KEYBOARD 200

(((S f X)))®
TECHNOLOGY
PAT. PEND.

Reference and
Owner's Manual for
the SFX Keyboard 200

Fender Musical Instruments
7975 North Hayden Road, Scottsdale, Arizona 85258 U.S.A.

A Message from the Chairman

Since 1946, Fender realized the importance of your amplifier. You see, your amplifier is more than just a combination of dials, wires and speakers. **It is a finely tuned musical instrument**. And like any fine musical instrument, it should be treated with special care and attention to detail.

At Fender, we know what building guitar amplifiers is all about. For over half a century, we have been designing and producing some of the world's best amplifiers, helping shape the face of music. In fact, many of the world's most classic and best sounding amplifiers proudly wear the Fender name.

Whether you are after that classic Fender tone, a clean crisp sound for your Bass or Keyboard or the raw driving power of modern distortion, your decision to purchase a Fender amplifier is one you will appreciate with each passing note for years to come.
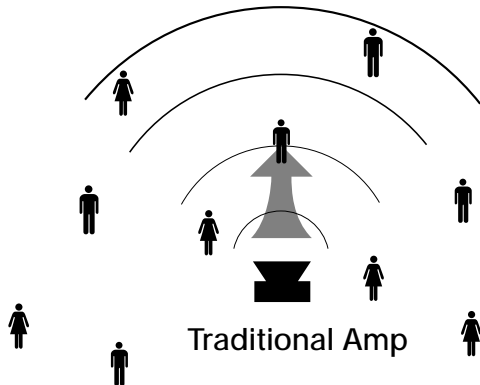
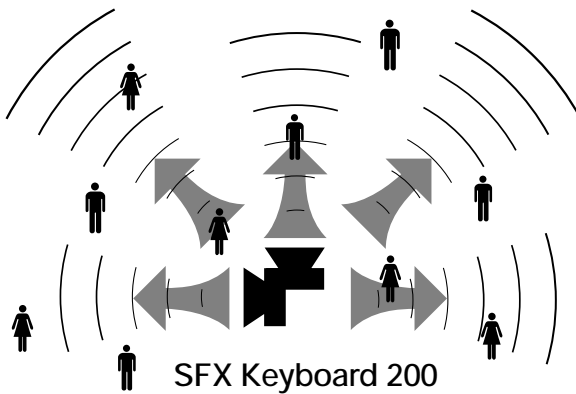Wishing you years of enjoyment and a heartfelt *thank you*,

Bill Schultz

Bill Schultz
Chairman of the Board
Fender Musical Instruments Corporation

Fig. A *The sound waves from a traditional amplifier project forward, focusing their energy in one direction.*

Fig. B *Fender's **S**tereo **F**ield e**X**pansion circuitry (patent pending) processes the signal through one of 32 available stereo digital effects. The stereo signal is then processed by the exclusive SFX matrix circuit and sent to the speakers creating a psychoacoustic event that results in up to 300º of stereo imaging.*

Congratulations on your purchase of a Fender SFX Keyboard 200 Amplifier. Your new Fender amp is designed by the same Tone-Team that has created many other classic Fender amps: like the Tone-Master®, Princeton® Chorus and the versatile Hot Rod Series. Built with care and special attention to detail, your SFX Keyboard 200 offers much more than meets the eye.

Your SFX Keyboard 200 Amplifier includes among its many features: the **S**tereo **F**ield e**X**pansion effect (patent pending) creating unique spatial characteristics via the forward and side-radiating speakers, 80 Watts of power per channel with full time Delta Comp™ and On-board DSP. The three channel preamp (2 stereo and 1 mono/mic) with their individual tone controls are voiced for stereo electronic keyboards and microphones. Moreover, the front panel also features insert jacks designed for use with signal processing devices or other line level outboard gear. Still, the rear panel features a Subwoofer Line Out jack for sending low frequency signals to an external power amp and subwoofer cabinet.

Designed for the keyboardist / vocalist who wants a specialized instrument amplifier, your SFX Keyboard 200 is a high quality Fender product. To ensure maximum performance from your SFX Keyboard 200, please read through this manual and reference it as needed. Also, please heed all safety warnings when operating your new SFX Keyboard 200.

