

OWNER'S MANUAL

Mix 1832 FX

COMPACT 18-CHANNEL MIXER



the
t.mix

Important safety notes

Read all safety notes and all instructions. Failure to follow the notes and instructions may result in electric shock, fire or serious injury.

Save this manual for future reference.



DANGER

Electric shock caused by high voltages inside!

Within the unit there are areas where high voltages may be present. To reduce the risk of electric shock do not remove any covers unless the AC mains power cord is removed. Covers should be removed by qualified service personnel only. There are no user-serviceable parts inside.



DANGER

Electric shock caused by short circuit!

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.



DANGER

Electric shock caused by short circuit!

This device has been designed for indoor use only. Do not expose the device to any liquid, rain or moisture. Do not use the device near water.

Power supply

Notice

Malfunction or damage to equipment!

Ensure that the input voltage (AC outlet) matches the voltage rating of the product. Failure to do so could result in damage to the product and possibly the user.

Unplug the unit before electrical storms occur and when unused for long periods of time.

Operating conditions

Always install and use the device in accordance with these instructions.

Notice

Malfunction or damage to equipment!

Do not install the unit near any direct heat source. Keep the unit away from naked flames.

Do not block areas of ventilation. Failure to do so could result in fire.

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Introduction

Thank you for purchasing the 12-inputs THOMANN Mix 1832 FX compact mixer. Your Mix 1832 FX is a remarkable compact mixer that doesn't find many equals in the market today, with 6 MIC and 4 Stereo line-level inputs for serious live performances. Your Mix 1832 FX includes a 24-bit digital multi-effect with 16 factory presets and 16 variations for every preset, for a total of 256 different digital effects. It has a 3-band sweepable MID EQ on mono input channels, 4-band EQ on stereo input channels. It also features music player function, it can connect with the external USB interface, insert the music and WAV file of the music USB disk for playback, and it supports root directory reading and storing functions. All the above features and its audio quality, make it perfect for piano bar, karaoke, as well as fixed PA installation. Enjoy your Mix 1832 FX and please carefully read this manual before operation!

Features

- 6 MIC inputs with gold plated XLR and balanced TRS jack
- 4 Stereo input channels with balanced TRS jacks
- Ultra-low noise discrete MIC preamps with +48 V Phantom Power
- SUB1-2, SUB3-4 & MAIN L-R signal assignment switches
- 4 AUX Sends per channel: 2 PRE/POST faders switchable for monitoring application effects & sound processor input; 2 POST faders as external send or for internal digital DFX
- 3-band EQ with sweepable MID on mono inputs; 4-band EQ on stereo inputs
- Channel Inserts and Direct Outputs on each mono channel plus Main Inserts for flexible connection of outboard equipment
- 24-bit internal DSP with 256 effects, 16 presets by 16 variations with DSP Mute switch and Peak LED
- 2-TRACK IN assignable to Main Mix, Control Room/Headphone outputs
- Music player functions

Useful information

Please note important information for future reference:

Serial number:

Date of purchase:

Purchased at:

