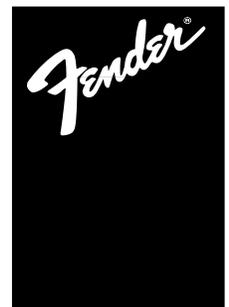


PORTABLE SOUND SYSTEMS™

From Fender Pro Audio

Owner's Manual for
LTB Portable Sound System

P/N 051923
REV B





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

Fender knows the importance of sound reinforcement. From the simple box-top mixer to today's professional touring concert systems, the need to communicate, to make the connection between the performer and the audience is foremost in Fender's mind.

Perhaps no other single piece of gear can make or break your band's sound. You see, your sound system is more than just a combination of dials, wires and speakers. It is an integral part of the audio chain and should be treated with special care and attention to detail.

At Fender, we know what building quality musical instruments and sound reinforcement equipment is all about. In fact, many of the world's best sounding electric musical instruments and sound reinforcement equipment proudly wear the Fender name.

Whether you need a simple box top powered mixer for your Saturday afternoon jam, or a professional full-size concert system, Fender has the sound reinforcement equipment to meet your needs. Likewise, your decision to purchase Fender pro audio gear is one you will appreciate with each performance for years to come.

Wishing you years of enjoyment and a heartfelt *thank you*,

Bill Schultz

Bill Schultz
Chairman
Fender Musical Instruments Corporation

THE FENDER LTB

PORTABLE POWERED

MIXER

INTRODUCTION

80 Watts into 4Ω

3-Band Equalizer

+15V DC Phantom Power

Individual Channel Effects Level Control

Both 1/4 inch Phone TS and 3-Pin XLR
Female Input Connectors

Patch Points for Line Level Outboard Gear

Full-bodied Spring Reverb

Everything You Need to Get Started:

LTB Mixer / Amplifier

One Dynamic Cardioid Microphone

One Microphone Cable

Two Speaker Cables

Two Full-Range Speaker Enclosures

The LTB: an 80 watt professional powered mixer from your friends at Fender® Pro Audio. We are sure you will find your new LTB sound system to be both a unique and effective sound reinforcement product, providing years of trouble-free service. With ease of setup in mind, the integrated mixer/amplifier design combined with the full-range LTB-10 speaker enclosures makes your LTB a versatile, yet simple to operate sound system. Included in your LTB package is one dynamic cardioid microphone, one microphone cable and two speaker cables; everything you need to get started.

Enclosed in a boxtop style cabinet, your LTB mixer/amplifier features individual channel preamps, +15V DC phantom power, line and mic level channel inputs, a patch bay and much, much more. With 1/4 inch TS phone jacks and 3-Pin XLR female input jacks, your LTB sound system can accommodate a wide variety of input connections and signal levels.

Ideal for live music, churches, auditoriums, hotel conference or meeting rooms, your LTB sound system is suitable for a variety of sound reinforcement applications. The LTB mixer / amplifier's front panel patch bay makes using outboard effects gear and signal processing equipment a snap. Moreover, the patch bay provides easy access for adding or rerouting power amplifiers. Still, the LTB-10 speaker enclosures deliver a powerful, full-range sound ideal for music, vocals or whatever your sound needs require.

Designed for the both novice, as well as the seasoned audio professional, your LTB sound system will provide years of reliable, trouble-free service, day in and day out. Please read through this owner's manual in order to more thoroughly understand the operation of your LTB portable sound system.

WARNING:

- TO REDUCE THE RISK OF 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.

INPUT CHANNEL CONTROL FUNCTIONS



A. EQ - Adjusts the tone / frequency boost or cut of its respective channel. When the tone control is set at the 12 o'clock (notched) position, the channel is "flat" with no frequencies cut or boosted. As the dial is rotated clockwise, the treble response increases. Likewise, as the dial is rotated counterclockwise the treble response decreases.