Take the time to get to know each other... Step-up, Plug-in and ... Play On!
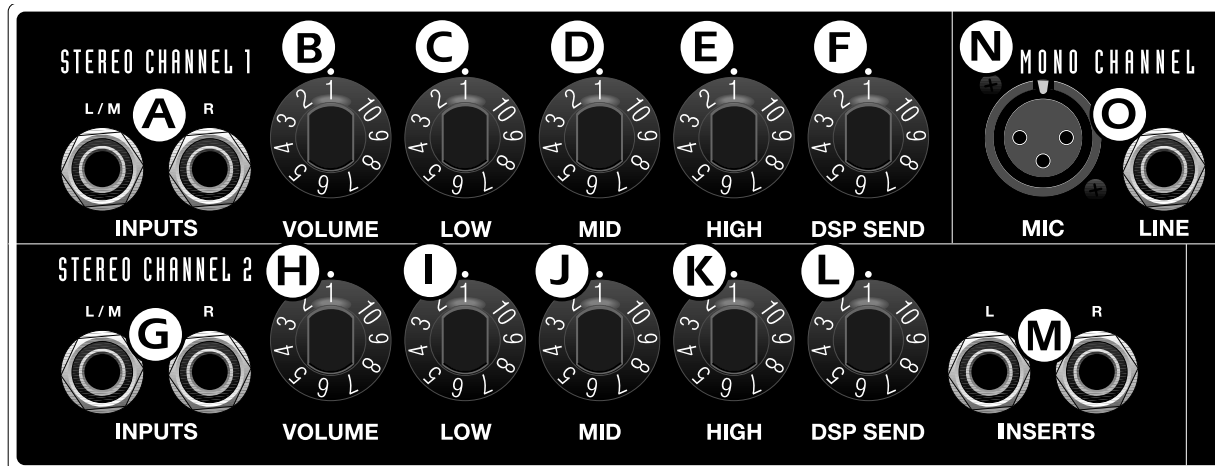
WARNING:

-TO PREVENT DAMAGE, FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

-NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

-THIS UNIT MUST BE EARTH GROUNDED.

A. INPUTS - Plug your keyboard in here; these are line level input jacks. If sending a mono signal from your keyboard, plug your cord into the left or L/M input.

B. VOLUME - Adjusts the loudness of the SFX Keyboard 200's Stereo Channel 1 inputs.

C. LOW - Adjusts the amount of increase or decrease in the low frequency range of the SFX Keyboard 200's Stereo Channel 1.

D. MID - Adjusts the amount of increase or decrease in the middle frequency range of the SFX Keyboard 200's Stereo Channel 1.

E. HIGH - Adjusts the amount of increase or decrease in the high frequency range of the SFX Keyboard 200's Stereo Channel 1.

F. DSP SEND - Adjusts the amount of signal from the SFX Keyboard 200 Stereo Channel 1 sent to the on-board Digital Signal Processing (DSP).

G. INPUTS - Plug your keyboard in here too. These jacks are the same as in item A.

H. VOLUME - Adjusts the loudness of the SFX Keyboard 200's Stereo Channel 2 inputs.

I. LOW - Adjusts the amount of increase or decrease in the low frequency range of the SFX Keyboard 200's Stereo Channel 2.

