RFX-1000

DIGITAL REVERB & MULTI EFFECTS

OPERATION MANUAL

Introduction

Thank you for selecting the ZOOM RFX-1000 (hereafter simply called the "***RFX-1000***"). The RFX-1000 is a sophisticated digital reverb and multi-effect processor with the following features and functions.

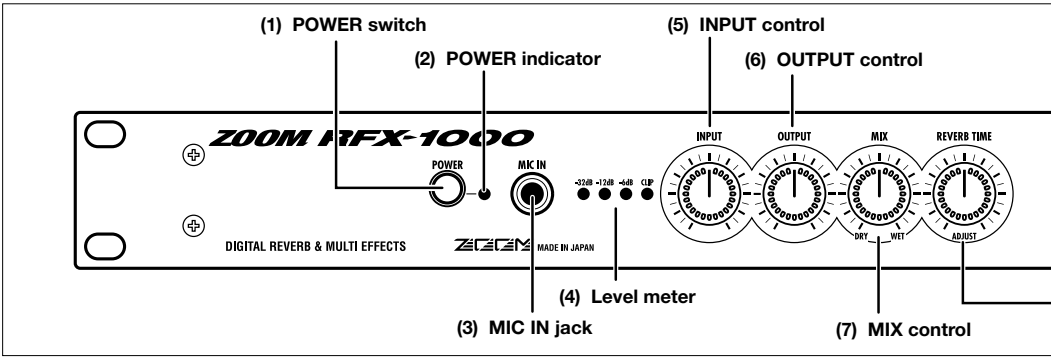
- **33 immediately usable effects**
  The RFX-1000 comes with a full complement of preset effects (11 effects x 3 banks). Right out of the box, the unit is ready to create great sound. The REVERB bank in particular provides a wide spread and natural sounding ambience that meets even demanding professional standards.
- **Built-in professional quality reverb**
  The reverb effects alone allow 121 different settings. The convincing sound stage created by the RFX-1000 far surpasses anything else available in this class.
- **Innovative choices**
  Lo-Fi EFX purposely degrades sound quality for special effect. RESONANCE processes the input signal with sophisticated filtering. MIC SIMULATOR produces condenser mic sound from a dynamic microphone. These and various other effects are great for recording and give full scope to your creativity.
- **Attractive mixdown effects**
  Mixdown effects can be used effectively to tailor the overall mood of a song when performing mixdown (mixing multiple tracks onto two final stereo tracks) or mastering (fine-tuning the sound and level of a final 2-track mix).
- **Intuitive editing controls**
  Convenient knobs on the front panel let you directly adjust items such as the mixing ratio of original sound and effect sound. Editing effect parameters on the fly is also easy and straightforward. This allows quick fine-tuning for optimum sound.
- **MIC IN jack**
  The dedicated microphone jack on the front panel comes in handy for creating vocal effects without having to make cumbersome connections in the rear. Controlling the VOCODER effect is a snap thanks to this feature.

Please take the time to read this manual carefully so as to get the most out of your RFX-1000 and to ensure optimum performance and reliability. Retain this manual, the warranty card and all other documentation for future reference.

Contents

Controls and Functions

Front Panel



(1) POWER switch
Serves to turn the unit on and off.

(2) POWER indicator
When the RFX-1000 is on, this LED indicator is lit in green. When the foot switch FS01 (option) was used to switch the effects off, the indicator flashes red.

(3) MIC IN jack
A dynamic microphone with an output impedance of about 600 ohms can be connected here. Normally the input signal from this jack is mixed with the signal from the rear-panel INPUT jacks. When the VOCODER effect is selected, the mic input signal serves for controlling the effect. You can use your voice to alter the sound character and the envelope (volume change curve).

Note: When plugging or unplugging a microphone here, noise may occur. Be sure to turn down the INPUT control (5) first.

(4) Level meter
These indicators show the signal input level.

(5) INPUT control
Serves to adjust the signal from the INPUT jacks and the MIC IN jack.

(6) OUTPUT control
Serves to adjust the level of the signal supplied at the OUTPUT jacks.

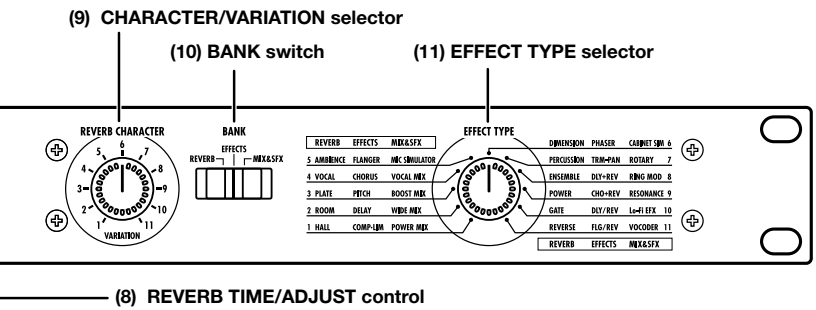
(7) MIX control
Serves to adjust the balance between original sound (DRY) and effect sound (WET). When the control is turned fully counterclockwise, only the original sound is output. When the control is turned fully clockwise, only the effect sound is output.

Rear Panel

(1) BYPASS jack
Serves for connection of the foot switch FS01 (option) for switching effects on and off.

(2) OUTPUT jacks
Connect these jacks to the recorder or playback system.