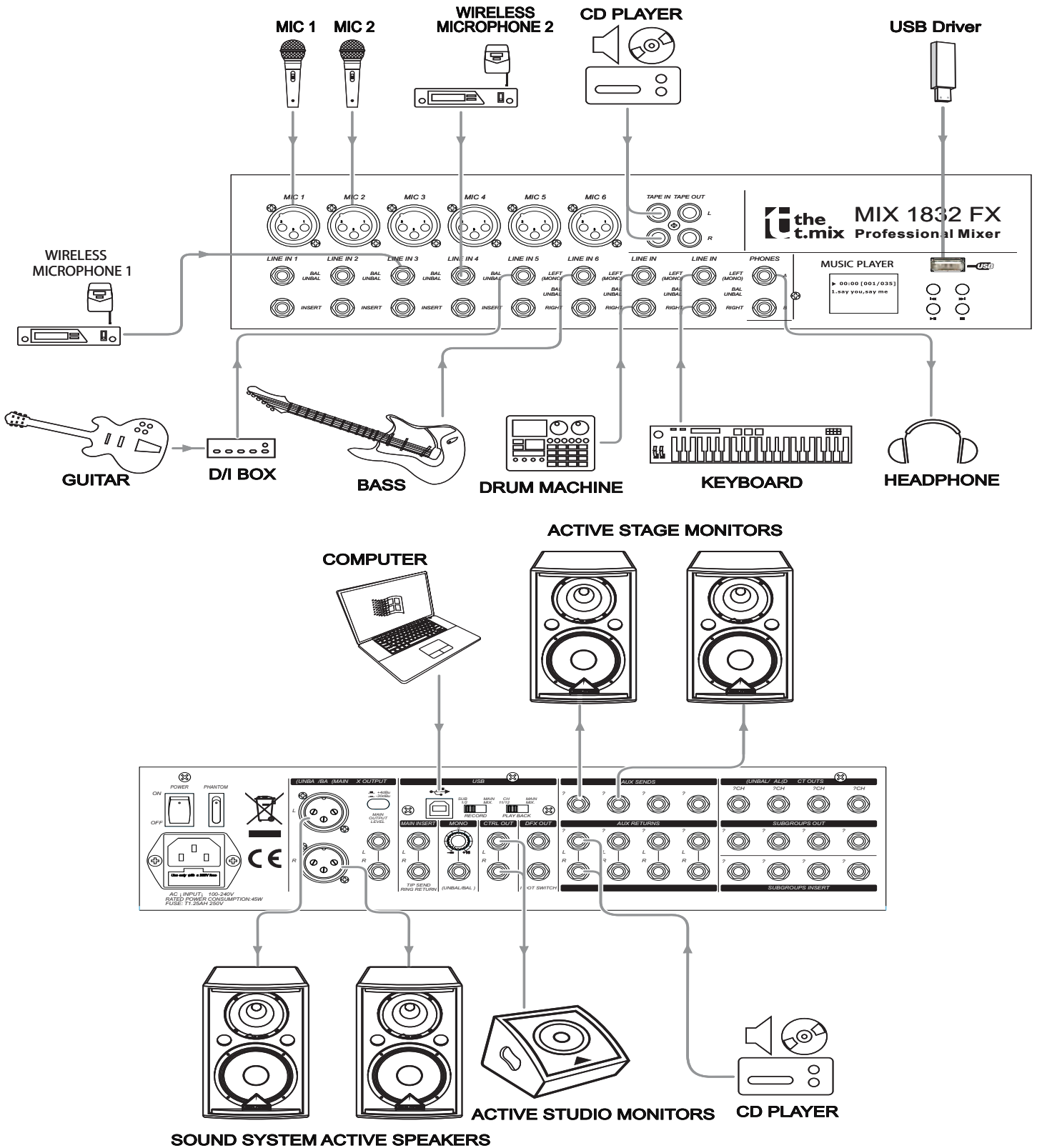
Quick start

This is the fastest way to get something out from your Mix 1832 FX, if you have a keyboard and a microphone

1. Plug the microphone into Channel 1 MIC IN.
2. Turn down AUX and LEVEL controls on the input channel.
3. Put the EQ controls on center position.
4. Connect 2 active speakers to the rear main out connectors.
5. Turn on your Mix 1832 FX.
6. Sing or speak into the microphone with normal volume and adjust the channel LEVEL control of half.
7. If you like, you can adjust the EQ at this stage.
8. The LED on the Master LED meter should flash only occasionally, otherwise you will hear distortion. If this LED is not active and you still hear distortion, please turn down a little the input LEVELControl.
9. Connect your stereo keyboard into channel 5/6 and repeat the sequence.

Here you are. It is your first gig with your Mix 1832 FX.

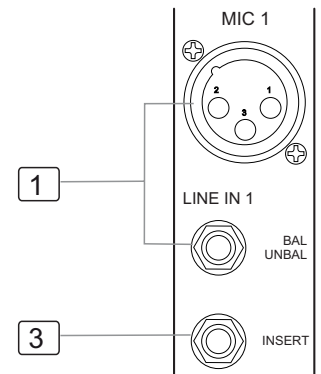
Small gig hookup diagram



Control elements

Mono MIC/LINE channels 1

Your Mix 1832 FX is equipped with 4 low-noise microphone preamplifiers with optional phantom power, 50 dB of Gain and over 115 dB of S/N ratio. You can connect almost any type of microphone. Dynamic microphones do not need phantom power. Use phantom power for condenser microphones only, but make sure that the phantom power button is disengaged before connecting the microphone. Phantom power will not damage your dynamic balanced microphones, so make sure to read the MIC instructions manual before engaging phantom power. Use switch (48) to activate/deactivate phantom power. These channels are also equipped with ¼-inch TRS balanced/unbalanced LINE-IN plugs to connect line-level instruments such as keyboards, drum machines and effect devices.



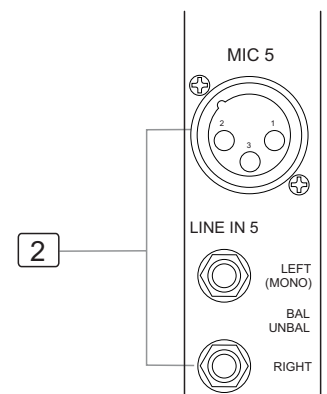
Mono channel insert 3

This is where you connect external sound processors such as compressor-limiter, equalizers, etc. The insert point is available on the first 4 mono MIC channels only.

Stereo inputs 2

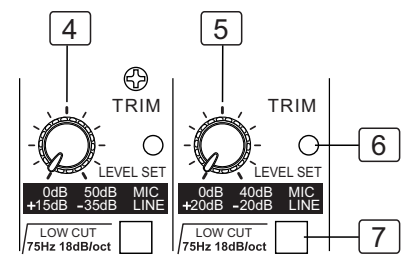
Die Eingangskanäle 5 bis 12 sind als Stereopaare mit zwei 6,35-mm-Klinenbuchsen und XLR-Buchsen ausgeführt. Wenn Sie nur die linke Buchse anschließen, arbeitet der Eingang im Mono-Betrieb, d.h., das Mono-Signal, wird auf beiden Eingangskanälen übertragen. Sie können diese Eingänge mit einem Stereo-Keyboard, einem Drum-Computer, etc. verwenden.

These are channels 5 through 12. They are organised in stereo pairs and provided



TRIM 4

The TRIM control is applied in the mono MIC and stereo input channels. It provides with 2 different indications: One is for the MIC and the other for LINE levels. When you use a microphone, you shall read the MIC ring (0 ~ 50) for mono MIC input, 0 ~ 40 for stereo channels); when you use a line level instrument, you shall read the LINE ring (+15 ~ -35 dB for mono MIC input, +20 ~ -20 dB for stereo channels). For optimum operation, you shall set this control in a way that the PEAK LED (17) blinks only occasionally in order to avoid input channel distortion.



LINE GAIN 5

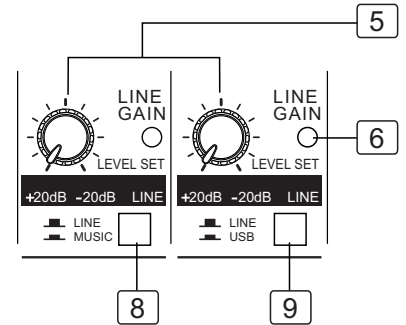
When you use a line level instrument, you shall read the ring (-20 ~ +20 dB). For optimum operation, you shall set this control in a way that the PEAK LED (17) signal peaks only, thus avoiding input channel distortion.

LEVEL SET LED 6

This LED will help you to easily detect the input level, thus making much faster the research of distorted signals.