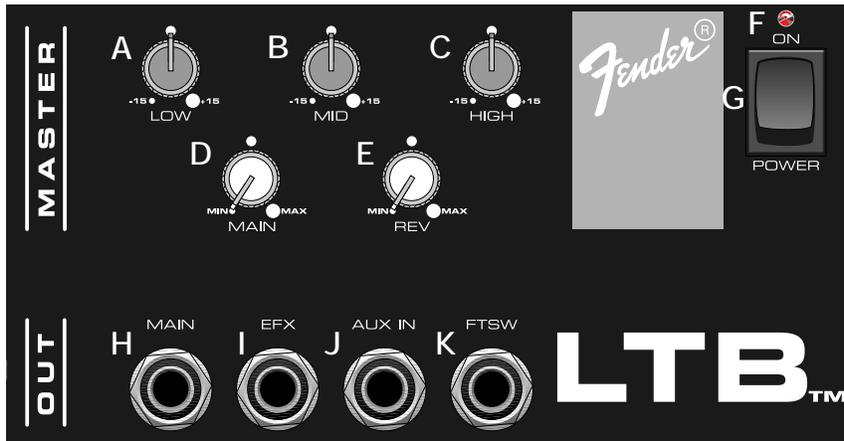
B. EFX - This knob controls the amount of signal its respective channel sends to the EFX output jack for external signal processing devices and to the internal reverb pan. When the knob is set at 0, no signal is sent to the EFX output jack for external signal processing or to the internal reverb pan.

C. LEVEL - Adjusts the volume of the individual channel. Rotating the knob clockwise increases the respective channel's contribution to the "Main Out" mix. After slowly raising the MAIN volume control, slowly bring up this input level control listening for the onset of feedback or howling or until the desired level is reached. The LTB's overall volume can be increased by rotating the MAIN control clockwise.

D. HIGH Z - Plug your high impedance microphones, keyboards, drum machines, outboard effects, etc. in here. This 1/4 inch, TS unbalanced input jack is suited for use with items having line level outputs.

E. LOW Z - Plug your microphone in here. This three pin XLR balanced female input connector is intended for input signals from low impedance microphones. Pins 2 and 3 automatically provide Phantom Power (+15V DC) for some condenser style microphones.

MASTER CONTROL PANEL FUNCTIONS



F. POWER LED - This LED illuminates when the LTB is on.

G. POWER SWITCH - Turns the AC power ON and OFF.

H. MAIN - This 1/4 inch, TS, unbalanced, line level output is designed to feed the LTB's main bus signal to an external power amplifier or main house mixer.

A. LOW - Adjusts the amount of low frequency boost or cut in the LTB. When all the tone controls are set at their 12 o'clock (notched) position, the LTB is "flat" with no frequencies cut or boosted.

B. MID - Adjusts the amount of middle frequency boost or cut in the overall mix.

C. HIGH - Adjusts the amount of high frequency boost or cut in the overall mix.

D. MAIN - The main volume control of the LTB. Rotating the knob clockwise increases the LTB's overall volume level.

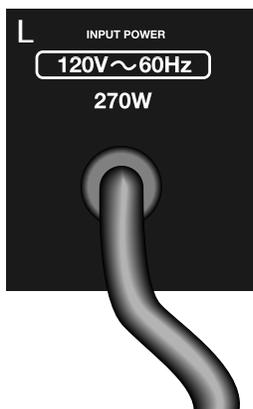
E. REV - Adjusts the reverb signal level sent to the main mix. Rotating the knob clockwise increases the amount of reverb signal.

I. EFX - This 1/4 inch, TS, unbalanced, line level output jack is designed to feed the LTB's effects bus signal to an external signal processing device, such as a digital delay or a chorus unit.

J. AUX IN - This 1/4 inch, unbalanced, TS, line level input jack is designed to accept signal from an external processing device, such as a digital delay or a chorus unit. Any signal entering this jack is mixed into the Main bus signal.

K. FTSW - This 1/4 inch, TS, unbalanced, output jack is designed for use with an *optional* footswitch (P/N 048458). When a footswitch is inserted into this jack, the LTB's internal reverb can be turned on or off remotely.

REAR PANEL FUNCTIONS



L. POWER SUPPLY CORD - This is a grounding type supply cord to reduce the possibility of shock hazard. Completely unwind the cord from its cord wrap to prevent blocking air flow. Be sure to connect the cord to a grounded receptacle. **DO NOT ALTER THE AC PLUG.**

M. PARALLEL SPKR JACKS - These speaker level output jacks feed your main speaker enclosures. Remember, the **total minimum impedance load is 4 ohms**. Connecting a load of less than 4 ohms may result in unsatisfactory performance such as overheating to the point of thermal shutdown.