(3) INPUT jacks
Connect a line-level source, such as an instrument or the send output of a mixer, to these jacks. If a plug is inserted only in the L/MONO jack, the signal from this plug will be supplied to both channels. A high-impedance source such as an electric guitar should be routed through a preamplifier or a guitar effect first.



(8) REVERB TIME/ADJUST control

Serves to adjust an effect parameter of the currently selected effect.

(9) CHARACTER/VARIATION selector

Serves to choose one of 11 character settings for the currently selected effect, or to adjust an effect parameter.

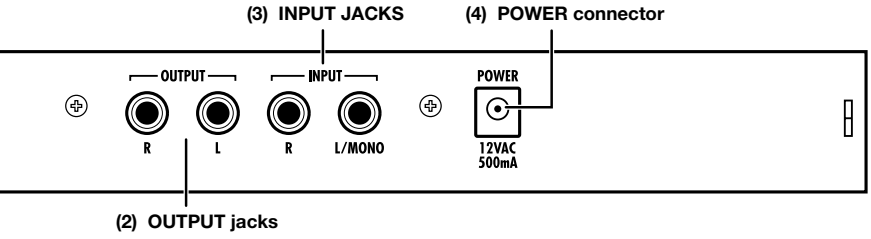
(10) BANK switch

Serves to select the effect bank (group of effects). The following three effect banks are available.

- **REVERB bank**
  Contains various reverb effects.
- **EFFECTS bank**
  Contains single effects for instruments and voice, and combined effects.
- **MIX&SFX bank**
  Contains special effects and effects particularly suited for mixdown (mixing multiple tracks onto two final stereo tracks).

(11) EFFECT TYPE selector

Serves to choose an effect from the currently selected bank.



(4) POWER connector

The supplied AC adapter is to be connected here for powering the unit.

Rack Mounting

The RFX-1000 is compatible with international 19-inch rack standards (EIA, DIN). Because the unit has been designed for rack installation, it is preferable to operate the unit in this way, rather than simply placing it on a table or similar. Align the four screw holes with the rack screw holes and securely fasten the unit to the rack with screws.

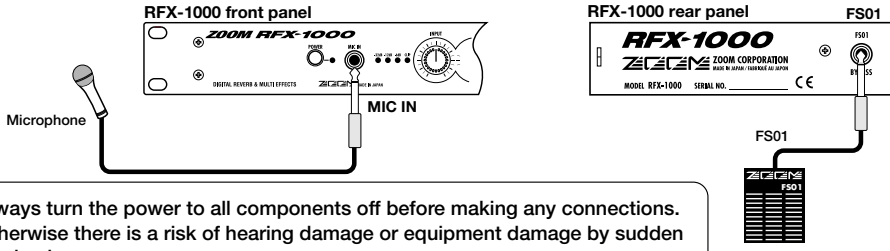
Caution

- The RFX-1000 uses a metal frame, making the unit heavier than it might seem at first glance. While installing the unit in a rack, carefully support the weight of the unit until all screws are securely tightened. Otherwise the unit may drop, possibly causing injury to persons or damage to itself or to other equipment.
- Do not directly stack the unit on top of other equipment. Otherwise heat may lead to a fire risk or cause performance degradation.
- Before installation, always unplug any connecting cables and the AC adapter cable. Otherwise the equipment or the cables may be damaged.
- Make sure that the rack in which the unit is installed is placed on a firm, solid surface, so that it cannot shake or topple over. Otherwise there is a risk of injury to persons or damage to the unit or to other equipment.

Getting Connected

Basic Connections

RFX-1000 is connected to an electronic instrument, microphone, and mixer or other audio device

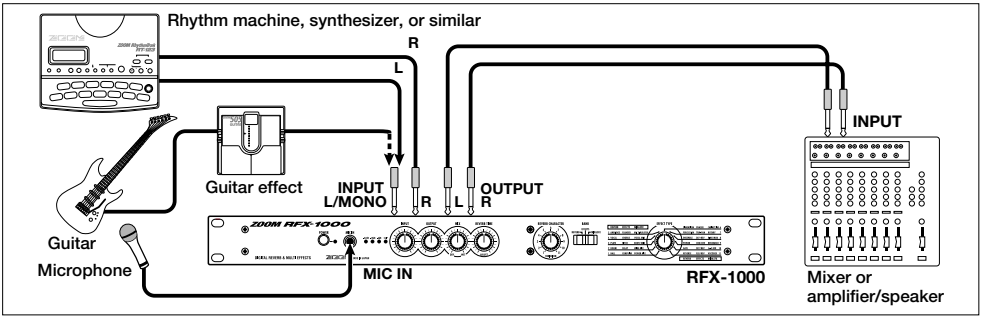


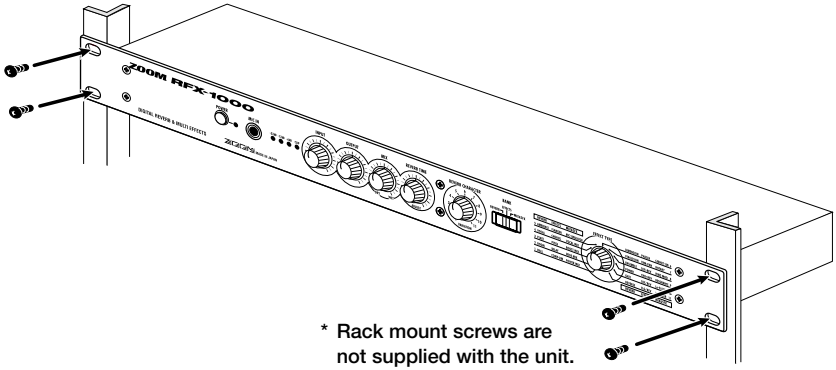
Caution Always turn the power to all components off before making any connections. Otherwise there is a risk of hearing damage or equipment damage by sudden loud noise.

