-One

The FR-7b contains a digital amplification system and a rechargeable

Ni-MH battery pack, and is thus a self-contained instrument. The battery pack powers the amplifier with a pair of neodymium woofers and tweeters for a consistent, full-range, low-end to high-end output.

While the FR-5b comes without speakers or amplification system, you can nevertheless install an optional rechargeable Ni-MH battery pack and connect a third-party wireless system for complete mobility on stage. Both the FR-7b and the FR-5b are supplied with a multi- footswitch/ battery recharger unit (FBC-7) for even more convenient control option.



FR-7b dark grey

FR-5b red



FBC-7

## FR-3sb/FR-3b

With the FR-3sb and FR-3b, Roland launches the first compact accordions equipped with a 92-button treble keyboard. The FR-3sb and FR-3b offer the same flexibility and portability as the FR-3s/FR-3 models, and the amazing expressiveness of all the Roland button-type V-Accordions.

- 92-button keyboard with the ability to change the layout of the treble/ bass button keyboard
- 7 orchestral chord/orchestral free bass registers with new sounds
- Onboard MIDI socket
- Compartment for optional AA-type rechargeable batteries
- Bellows Resistance Regulator with four positions, to fine-tune the bellows' inertia
- Onboard digital amplifier and two speakers (FR-3sb only)

### A 92-button Accordion

The FR-3sb/FR-3b features a 92-button keyboard with 6 treble button modes, and 120 bass buttons with 6 bass & chord and 5 free bass modes. You can easily change the note assignments to the button keys and select the preset that best suits your playing style. You can even unscrew the black and white treble buttons and install them in the right places so that the button layout corresponds to the notes being played. You can also change the position of bass reference caps.

### Educational Features

The FR-3sb and FR-3b are the smallest accordions in the world to provide a free bass mode - perfect for students. They also contain a metronome that helps you to develop your sense of rhythm and timing. Thanks to the instrument's MIDI functionality, students can even record their performances on their computer. Practising has never been easier or more efficient!

### Accordion Simulations And Orchestral Sounds

The FR-3sb/FR-3b boasts a 64-voice polyphonic sound engine that can simulate up to 10 different accordions, each with 12 treble registers, 7 bass & chord registers, and 7 free bass registers. Moreover, this V Accordion includes 10 different orchestral sounds (e.g. trombone, trumpet, sax, clarinet, flute, violin) that can be used together with the traditional accordion sounds.



MIDI socket



Headphones jack



Bellows Resistance Regulator





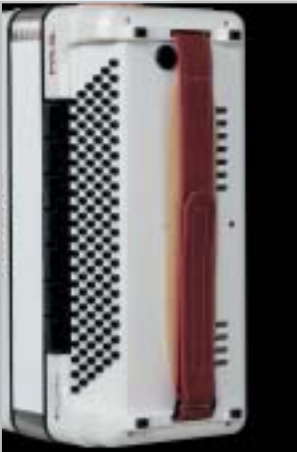
# FR-3sb Wbuttontype



## FR-3sb WHITE

The exclusive, limited edition, pearl-white FR-3sb is the star of the button-keyboard V-Accordion series. Lightweight, compact, and equipped with the same features as the standard FR-3sb, the “WHITE” model looks gorgeous, with a beautifully decorated bellows and genuine leather and Alcantara® straps. With 92 velocity-sensitive buttons (6 selectable modes), super realistic traditional accordion and orchestra sounds, this bellows instrument feels truly “real”, while providing a host of digital advantages: perfect flexibility, MIDI, a headphone socket, and a metronome, to name but a few.

- Pearl White coloured cabinet
- Two-toned bellows: white/purple red
- Shoulder strap: leather/Alcantara®
- Bass strap: leather/Alcantara®
- Bellows stops: leather
- Cushion: Alcantara®



All other features of the FR-3sb WHITE are the same as those of the FR-3sb.

Alcantara® is a registered trademark of Alcantara Spa., Italy.