LOW-CUT button 7

By pressing this button, you will activate a 75 Hz low frequency filter with a slope of 18 dB per octave. You can use this facility to reduce the hum noise infected by the mains power supply, or the stage rumble while using a microphone.



LINE/MUSIC button 8

By pressing this button, it will switch to the music mode, then the music signal can be sent to this channel or the main mix channel; by releasing this button, the LINE IN inputs signal will be sent to the line input channels.

LINE/USB button 9

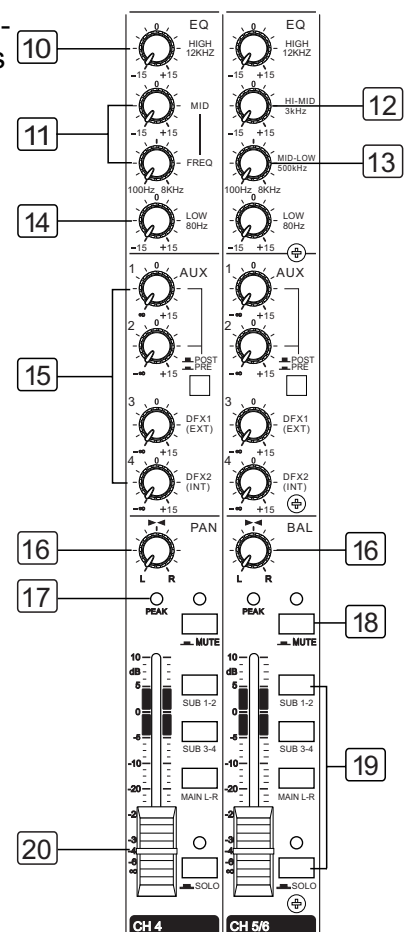
By pressing this button, it will switch to the USB mode, then the USB signal can be sent to this channel or the main mix channel; by releasing this button, the LINE IN inputs signal will be sent to the line input channels.

Equalizer

There are 3-band EQ with sweepable MID on all mono input channels 1-4: HI, MID and LOW band. There are 4-band fixed frequency EQ on the stereo channels 5-12: HI, HI-MID, MID-LOW and LOW band. All bands provide up to 15 dB of boost or cut.

HIGH 10

If you turn this control up, you will boost all the frequencies above 12 kHz (shelving filter). You will add transparency to vocals and guitar and also make cymbals crispier. Turn the control down to cut all frequencies above 12 kHz. In such way, you can reduce human voice sibilances or reduce a tape player hiss.



MID 11

This is a peaking filter and it will boost/cut frequencies from 100 Hz to 8 kHz depending on the position of the MID freq control. Setting the frequency control on lower frequencies, this control will affect the range of fundamental frequencies of most instruments, including human voices, as well as some harmonics when set to higher frequencies.

HI-MID 12

This control gives you up to 15 dB boost or cut at 3 kHz. It is useful for controlling voice. Making the performance brighter.

MID-LOW 13

This control gives you up to 15 dB boost or cut at 500 Hz.

LOW 14

Turning this control up, all the frequencies below 80 Hz will be boosted. You will give more punch to bass drum and bass guitar and make the vocalist more "macho". Turning it down, you will cut all the frequencies below 80 Hz. In this way, you can avoid low-frequency vibrations and resonance thus preserving the life of your woofers.

AUX sends level control 15

These four controls are used to adjust the level of the respective signal sent to the AUX bus. AUX1 and AUX2 can be switched to PRE/POST-FADER via the PRE/POST button, so, generally, they're used PRE-FADER for monitor application and POST-FADER for effect units. AUX3 and AUX4 are configured as POST-Faders. Generally speaking, the users of this unit will use the onboard DSP effect module setting AUX send 4. Alternatively, it's possible to connect an external effect unit input to EFX2 SEND connector.

PAN/BAL control 16

Abbreviation of PANORAMA control for mono channels, allowing to set the stereo signal front. Keeping this control in central position, the signal will be equal in both left and right speakers. Stereo channels have BALANCE control, similar to your hi-fi set control.

PEAK LED 17

Inside your Mix 1832 FX mixer, the audio signal is treated in several different stages and then sent to the PEAK LED. When the LED is red illuminated, it warns you that you are reaching signal saturation and possible distortion. To avoid distortion you should reduce the GAIN, EQ, or LEVEL settings.

MUTE button & LED 18

Each channel is equipped with a MUTE button. Pressing this button is equal to turning the fader down, which can mute the corresponding channel output except for the channel INSERT send and SOLO (in Pre-Fader-Liste mode, PFL). And the MUTE LED will illuminate.

ASSIGNMENT controls 19

Each channel provides four push-buttons: SUB1-2, SUB3-4, MAIN L-R and SOLO. Pressing the SOLO button, the corresponding SOLO LED will illuminate and the SOLO signal will replace other signals send to the head-phone/control room and meters. Usually use the SOLO function in live work to preview channels before they are let into the mix. It is useful to set an instrument's input level and EQ, and you can also solo any channel that you want to. The SOLO switch never affects any mix other than the control room. The other three buttons are signal assignment switches. Pressing the SUB1-2 will assign the channel signal to subgroup 1/2, using the PAN knob you can adjust the amount of channel signal sent to the SUB1 versus SUB2, completely turning the PAN to left, the signal will be addressed to subgroup1 only and vice -versa. In the same way, pressing the SUB3-4 or MAIN L/R will assign the channel signal to subgroup 3/4 or main mix L/R, and this setting too will be affected by PAN.

