RFX-2200

DIGITAL REVERB & MULTI EFFECTS

OPERATION MANUAL

Introduction

Thank you for selecting the ZOOM RFX-2200 (hereafter simply called the "***RFX-2200***"). The RFX-2200 is a sophisticated digital reverb and multi-effect processor with the following features and functions.

- **Versatile effects and high-quality reverb**
  The RFX-2200 comes with a full complement of 48 preset effects (8 effects x 6 banks). The reverb effects alone allow 121 different settings. The convincing sound stage created by the RFX-2200 far surpasses anything else available in this class.
- **100 patch memory for immediate use**
  Up to 100 patches (effect settings) can be stored in the internal memory. Calling up any patch is quick and easy.
- **Digital output**
  The S/PDIF output (with optical and coaxial connectors) allows connection to consumer equipment with digital input (digital multitrack recorder, MD recorder, DAT recorder or similar), keeping the signal in the digital domain.
- **MIC IN connector**
  The dedicated microphone connector 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.
- **Built-in tap input**
  Time-based parameters such as delay time can be entered directly, using the tap input feature. This makes it easy for example to match the delay time to the tempo of a song.
- **MIDI based control**
  Functions such as patch switching, real-time parameter control, and storing of patch data on external equipment can be performed via a MIDI link.

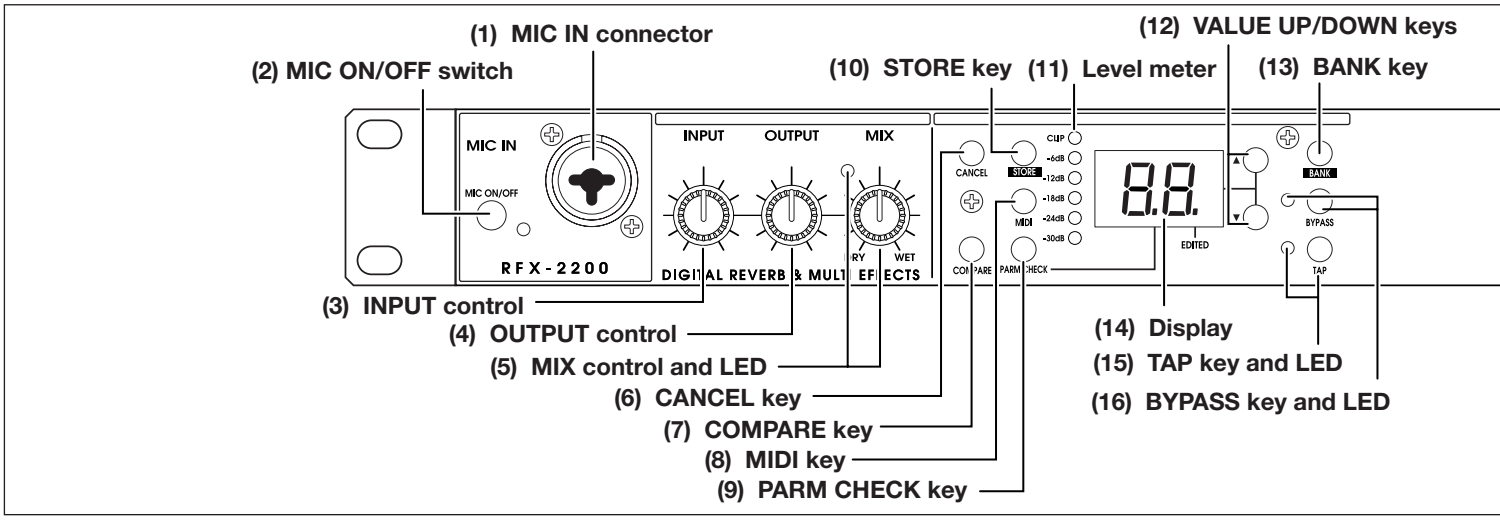
Please take the time to read this manual carefully so as to get the most out of your RFX-2200 and to ensure optimum performance and reliability. Retain this manual, the warranty card and all other documentation for future reference.

*** MIDI is a registered trademark of Association of Musical Electronics Industry (AMEI).**

Contents

Controls and Functions

Front Panel



(1) MIC IN connector

A microphone with an impedance of about 600 ohms can be connected here, for use as an additional input source. Either an XLR plug (balanced connection) or a phone plug (balanced/unbalanced connection) can be used.

Normally the input signal from this connector is mixed with the signal from the rear-panel INPUT jacks. When the VOCODER effect is selected, the signal from this connector serves for controlling the sound character and the envelope (volume change curve) of the VOCODER effect.

(2) MIC ON/OFF switch

This switch turns the signal from the MIC IN connector on and off. When the switch is ON, the indicator at the right lights up.

(3) INPUT control

Serves to adjust the signal from the INPUT jacks and the MIC IN jack.

(4) OUTPUT control

Serves to adjust the level of the signal supplied at the OUTPUT jacks.

(5) MIX control and LED

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. If the mixing balance setting was changed since the last store operation, the LED lights up.

(6) CANCEL key

Serves to cancel a store operation.

(7) COMPARE key

When a patch (group of stored effect settings) is being edited, this key can be used to compare the sound before and after the edit.

(8) MIDI key

This key is used to make various MIDI settings.

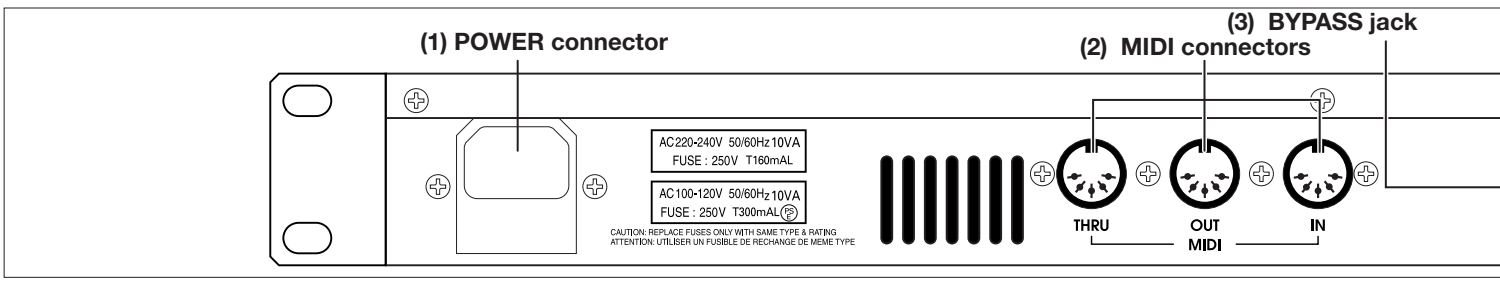
(9) PARM CHECK key

Serves for checking effect parameter settings.

(10) STORE key

Used for storing patches in memory and other functions.

Rear Panel



(1) POWER connector

The supplied power cord is to be connected here for powering the unit.

(2) MIDI connectors

Serve for connection to the MIDI interface of a computer or to a MIDI keyboard or similar. This allows patch switching from external equipment.

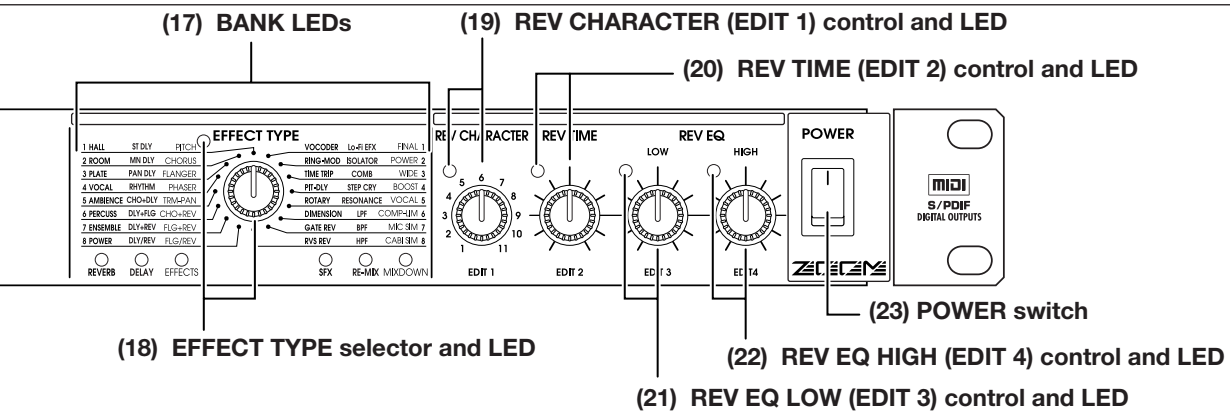
(3) BYPASS jack

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

(4) DIGITAL OUT connectors

The same signal as available at the OUTPUT jacks is carried by these connectors in S/PDIF digital format. This can be used to supply the signal to consumer equipment

Front Panel



(11) Level meter

These indicators show the signal input level.

(12) VALUE UP/DOWN keys

Serve for switching patches and changing parameter values. Holding down one key while pressing the other results in a fast change.

(13) BANK key

Serves to select the effect bank (group of effects arranged by general type).

(14) Display

Shows various information such as patch numbers and parameter values.

(15) TAP key and LED

This key serves for tap input of time-based parameters such as delay time and rate. When an effect where tap input can be used is selected, the LED flashes with a frequency that indicates the current setting. When an effect where tap input cannot be used is selected, the LED is out.

(16) BYPASS key and LED

Serves to set the unit to the bypass condition where only the original sound is output. In this condition, the LED is lit.

(17) BANK LEDs

These indicators show which bank is currently selected.

(18) EFFECT TYPE selector and LED

Serves to choose an effect from the currently selected bank. If the setting was changed since the last store operation, the LED lights up.

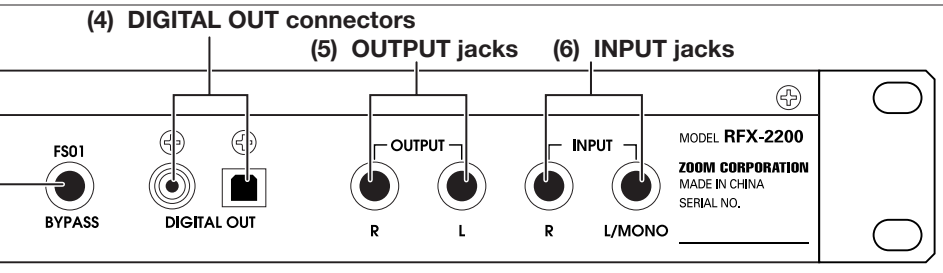
(19) REV CHARACTER (EDIT 1) control and LED
(20) REV TIME (EDIT 2) control and LED
(21) REV EQ LOW (EDIT 3) control and LED
(22) REV EQ HIGH (EDIT 4) control and LED

These controls allow the user to adjust effect parameters to a desired value. Which parameters can be adjusted depends on the currently selected effect. If a setting was changed since the last store operation, the respective LED lights up.