Insert Connection

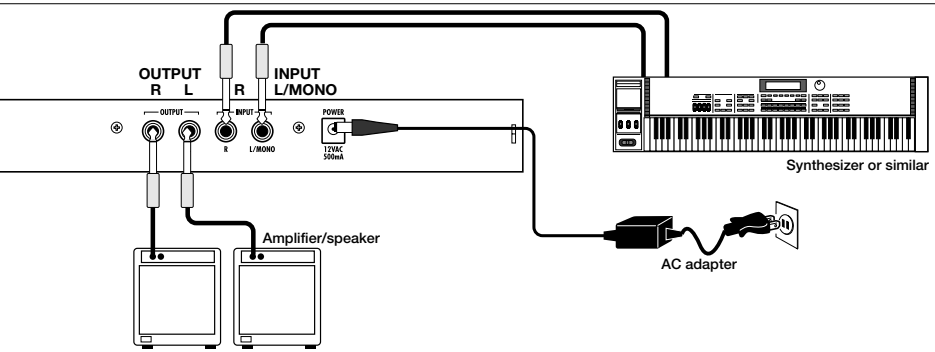
This is an example for inserting the RFX-1000 between the sound source and a playback system or multi-track recorder (MTR). A stereo source should be connected to the INPUT L/MONO and R jacks. A mono source should be connected to the L/MONO jack only.

In this example, the signal from the mic or the instrument is effect processed by the RFX-1000 and then sent to the playback system or MTR. The balance between original sound and effect sound is adjusted at the RFX-1000.





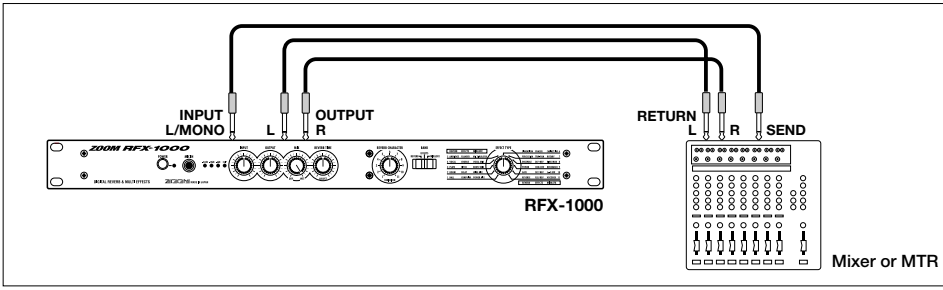
* Rack mount screws are not supplied with the unit.



Send/Return Connection

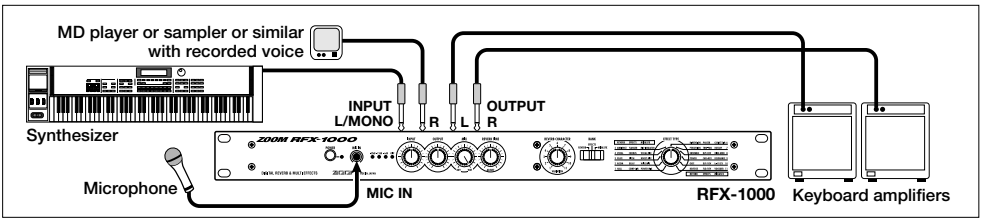
This is an example for connecting the RFX-1000 to the send/return jacks of a mixer or multi-track recorder. Connect the send jack of the mixer or MTR to the INPUT L/MONO jack of the RFX-1000, and connect the OUTPUT L/R jacks of the RFX-1000 to the return jacks (or the stereo line input jacks) of the mixer or MTR.

In this configuration, the RFX-1000 should be set so that it outputs only the effect sound, and the balance between original sound and effect sound should be adjusted at the mixer or multi-track recorder. Supplying the send signal to the RFX-1000 in stereo is also possible.



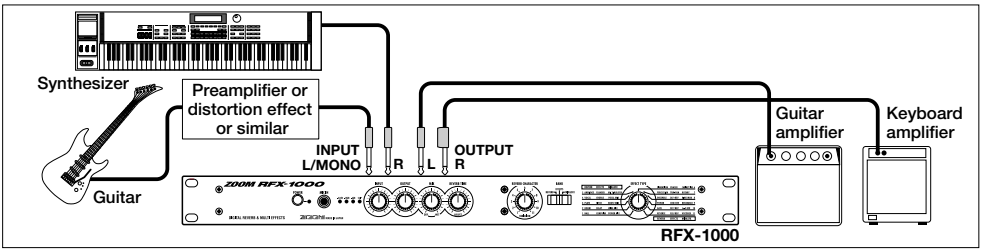
Using the VOCODER Effect

This is a connection example for using the VOCODER effect from the MIX&SFX bank. Connect a dynamic microphone to the front-panel MIC IN jack on the RFX-1000. Connect a synthesizer or other instrument to the rear-panel INPUT L/MONO jack. You can then use the mic to vary the envelope (volume change curve) and the sound character of the VOCODER effect. Instead of the mic, it is also possible to use the right- channel signal for controlling the effect. In this case, the signal supplied to the INPUT L/MONO jack is controlled by the signal supplied to the INPUT R jack.