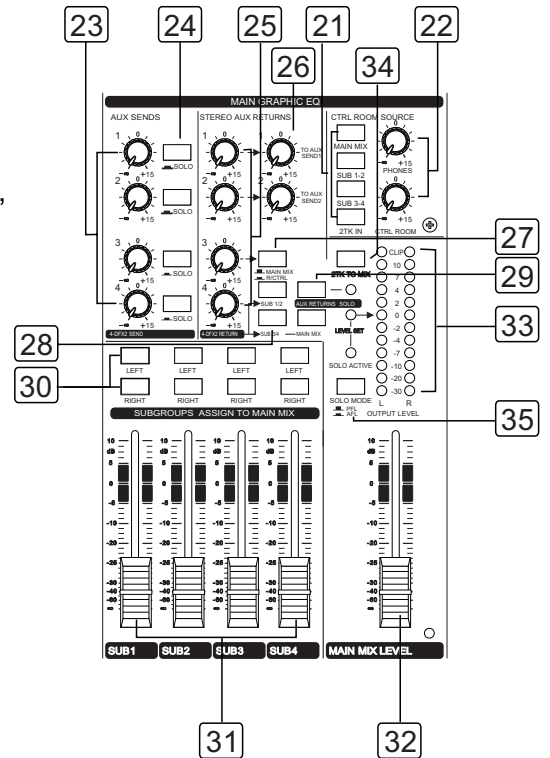
FADER 20

This fader will adjust the overall level of this channel and set the amount of signal send to SUB1-2, SUB3-4, and main L-R outputs.

Control Room Source 21

You can choose to monitor any combination of MAIN MIX, SUB1-2, SUB 3-4 and 2TK IN via these Matrix switches. Engaging these switches, the stereo signals will be delivered to the Phones, Control Room and Meters display.

NOTE: When any SOLO switch was engaged, the SOLO signal will replace other signals, and that signal will be present to Control Room, Phones, and Meters.



PHONES/CTRL room controls 22

Rotate these knobs to independently adjust the stereo level of CTRL ROOM and PHONES. These levels can be adjusted from $-\infty$ to MAX.

Master AUX SENDS controls 23

These four controls are used to determine the master AUX SEND levels, which can be varied from $-\infty$ to +15 dB. Connecting to your mixer an external effect units with no input gain control, you can get a further +15 dB gain available from these Aux Send outputs. In the same way, the AUX4 master control will provide the needed level adjustment for the internal effect unit.

SOLO Button 24

The function of these SOLO buttons is similar to channel SOLO buttons. Pressing any SOLO button, the corresponding AUX send will be routed to the ctrl room/phones outputs and meters display.

Master STEREO AUX RETURNS controls 1-4 25

These four controls set the level of effects received by stereo AUX RETURN connectors, which can be varied from $-\infty$ to +15 dB. They are used to provide the further gain for low level effects.

TO AUX SEND 1/2 26

Both these rotary knobs assign the AUX RETURN signals to their respective AUX SEND outputs: The "TO AUX SEND1" assigns the signal from AUX RETURN1 to AUX SEND1 bus, and "TO AUX SEND2" assigns the signal from AUX RETURN2 to AUX SEND2 bus. The adjustable range goes from $-\infty$ to +15 dB.

MAIN MIX & CTRL/R button 27

AUX RETURN3 is equipped with the Main Mix & Ctrl/R button. Release the button to send the stereo signal from AUX RETURN3 to MAIN MIX buses. Engage the button, then the stereo signal will be sent to CTRL/R output.

SUB1-2/SUB3-4/MAIN MIX buttons 28

These three buttons are configured for AUX RETURN4, they can be regarded as the signal assignment switches. When engaging the SUB1-2, the stereo signal from AUX RETURN4 will be assigned to subgroup1/2; in the same way, pressing SUB3-4 the signal will be assigned to Subgroup3/4, and pressing MAIN MIX it will be assigned to MAIN MIX buses.

AUX RETURNS SOLO button 29

The function of AUX RETURN SOLO is like the channel SOLO button. Engaging this switch signal from AUX RETURN (1-4) will be sent to CTRL OUT, PHONES outputs and Meters display. Pressing this button, the LED next to the button will light. This feature is affected by SOLO mode button (n.35).

SUBGROUPS ASSIGN TO MAIN MIX 30

Through these switches, you can operate the subgroup faders as master controls assigning the subgroup signals to MAIN MIX. Engage the LEFT switch to send the corresponding subgroup signal to MAIN MIX L, and the RIGHT switch for MAIN MIX R. When engaging both switches, the signal will be sent to L/R of MAIN MIX.

SUBGROUPS fader 31

These faders are used to control the levels of the signal send to the SUBGROUPS OUT, the adjustable range goes from $-\infty$ to +10 dB. Any channel that is assigned to the subgroups, not muted and not turned down will be assigned to the SUBGROUPS OUT.

MAIN MIX LEVEL fader 32

This fader sets the amount of signal send either to the main mix output and to the Tape output.

OUTPUT LEVEL LED meter 33

The stereo 12-segment LED meter shows the level of signal sent to ctrl room and phones outputs.

2TK TO MIX button 34

Engaging this switch allows you to combine the 2-track output with the main mix. In other words, it feeds the 2-track In signals into main L/R output.

SOLO MODE button 35

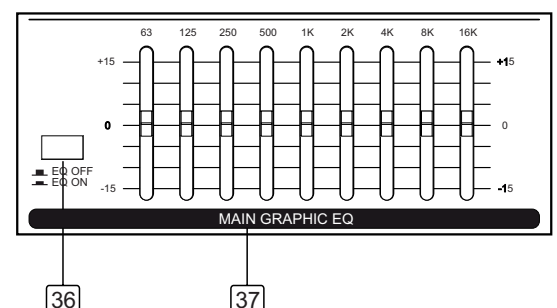
This button provides two modes: up for PFL (pre-fader-listen) mode, down for AFL (after-fader-listen) mode. After the Level control, otherwise, release the button will output the soloed signal before the level control. NOTE: The SOLO function will never affect sound output to main recording output, and also can't be affected by channel's MUTE switch.

EQ switch 36

Engage this button to include the stereo graphic EQ in ST OUT output circuit. It can be used to modify the overall sound character of your mix. If you release the button, the stereo graphic EQ will be bypassed.