OPTIONS				
				
Rechargeable Ni-MH battery pack BTY-FR	V-Accordion Gigbag + FBC-7 Gigbag	Gigbag BAG-FR-3	Headphones RH-300	Headphones RH-200

FR-7, FR-5 SPECIFICATIONS						
<div>Keyboard &amp; Bellows</div> <div>Right hand41 piano-type keys, velocity-sensitive, with aftertouch</div> <div>Left hand120 bass buttons, velocity-sensitive</div> <div>Keyboard ModesRight Hand: Solo, Dual, High/Low (for orchestral sounds) Left Hand: Standard, Free Bass, Orchestral Bass, Orchestral Chord, Orchestral Free Bass</div> <div>BellowsReal pneumatic detection by a high-resolution pressure sensor</div> <div>Sound source</div> <div>Tones (Accordion Set)40 user-programmable accordion sets * Each accordion set includes: 14 Treble registers, 7 Bass registers, 7 Free Bass registers, 7 Orchestral Free Bass registers, 7 Orchestral Bass registers, 7 Orchestral Chord registers, 22 Orchestral sounds</div> <div>Treble Reed Footages7</div> <div>Bass Reed Footages5</div> <div>Chord Reed Footages3</div> <div>Free Bass Footages2</div> <div>Max polyphony128 voices</div>			<div>Orchestral Free Bass sounds</div> <div>Trombone, Clarinet, Oboe, Flute, Perc Organ, Ac Guitar, Ac Piano</div> <div>Orchestral Chord sounds</div> <div>Trombone, Tenor Sax, Clarinet, Trem. Organ, Voice, AC Guitar, AC Piano</div> <div>PBM (Physical Behaviour Modelling)</div> <div>NoisesStopping-reed growl, closing valve noise, left button noise</div> <div>Individual Reed SimulationHysteresis threshold, expression curve, pressure variant filter, pressure variant pitch deviation</div> <div>Reed waveform switchingBy bellows acceleration, by note repetition speed</div> <div>Musette Tuning</div> <div>Micro-Tuning Presets16: (Off, Dry, Classic, F-Folk, American L/H, North Europe, German L/H, D-Folk L/H, Alpine, Italian L/H, French, Scottish)</div> <div>Effects</div> <div>Reverb8 types</div> <div>Chorus8 types</div> <div>Delay8 types</div> <div>Rotary for orchestral organ soundSlow/Fast</div> <div>"Cassotto" and "Sordina" SimulationYes</div> <div>Panel Controls</div> <div>Knob ControlsVolume, Treble/Bass balance, Reverb, Chorus, Delay</div> <div>EncoderData Edit with Enter switch</div> <div>Panel Switches</div> <div>Treble Registers14 + Master + Orchestra</div>		<div>Bass Registers7</div> <div>Navigation SwitchesUp, Down, Menu/Write, Exit/Jump</div> <div>Other SwitchesAccordion Set Up/Down, Sordina On/Off, Power Others</div> <div>Display48 x 84 dots, graphic backlit LCD</div> <div>Rated Power Output2 x 25W RMS (only for FR-7)</div> <div>Speakers10cm x 2 speakers (using Neodymium Transducer Magnets), Tweeters x 2 (only for FR-7)</div> <div>Onboard ConnectorsHeadphone jack (Stereo), Output jack: L/Mono (Treble), R/Mono (Bass), Multi Connector (to FBC-7)</div> <div>BatteryRechargeable Ni-MH battery pack, 24V-4500mAh (only for FR-7/optional for the FR-5)</div> <div>Colour VariationDark Grey, Red</div> <div>Supplied AccessoriesFBC-7 (Power supply/Battery Charger), Owner's Manual, Straps, Accordion cloth, Bass Reference caps, Power cable, 19-pin Multicore cable, Rechargeable Ni-MH battery pack 24V-4500mAh (FR-7)</div> <div>External FBC-7 Specifications5 Programmable Foot switches (Set Up/Down, Register Up/Down, Sustain), Multi connector (towards Accordion), Expression Pedal jack, MIDI connectors (In, Out, Thru), Output jacks (L/Mono, R), AC Inlet</div> <div>Optional AccessoriesRechargeable Ni-MH battery pack (FR-5) 24V-4500mAh, V-Accordion Gigbag, FBC-7 Gigbag, Headphones RH-200, Headphones RH-300</div> <div>Size and Weight</div> <div>Size423 (H) x 528 (W) x 275 (D) mm</div> <div>Weight11.5 kg (FR-7) / 9.5 kg (FR-5)</div>	