J. MID - Adjusts the amount of increase or decrease in the middle frequency range of the SFX Keyboard 200's Stereo Channel 2.
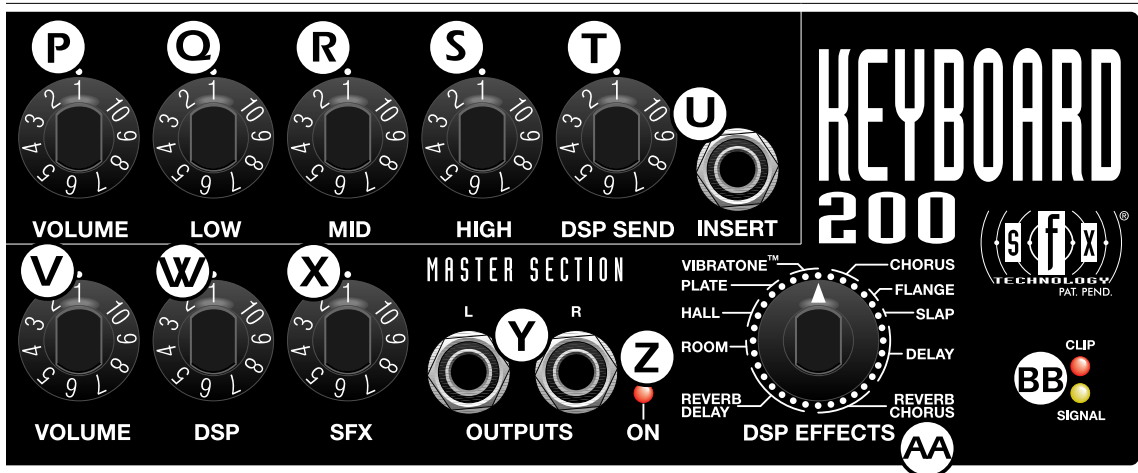
K. HIGH - Adjusts the amount of increase or decrease in the high frequency range of the SFX Keyboard 200's Stereo Channel 2.

L. DSP SEND - Adjusts the amount of signal from the SFX Keyboard 200's Stereo Channel 2 sent to the on-board DSP.

M. INSERTS - 1/4 inch TRS (tip ring sleeve) input / output phone jacks designed for use with signal processing devices or other line level outboard gear on Channel 2 **ONLY**. A special "Y" line cord (stereo to dual mono) is required to use these jacks. The tip is the send and the ring is the return.

N. MIC - Plug your microphone in here. This three pin XLR balanced female input connector is intended for input signals from low impedance microphones and has a +20 dB gain.

O. LINE - This is a 1/4 inch TRS balanced input jack suited for use with items having a line level output such as high impedance microphones, drum machines, etc. It accepts both balanced and unbalanced cables.

P. VOLUME - Adjusts the loudness of the SFX Keyboard 200's mono channel.

Q. LOW - Adjusts the amount of increase or decrease in the low frequency range of the SFX Keyboard 200's mono channel.

R. MID - Adjusts the amount of increase or decrease in the middle frequency range of the SFX Keyboard 200's mono channel .

S. HIGH - Adjusts the amount of increase or decrease in the high frequency range of the SFX Keyboard 200's mono channel.

T. DSP SEND - Adjusts the amount of signal from the SFX Keyboard 200's mono channel sent to the on-board DSP.

U. INSERT - 1/4 inch TRS input / output phone jack designed for use with signal processing devices or other line level outboard gear for the mono channel **ONLY**. A special "Y" line cord (stereo to dual mono) is required to use this jack. The tip is the send and the ring is the return.

V. VOLUME - Adjusts the overall loudness of the SFX Keyboard 200 amplifier.

W. DSP - Adjusts the amount of return signal from the SFX Keyboard 200's on-board DSP.

X. SFX - Adjusts the amount of **S**tereo **F**ield e**X**pansion effect produced by your SFX Keyboard 200 amplifier. Rotating the knob clockwise increases the SFX spatial effect. Likewise, rotating the knob counterclockwise allows the SFX Keyboard 200 to be used as a traditional amp.
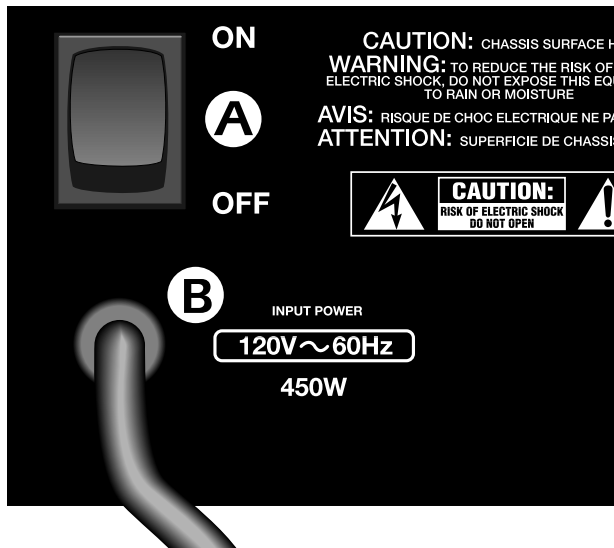
Y. OUTPUTS - 1/4 inch balanced TRS output jacks which are pre-master volume and post digital effects. These jacks may be used to send the SFX Keyboard 200's line level signal to a mixer, direct box or an external power amplifier.