STEREO GRAPHIC EQ 37

Each one of these faders will boost or attenuate (+/-15 dB) the selected frequency at a preset bandwidth. When all the faders are in center position, the output of the equalizer is flat response.

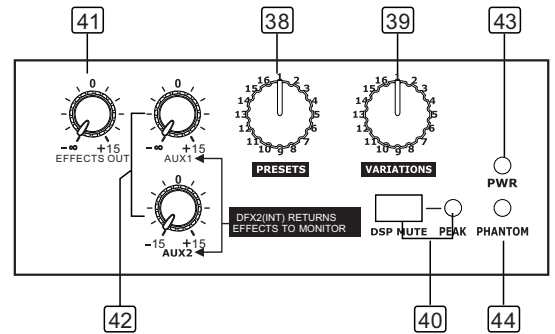


DSP SECTION

There is a powerful 24-bit/256 preset multi-effects included in your Mix 1832 FX. Effects include reverbs, chorus, flanger, delay and combinations of the above.

PRESETS 38

Adjust this knob to select the effect you wish to perform. There are 16 options for you: several kinds of reverb, mono and stereo delay, effects with modulation, and versatile two-effect combination.



VARIATIONS 39

Once you have selected the desired PRESET effect type, then you can choose among the 16 variations the one which suits best for performance/song.

DSP MUTE Switch & PEAK LED 40

This switch is used to activate/deactivate the effect facility. This LED lights up when the input signal is too strong. This LED is lit also when the digital effect module has been muted.

EFFECTS OUT Control 41

Rotate this knob to adjust the level of effect signal generated by the internal digital signal processor and sent to DFX OUT. The adjustable range is from $-\infty$ to +15 dB.

DFX2 (INT) RETURN EFFECTS TO MONITOR 42

The AUX1 and AUX2 controls are used to set the signal level from AUX RETURN4, whose signal will be sent to AUX SEND1 and AUX SEND2. The adjustable range is from $-\infty$ to +15 dB.

POWER LED 43

The LED indicates when the power is ON.

PHANTOM LED 44

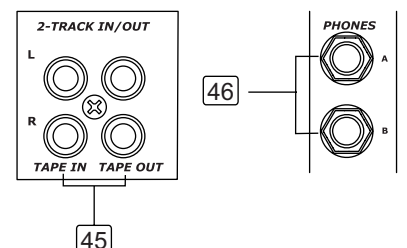
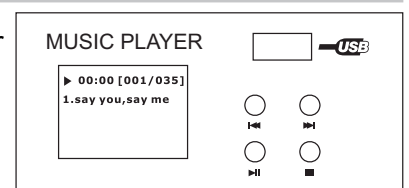
This LED indicates when the phantom power is switched on.

MUSIC PLAYER

For detailed information refer to section “Operation instructions for music player”.

2-TRACK IN/OUT 45

- **TAPE IN** Use the tape input to listen the playback signal from a tape recorder or DAT device.
- **TAPE OUT** These RCA jacks will route the main mix signal to a tape recorder.

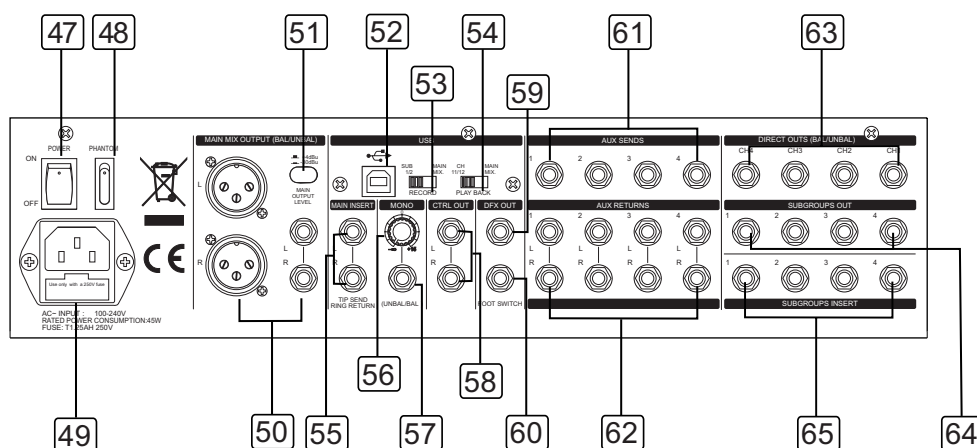


PHONES jacks 46

These jacks will be used to send the signal to your headphones.

POWER switch 47

This switch is used to turn the main power on and off.



PHANTOM switch 48

It is available only to the XLR MIC sockets. Never plug in a microphone when phantom power is already on. Before turning phantom power on, make sure that all faders are totally down. In this way, you will protect your stage monitors and main loudspeakers.

AC inlet with fuse holder 49

Use it to connect your Mix 1832 FX mixer to the main AC with the supplied AC cord. Please check the voltage available in your country and how the voltage for your Mix 1832 FX mixer is configured before attempting to connect your Mix 1832 FX mixer to the main AC.

MAIN MIX OUTPUT 50

These stereo outputs are supplied with both the XLR and 1/4-inch phone jacks and these outputs are controlled by the main mix level.

MAIN OUTPUT LEVEL button 51

This button sets the main mix output level to match the input of the device that you are going to connect. Engage this button to reduce the output level from MAIN MIX OUTPUT by 30 dBu, it is used to match a microphone input @ -30 dBu, or a pro unit input @ +4 dBu.

USB port 52

This USB port is used to connect the unit to a PC in a bi-directional way. The output signal can be chosen between the SUB1-2 or MAIN MIX output, while the input signal can be addressed to CH11/12 or MAIN MIX input.

USB RECORD switch 53

You can select between SUB1/2 or MAIN MIX the signal to be recorded in your PC.