BASIC SETUP OF YOUR LTB

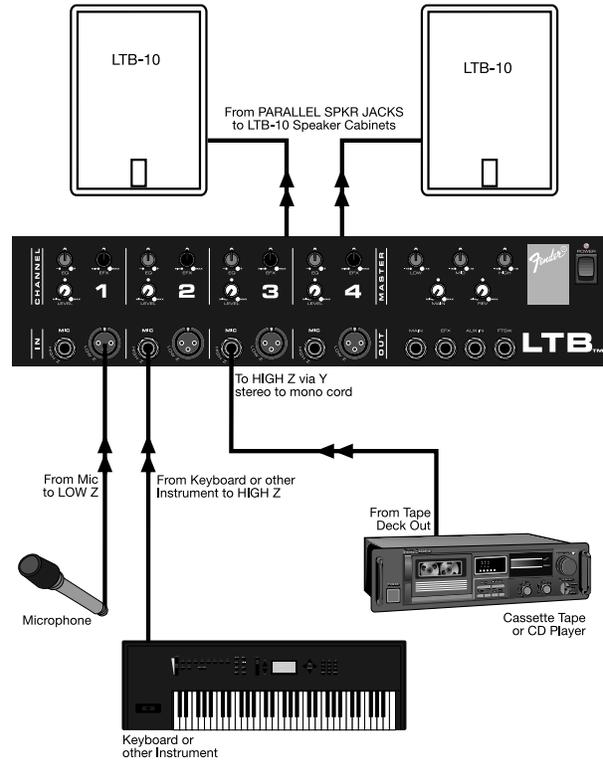


Before using the LTB, please read and follow the steps listed below:

- IMPORTANT** Heed all safety warnings when operating the LTB.
- Please be sure to check for these items. The LTB sound system comes complete with 2 LTB-10 Speaker cabinets, 2 speaker cables, 1 microphone cable and 1 dynamic cardioid microphone.
- Make sure the power switch is in the OFF position, the EQ, LOW, MID and HIGH tone controls are in their 12 o'clock notched positions and **all** channel LEVELS, the MAIN and the REV are in their MIN positions.



- Next, plug the supply cord into a power source with the correct voltage.
- Connect the speaker cables from the LTB's SPEAKER OUTPUT jacks located on the rear of the LTB mixer to the input jacks on the speaker cabinets.
- Connect the cord(s) from any microphones, instruments, outboard gear or other signal source(s) to the appropriate input jack(s) on your LTB.



This full page illustration can be found on page 8.

- Turn all instruments, outboard gear and other equipment ON before powering up the LTB.
- Slowly raise the MAIN volume control to its 12 o'clock position. Next, slowly bring up the appropriate channel input level control (*ie: if the microphone is plugged into the channel 1 inputs, the appropriate channel control is labeled 1*), listening for the onset of feedback or howling or until the desired level is reached. The LTB's overall volume can be increased by rotating the MAIN control clockwise.
- If using external signal processing devices, slowly raise the appropriate channel EFX control until the desired level is reached (*ie: if the microphone is plugged into the channel 1 inputs, the appropriate channel control is labeled 1*).
- When shutting down the LTB, turn OFF the LTB FIRST then any additional outboard gear, instruments or other equipment.



For more detail on setting up your LTB, please refer to the diagrams on pages 9 and 10.

GROUNDING AND HUMS



Ground loops are one of the most common causes of hum and buzz in sound reinforcement systems and other audio products. A ground loop usually occurs if the separate pieces of equipment are plugged into different AC circuits. Also, if the audio wiring is placed too close to the power cords, hums or buzzes can bleed into the system. Still, improperly maintained power and audio cables are yet another cause of bothersome noise. In order to help minimize stray hums and buzzes, here are some helpful hints.

1. Keep all electronics connected to the sound system on the same electrical circuit.
2. Keep audio signal cables away from the AC power cords.
3. Use balanced cables when applicable.
4. Always plug the LTB into a grounded AC electrical outlet.
5. Be sure to use properly maintained cords and cables with the LTB.