Using Two Effects in Parallel

The RFX-1000 allows using two effects at the same time (in parallel). This is possible with effects from the EFFECTS bank which have a double name separated with a slash ("/"). The following illustration shows a connection example for using two effects independently in the left and right channel.



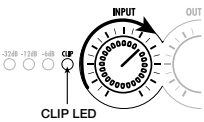
Trying Out the Effects

1. Verify that the AC adapter, sound source, and playback system are correctly connected to the RFX-1000.

The INPUT control and OUTPUT control of the RFX-1000 as well as the volume control of the playback system should be set to minimum.

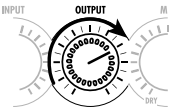
2. Turn on the system in the following order: sound source ➔ RFX-1000 ➔ playback system.

3. While playing the sound source, turn up the INPUT control of the RFX-1000 to adjust the input level.



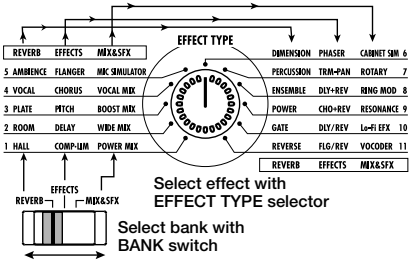
To minimize noise and distortion, the INPUT control should be set as high as possible without causing the CLIP LED to light.

4. Adjust the OUTPUT control and the volume control of the playback equipment to obtain a suitable playback volume.



5. Use the BANK switch and the EFFECT TYPE selector to select the desired effect.

Depending on the position of the BANK switch, the available effects are as shown below.



Changing the Sound of an Effect

The following controls are available for changing the sound character and intensity of the preset effects of the RFX-1000 and for adjusting the balance between original sound and effect sound.

(1) MIX control

Adjusts the mixing balance between the original sound and the effect sound.

- **When using the insert type connection pattern**

Use the MIX control to adjust the mixing balance between original sound (DRY) and effect sound (WET).

Original sound
Effect sound

For effects such as compressor/limiter or microphone simulator where the output is the processed original sound, turn the MIX control fully to WET.

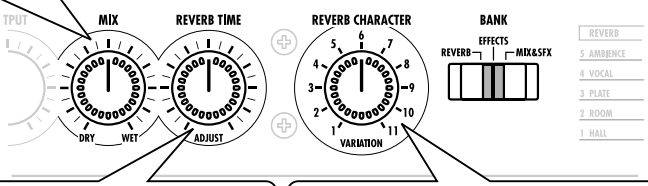
Unprocessed sound (original sound)

Processed sound

- **When using the send/return type connection pattern**

The MIX control should be turned fully to WET, so that only the effect sound is output. The mixing balance between original sound and effect sound should be adjusted at the mixer or multi-track recorder.

Only effect sound is output



(2) REVERB TIME/ADJUST control

The function of this control differs, depending on which effect bank is currently selected with the BANK switch.

- **REVERB bank selected**

The control adjusts the reverb duration.

Short reverb **Long reverb**

- **EFFECTS or MIX&SFX selected**

The control adjusts a major parameter of the currently selected effect.

For information on which parameters can be adjusted for each effect, see pages 8 - 15.

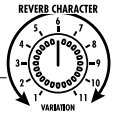
(3) CHARACTER/VARIATION selector

The function of this selector differs, depending on which effect bank is currently selected with the BANK switch.

- **REVERB bank selected**

The selector can be used to choose one of 11 reverb sound characteristics (settings with different tone and intensity).

11 reverb character settings



- **EFFECTS or MIX&SFX selected**

The control adjusts a major parameter of the currently selected effect.

For information on which parameters can be adjusted for each effect, see pages 8 - 15.

RFX-1000 Effects

This section lists all the effects available in the RFX- 1000 and describes the character or parameter variations that are possible.
Effects suitable for a send/return connection are marked with the S/R symbol.

• REVERB Bank

This bank contains a variety of reverb effects. For effects 1 - 9, the CHARACTER control can be used to select one of eleven character variations.

1. HALL

These effects simulate the reverb in various types of medium to large size buildings. S/R

	CHARACTER		REVERB TIME (Recommended setting)
1	Large Hall	Simulates a large concert hall.	Reverb Time: Sets the reverb duration.
2	Bright Hall	Simulates a medium-size hall with strong, bright reverb.	
3	Recital Hall	Simulates a small hall.	
4	Municipal	Simulates a fairly large municipal style hall.	
5	Wood Hall	Simulates a medium-size hall with predominantly wooden interior.	
6	Cathedral	Simulates a large cathedral.	
7	Medconcert	Simulates a medium-size concert hall.	
8	Strings Hall	Simulates a concert hall designed for classical music.	
9	Castle Hall	Simulates a medieval castle.	
10	Small Hall	Simulates a small hall with warm sound character.	
11	Gymnasium	Simulates a gymnasium.	

2. ROOM

These effects simulate the reverb in various types of interior spaces, ranging from small rooms to large clubs. S/R

	CHARACTER		REVERB TIME (Recommended setting)
1	Tile Chamber	Simulates the acoustics of a tiled room.	Reverb Time: Sets the reverb duration.
2	Warm Room	Simulates the acoustics of a room with warm sound character.	
3	Big Wooden	Simulates the acoustics of a fairly large room made of wood.	
4	Meeting Room	Simulates the acoustics of a conference room.	
5	Large Club	Simulates the acoustics of a large club with strong reverb.	
6	GtrSpace	Reverb with a pronounced midrange.	
7	Strings Room	Reverb emphasizing the low range and midrange.	
8	Small Chamber	Reverb which makes the spoken voice stand out clearly.	
9	Glass Room	Reverb with lean low end.	
10	Rehearsal Space	Simulates a rehearsal room with strong reverb.	
11	Garage	Simulates the reverb character of a garage.	