USB PLAYBACK switch 54

You can select CH11/12 or MAIN MIX track to listen to PC audio signal.

MAIN INSERT 55

These two 1/4-inch phone jacks are stereo insert points and used to connect external processors such as compressors, equalisers etc. When inserting an external processor into the jack, the main stereo signal will be sent out after the EQ and returned into the MAIN MIX output before the MAIN MIX fader.

MONO Level control 56

This knob sets the level of mono mix output signal, which can be varied from $-\infty$ to +15 dB.

MONO (BAL/UNBAL) output jack 57

This ¼-inch phone jack is balanced/unbalanced mono mix output connector, it can be regarded as a sum output of the left and right of MAIN MIX.

CTRL OUT jacks 58

These ¼-inch phone jacks will be used to send the control room signal to the studio monitor speakers or a second set of PA.

DFX OUT jack 59

This ¼-inch phone jack is used to output the effect signal generated from the internal DSP module. The DSP output signal level can be controlled by the EFFECTS OUT (41) control.

FOOT SWITCH jack 60

This ¼-inch phone jack can be used to connect an external footswitch to turn on/off the onboard effect module.

AUX SENDS jacks 1-4 61

These ¼-inch phone jacks are used to send out the signal from the AUX bus to external devices such as effect units and/or stage monitors.

AUX RETURNS jacks 1-4 62

Use these stereo ¼-inch phone jacks to return the stereo signal of an effect unit to the main mix. Alternatively you can also use them as an extra auxiliary input via using the AUX RETURN level control as volume control. The signal will be sent directly to main mix control.

DIRECT OUTS jacks 1-4 63

Each mono MIC/LINE channel (CH1-CH4) is equipped with a ¼-inch phone jack for direct output signal. These jacks are used to send the signal from the channel path to external device for recording function etc.

SUBGROUPS OUT jacks 1-4 64

These ¼-inch phone jacks are used to record or to connect another sound system, using different levels and signals from MAIN MIX OUT.

SUBGROUPS INSERT jacks 1-4 65

These ¼-inch TRS phone jacks are insert points. They are configured in a standard way (tip send/ring return) to be used to connect external processors, such as compressor, limiter, EQ etc. Inserting a “Y” shaped cable in these jacks, the subgroup signal path will be sent to external unit, then returned before subgroups fader. Connect the external unit input to “Y” shaped cable tip, and external unit output to “Y” shaped cable ring.

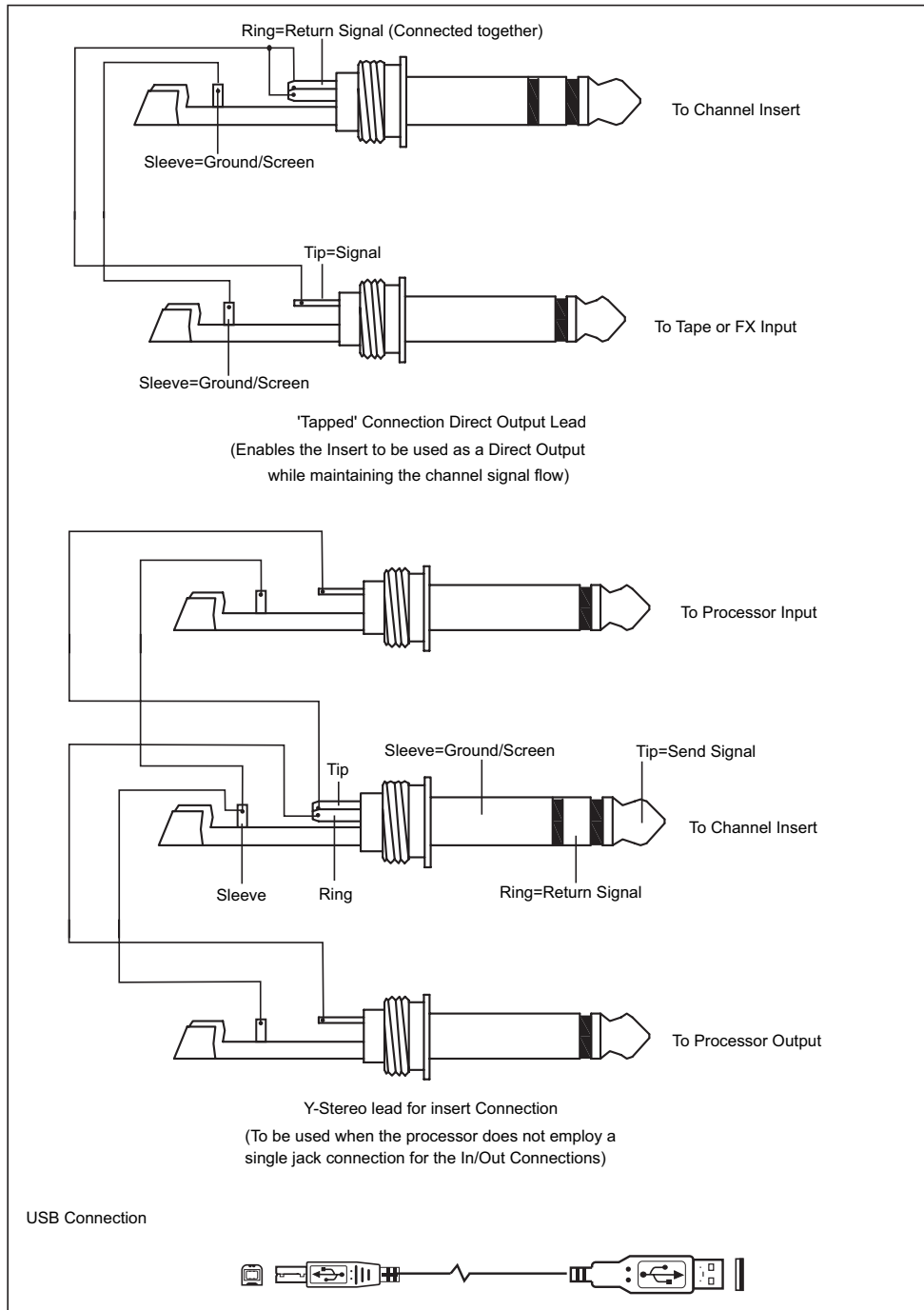
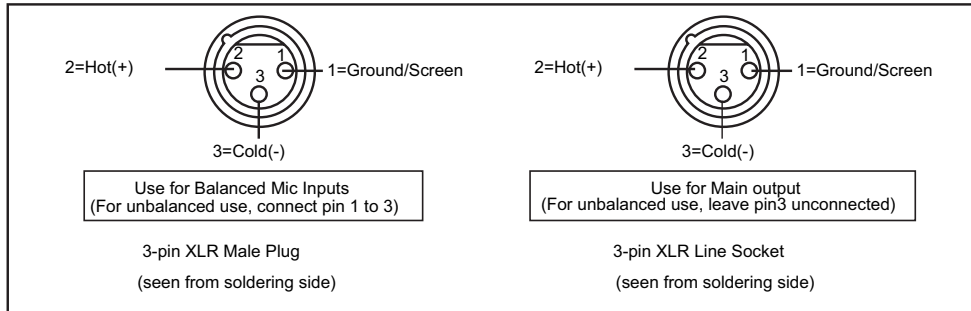
Installation and connection