(23) POWER switch

Serves to turn the unit on and off.

Rear Panel



with a digital input, such as a digital multitrack recorder, MD recorder, or DAT recorder. The optical and coaxial output connectors can be used at the same time. The OUTPUT control is not active in this case.

(5) OUTPUT jacks

Connect these jacks to the recorder or playback system.

(6) INPUT jacks

Connect a line-level source, such as an instrument or CD player 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.

Rack Mounting

The RFX-2200 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.

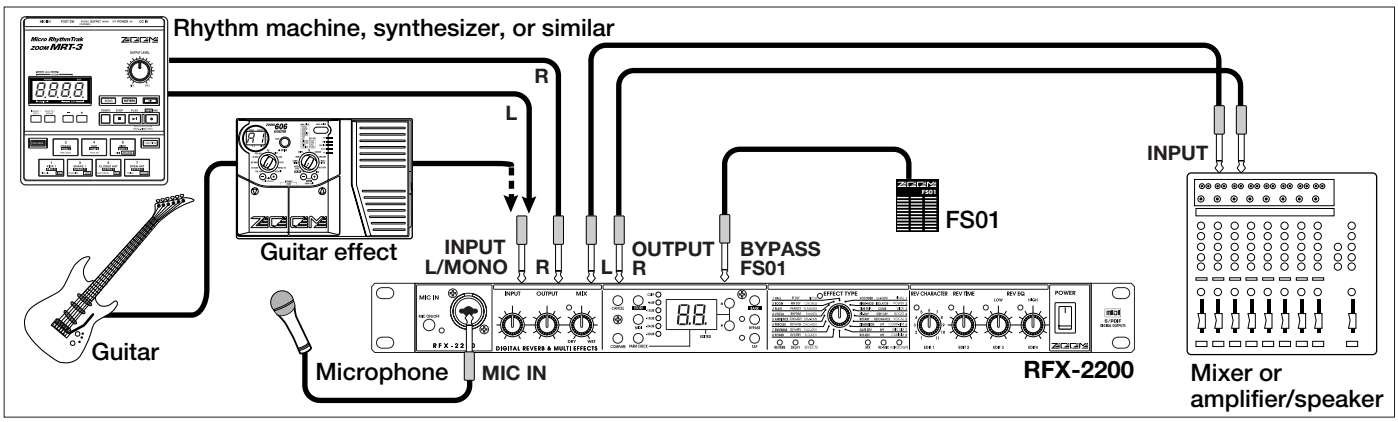
Caution

- **The RFX-2200 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 power 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

This section shows how to connect the RFX-2200 to the sound source and to the playback system.

Insert Connection

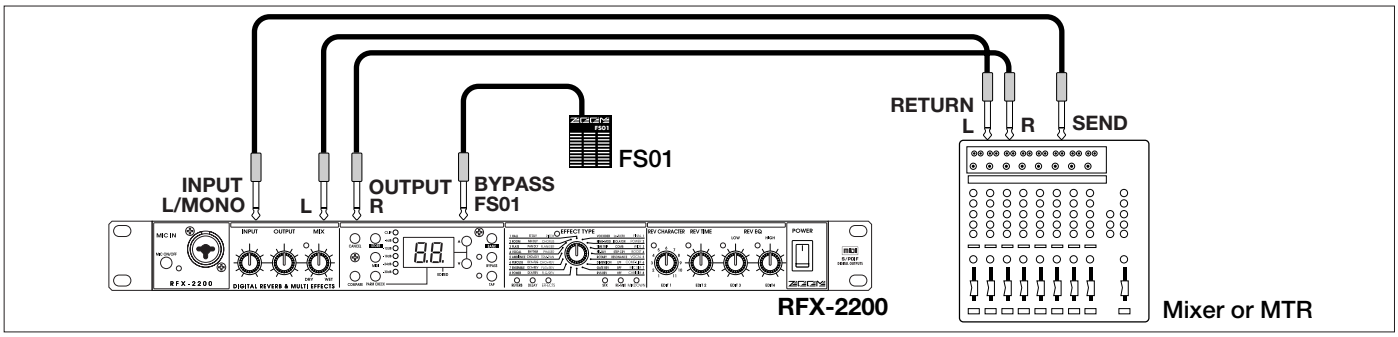


This is an example for inserting the RFX-2200 between the sound source such as a microphone or instrument and a playback system or multi-track recorder (MTR). A stereo source should be connected to the INPUT L/MONO and R jacks. A mono source should be connected to the L/MONO jack only.

In this example, the balance between original sound and effect sound is adjusted with the MIX control of the RFX-2200.

When a component with an S/PDIF digital input (such as a digital multitrack recorder, MD recorder, or DAT recorder) is used, the connection can be made in the digital domain.

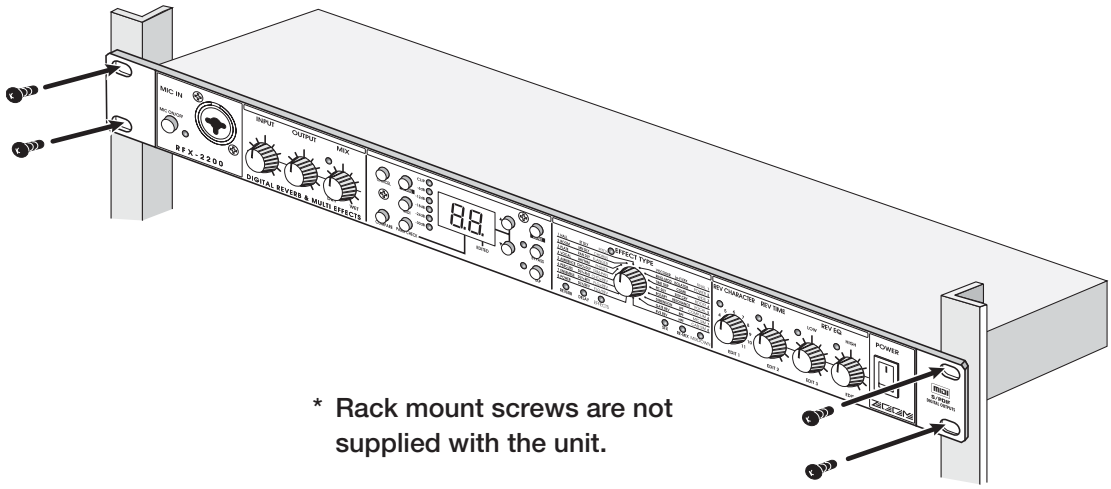
Send/Return Connection



This is an example for connecting the RFX-2200 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-2200, and connect the OUTPUT L/R jacks of the RFX-2200 to the return jacks (or the stereo line input jacks) of the mixer or MTR.

When a component with an S/PDIF digital input (such as a digital multitrack recorder, MD recorder, or DAT recorder) is used, the connection can be made in the digital domain.

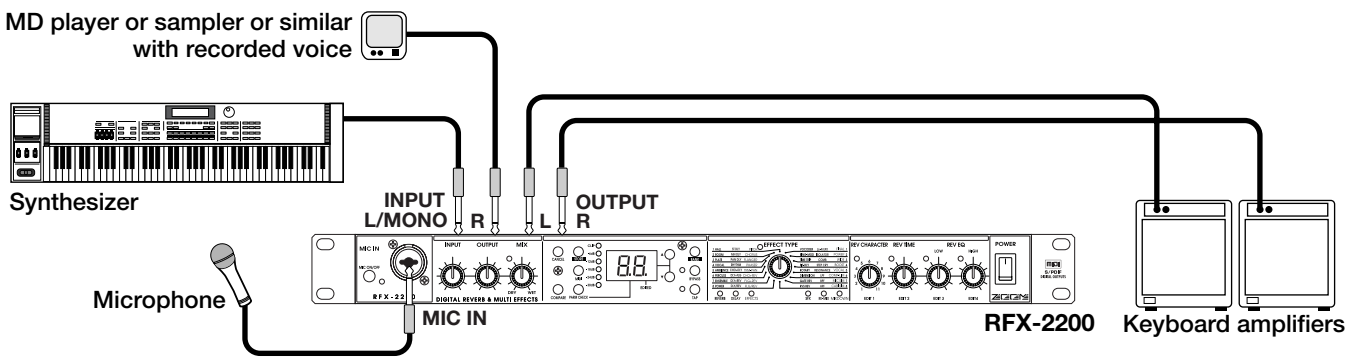
In this configuration, the MIX control of the RFX-2200 should be set so that it outputs only the effect sound, and the balance between original sound and effect sound should be adjusted at the mixer or multi-track recorder. If the mixer or multi-track recorder has a stereo send output, supplying the send signal to the RFX-2200 in stereo is also possible.



* Rack mount screws are not supplied with the unit.

Getting Connected

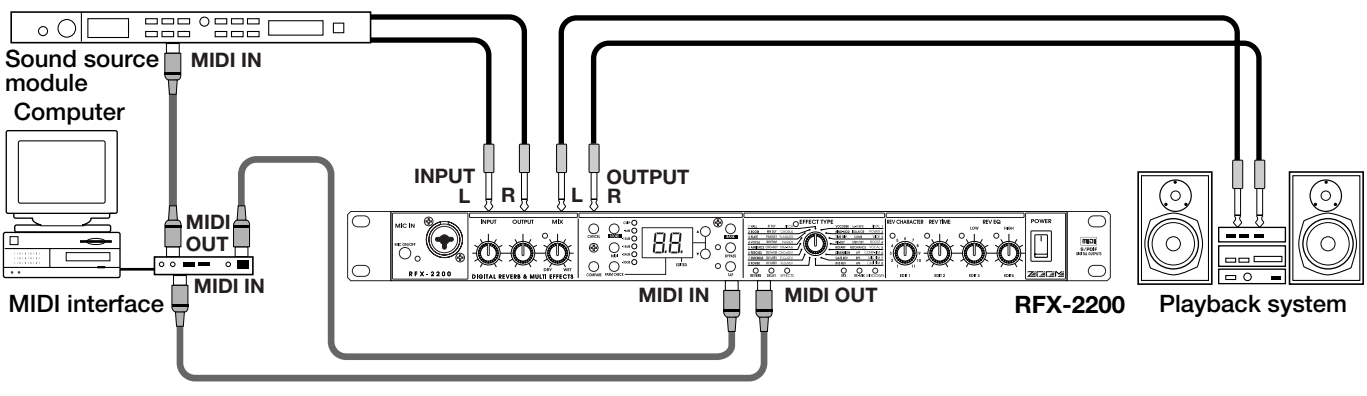
Using the VOCODER Effect



This is a connection example for using the VOCODER effect from the SFX bank. Plug a mic into the front-panel MIC IN connector, and 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.