FR-3s, FR-3s WHITE, FR-3 SPECIFICATIONS		
<div>Keyboard &amp; Bellows</div> <div>Right handPiano-type, 37 keys, velocity-sensitive</div> <div>Left hand120 bass buttons, velocity-sensitive</div> <div>Keyboard ModesRight Hand: Solo, Dual, High/Low (for orchestral sounds) Left Hand: Standard, Free Bass mode, Orch. Bass, Orch. Chord, Orch. Free Bass</div> <div>BellowsReal pneumatic detection of bellows pressure, high-resolution pressure sensor, Bellows Resistance Regulator (wheel with 4 positions)</div> <div>Sound source</div> <div>Tones10 Accordion sets, each one including: 12 Treble registers, 7 Bass registers, 7 Free Bass registers, 7 Orchestral Free Bass registers, 7 Orchestral Bass registers, 7 Orchestral Chord registers, 10 Orchestral sounds</div> <div>Treble reed footages4</div> <div>Bass reed footages5</div> <div>Chord reed footages3</div> <div>Free Bass footages2</div> <div>Max polyphony64 voices</div> <div>Orchestral sounds</div> <div>Trombone, Trumpet, Tenor Sax, Alto Sax, Clarinet, Harmonica, Violin, Flute, Jazz Org, Blues Org</div> <div>Orchestra Bass sounds</div> <div>Acoustic, Bowed, Fingered, Fretless, Picked, Tuba, Tuba Mix</div>		
<div>Orchestra Free Bass sounds</div> <div>Trombone, Clarinet, Oboe, Flute, Perc Organ, Ac Guitar, Ac Piano</div> <div>Orchestra Chord sounds</div> <div>St. Strings, Chorus Organ, Steel Guitar, St. Orch Brass, Choir, Harps+Strings, Guitar+Organ</div> <div>PBM (Physical Behaviour Modelling)</div> <div>NoisesStopping-reed growl, closing valve noise, left button noise</div> <div>Individual reed simulationHysteresis threshold, expression curve, pressure variant filter, pressure variant pitch deviation</div> <div>Reed waveform switchingby bellows acceleration, by note repetition speed</div> <div>Musette tuning</div> <div>Micro tuning presets16: (Off, Dry, Classic, F-Folk, American L/H, North Europe, German L/H, D-Folk L/H, Alpine, Italian L/H, French, Scottish)</div> <div>Effects</div> <div>Reverb8 types</div> <div>Chorus8 types</div> <div>Rotary for orchestral organ soundSlow/Fast</div> <div>“Cassotto” and “Sordina” simulationYes</div> <div>Panel controls</div> <div>Knob controlsVolume, Treble/Bass balance, Reverb, Chorus</div> <div>Panel Switches</div> <div>Treble Registers10 + Orchestra + Set</div>		
<div>Bass Registers7</div> <div>MetronomeOn, Off</div> <div>Other switchesSordina Mellow/Bright, Power</div> <div>Operation Modes</div> <div>Orchestra ModeSolo, Dual, High, Low</div> <div>OctaveDown, 0, Up for Treble and Orchestra</div> <div>Others</div> <div>Rated power output2 x 11W RMS (only for FR-3s &amp; FR-3s WHITE)</div> <div>Speakers2 x 10cm speakers (Neodymium transducer magnets) (only for FR-3s &amp; FR-3s WHITE)</div> <div>Onboard connectorsHeadphones Jack (Stereo), Output Jack: L/Mono (Treble), R/Mono (Bass), MIDI connector: OUT/IN (adjustable via MIDI parameter)</div> <div>Power supplyExternal AC adapter (100V~240V universal)</div> <div>Battery (optional)Standard Ni-MH AA type rechargeable batteries</div> <div>Supplied accessoriesExternal AC adapter, Owner's Manual, Accordion cloth, Straps, Bass reference caps, Battery holder (pre-installed in compartment)</div> <div>Optional accessoriesGigbag (BAG-FR-3), Headphones RH-200, Headphones RH-300</div> <div>Size and Weight</div> <div>Size425 (H) x 481 (W) x 270 (D) mm</div> <div>Weight8.3 kg (FR-3s &amp; FR-3s WHITE)/7.5 kg (FR-3) Weight without straps and without optional batteries</div>		