3. PLATE

These effects simulate the so-called "plate reverb" sound (as produced by a pickup mounted to a large, free-hanging iron plate). S/R

	CHARACTER		REVERB TIME (Recommended setting)
1	Large Plate	Simulates the reverb produced by a large plate.	Reverb Time: Sets the reverb duration.
2	Bright Plate	Bright plate reverb suitable for percussion.	

3	**Dark Plate**	Plate reverb with a feeling of depth.	**Reverb Time** Sets the reverb duration.	
4	**Clear Plate**	Transparent plate reverb suitable for vocals.		
5	**Short Plate**	Plate reverb with short reverb time.		
6	**Slap Plate**	Reverb with a long pre-delay.		
7	**Lo-Pass Plate**	Plate reverb acting on the low frequencies.		
8	**Hi-Pass Plate**	Plate reverb acting on the high frequencies.		
9	**Rich Plate**	Dense, rich-sounding plate reverb.		
10	**Endless Plate**	Smooth plate reverb with long duration.		
11	**Tunnel**	Simulates the reverb as heard in a tunnel.		

4. VOCAL

Reverb effects best suited for vocals and narration. S/R

	CHARACTER		REVERB TIME	Recommended setting
1	**Female Rock**	Reverb suitable for female rock singers.	**Reverb Time** Sets the reverb duration.	
2	**Male Ballad**	Reverb suitable for ballads sung by male vocalists.		
3	**Chorus**	Reverb suitable for chorus music.		
4	**Female Folk**	Natural sounding reverb great for female vocals.		
5	**Hi Male Rock**	Reverb suitable for fairly high-pitched male vocals.		
6	**Narration**	Reverb suitable for emphasizing narration.		
7	**Chanting**	Reverb suitable for chanting.		
8	**Slapback**	Emphasizes vocals without changing other characteristics.		
9	**Enhancer**	Reverb with emphasized high end.		
10	**LushVerb**	Wide simulated space suitable for vocals.		
11	**EchoVerb**	Reverb with long pre-delay.		

5. AMBIENCE

These effects lend a natural sounding ambience to the sound source which is suitable not only for single instruments but also for stereo music sources. S/R

	CHARACTER		REVERB TIME	Recommended setting
1	**Rock Mix**	Reverb for rock type music sources.	**Reverb Time** Sets the reverb duration.	
2	**Jazz Band**	Reverb for jazz band type music sources.		
3	**Reggae Mix**	Reverb with a strong wet feeling, for reggae and related genres.		
4	**Keyboard**	Great ambience for keyboard playing.		
5	**Hip Hop**	Ambience for rap and hip hop type music.		
6	**Film Score**	Ambience for film music.		
7	**Electronic Mix**	Spatial effect suitable for synthesizer.		
8	**New Age**	Ambience suitable for MIDI sound sources.		
9	**Strings Quartet**	Warm, midrange centered ambience for strings.		
10	**Choral Mix**	Rich ambience for chorus and vocal ensembles.		
11	**Percussion Mix**	Ambience suitable for percussion ensembles.		

6. DIMENSION

These effects control the spatial expansiveness of the sound.

S/R

	CHARACTER		REVERB TIME	Recommended setting
1	Super Wide	Emphasizes the stereo spread of music sources.	**Reverb Time** Sets the reverb duration.	
2	Stereo→Mono	Changes the sound localization from stereo to mono.		
3	Left→Right	Changes the sound localization from left to right.		
4	Right→Left	Changes the sound localization from right to left.		
5	Big Delay	Effect with long pre-delay for creating a wide space.		
6	Mono→Stereo	Changes the sound localization from mono to stereo.		
7	StereoMids	Adds a wide, expansive feeling to the midrange.		
8	Huge Bass	Creates an expansive low end.		
9	Ping-Pong	Reverb bouncing back and forth between left and right.		
10	Bass/Treble	Adds reverb to the low and high range.		
11	Millennium	Creates a vast reverb space.		

7. PERCUSSION

These reverb effects are most suitable for drums and percussion.

S/R

	CHARACTER		REVERB TIME	Recommended setting
1	Rock Kit/1	Reverb suitable for rock drum.	**Reverb Time** Sets the reverb duration.	
2	LatinPerc	Light ambience for percussion.		
3	Jazz Drums	Reverb for jazz drums.		
4	Tom	Slightly deep effect for tom-toms.		
5	Shaker	Creates optimum ambience for shakers and similar percussion instruments.		
6	Reggae Drums	Midrange-centered effect for reggae drums.		
7	Rock Kit/2	Allows adding reverb to snares or cymbals without affecting the low range.		
8	MalletPerc	Mallet type percussion can be enhanced with this effect.		
9	Slap	Reverb with short pre-delay, emphasizing the low frequencies.		
10	Afro Drums	Reverb suitable for Afro type drums.		
11	Bells	High range effect suitable for bells.		

8. ENSEMBLE

These effects are best for ensemble sections such as strings or brass.