Z. ON - This RED LED illuminates when your SFX Keyboard 200 is receiving power.

AA. DSP EFFECTS - This 32-position data wheel selects among the various on-board digital effects. These effects will only be heard if the DSP send knob on the respective channels and the master DSP is turned up. For a complete listing of all on-board effects available refer to the chart located on page 6.

BB. SIGNAL - This yellow LED illuminates when an adequate signal level exists at the DSP input. **CLIP** - This red LED illuminates when an excessive signal level exists at the DSP input. If this occurs lower the input signal via the DSP Send knob on the individual channels affected.

SFX KEYBOARD 200 REAR PANEL

ON

CAUTION: CHASSIS SURFACE H
WARNING: TO REDUCE THE RISK OF
ELECTRIC SHOCK, DO NOT EXPOSE THIS EQU
TO RAIN OR MOISTURE

(A)

AVIS: RISQUE DE CHOC ELECTRIQUE NE PA
ATTENTION: SUPERFICIE DE CHASSIS

OFF

CAUTION:
RISK OF ELECTRIC SHOCK
DO NOT OPEN

(B)

INPUT POWER

120V∼60Hz

450W

A. POWER SWITCH - Turns the AC power ON and OFF. When the switch is in the OFF position, the amplifier is completely shut down.

B. LINE CORD - This amplifier is equipped with a grounding type supply cord to reduce the possibility of shock hazard. Be sure to connect it to a grounded AC receptacle. The line cord should be connected to a suitable power source in accordance with voltage and frequency as shown in the input power rating on the rear panel. **DO NOT ALTER THE AC PLUG.**

(C)

SUBWOOFER
LINE OUT

C. SUBWOOFER LINE OUT - This 1/4 inch, balanced, TRS, line level output jack sends low frequency signals to an external power amp and subwoofer cabinet.

DSP EFFECTS CHART

Below is a listing of all effects available on the SFX Keyboard 200. To choose among these various effects simply rotate the dial to the desired effect. Remember both the DSP Send and DSP Return knobs must be above their minimum positions in order for the effect to be heard. *(To change from slower to faster sweeps, shorter to longer delays or smaller to larger reverbs, turn the DSP effects selection knob clockwise.)*

VIBRATONE™   CHORUS
PLATE   FLANGE
HALL   SLAP
ROOM   DELAY
REVERB   REVERB
DELAY   CHORUS
DSP EFFECTS
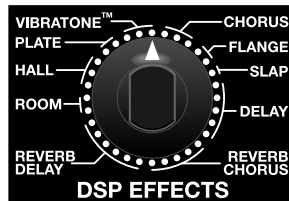
Reverb-Delay	1 - Medium Room / Short Delay
	2 - Medium Room / Medium Delay
	3 - Medium Room / Long Delay
	4 - Medium Hall / Short Delay
	5 - Medium Hall / Medium Delay
	6 - Medium Hall / Long Delay

Reverbs

Room	1 - Small
	2 - Large
Hall	1 - Small
	2 - Medium
	3 - Large
Plate	1 - Small
	2 - Large

Vibratone	1 - Slow Deep Sweep
	2 - Medium Deep Sweep
	3 - Fast Shallow Sweep
Chorus	1 - Slow Deep Sweep
	2 - Medium Sweep
	3 - Fast Shallow Sweep
Flange	1 - Slow Sweep
	2 - Fast Sweep
Slap	Quick, Single Echo
Delay	1 - Short Delay
	2 - Short to Medium Delay
	3 - Medium Delay
	4 - Medium to Long Delay
	5 - Long Delay
Reverb-Chorus	1 - Medium Room / Slow Sweep
	2 - Medium Room / Medium Sweep
	3 - Medium Room / Fast Sweep
	4 - Medium Hall / Slow Sweep
	5 - Medium Hall / Medium Sweep