Ok, you have got to this point and you are now in the position to successfully operate your Mix 1832 FX. However, we advise you to read the following section carefully to be the real master of your own mix. Not paying enough attention to the input signal level, the routing of the signal and the assignment of the signal will result in unwanted distortion, a corrupted signal or no sound at all. So you should follow this procedure for every single channel:

1. Turn down all input and output gain controls.
2. Connect phantom powered microphones before switching on the +48 Volt phantom power switch.
3. Set the output level of your Mix 1832 FX mixer as „0“, and the connected power amplifier at no more than 75%.
4. Now, set the CONTROL ROOM/PHONES level at no more than 50%. In this way, you will be able to hear later what you are doing connecting a pair of headphones or a pair of powered studio monitor speakers.
5. Position EQ controls on middle position allowing to set the stereo signal front. Keep this control.
6. Position panoramic (PAN/BAL) control on center position.
7. With a pair of headphones or studio monitor speakers connected, apply a line level input signal so that the PEAK LED does not light up.
8. Increase the input gain properly for maintaining the good headroom and ideal dynamic range.
9. Depending on the actual application, turn slowly the input and output level controls for obtaining the maximum gain before distortion.
10. Now repeat the same sequence for all input channels. The main LED meter could move up into the red section. In this case you can adjust the overall output level through the main mix control.

Audio connections

You can connect unbalanced equipment to balanced inputs and outputs. Simply follow these schematics.

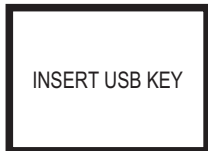
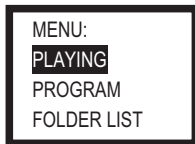

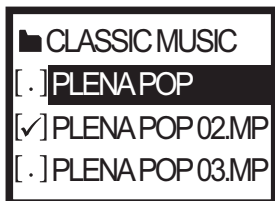

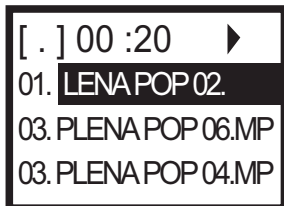


Operation instructions for music player

Note

1. USB Memory Format: FAT16, FAT32
2. Playing type: MP3 only
3. It can read up to 7 rank folders of your USB flash drive.

Operation Instruction

1. When no USB flash drive is inserted, your Mix 1832 FX display will show the following screen:
2. When the the USB flash drive is inserted, the music player starts to search the music songs in your USB flash drive, and the display shows "Searching". At the end of the search, the display will show the following screen. Using "<<" or ">>" keys, you can select one of following three menu options ("Playing", "Program", and "Folder List"). Pressing "Play", the unit will enter into the corresponding operation mode.
3. "Playing" mode – single song play
Selecting the "Playing" mode, you will recall the following screen. This screen displays the name of all the folders containing music files. Using the "<<" or ">>" keys, you can scan the folders, then press "Play" to open the corresponding folder. Press "Stop" to return to the main menu.
4. "Program" mode
 - Select "Program" to enter into the following screen:
"Playlist Set": Set the playing list
"Playing List": Play list
Press "<<" or ">>" keys to select, press "Stop" to return to the main menu.
 - After entering into the "Play List Set", the display will show the folders containing songs. Selecting the desired folder, the display will show the following screen. This screen will show all the music files, the selected song will be inserted into the playing list and a mark will appear. Pressing again you're going to delete the song from the playing list, and the mark will disappear. Pressing the "Stop" key, you will return to the main menu. The playing list can accept up to 20 songs, and it will display the list according to song insert order.
 - The screen will display the following screen. Pressing the "<<" or ">>" keys you can select the starting song, then pressing the "Play" key the selected song playback will start. Pressing "Play" again, or pressing "Stop", the playback will stop. Pressing "Play" again, or pressing "Stop", the playback will start again from the same point. Twice pressing "Stop" the music player will return to the main window.
5. Folder List:
The display shows the music files in the current folder or subfolders. Use "<<" or ">>" keys to navigate. Press „Play“ to play a song or to enter into the corresponding subfolder. Press "Stop" to return to the main menu.