S/R

	CHARACTER		REVERB TIME	Recommended setting
1	Strings	Reverb suitable for strings.	**Reverb Time** Sets the reverb duration.	
2	Brass	Reverb suitable for brass ensembles.		
3	Piano	Warm, extended reverb great for piano solos.		
4	Winds	Reverb suitable for woodwinds.		
5	Synth/1	Reverb suitable for synthesizer.		
6	Solo Strings	Reverb suitable for solo strings.		
7	Jazz Organ	Light reverb for highlighting organ sound.		

8	Chorus	Wide reverb for chorus groups.	**Reverb Time** Sets the reverb duration.
9	Solo Winds	Subdued reverb great for wind instrument solos.	
10	Church Organ	Reverb for adding a spacious feeling to organ music.	
11	Synth/2	Great reverb sound for synthesizer.	

9. POWER

These effects add a feeling of power and energy to sound sources. S/R

	CHARACTER		REVERB TIME Recommended setting
1	Kick/1	Stresses the body impact of bass drums.	**Reverb Time** Sets the reverb duration.
2	Kick/2	Increases the perceived size of the bass drum image.	
3	Snare/1	Stresses the body sound of snare drums.	
4	Snare/2	Adds a bright reverb sound to snare drums.	
5	Toms/1	Suitable for low toms and floor-standing toms.	
6	Toms/2	Emphasizes the midrange sound of tom-toms.	
7	Hand Perc	Suitable for hand percussion.	
8	DistGtr/1	Suitable for distortion guitar sound with strong box character.	
9	DistGtr/2	Suitable for distortion guitar sound with bright character.	
10	Vocal/1	Increases the power impact of vocals.	
11	Vocal/2	Suitable for ballad type vocals.	

10. GATE

Special effect where the reverb is briskly cut by a gate. S/R

CHARACTER		REVERB TIME	
Threshold	Adjusts the threshold level where the gate becomes active.	Reverb Time	Sets the reverb duration.

11. REVERSE

This achieves a similar effect as a tape run in reverse. S/R

CHARACTER		REVERB TIME	
Threshold	Adjusts the sensitivity of the effect, that is the level from which the reverb is applied.	Reverb Time	Sets the reverb duration.

• EFFECTS Bank

This bank contains seven sophisticated single effects (1 - 7) as well as four combined effects (8 - 11) which use two effects simultaneously. The combined effects marked with a "+" are made up of two effects connected in series. The combined effects marked with a "/" use two effects in parallel in the left and right channel.

1. COMP • LIM (Compressor • Limiter)

This effect serves for keeping signal levels within a certain range. The compressor raises the level of signals below a certain threshold and reduces the level of strong signals. The limiter only reduces the level of strong signals.

VARIATION		REVERB TIME/ADJUST	
Comp Lim Release	Switches between compressor and limiter and adjusts the release time.	Threshold	Sets the level where the compressor/limiter becomes active.
1 - 6: Compressor Higher values mean longer release time.  **7 - 11: Limiter** Higher values mean longer release time.			

2. DELAY

A delay effect with a maximum delay time of up to 1486 ms.

S/R

VARIATION		REVERB TIME/ADJUST	
Feedback	Adjusts the amount of feedback (number of delay sound repetitions).	**Delay Time**	Sets the delay duration.

Cross-feedback  Normal feedback

6: Feedback = 0

Short delay  Long delay

3. PITCH

Stereo pitch shifter which adds a pitch-shifted component to the original sound.

S/R

VARIATION		REVERB TIME/ADJUST	
Pitch Shift Interval	Sets the amount of pitch shift. The range extends from slight detune to 1 octave up or down.	**Pitch Shift Up/Down**	Determines the direction of pitch shift.

VARIATION value	1	2	3	4	5	6	7	8	9	10	11
Shift (cent)	7	20	100	200	300	400	500	700	900	1100	1200

100 cent = 1 semitone

Downward shift  Upward shift

4. CHORUS

A stereo chorus with three voices per channel.

S/R

VARIATION		REVERB TIME/ADJUST	
Chorus Depth	Adjusts the depth of pitch modulation. Turning the control clockwise increases modulation.	**Chorus Rate**	Adjusts the pitch modulation rate.

Light modulation  Heavy modulation

Slow  Fast

[Setting example] High-grade chorus with smooth presence VARIATION = 4  ADJUST 

5. FLANGER

Stereo flanger with a wide range.

S/R

VARIATION		REVERB TIME/ADJUST	
Flanger Depth	Specifies the range over which the effect is active. Turning the control clockwise makes the range broader.	**Flanger Rate**	Adjusts the flanger modulation rate.

Narrow range  Broad range

Slow  Fast

[Setting example] Ultra-slow flanger great for hi-hat VARIATION = 10  ADJUST 

6. PHASER

Phaser with pronounced fluctuation.

S/R

VARIATION		REVERB TIME/ADJUST	
Phaser Depth	Adjusts the intensity of the fluctuation. Turning the control clockwise results in more intense fluctuation.	**Phaser Rate**	Adjusts the phaser fluctuation rate.

Slight fluctuation  Intense fluctuation

Slow  Fast

[Setting example] Fluctuation optimized for electric piano VARIATION = 7  ADJUST 

7. TRM-PAN

Effect ranging from tremolo to auto-panning.

S/R

VARIATION		REVERB TIME/ADJUST	
Depth	Turning the control counterclockwise gives tremolo. Turning it clockwise gives auto-panning with a wider spread.	**Rate**	Adjusts the tremolo to auto-panning rate.