If nothing is connected to the MIC IN jack, the signal supplied to the INPUT L/MONO jack is controlled by the signal supplied to the INPUT R jack. Verify that the indicator of the MIC ON/OFF switch is lit. If not, press the switch so that the indicator comes on.

Controlling the RFX-2200 Effects from a Computer



In this connection example, third-party sequencer software is used to switch patches and control parameter changes.

Trying Out the Effects

This section is intended to familiarize you with the basic operation steps of the RFX-2200.

Power UP

Turn power to the RFX-2200 and peripheral equipment on, and adjust the level.

1. Verify that the power cord, sound source, and playback system are correctly connected to the RFX-2200.

The INPUT control and OUTPUT control of the RFX-2200 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-2200 → playback system.

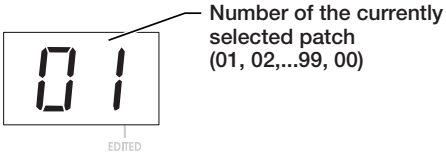
3. While playing the sound source, turn up the INPUT control of the RFX-2200 to adjust the input level.

To minimize noise and distortion, the INPUT control should be set as high as possible without causing the CLIP LED to light. When using a mic plugged into the MIC IN connector, set the MIC ON/OFF switch to ON so that the indicator is lit.

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

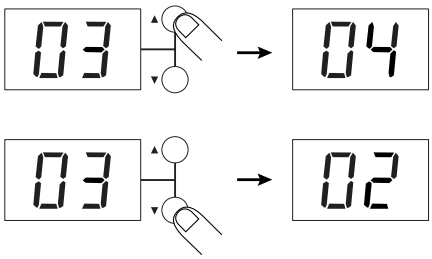
Selecting a Patch

The memory of the RFX-2200 contains 100 stored patches. The display shows the number of the currently selected patch (01, 02,...99, 00). This condition is called the play mode.
To switch patches, proceed as described below. We suggest that you simply try out various patches to see what kind of sound the unit can produce.



1. Use the VALUE UP/DOWN keys to select the number of the desired patch.

The VALUE UP key switches to higher patch numbers and the VALUE DOWN key to lower patch numbers.

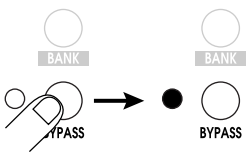


2. While playing the instrument or producing sound from the sound source, switch patches to check out the resulting sound.

Bypassing the Effects

You can temporarily turn effect processing off, so that only the original sound is output. This is useful to quickly check the change brought about by an effect.

1. To set the RFX-2200 to the bypass mode, press the BYPASS key while the unit is in play mode.



The BYPASS indicator lights up.

The RFX-2200 has two different bypass states, depending on the effect in the currently selected patch. (For information on which effects use which bypass type, please refer to pages 14 - 22.)

- **WET MUTE**
  In this condition, only the effect sound is muted and the original sound is output. The level of the original sound output depends on the MIX control position. Therefore there may be a drop in volume or the sound may be entirely cut off.

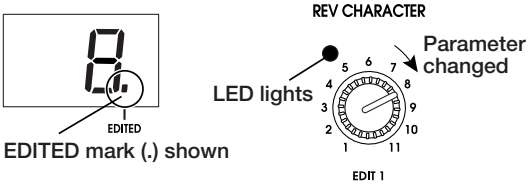
- **DRY THRU**
  The original sound is output without any processing. The setting of the MIX control has no effect on the volume level.

2. To cancel the bypass mode and return the RFX-2200 to the normal state, press the BYPASS key once more.

Editing a Patch

A patch called up from memory can be edited using the front-panel controls. You can select different effects and adjust effect intensity and other parameters.

If any parameter is changed from the stored condition, the new parameter value is shown on the display for about 2 seconds, and the EDITED mark (.) at the right edge of the display appears. This indicates that the current patch has been edited. Because the LED of the control knob that was used to adjust the value also lights, it is easy to see which parameter has been edited.



Note:
When the effect is changed, the LEDs of all control knobs except the MIX control light up.

Selecting an Effect

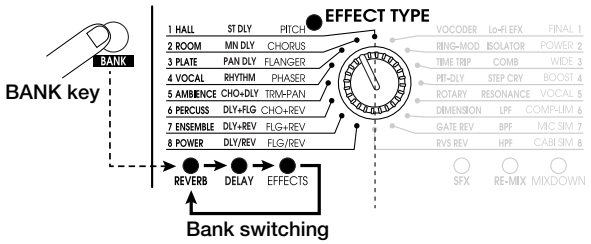
The effect determines the type of sound processing that is performed. To select an effect, use the BANK key and EFFECT TYPE selector.

■ BANK key

The BANK key serves to select the effect bank (group of effects arranged by general type). Which banks are available depends on the current BANK position.

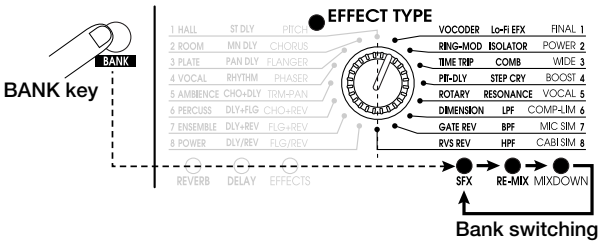
• Left side BANK selected

Pressing the BANK key cycles through the following banks: REVERB → DELAY → EFFECTS → REVERB.



• Right side BANK selected

Pressing the BANK key cycles through the following banks: SFX → RE-MIX → MIXDOWN → SFX.

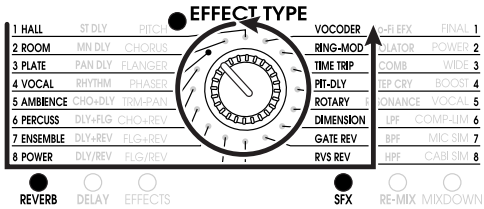


- When a changed bank is returned to the original setting, the respective BANK LED flashes for 1 second.

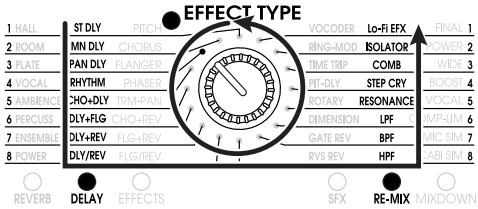
■ EFFECT TYPE selector

This selector serves to choose the effect. As shown below, effects can be chosen from two banks, depending on the setting currently selected with the BANK key.

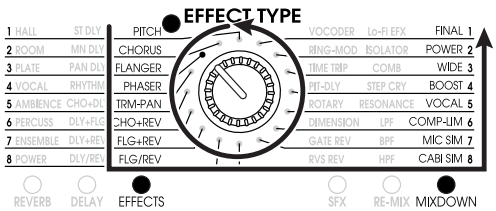
REVERB or SFX bank selected



DELAY or RE-MIX bank selected



EFFECTS or MIXDOWN bank selected



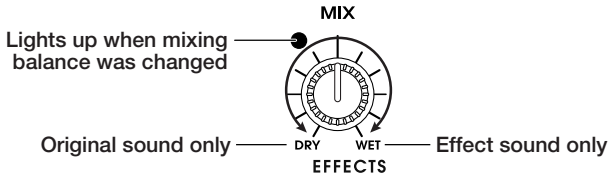
- When the EFFECT TYPE selector is moved, the display shows the effect number (1 - 8) for about 2 seconds.
- When the effect number is changed from the last stored condition, the LED of the EFFECT TYPE selector lights up. When the setting is returned to the original effect, the LED goes out.
- When calling up a patch, the LED of the bank where the patch is stored lights up.

Changing the Value of an Effect Parameter

Each effect of the RFX-2200 consists of certain effect parameters which determine the intensity and tone character of the effect. Effect parameters can be adjusted with the following edit controls.

■ MIX control

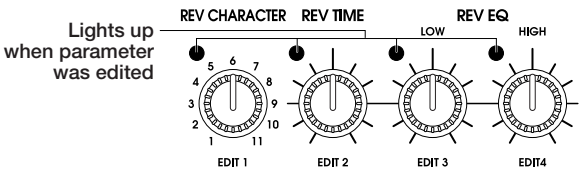
The MIX control serves to adjust the balance between original sound (DRY) and effect sound (WET). When the control is turned fully counterclockwise, only the original sound is output. When the control is turned fully clockwise, only the effect sound is output.



- When the MIX control is moved, the mixing balance setting (0 - 99) is shown on the display for about 2 seconds.
- When the mixing balance setting is changed from the last stored condition, the LED of the MIX control lights up. When the setting is returned to the original value, the LED goes out.

■ REV CHARACTER (EDIT 1) control
■ REV TIME (EDIT 2) control
■ REV EQ LOW (EDIT 3) control
■ REV EQ HIGH (EDIT 4) control

These controls serve to edit parameters of the currently selected effect. (For information on which parameters can be edited for which effect, please refer to pages 14 - 22.)



- When any of the above controls is moved, the corresponding parameter value is shown for 2 seconds on the display.
- When a parameter setting is changed from the last stored condition, the LED of the respective control lights up. When the setting is returned to the original value, the LED goes out. When the effect is switched, the LEDs of all controls except the MIX control light up.

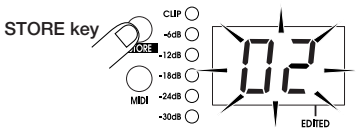
Storing an Edited Patch

If an edited patch is not stored in memory, the edited contents will be lost when another patch is selected. To keep the edited patch, store it in memory as follows.

1. Select the patch and edit it.

2. Press the STORE key.

The patch number on the display flashes.



3. Use the VALUE UP/DOWN keys to select the patch number in which you want to store the patch.

To use the same patch number, this step is not necessary.

4. Press the STORE key once more to execute the store operation.

The patch is stored in memory and the flashing of the display stops.