TROUBLESHOOTING

If the SFX Keyboard 200 is set up but does not function, check the following items:

- Is the power cord properly plugged into an electrical outlet?
- Is there power at the outlet?
- Are the control knobs turned above 1?
- Is the volume control on the instrument turned up?
- Are the control knobs on your external equipment turned above 1?
- Is the power cord on your external equipment properly plugged into an electrical outlet?
- Is the microphone turned on?
- Are any cords cut, frayed or damaged?
- Are the DSP control knobs turned above 1?
- Is the instrument / microphone properly plugged into the amplifier?

(Eliminate any effects pedals and try using another cord.)

If after checking all of the above your amplifier is still not performing correctly, consult your nearest authorized Fender Service Center.

COVERING CARE

Your SFX Keyboard 200 is covered in a tough, soil resistant synthetic indoor/outdoor carpet for long life and lasting good looks. To clean the carpeted cabinet, use a brush and vacuum to wipe away any smudges or dirt. For stubborn stains, a sponge with a light soapy solution may be used. Avoid spilling liquids on the input panel, grille and speakers. **REMEMBER TO UNPLUG THE POWER CORD BEFORE CLEANING AND WAIT UNTIL THE UNIT IS COMPLETELY DRY BEFORE PLUGGING IT IN**.

CONNECTIONS
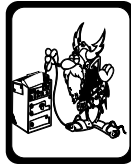
The SFX Keyboard 200 has a variety of connectors on its input / output panels. Below is a chart listing the various types and their pin outs.

Jack	Style	Connection	Pin Out
LINE INPUTS	1/4" TRS	Balanced Input	Tip = POS Ring = NEG Sleeve = GND
MIC INPUT	XLR Female	Balanced Input	Pin 1 = GND Pin 2 = POS Pin 3 = NEG
INSERTS	1/4" TRS	Input / Output	Tip = Send Ring = Return Sleeve = GND
LINE OUTPUTS	1/4" TRS	Balanced Output	Tip = POS Ring = NEG Sleeve = GND
SUB LINE OUT	1/4" TRS	Balanced Output	Tip = POS Ring = NEG Sleeve = GND

SFX KEYBOARD 200 SPECIFICATIONS

TYPE:	PR 372
PART NUMBER:	22-8503 (120V) 22-8533 (240V) Aust 22-8543 (230V) UK 22-8563 (230V) Eur 22-8573 (100V)
POWER REQUIREMENTS:	100V AC, 50/60 Hz 450W 120V AC, 60 Hz, 450W 230V AC, 50 Hz, 450W 240V AC, 50 Hz, 450W

POWER AMPLIFIER SECTION

POWER OUTPUT:	80W R.M.S. per channel, (160W R.M.S. Total) into 8Ω @ <0.18% T.H.D., both channels driven
SENSITIVITY :	0.965V (both channels)

PREAMP SECTION

INPUT IMPEDANCE:	18.2kΩ (line) 1.82kΩ (mic)

SENSITIVITY FOR FULL POWER :	2.1 V (line)	210 mV (mic)	Nominal Controls
	23 mV (line)	2.3 mV (mic)	Maximum Controls

TONE CONTROLS:	Treble: +/-15 dB @ 15 kHz Mid: +/-15 dB @ 750 Hz Bass: +/-15 dB @ 30 Hz
SPEAKER COMPLEMENT:	One Fender Special Design 12″ Speaker (P/N 047539) One Fender Special Design 10″ Speaker (P/N 053614) Single Piezo Horn (P/N 049260)
DIMENSIONS:	Height: 33 in 83.8 cm Width: 19.5 in 49.5 cm Depth: 13.5 in 34.3 cm
WEIGHT:	82 lbs 37.3 kg

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The SFX Effect, patent pending, is manufactured under license from Aspen Pittman and Drew Daniels of SFX Technology.

Product specifications are subject to change without notice.