Strong tremolo  Strong auto-panning

Slow  Fast

8. DLY+REV	This is an in-series combination of delay and reverb. S/R		
VARIATION		**REVERB TIME/ADJUST**	
Reverb Mix	Adjusts the mixing ratio of the reverb sound. Turning the control clockwise increases the reverb ratio.	**Delay Time**	Adjusts the delay time up to a maximum of 743 ms. (Feedback is fixed.)

9. CHO+REV	This is an in-series combination of chorus and reverb. S/R		
VARIATION		**REVERB TIME/ADJUST**	
Reverb Mix	Adjusts the mixing ratio of the reverb sound. Turning the control clockwise increases the reverb ratio.	**Chorus Depth**	Adjusts the modulation depth. (Modulation rate is fixed.)

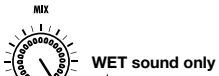
10. DLY/REV	This is a parallel combination of delay and reverb. The left channel carries the delay effect and the right channel the reverb effect. S/R		
VARIATION		**REVERB TIME/ADJUST**	
Reverb Mix	Adjusts the mixing ratio of the reverb sound. Turning the control clockwise increases the reverb ratio.	**Delay Time**	Adjusts the delay time up to a maximum of 743 ms. (Feedback is fixed.)
Weak reverb  Strong reverb		Short delay  Long delay	

11. FLG/REV	This is a parallel combination of flanger and reverb. The left channel carries the flanger effect and the right channel the reverb effect. S/R		
VARIATION		**REVERB TIME/ADJUST**	
Reverb Mix	Adjusts the mixing ratio of the reverb sound. Turning the control clockwise increases the reverb ratio.	**Flanger Rate**	Adjusts the modulation rate. (Modulation depth is fixed.)
Weak reverb  Strong reverb		Slow modulation  Fast modulation	

• MIX&SFX Bank

This bank comprises special effects such as MIC SIMULATOR and VOCODER as well as mixdown effects useful for mixdown (mixing multiple tracks onto two final stereo tracks).

The effects from this bank are best used with the MIX control turned fully clockwise, so that only the WET sound is output.



For effects 1 - 4, the parameters adjusted by the VARIATION control and REVERB TIME/ADJUST control are the same.

1. POWER MIX	Mixdown effect which emphasizes the bass and gives the sound a powerful punch.		
2. WIDE MIX	Mixdown effect which stresses the left/right stereo spread.		
3. BOOST MIX	Mixdown effect which gives the sound a tight low end and snappy high end.		
4. VOCAL MIX	Brings out suppleness and warmth in vocals by stressing the midrange and adding plate type reverb.		
VARIATION		**REVERB TIME/ADJUST**	
Reverb Color	Switches the reverb sound character.	**Intensity**	Adjusts the intensity of the respective effects.
2 - 6: Short reverb mix ratio increases towards higher numbers. **1:** Reverb = Off  **7 - 11:** Long reverb mix ratio increases towards higher numbers.		Weak effect  Strong effect	

RFX-1000 Effects

5. MIC SIMULATOR

Simulates the characteristics of a high-quality condenser microphone while using an economical dynamic microphone.

VARIATION		REVERB TIME/ADJUST	
Vocal/Inst Comp	Switches the characteristics for vocals or instruments, and adjusts the limiter sensitivity.	**Enhance**	Adjusts the intensity of the treble enhancer.

1 - 6: Vocals
Higher numbers result in higher limiter sensitivity.

7 - 11: Instruments
Higher numbers result in higher limiter sensitivity.

6. CABINET SIM

Adds the sound character of an amplifier speaker cabinet to the sound of an electric guitar.

VARIATION		REVERB TIME/ADJUST	
Combo/Stack & Depth	Selects the amplifier type (combo or stack) and adjusts the effect intensity.	**Presence**	Adjusts the level of the ultra high range.

1 - 6: Combo type
Higher numbers result in stronger cabinet sound.

7 - 11: Stack type
Higher numbers result in stronger cabinet sound.

7. ROTARY

Simulates a rotary speaker where the speaker is turned by mechanical means.

VARIATION		REVERB TIME/ADJUST	
Drive	Adjusts the amount of distortion. Turning the control clockwise increases distortion.	**Rotary Rate**	Adjusts the speaker rotation speed.

Weak distortion  Strong distortion

Slow rotation  Fast rotation

8. RING MOD

This is a ring modulator with short delay.

VARIATION		REVERB TIME/ADJUST	
Delay Mode	Switches the delay mode.	**Frequency**	Sets the frequency with which the input signal is to be multiplied.

1: Delay = Off
Varies the input signal modulation frequency.

2 - 10: Varies the delay time from flanging to repeat delay.

11: Feedback = Off

9. RESONANCE

This is a filter effect with a resonance component.

VARIATION		REVERB TIME/ADJUST	
Type & Q	Selects the filter type and adjusts the resonance intensity.	**Frequency / Sensitivity**	When the Type & Q parameter is set to manual (1 - 6), this control adjusts the cutoff frequency. When the Type & Q parameter is set to automatic (7 - 11), this control adjusts the sensitivity.

1 - 6: Manually adjusts the cutoff frequency. Turning the control clockwise increases the resonance.

7 - 11: Uses the input signal envelope to automatically alter the cutoff frequency. Turning the control clockwise increases the resonance.

10. Lo-Fi EFX

This is a special effect that can be used to purposely degrade sound quality.

VARIATION		REVERB TIME/ADJUST	
Lo-Fi Color	Selects the sound character.	**Tone**	Adjusts the effect tone.