If you press the CANCEL key instead of the STORE key, the operation is aborted and the unit reverts to the condition of step 1.

Useful Functions

The RFX-2200 offers various handy functions for editing patches.

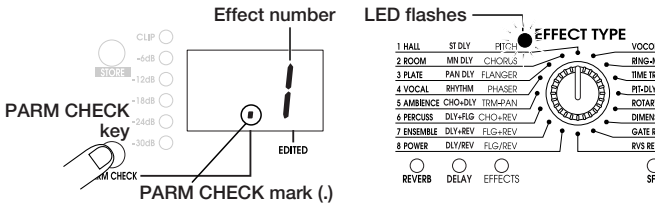
Checking the parameter value (parameter check)

You can also check a parameter value without moving its associated front-panel control.

1. Press the PARM CHECK key.

The PARM CHECK mark (.) in the center of the display appears and the EFFECT TYPE selector LED flashes for about 2 seconds.

This indicates that the effect setting is being checked. The number of the currently selected effect (1 - 8) is shown for about 2 seconds on the display. The display then reverts to the original condition.



2. To check another parameter, press the PARM CHECK key again before the display indication reverts to the previous condition.

With each push of the PARM CHECK key, the parameter to be checked is advanced successively.

REV CHARACTER

Parameter adjusted with REV CHARACTER (EDIT 1) control

REV TIME

Parameter adjusted with REV TIME (EDIT 2) control

REV EQ LOW

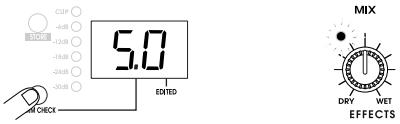
Parameter adjusted with REV EQ LOW (EDIT 3) control

REV EQ HIGH

Parameter adjusted with REV EQ HIGH (EDIT 4) control

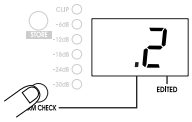
MIX

Mixing balance of original sound and effect sound



TAP BEAT

Length of reference beat for tap input



- The TAP BEAT parameter can only be checked when an effect is selected for which the tap input function (see below) can be used. However, when RHYTHMIC DELAY is selected, there is no tap beat setting.
- When checking the rate parameter set with the tap function, the indication "tP" is shown on the display.

Comparing the Sound Before and After Edit (Compare Function)

This function allows you to compare the currently edited sound to the sound before editing.

1. Press the COMPARE key.

The currently edited patch is temporarily returned to the condition before editing. The indication "CP" and the patch number flash alternately on the display, and the "EDITED" mark is out.

2. To return to editing, press the COMPARE key once more (or press the CANCEL key).

- If desired, you can check the original value of each parameter by pressing the PARM CHECK key while the unit is in the compare mode.
- Moving any of the controls in compare mode has no effect.

Setting Parameters With the Tap Key (Tap Input)

The RFX-2200 allows input of time-based parameters by tapping the TAP key at the desired intervals. For example, the flanger modulation speed or delay time can be easily matched to the tempo of a song in this way.

1. Select a patch for which tap input is possible.

Whether tap input is possible or not depends on the effect selected for that patch (see pages 14 - 22). When a patch for which tap input is possible is selected, the TAP LED flashes.

2. Hit the TAP key several times in the desired interval.

The delay time or rate is set according to the tap interval and the tap beat parameter set for the respective patch (see page 12).

3. If desired, store the patch.

The parameter changed by tap input will revert to the original setting when the patch is switched. To retain the change, you should therefore store the patch.

- The parameter which can be set by tap input is preset (see pages 14 - 22).
- The maximum interval that can be measured by the tap input function is 2 seconds.
- If the tap input interval is outside the setting range for that parameter, it will be corrected to an acceptable value.
- If a parameter was set by tap input and is then changed by moving the control knob for that parameter, the control knob setting will override the tap input.

Using the MIDI Control Function

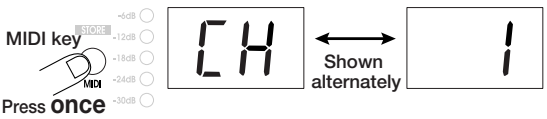
The RFX-2200 can accept commands via a MIDI link for patch switching, parameter control, and transfer of memory contents to an external MIDI device. This section describes the general steps for using MIDI based functions.

Setting the MIDI Channel

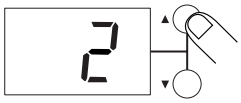
Set the MIDI channel for communication with the RFX-2200 as follows.

1. In play mode, press the MIDI key once.

The indication "CH" and the currently selected MIDI channel are shown alternately on the display.



2. Use the VALUE UP/DOWN keys to select a MIDI channel between 1 and 16. When the display shows "--", the MIDI send/receive function is disabled.



3. Press the CANCEL key to return to the play mode.

Selecting Patches Via MIDI

To switch the patch of the RFX-2200, a program change message must be sent from a MIDI keyboard or sequencer or similar device to the RFX-2200.

1. Connect the MIDI OUT connector of the external MIDI device to the MIDI IN connector on the RFX-2200.

The MIDI channel setting at the RFX-2200 must match the MIDI send channel setting at the external device.

2. Send a program change message from the external MIDI device to the RFX-2200.

In the factory default condition, the RFX-2200 patch numbers correspond to the following program change numbers.

RFX-2200 patch number	Program change number
01	0
02	1
⋮	⋮
99	98
00	99
⋮	⋮
00	127

- When the patch is switched at the RFX-2200, a corresponding program change message appears at the MIDI OUT connector.

Storing Program Change Numbers in the Learn Table

Sometimes it may be desirable to assign specific program change numbers to the patch numbers of the RFX-2200. (For example to call up patch number 1 of the RFX-2200 when the tone associated with program change 100 of a synthesizer is selected.) In such a case, you can use the so-called learn table in the memory of the RFX-2200 to change the program change number assigned to the patch number.

1. In play mode, select the patch to which you want to assign a program change number and press the MIDI key two times.

The indication "PC" and the indication "--" are shown alternately on the display.

2. Send a program change message from the MIDI device connected to the MIDI IN connector of the RFX-2200.

The display indication "--" changes to the received program change number. This program change number is now assigned to the currently selected patch.

3. To assign a separate program change number to this patch, repeat step 2.

It is also possible to assign multiple program change numbers to the same patch number.

4. When the setting is complete, press the CANCEL key to return to the play mode.

If necessary, repeat steps 1 - 4 for other patch numbers and program change numbers.

- The program change numbers 100 - 127 are shown on the display as ".0" - "2.7".
- The changed learn table information is retained also when the unit is turned off. (For information on how to return the learn table to the factory default setting, see page 13.)

Changing Effect Parameters Via MIDI

The effect parameters of the RFX-2200 can be changed using MIDI control change messages sent from an external MIDI device (MIDI keyboard or sequencer or similar). This is useful to change parameters from a separate location.

1. Connect the MIDI OUT connector of the external MIDI device to the MIDI IN connector on the RFX-2200.

The MIDI channel setting at the RFX-2200 must match the MIDI send channel setting at the external device.

(For information on setting the MIDI channel, see page 10.)

2. Send a control change message from the external MIDI device to the RFX-2200.

The effect parameters of the RFX-2200 correspond to the following control change numbers.

Effect parameter	Control change number	Acceptable receive value	Acceptable send value
EFFECT TYPE	86	0 - 47	0 - 47
REV CHARACTER(EDIT1)	84	0 - 10	0 - 10
REV TIME(EDIT2)	85	0 - 127	0 - 127
REV EQ LOW(EDIT3)	87	0 - 127	0 - 127
REV EQ HIGH(EDIT4)	88	0 - 127	0 - 127
MIX	8	0 - 127	0 - 127
BYPASS	80, 91	0 - 63 = bypass off 64 - 127 = bypass on	
	80		0 = bypass off / 127 = bypass on
TAP	64	64 - 127	Output 127 followed immediately by 0

- When a key or control on the front panel is operated, the above control change message is sent.
- Changing a parameter with a control change message has the same effect as editing the parameter with the front-panel controls. If required, save the changed patch.

Storing Panel Operations on a Sequencer

Operation functions of the front-panel controls of the RFX-2200 can be stored as control change messages on a MIDI sequencer for later playback. This is convenient to play a sound source module on the sequencer and simultaneously adjust the RFX-2200 in real time.

1. Connect the MIDI OUT connector of the external MIDI device to the MIDI IN connector on the RFX-2200, and connect the MIDI OUT connector on the RFX-2200 to the MIDI IN connector of the external MIDI device.

- The MIDI channel setting at the RFX-2200 must match the MIDI send channel for the sequencer track on which the operation should be recorded. (For information on setting the MIDI channel, see page 10.)
- Verify that MIDI echo (MIDI thru) at the sequencer is set to OFF.
- It will be useful to record a program change message at the start of the sequencer track which calls the patch to be used as operation start point.

2. Start the MIDI sequencer and start recording.

3. Operate the control knobs on the front-panel of the RFX-2200.

The control knob operation is recorded as control change information on the MIDI sequencer track.

4. Stop recording at the MIDI sequencer and play back the track from the beginning.

Parameters will change according to the operations carried out in step 3.

Tap Input Using the MIDI Clock

Instead of using the TAP key, it is also possible to use an external MIDI device (such as a MIDI sequencer or rhythm machine) to supply a MIDI clock for setting the delay time or rate that matches the clock tempo.

1. Connect the MIDI OUT connector of the external MIDI device to the MIDI IN connector on the RFX-2200.

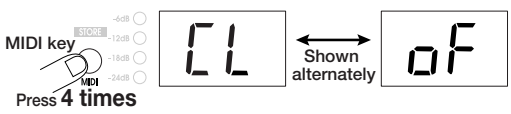
- To perform tempo input with the TAP key, set MIDI clock receive = OFF.

2. Select a patch at the RFX-2200 for which tap input can be used.

- For information on which parameters allow tap input, please refer to pages 14 - 22.)

3. In play mode, press the MIDI key four times.

The indication "CL" and the indication "on" (MIDI clock receive ON) or "oF" (MIDI clock receive OFF) are shown alternately on the display.



4. Use the VALUE UP/DOWN keys to set the setting to "on".

5. Press the CANCEL key to return to the play mode.

You can now use the MIDI clock tap input feature. This setting applies to all patches.

6. Supply the MIDI clock from the external MIDI device.

The delay time or rate is set according to the tempo of the supplied MIDI clock and the tap beat parameter set for the respective patch (see below).