## FR-7b, FR-5b SPECIFICATIONS

Keyboard & Bellows	
<b>Right Hand</b>	92 buttons, velocity-sensitive, Master Bar with aftertouch
<b>Left Hand</b>	120 Bass buttons, velocity-sensitive
<b>Keyboard Modes</b>	Right Hand: Solo, Dual, High/Low (for orchestral sounds) Left Hand: Standard, Free Bass, Orchestral Bass, Orchestral Chord, Orchestral Free Bass
<b>Bellows</b>	Real pneumatic detection by a high resolution pressure sensor
Sound source	
<b>Tones (Accordion Set)</b>	40 user-programmable accordion sets * Each Accordion Sets includes: 14 Treble registers, 7 Bass registers, 7 Free Bass registers, 7 Orchestral Free Bass registers, 7 Orchestral Bass registers, 7 Orchestral Chord registers, 22 Orchestral sounds
<b>Treble Reed Footages</b>	7
<b>Bass Reed Footages</b>	5
<b>Chord Reed Footages</b>	3
<b>Free Bass Footages</b>	2
<b>Max polyphony</b>	128 voices
Orchestral sounds	
22: Trumpet, Trombone, Alto Sax, Tenor Sax, Clarinet, Oboe, Harmonica, Muted Harmonica, Violin, Pizzicato, Flute, Pan Flute, Highland, Zampogna, Jazz organ, Perc. Organ, Rotary Organ, Trem. Organ, Voice, Mandolin, Acoustic Guitar, Acoustic Piano	
Orchestral Bass sounds	
7: Acoustic Bass, Bowed Bass, Fingered Bass, Picked Bass, Fretless Bass, Tuba, Tuba Mix	
Orchestral Free Bass sounds	
Trombone, Clarinet, Oboe, Flute, Perc Organ, Ac Guitar, Ac Piano	
PBM (Physical Behaviour Modelling)	
<b>Noises</b>	Stopping-reed growl, closing valve noise, left button noise
<b>Individual Reed Simulation</b>	Hysteresis threshold, expression curve, pressure variant filter, pressure variant pitch deviation
<b>Reed waveform switching</b>	by bellows acceleration, By note repetition speed
Musette Tuning	
<b>Micro-Tuning Presets</b>	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	
<b>Reverb</b>	8 types
<b>Chorus</b>	8 types
<b>Delay</b>	8 types
<b>Rotary for orchestral organ sound</b>	Slow/Fast
<b>"Cassotto" and "Sordina" Simulation</b>	Yes
Panel Controls	
<b>Knob Controls</b>	Volume, Treble/Bass balance, Reverb, Chorus, Delay
<b>Encoder</b>	Data Edit with Enter switch
Panel Switches	
<b>Treble Registers</b>	14 + Master + Orchestra
<b>Bass Registers</b>	7
Navigation Switches	
Up, Down, Menu/Write, Exit/Jump	
Other Switches	
Accordion set Up/Down, Sordina On/Off, Power	
Others	
<b>Display</b>	48 x 84 dots, graphic backlit LCD
<b>Rated Power Output</b>	2 x 25W RMS (only for FR-7b)
<b>Speakers</b>	10 cm x 2 speakers (using Neodymium transducer Magnets), Tweeters x 2 (only for FR-7b)
<b>Onboard Connectors</b>	Headphone jack (Stereo), Output jack: L/Mono (Treble), R/Mono (Bass), Multi Connector (to FBC-7)
<b>Battery</b>	Rechargeable Ni-MH battery pack, 24V-4500mAh (only for FR-7b/optional for the FR-5b)
<b>Colour Variation</b>	Dark Grey, Red
<b>Supplied Accessories</b>	FBC-7 (Power supply/Battery Charger), Owner's Manual, Straps, Accordion cloth, Treble reference caps, Bass Reference caps, Power cable, 19-pin multicore cable, Rechargeable Ni-MH battery pack 24V-4500mAh (FR-7b)
<b>External FBC-7 Specifications</b>	5 Programmable Foot switches (Set Up/Down, Register Up/Down, Sustain), Multi connector (towards Accordion), Expression Pedal jack, MIDI connectors (In, Out, Thru), Output jacks (L/Mono, R), AC Inlet
<b>Optional Accessories</b>	V-Accordion Gigbag, FBC-7 Gigbag, Rechargeable Ni-MH battery pack (FR-5b) Headphones RH-200, Headphones RH-300
Size and Weight	
<b>Size</b>	405 (H) x 506 (W) x 270 (D) mm
<b>Weigh</b>	11.7 kg (FR-7b) with battery, without straps. 9.5 kg (FR-5b) without optional battery, without straps