11. VOCODER

This effect lets you use a mic connected to the MIC IN jack to control the signal from a synthesizer supplied to the INPUT L jack. The signal supplied to the INPUT R jack is mixed with the MIC IN signal and can also be used as control signal.

To use this effect, turn the MIX control fully to WET.

VARIATION

Mode & Character — Selects the number of filter bands for the VOCODER and the sound character.

1	18 bands	Fast attack	VOCODER only + chorus + distortion + chorus
2			
3			
4		Slow attack	VOCODER only + distortion
5			
6	10 bands	Fast attack	VOCODER only + chorus + distortion + chorus
7			
8			
9		Slow attack	VOCODER only + chorus + distortion + chorus
10			
11			

REVERB TIME/ADJUST

Sensitivity — Adjusts the VOCODER sensitivity.

Low sensitivity  High sensitivity

Troubleshooting

Symptom	Check	Remedy
No sound or very low volume	• Is supplied AC adapter connected correctly?	Follow the instructions in "Getting Connected".
	• Is another kind of AC adapter connected?	Use only the supplied AC adapter.
	• Is sound source connected correctly to INPUT jacks and are OUTPUT jacks connected correctly to playback system?	Follow the instructions in "Getting Connected".
	• Are all shielded cables used for the connection okay?	Try replacing the shielded cables.
	• Are the connected sound source and playback system operating normally? Is the volume set to a proper position?	Check all components and set the volume to a suitable position.
	• Are INPUT control and OUTPUT control of RFX-1000 set properly?	Follow the instructions in "Trying Out the Effects" and adjust the controls properly.
	• Is a microphone connected to the rear-panel INPUT jack?	Connect the microphone to the front-panel MIC IN jack.
	• Are effects turned off and is the MIX control fully turned to the WET position?	Turn the MIX control towards DRY.
Input sound breaks up or is distorted	• Is input signal level too high?	Adjust INPUT control so that CLIP LED does not light at signal peaks.
No effect sound	• Were effects turned off with foot switch FS01 connected to rear panel?	Press foot switch again to turn effects on.
	• Is incorrect foot switch connected?	Use only ZOOM FS01.

Specifications

Number of preset programs 363 (11 effects x 3 banks x 11 variations)
Sampling frequency 44.1 kHz
A/D converter 18 bit, 64 times oversampling
D/A converter 18 bit, 8 times oversampling
DSP Zoom original ZFX-2 (24-bit signal processing)

Rear Inputs
L/MONO, R: standard monaural phone jack x 2
Input impedance: 10 kilohms (MONO), 20 kiloohms (STEREO)
Reference input level: -10 dBm to +4 dBm
Microphone input: standard monaural phone jack x 1
Input impedance: 20 kilohms
Reference input level: -56 dBm

Outputs
L, R: standard monaural phone jack x 2
Output impedance: 100 ohms or more
Reference output level: -10 dBm to +4 dBm
Control connector BYPASS (FS01)
Power requirements Applied AC adapter 12V AC (AD-0008)
Dimensions 482 (W) x 44 (H) x 115 (D) mm
Weight 1.5 kg

* 0 dBm = 0.775 Vrms
* Design and specifications subject to change without notice.

Safety Precautions/Usage Precautions

Safety Precautions

In this manual, symbols are used to highlight warnings and cautions for you to read so that accidents can be prevented. The meanings of these symbols are as follows:

Warning	This symbol indicates explanations about extremely dangerous matters. If users ignore this symbol and handle the device the wrong way, serious injury or death could result.
Caution	This symbol indicates explanations about dangerous matters. If users ignore this symbol and handle the device the wrong way, bodily injury and damage to the equipment could result.

Please observe the following safety tips and precautions to ensure hazard-free use of the RFX-1000.

Warning • **Power requirements**

The RFX-1000 is powered by the supplied AC adapter . To prevent malfunction and safety hazards, Do not use any other kind of AC adapter.

When using the RFX-1000 in an area with a different line voltage, please consult your local ZOOM distributor about acquiring a proper AC adapter.

Caution • **Environment**

Avoid using your RFX-1000 in environments where it will be exposed to:

- Extreme temperature
- High humidity or moisture
- Excessive dust or sand
- Excessive vibration or shock

Caution • **Handling**

The RFX-1000 is a precision instrument. Do not exert undue pressure on the unit.

Also take care not to drop the unit, and do not subject it to shock or excessive pressure.

Caution • **Connecting cables and input and output jacks**

You should always turn off the power to the RFX-1000 and all other equipment before connecting or disconnecting any cables. Also make sure to disconnect all cables and the AC adapter before moving the RFX-1000.

Caution • **Alterations**

Never open the case of the RFX-1000 or attempt to modify the product in any way since this can result in damage to the unit.

Usage Precautions

- **Electrical interference**

The RFX-1000 has been designed to minimize radio frequency emissions and is highly resistant to external interference. However, if placed very close to equipment such as TV sets or radio receivers, reception interference may occur. If you encounter problems, move the RFX-1000 further away from the affected equipment.

Whatever the type of digital control device, the RFX-1000 included, electromagnetic damage can cause malfunctioning, and can corrupt or destroy data. Since this is an ever-present danger, thorough care should be taken to minimize the risk of damage.

- **Cleaning**

Use a soft, dry cloth to clean the RFX-1000. If necessary, slightly moisten the cloth. Do not use abrasive cleanser, wax, or solvents (such as paint thinner or cleaning alcohol), since these may dull the finish or damage the surface.

Please keep this manual in a convenient place for future reference.

ZOOM®

CATCH US IF YOU CAN

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