7. If desired, store the patch.

The parameter changed by MIDI clock tap input will revert to the original setting when the patch is switched. To retain the change, you should therefore store the patch.

- When the patch was stored and the same patch is then called up again, it suffices to supply the MIDI clock to automatically adjust delay time or rate according to the clock tempo.
- If a parameter was set by MIDI clock tap input and is then changed by moving the control knob for that parameter, the control knob setting will override the MIDI clock tap input.
- The RFX-2200 counts 24 MIDI clock pulses as one interval, using 1-ms units. The maximum interval that can be measured is 2 seconds.

Tap Beat Setting

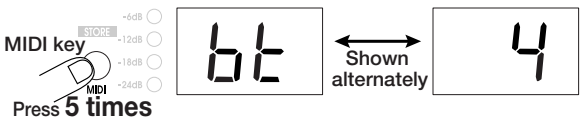
The tap beat is a parameter that determines the length of the reference beat used for setting the delay time or rate when using the tap input feature. For example, if the tap beat is set to "4" (quarter note), the length of one beat of the MIDI clock (24 clock signals) or the interval in which the TAP key is hit will be taken as the delay time or rate. When the tap beat setting is "8" (eighth note), the setting will be one half.

1. In play mode, select a patch for which tap input is possible.

- The tap beat setting is made individually for each patch.

2. Press the MIDI key five times.

The indication "bt" and the number showing the tap beat note length setting are shown alternately on the display.



3. Use the VALUE UP/DOWN keys to set the note length.

oF	For this patch, MIDI clock input is not used. The interval in which the TAP key is hit is taken directly as delay time or rate parameter.
32	Thirty-second note
16	Sixteenth note
t8	Eighth triplet note
16.	Dotted sixteenth note
8	Eighth note
t4	Quarter triplet note
8.	Dotted eighth note
4	Quarter note
4.	Dotted quarter note
2	Half note
01	Whole note
02	Two whole notes
04	Four whole notes

4. Press the CANCEL key.

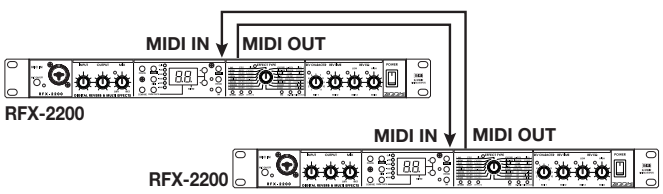
The RFX-2200 returns to the play mode. To store the tap beat setting for the patch, perform the store operation.

NOTE:
The tap beat setting will take effect the next time tap input is performed or the tempo is set by MIDI clock input.

Data Transfer (Send)

The patch information and learn table information stored internally in the RFX-2200 can be output via the MIDI link. This can be used for example to exchange settings between two RFX-2200 units, or to store the data on a MIDI sequencer. The data can then be reloaded into the RFX-2200 whenever required.

1. When using two RFX-2200 units, connect the MIDI OUT connector on the first RFX-2200 to the MIDI IN connector of the second RFX-2200, and connect the MIDI OUT connector on the second RFX-2200 to the MIDI IN connector on the first RFX-2200. The MIDI channel must be set to a matching setting.



Connection example for two RFX-2200 units

When using a MIDI sequencer or other MIDI device, connect the MIDI OUT connector on the RFX-2200 to the MIDI IN connector of the MIDI sequencer.

2. Press the MIDI key of the sending RFX-2200 three times.

The indication "dt" and the indication "AL" are shown alternately on the display.

3. Use the VALUE UP/DOWN keys to select the type of data to be sent.

- **AL**
  All patch data and learn table
- **Current patch number**
  Current patch data only (if editing, data currently being edited)

4. To execute the data transfer, press the STORE key.

The sending RFX-2200 starts to transmit the data. (The data are received automatically by the receiving RFX-2200. No special steps are necessary.) During the transfer, the indication "dt" flashes on the display of the

sending RFX-2200 and the indication "dr" on the display of the receiving RFX-2200.
When the transfer is completed, the units automatically revert to play mode.

- **When "AL" was selected for sending**
  All patch data and learn table data in the memory of the receiving RFX-2200 are overwritten.
- **When "current patch number" was selected for sending**
  The currently edited patch data are overwritten. Perform store as necessary.

5. To record data on an external MIDI sequencer or other MIDI device, set the device to the recording mode and press the STORE key.

When the transfer is complete, stop recording at the external MIDI device and perform any necessary steps for storing the data on the device.

- To abort the data send process, press the CANCEL key instead of the STORE key in step 4.

Note:
The RFX-2200 sends several system exclusive data in succession. If a MIDI data recorder is used which stops recording after receiving one set of system exclusive data, the data of the RFX-2200 may not be stored correctly.

Data Transfer (Receive)

This section describes how to load patch data and learn table data stored on an external MIDI device back into the RFX-2200.

1. Connect the MIDI OUT connector of the external MIDI device (sequencer etc.) to the MIDI IN connector on the RFX-2200.

2. Perform playback at the external MIDI device.

- **When "AL" was selected for sending**
  All patch data and learn table data in the memory of the receiving RFX-2200 are overwritten. The indication "dr" flashes on the display while data are being received.
- **When "current patch number" was selected for sending**
  The currently edited patch data are overwritten. Perform store as necessary.

- When sending data to or loading data from an external MIDI device, the RFX-2200 and the device must be set to the same MIDI channel. Otherwise data will be disregarded by the RFX-2200 also if playback is performed on the external MIDI device.
- Playback at the external MIDI device must be performed at the same tempo as recording. If the tempo is faster, the RFX-2200 may not receive the data properly.

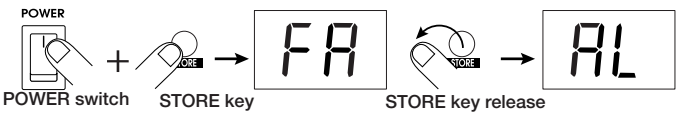
3. After data have been loaded into the RFX-2200, stop playback at the external MIDI device.

Returning the RFX-2200 to the Factory Default Settings

You can return the entire RFX-2200 or individual patches to the factory default condition.(Recall) This is useful if an original patch was overwritten by mistake or if you want to return the entire unit to the original state.
Note:
When the recall function is carried out, data stored in memory by the user will be lost. Make sure that these data are no longer needed before carrying out this function.

1. Turn on the power to the RFX-2200 while keeping the STORE key depressed.

The indication "FA" is shown while the STORE key is held down.



When you release the STORE key, "AL" flashes on the display.

2. Use the VALUE UP/DOWN keys to select the recall contents.

- **AL**
  Return all patch data and the learn table to the factory default condition.
- **01 - 99, 00**
  Only the selected patch data are returned to the factory default condition.
- **PC**
  Only the learn table is initialized (returned to the factory default condition).

3. To carry out the recall operation, press the STORE key once more.

- **When AL or PC was selected in step 2**
  Recall is carried out and the unit reverts to the play mode.
- **When a specific patch number was selected in step 2**
  The unit stays in the recall mode, and recall is carried out subsequently for any specified patch numbers.

  To stop the recall operation, press the CANCEL key.

RFX-2200 Effects

This section lists all the effects and parameters available in the RFX-2200.

S/R Effects suitable for a send/return connection (p. 4) are marked with this symbol.

ON TAP Effects for which tap input (p. 9) can be used are marked with this symbol.
The parameter that can be set by tap input is marked with a "TAP" indication besides the name.

BYPASS BYPASS indicates the operation of the unit in bypass mode (p. 6). This can be either WET MUTE (effect sound only is muted) or DRY THRU (original sound is passed through unprocessed).

REVERB Bank

This bank contains only reverb effects. The parameters REV CHARACTER, REV TIME, REV EQ LOW, and REV EQ HIGH adjusted with the respective controls are common to all of these effects. For each effect, there are 11 character settings selected with the REV CHARACTER control, producing a different tone and style.

1 HALL	These effects simulate the reverb in various types of medium to large size buildings.	S/R
2 ROOM	These effects simulate the reverb in various types of interior spaces, ranging from small rooms to large clubs.	S/R
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
4 VOCAL	Reverb effects best suited for vocals and narration.	S/R
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
6 PERCUSS	**(PERCUSSION)** These reverb effects are most suitable for drums and percussion.	S/R
7 ENSEMBLE	These effects are best for ensemble sections such as strings or brass.	S/R
8 POWER	These effects add a feeling of power and energy to sound sources.	S/R

Control knob	REV CHARACTER	REV TIME	REV EQ LOW	REV EQ HIGH	TAP	BYPASS
Parameter	Character	Reverb Time	EQ Low	EQ High		
Description	Selects the reverb character (see table).	Adjusts the reverb time.	Adjusts EQ Low boost/cut.	Adjusts EQ High boost/cut.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*-12 - +12*	*-12 - +12*		

■ Reverb Character Table

1. HALL

1 **Large Hall**..... Simulates a large concert hall.
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

1 **Tile Chamber** ..... Simulates the acoustics of a tiled room.
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

1 **Large Plate** ..... Simulates the reverb produced by a large plate.
2 **Bright Plate** ..... Bright plate reverb suitable for percussion.
3 **Dark Plate** ..... Plate reverb with a feeling of depth.
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

1 **Female Rock** ..... Reverb suitable for female rock singers.
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

1 **Rock Mix** ..... Reverb for rock type music sources.
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. PERCUSSION

1 **Rock Kit/1** ..... Reverb suitable for rock drum.
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.

7. ENSEMBLE

1 **Strings** ..... Reverb suitable for strings.
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.
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.

8. POWER

1 **Kick/1** ..... Stresses the body impact of bass drums.
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.