VINYL COVERING CARE



The LTB mixer and speaker cabinets are covered in vinyl for long life and lasting good looks. To clean the cabinets, use a sponge dampened with a light soapy solution. Avoid spilling any liquids on the operating surface, grilles, volume and tone controls, switches and line cord inputs. ALWAYS unplug the LTB before cleaning it or approaching it with fluids. Before plugging in the LTB wait until the unit has completely dried.

TROUBLESHOOTING

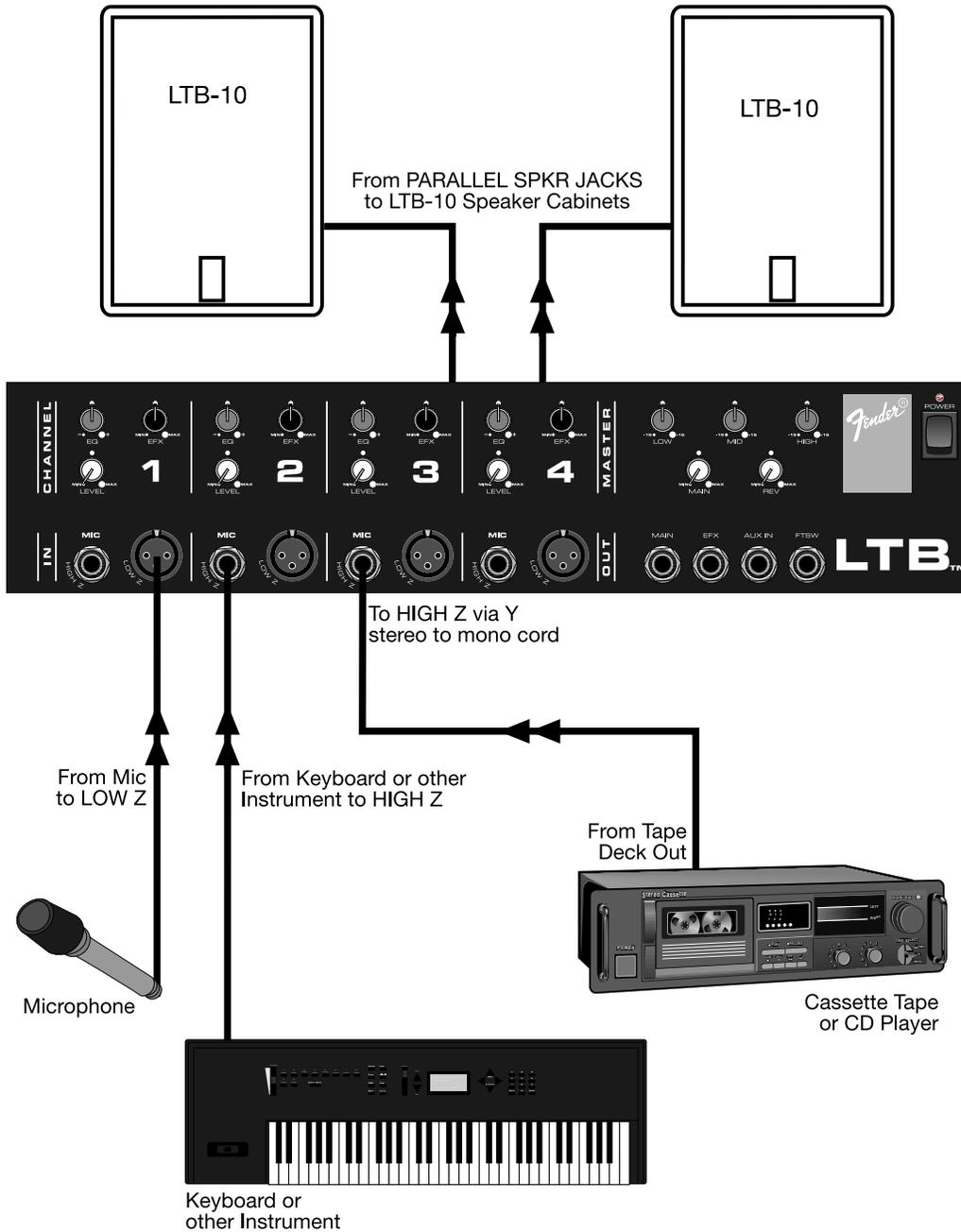


If the LTB is set up but does not function, please check the following items:

- Is the LTB 's power cord properly plugged into an electrical outlet?
- Is there power at the outlet?
- Are the volume control knobs on the LTB turned above the MIN position?
- Are the volume control knobs on your instruments turned above their minimum position?
- Is the mic/instrument properly plugged into the LTB ?
- Is the mic/instrument turned on?
- Are your audio cables frayed, cut or damaged?
- If using an outboard gear, are the cords properly connected?
- Are the speaker cables properly connected?
- Is there power to the outboard gear?
- Are the levels on your outboard gear above their minimum positions?
- (If applicable) does your instrument have power?

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

SIMPLE LTB SETUP



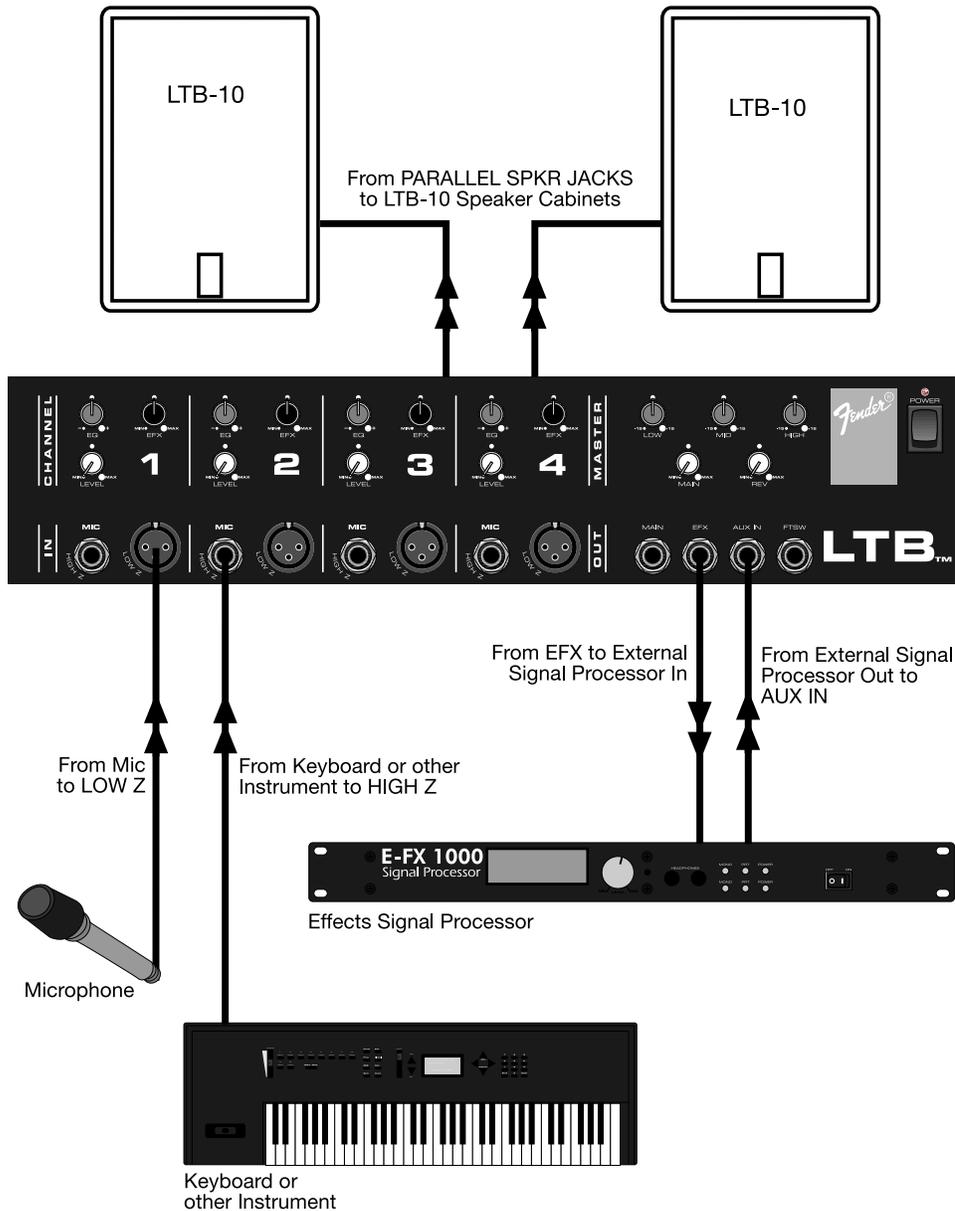
1. Connect the speaker cords from the PARALLEL SPKR JACKS to the LTB-10 speakers.