## FR-3sb, FR-3sb WHITE, FR-3b SPECIFICATIONS

Keyboard & Bellows	
<b>Right hand</b>	92-buttons, velocity-sensitive
<b>Left hand</b>	120 bass buttons, velocity-sensitive
<b>Keyboard Modes</b>	Right Hand: Solo, Dual, High/Low (for orchestral sounds) Left Hand: Standard, Free Bass mode, Orch. Bass, Orch. Chord, Orch. Free Bass
<b>Bellows</b>	Real pneumatic detection of bellows pressure, high-resolution pressure sensor, Bellows Resistance Regulator (wheel with 4 positions)
Sound source	
<b>Tones</b>	10 Accordion Sets, each one including: 12 Treble registers, 7 Bass registers, 7 Free Bass registers, 7 Orchestral Free Bass registers, 7 Orchestral Bass registers, 7 Orchestral Chord registers, 10 Orchestral sounds
<b>Treble reed footages</b>	4
<b>Bass reed footages</b>	5
<b>Chord reed footages</b>	3
<b>Free Bass footages</b>	2
<b>Max polyphony</b>	64 voices
Orchestral sounds	
Trombone, Trumpet, Tenor Sax, Alto Sax, Clarinet, Harmonica, Violin, Flute, Jazz Org, Blues Org	
Orchestral Bass sounds	
Acoustic, Bowed, Fingered, Fretless, Picked, Tuba, Tuba Mix	
Orchestral Free Bass sounds	
Trombone, Clarinet, Oboe, Flute, Perc Organ, Ac Guitar, Ac Piano	
Orchestral Chord sounds	
St. Strings, Chorus Organ, Steel Guitar, St. Orch Brass, Choir, Harps+Strings, Guitar+Organ	
PBM (Physical Behaviour Modelling)	
<b>Noises</b>	Stopping-reed growl, Closing valve noise, Left button noise
<b>Individual reed simulation</b>	Hysteresis threshold, Expression curve, Pressure variant filter, Pressure variant pitch deviation
<b>Reed waveform switching</b>	By bellows acceleration, by note repetition speed
Musette tuning	
<b>Micro tuning presets</b>	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	
<b>Reverb</b>	8 types
<b>Chorus</b>	8 types
<b>Rotary for orchestral organ sound</b>	Slow/Fast
<b>"Cassotto" and "Sordina" simulation</b>	Yes
Panel controls	
<b>Knob controls</b>	Volume, Treble/Bass balance, Reverb, Chorus
Panel Switches	
<b>Treble Registers</b>	10 + Orchestra + Set
<b>Bass Registers</b>	7
<b>Metronome</b>	On, Off
<b>Other switches</b>	Sordina Mellow/Bright, Power
Operation Modes	
<b>Orchestra Mode</b>	Solo, Dual, High, Low
<b>Octave</b>	Down, 0, Up for Treble and Orchestra
Others	
<b>Rated power output</b>	2 x11W RMS (only for FR-3sb & FR-3sb WHITE)
<b>Speakers</b>	2 x 10cm speakers (Neodymium transducer magnets) (only for FR-3sb & FR-3sb WHITE)
<b>Onboard connectors</b>	Headphones Jack (Stereo), Output jack: L/Mono (Treble), R/Mono (Bass), MIDI connector: OUT/IN (adjustable via MIDI parameter)
<b>Power supply</b>	External AC adapter (100V~240V universal)
<b>Battery (optional)</b>	Standard Ni-MH AA type rechargeable batteries
<b>Supplied accessories</b>	External AC adapter, Owner's manual, Accordion cloth, Straps, Bass reference caps, Treble Reference Caps, Battery holder (pre-installed in compartment)
<b>Optional accessories</b>	Gigbag (BAG-FR-3), Headphones RH-200, Headphones RH-300
Size and Weight	
<b>Size</b>	387 (H) x 472 (W) x 240 (D) mm
<b>Weight</b>	8,25 kg (FR-3sb & FR-3sb WHITE) without optional batteries, without straps 7.5 kg (FR-3b) without optional batteries, without straps

\* The specifications and appearance are subject to change without notice.