DELAY bank

Contains single delay effects and combined effects that allow use of delay and another effect. 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 ST DLY

(STEREO DELAY) Stereo delay with a delay time of max. 1486 ms.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	High Damp	Time[x 100] [TAP]	Time[x 1] [TAP]	Feedback		
Description	Adjusts the amount of treble attenuation in the high range.	Adjusts the delay time in 100-ms units.	Adjusts the delay time in 1-ms units.	Adjusts the amount of feedback. Negative values result in cross-feedback.	ON TAP	WET MUTE
Setting range	*1 - 11*	*0 - 14*	*0 - 99*	*-15 - 15*		

2 MN DLY

(MONO DELAY) Monaural delay with a delay time of max. 2972 ms.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	High Damp	Time[x 100] [TAP]	Time[x 1] [TAP]	Feedback		
Description	Adjusts the amount of treble attenuation in the high range.	Adjusts the delay time in 100-ms units	Adjusts the delay time in 1-ms units.	Adjusts the amount of feedback.	ON TAP	WET MUTE
Setting range	*1 - 11*	*0 - 29*	*0 - 99*	*0 - 30*		

3 PAN DLY

(AUTO PANNING DELAY) Monaural delay with auto-panning.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Depth	Rate [TAP]	Time[x 10]	Feedback		
Description	Adjusts the panning depth.	Adjusts the panning cycle.	Adjusts the delay time in 10-ms units (max. 990 ms).	Adjusts the amount of feedback.	ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 50*	*1 - 99*	*0 - 30*		

4 RHYTHM

(RHYTHMIC DELAY) This is a mono delay for which the delay time can be set in BPM and notes. If MIDI clock receive is set to "on", this effect always receives the MIDI clock.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Beat	BPM[x 10] [TAP]	BPM[x 1] [TAP]	Feedback		
Description	Selects the note corresponding to the delay time (see below).	Adjusts the BPM value in 10-beat steps (setting range: 41 - 250).	Adjusts the BPM value in 1-beat steps.	Adjusts the amount of feedback.	ON TAP	WET MUTE
Setting range	*1 - 11*	*4 - 25*	*0 - 9*	*0 - 30*		

Beat

1: Thirty-second note 2: Sixteenth triplet note 3: Sixteenth note 4: Eighth triplet note 5: Dotted sixteenth note
6: Eighth note 7: Quarter triplet note 8: Dotted eighth note 9: Quarter note 10: Dotted quarter note 11: Half note

5 CHO+DLY

This is an in-series combination of chorus and delay.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Chorus Mix	Chorus Depth	Delay Time[x 10]	Delay Feedback		
Description	Adjusts the chorus mix ratio.	Adjusts the chorus modulation depth.	Adjusts the delay time in 10-ms units (75:743ms).	Adjusts the amount of delay feedback.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 75*	*0 - 30*		

6 DLY+FLG

This is an in-series combination of delay and flanger.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Flanger Feedback	Flanger Rate [TAP]	Delay Time[x 10]	Delay Feedback		
Description	Adjusts the amount of flanger feedback.	Adjusts the flanger fluctuation cycle.	Adjusts the delay time in 10-ms units (75:743ms).	Adjusts the amount of delay feedback.	ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 50*	*1 - 75*	*0 - 30*		

7 DLY+REV	This is an in-series combination of delay and reverb.					S/R
Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Mix	Reverb Time	Delay Time[x 10]	Delay Feedback		
Description	Adjusts the reverb mix ratio.	Adjusts the reverb duration.	Adjusts the delay time in 10-ms units (75:743ms).	Adjusts the amount of delay feedback.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 75*	*0 - 30*		

8 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
Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Mix	Reverb Time	Delay Time[x 10]	Delay Feedback		
Description	Adjusts the reverb mix ratio.	Adjusts the reverb duration.	Adjusts the delay time in 10-ms units (75:743ms).	Adjusts the amount of delay feedback.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 75*	*0 - 30*		

EFFECTS Bank

Contains single modulation effects and combined effects that allow simultaneous use of two effects. 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 PITCH	Stereo pitch shifter which adds a pitch-shifted component to the original sound.					S/R
Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Tone	Pitch	Fine	Shift		
Description	Adjusts the tone.	Adjusts the pitch shift amount in semitones.	Performs fine adjustment of pitch.	Adjusts the direction of pitch shift (up or down).		WET MUTE
Setting range	*1 - 11*	*0 - 24*	*-10 - +10*	*dn, UP*		

2 CHORUS	A stereo chorus with three voices per channel.					S/R
Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Tone	Depth	Rate	Pre Delay		
Description	Adjusts the tone.	Adjusts the depth of the effect.	Adjusts the modulation cycle.	Adjusts the predelay time.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 50*	*1 - 30*		

3 FLANGER	Stereo flanger with a wide range.					S/R
Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Feedback	Depth	Rate [TAP]	Manual		
Description	Adjusts the amount of feedback.	Adjusts the depth of the effect.	Adjusts the modulation cycle.	Adjusts the filter effect bandwidth.	ON TAP	WET MUTE
Setting range	*1 - 11*	*0 - 30*	*1 - 50*	*1 - 30*		

4 PHASER	Phaser with pronounced fluctuation.					S/R
Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Stage	Depth	Rate [TAP]	Feedback		
Description	Selects the number of phaser stages and the phase. 1 - 5: 4, 6, 8, 10 (normal phase) 6 - 11: 4, 6, 8, 10, 12, 16 (opposite phase)	Adjusts the depth of the effect.	Adjusts the modulation cycle.	Adjusts the amount of feedback.	ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 50*	*0 - 30*		

5 TRM-PAN

Effect ranging from tremolo to auto-panpot.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Width	Depth	Rate [TAP]	Clip		
Description	Turning the control counterclockwise gives tremolo. Turning it clockwise gives auto-panning with a wider spread.	Adjusts the auto-panning depth.	Adjusts the modulation cycle.	Adjusts the LFO waveform clip pattern that controls the modulation.	ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 10*	*1 - 50*	*0 - 10*		

6 CHO+REV

This is an in-series combination of chorus and reverb. S/R

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Mix	Reverb Time	Chorus Depth	Chorus Mix		
Description	Adjusts the reverb mix ratio.	Adjusts the reverb duration.	Adjusts the chorus depth.	Adjusts the chorus mix ratio.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 30*	*0 - 99*		

7 FLG+REV

This is an in-series combination of flanger and reverb. S/R

Parameters are the same as for "8 FLG/REV".

8 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

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Mix	Reverb Time	Flanger Rate [TAP]	Flanger Feedback		
Description	Adjusts the reverb mix ratio.	Adjusts the reverb duration.	Adjusts the flanger fluctuation cycle.	Adjusts the flanger feedback.	ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 50*	*0 - 30*		

SFX Bank

This bank contains special effects such as a Vocoder and ring modulator.

1 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.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Band/Attack	Chorus Mix	Distortion	Sens		
Description	Adjusts the number of Vocoder bands and the response speed. **1 - 5:** 18 bands, **6 - 11:** 10 bands (lower values mean faster response)	Adjusts the chorus mix ratio.	Adjusts the distortion.	Adjusts the Vocoder sensitivity.		WET MUTE
Setting range	*1 - 11*	*0 - 10*	*0 - 10*	*1 - 30*		

2 RING-MOD

This is a ring modulator with short delay.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Delay Mode	Frequency	EQ Low	EQ High		
Description	Switches the delay effect.	Adjusts the modulation frequency.	Adjusts the EQ Low cut/boost amount.	Adjusts the EQ High cut/boost amount.		WET MUTE
Setting range	*1 - 11*	*1 - 50*	*-12 - 12*	*-12 - 12*		

3 TIME TRIP

This effect varies the delay time according to the intensity of the input signal. S/R

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Depth	Sensitivity	Feedback	Feedback Polarity		
Description	Adjusts the delay time change range.	Adjusts the delay time change sensitivity.	Adjusts the amount of feedback.	Adjusts the feedback polarity. -1: reverse phase, 1: normal phase		WET MUTE
Setting range	*1 - 11*	*1 - 50*	*0 - 30*	*-1, 1*		

4 PIT-DLY

This is an effect with a pitch shifter integrated in the feedback loop.

S/R

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Feedback	Delay TIME[x 10]	Pitch	Pitch Goal		
Description	Adjusts the amount of feedback.	Adjusts the delay time in 10-ms units (75:743ms).	Adjusts the pitch shift value. At the maximum setting (30), the shift amount is equal to the Pitch Goal setting.	Adjusts the pitch shift amount in semitones.		WET MUTE
Setting range	*1 - 11*	*1 - 75*	*0 - 30*	*-12 - 12*		

5 ROTARY

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

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Drive	Speed 1	Speed 2 [TAP]	Speed Select		
Description	Adjusts the distortion.	Adjusts the speed 1.	Adjusts the speed 2.	Switches between speed 1 (S1) and speed 2 (S2).	ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 50*	*1 - 50*	*S1, S2*		

6 DIMENSION

(DIMENSION REVERB) These effects control the spatial expansiveness of the sound.

S/R

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Character	Reverb Time	EQ Low	EQ High		
Description	Adjusts the character. (See table)	Adjusts the reverb duration.	Adjusts the EQ Low cut/boost amount.	Adjusts the EQ High cut/boost amount.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*-12 - 12*	*-12 - 12*		

■DIMENSION character table

1 **Super Wide** ..... Emphasizes the stereo spread of music sources.
2 **StereoMono** ..... Changes the sound localization from stereo to mono.
3 **LeftRight** ..... Changes the sound localization from left to right.
4 **RightLeft** ..... Changes the sound localization from right to left.
5 **Big Delay** ..... Effect with long pre-delay for creating a wide space.
6 **MonoStereo** ..... 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 GATE REV

(GATE REVERB) Special effect where the reverb is briskly cut by a gate.

S/R

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Threshold	Reverb Time	EQ Low	EQ High		
Description	Adjusts the gate sensitivity.	Adjusts the reverb duration.	Adjusts the EQ Low cut/boost amount.	Adjusts the EQ High cut/boost amount.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*-12 - 12*	*-12 - 12*		

8 RVS REV

(REVERSE REVERB) This achieves a similar effect as a tape run in reverse.

S/R

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Threshold	Reverb Time	EQ Low	EQ High		
Description	Adjusts the sensitivity of the effect, that is the level from which the reverb is applied.	Adjusts the reverb duration.	Adjusts the EQ Low cut/boost amount.	Adjusts the EQ High cut/boost amount.		WET MUTE
Setting range	*1 - 11*	*1 - 30*	*-12 - 12*	*-12 - 12*		

RE-MIX Bank

This bank contains mainly effects for processing stereo sources in various ways. Lo-Fi purposely degrades sound quality for special effect. The ISOLATOR separates the signal into three bands whose level can be adjusted separately. The bank is useful for example for 2-track mixing or DJ work.