2. Connect a microphone to a LOW Z input jack and any keyboard or other instrument to a HIGH Z input jack.

3. The LEVEL control in each channel strip adjusts the amount of signal sent to the main bus where all channel signals are summed. The MAIN knob in the master section adjusts the volume level to the main speakers.

4. Be sure to turn the tape deck, keyboard or other instruments and gear on before powering up the LTB.

RUNNING AN EFFECTS PROCESSOR THRU YOUR LTB



1. Connect speakers, microphones and other equipment to the LTB as before.

2. Next, connect a cord from the EFX jack to the input on the effects processing unit. Return the signal to the LTB by connecting a cord from the output of the effects unit to the AUX IN jack on the LTB.

3. The EFX knob on each channel adjusts the amount of signal sent to the EFX jack where the signal is then sent to the processor.

4. Be sure to turn on the tape deck, keyboard or other instruments and outboard gear before powering the LTB.

SPECIFICATIONS FOR THE LTB POWERED MIXER

DESIGNATION TYPE	PR 345
PART NUMBER	071-1700-000 (120 V) 071-1730-000 (240 V) Aust 071-1740-000 (230 V) UK 071-1760-000 (230 V) Euro
POWER SPECIFICATIONS	120V version: 120V AC, 60 Hz, 270W 230V version: 230V AC, 50 Hz, 270W 240V version: 240V AC, 50 Hz, 270W



PRE-AMPLIFIER SECTION

MIC INPUT IMPEDANCE	2.7 k Ω
LINE INPUT IMPEDANCE	100 k Ω
MIC INPUT SENSITIVITY	2 mV
LINE INPUT SENSITIVITY	6 mV
CHANNEL TONE CONTROLS	Low +/- 15 dB @ 30 Hz Mid +/- 15 dB @ 1 kHz High +/- 15 dB @ 15 kHz
OVERALL AMPLIFIER FREQUENCY RESPONSE	-3 dB @ 10 Hz to -3 dB @ 50 kHz (Aux In @ 10 mV)
PHANTOM POWER	+15 V DC

POWER AMPLIFIER SECTION

POWER OUTPUT	80W @ <0.03% T.H.D. + noise @ 1 kHz into 4 Ω
RATED LOAD IMPEDANCE	4 Ω
INPUT SENSITIVITY	34 mV

DIMENSIONS	Height: 5.75 in	14.6 cm
	Width: 17.5 in	43 cm
	Depth: 10 in	25.5 cm

WEIGHT	20 lbs	9 kg
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PRODUCT SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

SPECIFICATIONS FOR THE LTB-10 SPEAKER ENCLOSURE

DESIGNATION TYPE	PR 355
PART NUMBER	071-1710-000
FREQUENCY RESPONSE	75 Hz - 20 kHz
POWER HANDLING	60W
IMPEDANCE	8 Ω
LF DRIVER	10" with 1.5" voice coil
HF DRIVER	Piezoelectric Horn
SENSITIVITY	94 dB, 1W - 1M
MAXIMUM OUTPUT SPL @ 1 M	111dB continuous, 117 dB peak
CROSSOVER FREQUENCY	4 kHz
DIMENSIONS	Height: 16.75 in 42.5 cm Width: 12.75 in 32.4 cm Depth: 11.75 in 29.8 cm
WEIGHT	16 lbs 7.3 kg

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A PRODUCT OF:
FENDER MUSICAL INSTRUMENTS CORP.
CORONA, CA 91720 USA