Preset list

No.	Preset	Description	Controllable Parameter	Parameter Variable range
1	WARM HALL	Simulates a small acoustic space of the sound.	Decay time Pre-delay	1.0 ~ 2.9s 20 ~ 45ms
2	BRIGHT HALL	Simulates a large acoustic space of the sound.	Decay time Pre-delay	3.6 ~ 5.4s 23 ~ 55ms
3	WARM ROOM	Simulates a bright studio room	Decay time Pre-delay	0.7 ~ 2.1s 20 ~ 45ms
4	BRIGHT ROOM	Simulates a studio room with many early reflections.	Decay time Pre-delay	2.9 ~ 4.5s 23 ~ 55ms
5	WARM VOCAL	Simulates a room with small delay time	Decay time Pre-delay	0.8 ~ 1.1s 0 ~ 79ms
6	BRIGHT VOCAL	Simulates a small space with slight decay time	Decay time Pre-delay	0.8 ~ 2.5s 0 ~ 79ms
7	PLATE REVERB	Simulates the transducers sound like classic bright vocal plate	Decay time Pre-delay	0.6 ~ 6.1s 10ms
8	STEREO DELAY	Recreates the input sound on the stereo output with different time	Period Feedback	210 ~ 400ms 37 ~ 73%
9	MONO DELAY	Reproduces the sound input on the after a lapse of time	Period	60 ~ 650ms
10	CHORUS	Recreates the illusion of more than one instrument from a single instrument sound	Rate	0.5 ~ 5Hz
11	FLANGER	Simulates to play with another person carrying out same the notes on the same instrument	Rate	0.16 ~ 2.79Hz
12	VIBRATO	Vibrato delay with the analog transducers' springs lightly stretched sound	Decay time Pre-delay	1.3 ~ 5.4s 0 ~ 35ms
13	REV + DELAY	Delay with room effect	Decay period Rev.decay time	211 ~ 375ms 1.0 ~ 2.9ms
14	REV + CHORUS	Stereo chorus and large room reverb	Decay period Rev.decay time	0.5 ~ 4.74Hz 1.5 ~ 2.9s
15	REV + FLANGER	Stereo flanger and large room reverb	Flanger Rate Rev.decay time	0.16 ~ 5.52Hz 1.5 ~ 2.9s
16	REV + VIBRATE	Simulates a record head and multiple playback heads at intervals along the tape	Decay time Pre-delay	1.3 ~ 5.4s 0 ~ 84ms

Technical specifications

Input channels	Mono channels	
	Microphone input	Electronically balanced, discrete input configuration
	Frequency response	10 Hz to 55 kHz, ± 3 dB
	Distortion (THD+N)	0.005% at +4 dBu, 1 kHz
	Gain range	0 dB to 50 dB (MIC)
	SNR (signal to noise ratio)	115 dB
	Line input	Electronically balanced
	Frequency response	10 Hz to 55 kHz, ± 3 dB
	Distortion (THD+N)	0.005% at +4 dBu, 1 kHz
	Sensitivity Range	+15 dBu to -35 dBu
	Stereo channels	
	Line input	Balanced/unbalanced
	Frequency response	10 Hz to 55 kHz, ± 3 dB
	Distortion (THD+N)	0.005% at +4 dBu, 1 kHz
Impedance	Microphone input	1.4 k Ω
	Channel insert return	2.5 k Ω
	All other inputs	10 Ω or greater
	Tape out	1 k Ω
	All other outputs	120 k Ω
Equalization	Hi-shelving	± 15 dB @ 12 kHz
	Mid bell (mono)	± 15 dB, frequency range 100 Hz to 8 kHz
	Hi-Mid (stereo)	± 15 dB @ 3 kHz
	Mid-Low (stereo)	± 15 dB @ 500 Hz
	Low-shelving	± 15 dB @ 80 Hz
	Low cut filter	75 Hz, 18 dB/Oct.
DSP section	A/D and D/A converters	24 bit
	DSP resolution	24 bit
	Type of effects	HALL, ROOM, VOCAL & PLATE REVERB, MONO & STEREO DELAY (MAX DELAY TIME 650 MS), CHORUS, FLANGER & REVERB MODULATIONS, REVERB+DELAY, REVERB+CHORUS, REVERB+FLANGER COMBINATIONS
	Presets	256
	Controls	16-position PRESET/VARIATION selector
		DSP MUTE SWITCH with PEAK LED indicator MUTE switch with LED indicator
Main mix section	Noise (bus noise)	Fader 0 dB, channels muted: -100 dBr (ref.: +4 dBu)
		Fader 0 dB, all input channels assigned and set to unity gain: -90 dBr (ref.: +4 dBu)
	Max output	+22 dBu balanced XLR; +22 dBu unbalanced, 1/4-inch jacks
	AUX returns gain range	$-\infty$ to +15 dB
	AUX sends max out	+22 dBu
Power Supply	Main voltage	100 to 240 VAC, 50/60 Hz
	Power consumption	40 W
	Fuse	T1.25 A, 250 VL
	Main Connection	Standard IEC receptacle
Physical	Dimension (W \times D \times H)	415 mm \times 400 mm \times 35/115 mm (16.3 in \times 15.8 in \times 1.49/4.53 in)
	Net weight	6.7 kg (14.8 lbs)

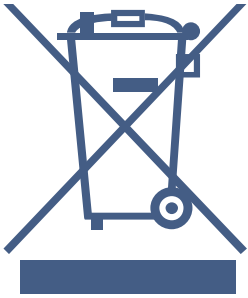
Protecting the environment

Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling. Ensure that plastic bags, packaging, etc. are properly disposed and are not in the reach of babies and young children. Choking hazard! Do not just dispose these materials with your normal household waste, but make sure that they are fed to a recovery. Please follow the notes and markings on the packaging.

Disposal of your old device



Electrical and electronic equipment often contain materials which can be unhealthy and environmentally harmful, if not properly treated and disposed of. However, they are essential for the proper operation of your device. At the end of its operating lifetime, do not dispose the device with your normal household waste. This device is subject to the European directive 2002/96/EC. Dispose this device through an approved waste disposal firm or through your local waste facility. When discarding the unit, comply with your rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