1 Lo-Fi EFX

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

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Character	Color	Distortion	Tone		
Description	Gradually changes the filter character.	Adjusts the color.	Adjusts the distortion.	Adjusts the tone.		WET MUTE
Setting range	*1 - 11*	*1 - 10*	*1 - 10*	*1 - 20*		

2 ISOLATOR

This effect divides the signal into three bands, with control of the mix ratio.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Character	Low Mix	Mid Mix	High Mix		
Description	Adjusts the crossover frequency.	Adjusts the low-range mix ratio.	Adjusts the midrange mix ratio.	Adjusts the high-range mix ratio.		WET MUTE
Setting range	*1 - 11*	*0 - 99*	*0 - 99*	*0 - 99*		

3 COMB

(COMB FILTER) This effect processes the input source sound with a comb filter.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Response	Range	Frequency	Feedback		
Description	Adjusts the response speed for changing the Frequency parameter.	Adjusts the Frequency parameter adjustment range.	Adjusts the comb filter frequency.	Adjusts the amount of feedback.		WET MUTE
Setting range	*1 - 11*	*1 - 40*	*1 - 30*	*0 - 30*		

4 STEP CRY

This is effect uses filters to lend a distinct, stair-like character to the sound.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Wave Balance	Depth	Step Rate [TAP]	Resonance		
Description	Smaller values result in a stronger CRY effect, and higher values in a stronger STEP effect.	Adjusts the depth of the effect.	Adjusts the stair frequency.	Adjusts the effect strength.	● ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 50*	*1 - 10*		

5 RESONANCE

This is a filter effect with a resonance component.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Resonance	Sensitivity	LFO Rate [TAP]	LFO Depth		
Description	Adjusts the resonance.	Adjusts the filter sensitivity in relation to the input signal.	Adjusts the LFO cycle.	Adjusts the LFO change range.	● ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 50*	*0 - 30*		

6 LPF

(LOW PASS FILTER) This is a filter which lets only low-frequency signal components through.

7 BPF

(BAND PASS FILTER) This is a filter which lets only mid-frequency signal components through.

8 HPF

(HIGH PASS FILTER) This is a filter which lets only high-frequency signal components through.

"6 LPF" , "7 BPF" , "8 HPF" use the same parameters

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Resonance	Frequency	LFO Rate [TAP]	LFO Depth		
Description	Adjusts the resonance	Adjusts the cutoff frequency.	Adjusts the LFO cycle.	Adjusts the LFO change range.	● ON TAP	WET MUTE
Setting range	*1 - 11*	*1 - 30*	*1 - 50*	*0 - 30*		

MIXDOWN Bank

The effects in this bank serve 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).

For optimum results, the effects in this bank should be used with the MIX control set to 99, so that only the effect sound (WET) is output.

1 FINAL

(FINAL MASTER) This is an in-series combination of a 4-band equalizer and 3-band compressor.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Character	Low MIX	Mid MIX	High MIX		
Description	Selects the compression and EQ character (see table).	Adjusts the low-range level to -∞ or -24.5 to 0 dB (in 0.5-dB steps) 50: 0 dB	Adjusts the mid-range level to -∞ or -24.5 to 0 dB (in 0.5-dB steps) 50: 0 dB	Adjusts the high-range level to -∞ or -24.5 to 0 dB (in 0.5-dB steps) 50: 0 dB		DRY THRU
Setting range	*1 - 11*	*0 - 50*	*0 - 50*	*0 - 50*		

■FINAL character table

1 **Drum Punch**..... Adds a punch to drum sound.
2 **Dance Mix**..... Creates a low end of a dance floor.
3 **Pushy Pop** ..... Makes a popular song powerful.
4 **Rock Shape**..... Adds a rock flavor.
5 **MP3 Enhancer**..... Makes a muffled sound clear.
6 **Vocal Boost**..... Brings vocals to the foreground.
7 **Low End Comp**..... Compresses only low range.
8 **Mid Range Comp**.... Compresses only mid range.
9 **Hi End Comp** ..... Compresses only high range.
10 **Walkie Talkie** ..... Accentuates mid range.
11 **Maximum**..... Pushes up overall sound pressure level.

2 POWER

(POWER BOOST) Mixdown effect which emphasizes the bass and gives the sound a powerful punch.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Character	Reverb Time	Reverb Mix	Intensity		
Description	Selects various reverb character settings (see next page table).	Adjusts the reverb duration.	Adjusts the reverb mix ratio.	Adjusts the bass emphasis.		DRY THRU
Setting range	*1 - 11*	*1 - 30*	*0 - 99*	*0 - 15*		

3 WIDE

(WIDE IMAGE) Mixdown effect which stresses the left/right stereo spread.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Character	Reverb Time	Reverb Mix	Intensity		
Description	Selects various reverb character settings (see next page table).	Adjusts the reverb duration.	Adjusts the reverb mix ratio.	Adjusts the left/right spread.		DRY THRU
Setting range	*1 - 11*	*1 - 30*	*0 - 99*	*0 - 15*		

4 BOOST

(BOOST EQ) Mixdown effect which gives the sound a tight low end and snappy high end.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Character	Reverb Time	Reverb Mix	Intensity		
Description	Selects various reverb character settings (see next page table).	Adjusts the reverb duration.	Adjusts the reverb mix ratio.	Adjusts the low-range/high-range volume.		DRY THRU
Setting range	*1 - 11*	*1 - 30*	*0 - 99*	*0 - 15*		

5 VOCAL

(VOCAL PRESENCE) This mixdown effect brings out suppleness and warmth in vocals.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Reverb Character	Reverb Time	Reverb Mix	Intensity		
Description	Selects various reverb character settings (see next page table).	Adjusts the reverb duration.	Adjusts the reverb mix ratio.	Adjusts the band for enhancing clarity and stressing the richness of vocals.		DRY THRU
Setting range	*1 - 11*	*1 - 30*	*0 - 99*	*0 - 15*		

■POWER, WIDE, BOOST, VOCAL reverb character table

1 **Warm Hall** ····· Warm hall reverb
2 **Normal Hall** ····· Common hall reverb
3 **Clear Hall** ····· Clear hall reverb
4 **Warm Room** ····· Warm room reverb
5 **Normal Room** ····· Common room reverb
6 **Clear Room** ····· Clear room reverb
7 **Warm Plate** ····· Warm plate reverb
8 **Normal Plate** ····· Common plate reverb
9 **Clear Plate** ····· Clear plate reverb
10 **Warm Ambience** ···· Warm ambience
11 **Clear Ambience** ····· Clear ambience

6 COMP•LIM

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.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Character	Threshold	EQ Low	EQ High		
Description	Selects the effect type and adjusts the release time. **1 - 6:** Compressor **7 - 11:** Limiter (higher values result in longer release time)	Adjusts the sensitivity for the compressor/ limiter action.	Adjusts EQ Low boost/cut.	Adjusts EQ High boost/cut.		DRY THRU
Setting range	*1 - 11*	*1 - 16*	*-12 - +12*	*-12 - +12*		

7 MIC SIM

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

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Character	Threshold	EQ Low	EQ High		
Description	Selects the microphone character and the degree of enhancement. **1 - 6:** For vocals **7 - 11:** For instruments (larger values result in stronger enhancement)	Adjusts the limiter threshold.	Adjusts EQ Low boost/cut.	Adjusts EQ High boost/cut.		DRY THRU
Setting range	*1 - 11*	*1 - 16*	*-12 - +12*	*-12 - +12*		

8 CABI SIM

(CABINET SIMULATOR) Adds the sound character of an amplifier speaker cabinet to the sound of an electric guitar.

Control knob	EDIT 1	EDIT 2	EDIT 3	EDIT 4	TAP	BYPASS
Parameter	Character	Presence	EQ Low	EQ High		
Description	Selects the amplifier character and the degree of cabinet sound. **1 - 6:** COMBO **7 - 11:** STACK (higher values result in stronger cabinet sound)	Adjusts the ultra-high range.	Adjusts EQ Low boost/cut.	Adjusts EQ High boost/cut.		DRY THRU
Setting range	*1 - 11*	*1 - 16*	*-12 - +12*	*-12 - +12*		

Patch List

No.	Name	Comment	Effect
01	**Orchestral Hall**	Large hall reverb for ensembles	HALL
02	**Tile Chamber**	Short, bright reverb for drums	ROOM
03	**Cathedral**	Rich, long reverb for chant	HALL
04	**132-BPM Delay**	132-BPM, dotted-8th-note delay	RHYTHM
05	**Panning Delay**	200-ms auto-panning delay	PAN DLY
06	**Delay + Reverb**	Delay -> reverb good on vocals	DLY+REV
07	**Slow Chorus**	Deep chorus for electric piano	CHORUS
08	**LFO Flange**	Deep, slow flanger for rhythm pattern	FLANGER
09	**Synth Harmony**	Adds 5-semitone-down harmony	PITCH
10	**Pulsar**	Hard, deep tremolo for synth	TRM-PAN
11	**Wow!**	Highly resonant wah	BPF
12	**Endless Plate**	Ultra-long reverb	PLATE
13	**Extreme Bipolar**	Lows and highs only	ISOLATOR
14	**Mono -> Stereo**	Fattens up brass stabs	DIMENSION
15	**Mess It Up**	Lo-fi degradation	Lo-Fi EFX
16	**WalkieTalkie**	Radio sound effect for spoken word	FINAL
17	**Sharp Gated Verb**	Puts dark shadow on drums	GATE REV
18	**Gunshot**	Makes gunshot sound	PIT-DLY
19	**Medium Concert Hall**	Medium hall reverb for piano	HALL
20	**Small Bright Hall**	Small hall reverb for acoustic guitar	HALL
21	**Gymnasium**	Special large reverb	HALL
22	**Midrange Hall**	Recital hall reverb	HALL
23	**Small Chamber**	Small room reverb	ROOM
24	**Big Wooden Room**	Big room reverb for hand percussions	ROOM
25	**Glass Room**	Room reverb for brass section	ROOM
26	**Large Warm Room**	Warm room reverb	ROOM
27	**Guitar Space**	Lifts up distortion guitar sound	ROOM
28	**Lyrical**	Rich plate reverb	PLATE
29	**Boomer**	Low-pass plate reverb for kick drum	PLATE
30	**Slap Plate**	Adds bright smack to snare	PLATE
31	**High-pass Plate**	No-bass reverb	PLATE
32	**Midrange Plate**	Clean plate reverb	PLATE
33	**Vocal Chant**	Reverb for solo vocal	VOCAL
34	**Male Ballad**	Deeper reverb for male vocal	VOCAL
35	**Female Rock**	Vocal reverb especially for female voice	VOCAL
36	**Vocal Enhancer**	Makes solo voice alive	VOCAL
37	**Choir Verb**	Vocal reverb for chorus part	VOCAL
38	**Rock Mix**	Ambient reverb with less bass	AMBIENCE
39	**Hip Hop Ambience**	Bass boost reverb	AMBIENCE
40	**Synth Verb**	Super bright reverb for keyboards	AMBIENCE
41	**Reggae Mix**	Midrange ambient reverb	AMBIENCE
42	**New Age Ambience**	Bright, open reverb	AMBIENCE
43	**Percussion Slap**	Short slap for hand percussion	PERCUSSION
44	**Rock Kit**	Ambient reverb for drum kit	PERCUSSION
45	**Beat Space**	Slap reverb for rhythm parts	PERCUSSION
46	**Latin Percussion**	Good ambience for bongo	PERCUSSION
47	**Mallet Percussion**	Ambience reverb for marimba	PERCUSSION
48	**Big Piano Verb**	Reverb great for slow ballads	ENSEMBLE
49	**String Texture**	Fattens up synth strings	ENSEMBLE
50	**Church Organ**	Creates space for pipe organ	ENSEMBLE

51	**Bright Snare Smack**	Reverb for snare drum	POWER
52	**Power Kick**	Adds vitality to kick drums	POWER
53	**Power Guitar**	Makes crunch guitar sound fatter	POWER
54	**Vocal Power**	Short, thick reverb for voice	POWER
55	**Ping Pong Verb**	Good with melodic solo instrument	DIMENSION
56	**Smooth Gated Verb**	Brightens up drums	GATE REV
57	**Long Reverse Verb**	Adds big bottom to kick drum	RVS REV
58	**Short Reverse Verb**	Eccentric reverb for drums	RVS REV
59	**Early Reflection 1**	Room reflection enhancing drum sound	AMBIENCE
60	**Early Reflection 2**	Early reflection of small room	ROOM
61	**Chorus + Reverb**	Chorus -> reverb rich for voice	CHO+REV
62	**Delay/Reverb**	Delay on L channel, reverb on R	DLY/REV
63	**Chorus + Delay**	Chorus -> delay for synth	CHO+DLY
64	**Flange + Reverb**	Flanger -> reverb for solo synth	FLG+REV
65	**Delay + Flange**	Delay -> flanger lighting up synth	DLY+FLG
66	**Stereo Delay**	300-ms delay with less damping	ST DLY
67	**Mono Delay**	500-ms delay with damped high range	MN DLY
68	**112-BPM Delay**	112-BPM 16th-note delay	RHYTHM
69	**Active Chorus**	Chorus for strings	CHORUS
70	**Manual Flange**	Emphasizes upper harmonics	FLANGER
71	**12 string**	1-octave-down pitch shifter	PITCH
72	**Swirly**	Slow, wide auto pan	TRM-PAN
73	**Juicy Phase**	Phaser good for clean electric guitar	PHASER
74	**Deep Purple**	Distorted rotary speaker	ROTARY
75	**Filter Pulse**	124-BPM low pass filter	LPF
76	**Slow Sweep**	High resonance low pass filter	LPF
77	**Telephone**	high pass filter creating phone voice	HPF
78	**Isolate Midrange**	Leaves only mid frequency range	ISOLATOR
79	**Isolate Lows**	Leaves only low frequency range	ISOLATOR
80	**Resonance**	Resonance filter for drums	RESONANCE
81	**Cry Mary**	Step cry suitable for synth bass	STEP CRY
82	**Pedal Tone**	Comb filter	COMB
83	**Robot Voice**	Vocoder	VOCODER
84	**Kookyman**	Time-trip effect	TIME TRIP
85	**Ring Modulator**	Adds off-key pitch to beats	RING-MOD
86	**Power Boost**	Fattens MIDI rock tune	POWER BOOST
87	**Wide Image**	Adds stereo feeling	WIDE
88	**Boost EQ**	Punches up the mix	BOOST
89	**Vocal Presence**	Adds ambience to mix	VOCAL PRESENCE
90	**Rock Shape**	Multi-band compression for rock mix	FINAL
91	**Dance Bass**	Seizes the floor	FINAL
92	**MAXIMUM**	Derives full power from the band	FINAL
93	**Vocal Boost**	Brings out vocals	FINAL
94	**MP3 Enhancer**	Gives a punch to compressed audio	FINAL
95	**Punch It Up**	Basic compressor	COMP・LIM
96	**Compressor w/EQ**	Boosts highs and lows	COMP・LIM
97	**Mic Simulator**	Simulates a condenser mic	MIC SIM
98	**Mic Sim w/enhance**	Enhanced mic simulator	MIC SIM
99	**Detailed Near Fields**	Cabinet simulation 1	CABI SIM
00	**Detailed Room Monitors**	Cabinet simulation 2	CABI SIM

Troubleshooting

Symptom	Check	Remedy
No sound or very low volume	• 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 and OUTPUT controls of RFX-2200 set to a proper position?	Adjust the controls as described in the section "Trying Out the Effects".
	• Is a microphone connected to the rear-panel INPUT jack?	Connect the microphone to the front-panel MIC IN jack.
	• Is unit in bypass mode and is MIX control fully turned to the WET position?	Turn MIX control towards DRY.
	• Is EDIT control knob 1 - 4 set to a position where sound is cut off?	Turn EDIT control knob 1 - 4 clockwise.
	• Is MIC ON/OFF switch set to OFF?	To use a microphone plugged into the MIC IN connector, the MIC ON/OFF switch must be set to ON.
Input sound breaks up or is distorted	• Is a line-level device such as a synthesizer connected to the front-panel MIC IN connector?	The sensitivity of the MIC IN connector is optimized for microphones. Connect line-level devices to the rear-panel INPUT jacks.
	• Is input signal level too high?	Adjust INPUT control so that CLIP LED does not light at signal peaks.
No effect sound	• Is RFX-2200 set to bypass mode?	Cancel the bypass mode.
	• Is incorrect foot switch connected?	Use only ZOOM FS01.

Specifications

Preset programs 528 (8 effects x 6 banks x 11 variations)

Program memory 100

Sampling frequency 44.1 kHz

A/D converter 20 bit, 64 times oversampling

D/A converter 20 bit, 128 times oversampling

Inputs

Line input 2 x standard mono phone jack
Input impedance
10 kiloohms (mono),
20 kiloohms (stereo)
Reference input level
-10 to +4 dBm

Microphone input XLR-3-31/standard phone combo jack
(Balanced operation)
Input impedance 4.5 kilohm,
pin 2 hot
(Unbalanced operation)
Input impedance 50 kilohms
Reference input level -56 dBm

Outputs 2 x standard mono phone jack
Output impedance 500 ohms
Reference output level
-10 to +4 dBm

Digital outputs S/P DIF (coaxial, optical)

Control input FS01

MIDI IN, OUT, THRU

Dimensions 482 (W) x 115 (D) x 44 (H) mm

Weight 2.0 kg

Supplied accessory Power cord

* 0 dBm = 0.775 Vrms

* Design and specifications subject to change without notice.

MIDI Implimentation Chart

[Effector] Date: 21 July 2004

Model RFX-2200 MIDI Implementation Chart Version: 1.00

Function		Transmitted	Recognized	Remarks
Basic	Default	1-16, OFF	1-16, OFF	Memorized
Channel	Changed	1-16, OFF	1-16, OFF	See Notes
	Default	3	3	
Mode	Messages	x	x	
	Altered	**********		
Note		x	x	
Number	True voice	**********	x	
Velocity	Note ON	x	x	
	Note OFF	x	x	
After	Key's	x	x	
Touch	Ch's	x	x	
Pitch Bend		x	x	
Control Change		86	86	Effect Type
		84	84	Edit1
		85	85	Edit2
		87	87	Edit3
		88	88	Edit4
		8	8	Mix
		80	80,91	Bypass
		64	64	Tap
Prog		o 0-99	o	
Change	True #	**********		
System Exclusive		o	o	
System	Song Pos	x	x	
	Song Sel	x	x	
Common	Tune	x	x	
System	Clock	x	o	
Real Time	Commands	x	x	
	Local ON/OFF	x	x	
Aux	All Notes OFF	x	x	
Messages	Active Sense	x	x	
	Reset	x	x	
Notes		Transmitted and Recognized channels are same.		

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO o: Yes

Mode 3: OMNI OFF, POLY Mode 1: OMNI OFF, MONO x: No

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-2200.

Power requirements

Warning
- Connect only to AC power outlets rated 100-120 V or 220-240 V 50/60Hz (depending on the voltage range of the unit; refer to the back panel).
- Ground the unit by connecting the ground terminal of the power plug to a good external ground. Do not ground to water pipe, gas pipe, telephone wiring, or lightning arrestor to prevent the risk of electric shock or explosion.
- During lightning or when not using the unit for an extended time, disconnect the power cord from the AC outlet.
- Do not pinch the power cord, bend it forcedly, or place heavy objects on the power cord.

Environment

Warning Avoid using your RFX-2200 in environments where it will be exposed to:
- Extreme temperatures
- Heat sources such as radiators or stoves.
- High humidity or moisture
- Excessive dust or sand
- Excessive vibration or shock

Warning Keep space around the unit for sufficient ventilation. Do not impede the ventilation openings with objects such as newspapers or curtains.

Handling

Warning
- Never place objects filled with liquids, such as vases, on the RFX-2200 since this can cause electric shock.
- Do not place naked flame sources, such as lighted candles, on the RFX-2200 since this can cause fire.

Caution The RFX-2200 is a precision instrument. Do not exert undue pressure on the keys and other controls. Also take care not to drop the unit, and do not subject it to shock or excessive pressure.

Alterations

Warning Never open the case of the RFX-2200 or attempt to modify the product in any way since this can result in damage to the unit.

Volume

Warning Do not use the RFX-2200 at a loud volume for a long time since this can cause hearing impairment.

Connecting cables and input and output jacks

Caution You should always turn off the power to the RFX-2200 and all other equipment before connecting or disconnecting any cables. Also make sure to disconnect all connection cables and the power cord before moving the RFX-2200.

Usage Precautions

Electrical interference For safety considerations, the RFX-2200 has been designed to provide maximum protection against the emission of electromagnetic radiation from inside the device, and protection from external interference. However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves should not be placed near the RFX-2200, as the possibility of interference cannot be ruled out entirely.

With any type of digital control device, the RFX-2200 included, electromagnetic interference can cause malfunctioning and can corrupt or destroy data. Care should be taken to minimize the risk of damage.

Cleaning

Use a soft, dry cloth to clean the RFX-2200. 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.

The FCC regulation warning (for U.S.A.)

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.

CATCH US IF YOU CAN

ZOOM CORPORATION
ITOHPIA Iwamotocho 2chome Bldg. 2F, 2-11-2, Iwamoto-cho,
Chiyoda-ku, Tokyo 101-0032, Japan
Web Site: http://www.zoom.co.jp

RFX-2200-5000-2