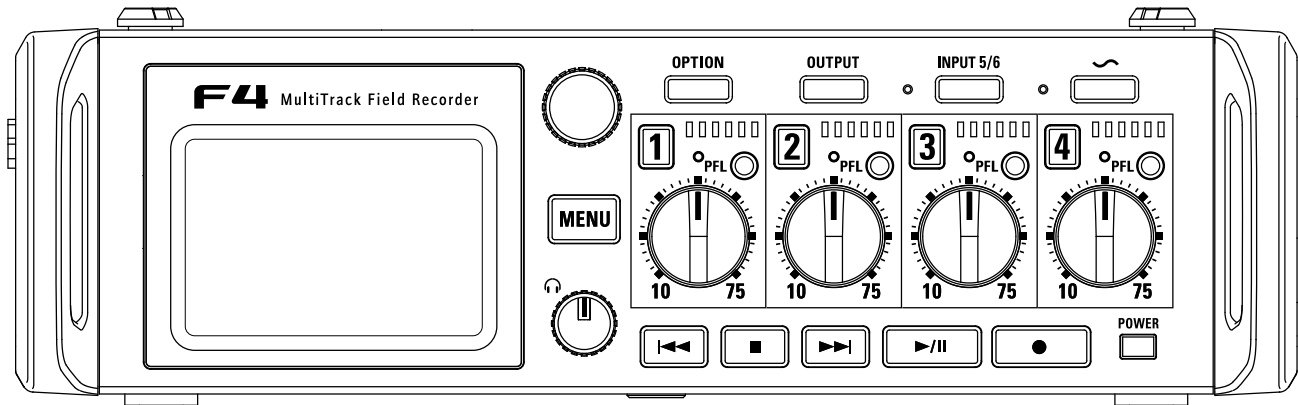


ZOOM®

F4 MultiTrack Field Recorder

Version 2.0 Supplementary Manual



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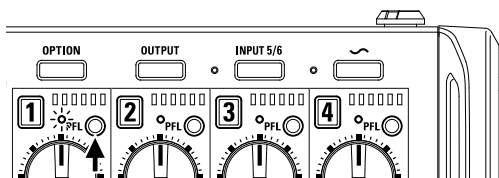
Functions added in Version 2.0

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Monitoring input signals of specific tracks without recording



Even tracks that have not been set to record can be input to the PFL screen and their input sound monitored.

1. Press the track key for the tracks that you want to monitor without recording so that their indicators become unlit.
2. Press PFL  on the tracks that you want to monitor.



The selected track indicators will light orange, and the PFL screen will open.

“PFL” or “SOLO” appears at the top of the display, and you will be able to monitor the input signal with headphones.

3. Press  or PFL  on a track that you were monitoring. The PFL screen will close and the headphone monitoring sound will return to normal.

NOTE

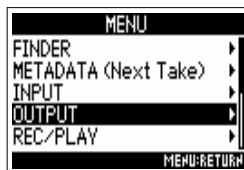
This does not change the signals output from MAIN OUT and SUB OUT.

Saving multiple settings for signals sent to headphone output (Headphone Routing)

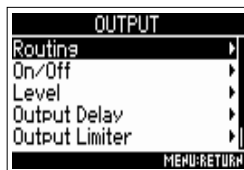
You can edit and save up to 10 settings for signals sent to the headphone output.



1. Press .

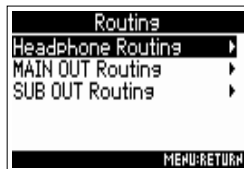
2. Use  to select OUTPUT, and press .





3. Use  to select Routing, and press .



4. Use  to select Headphone Routing, and press .



5. Use  and  to change the setting show and edit each item.





6. Press .



Settings are saved automatically.

See "Setting signals sent to the output jacks" in the **F4** Operation Manual for how to change the settings.

HINT

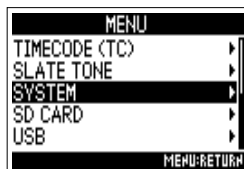
You can also press  +  to open the Headphone Routing screen.



Setting the keys held (Key Hold Target)

Use the hold function to prevent misoperation during recording. Press  + PFL  (Track 1) to turn it on/off. Follow these instructions to set which keys are disabled by the hold function.



1. Press .

2. Use  to select SYSTEM, and press .



3. Use  to select Key Hold Target, and press .



4. Use  to select the keys held, and press .





HINT

You can select Track 1-4, PFL 1-4, INPUT5/6, Trim Knob 1-4, OPTION, OUTPUT, Slate Tone Encoder, MENU, HP Volume, REW, STOP, FF, PLAY and REC.

5. Press .

HINT

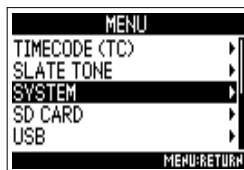
- Even when hold is on for "OPTION" and "Track 1-4", you can press  + PFL  (Track 1) to turn the hold function off.
- Operation using the **FRC-8** is possible even when the hold function is on.



Backing up and loading **F4** settings (Backup/Load Settings)

F4 settings can be backed up to and loaded from SD cards.



1. Press .

2. Use  to select **SYSTEM**, and press .



3. Use  to select **Backup/Load Setting**, and press .



4. Use  to select the **SD card** to use for backup/ loading, and press .





► Continue to one of the following procedures.

Backing up	P.6
Loading	P.7

Backing up

This saves a backup file to the “F4_SETTINGS” folder in the root directory of the SD card.

5. Use  to select **Backup**, and press .



6. Edit the name of the file saved.

See “Character input screen” in the **F4** Operation Manual for how to input characters.



HINT



The extension of the saved backup file is “.ZSF” .

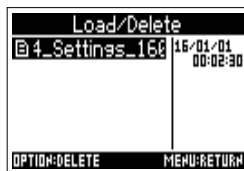
Loading

You can load a backup file that is saved in the "F4_SETTINGS" folder in the root directory of the SD card.


- 5.** Use  to select Load/Delete, and press .





- 6.** Use  to select Backup, and press .



HINT

- You can press  to delete a file.
- Deleting a file will completely erase its data.



- 7.** Use  to select "Yes", and press .

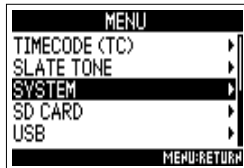




Setting the level meter reference (Reference Level)

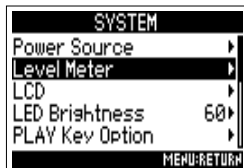
Setting the level meter reference makes it easier to adjust the volume of input signals.



1. Press .

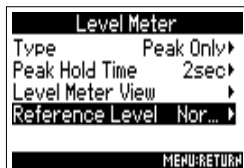
2. Use  to select SYSTEM, and press .





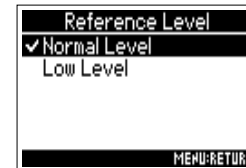
3. Use  to select Level Meter, and press .

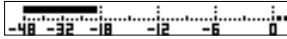
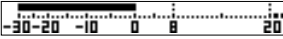
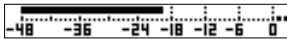



4. Use  to select Reference Level, and press .



5. Use  to select reference level setting, and press .





Setting value	Explanation	
	When level meter type is Peak Only	When level meter type is Peak + VU or VU Only
Normal Level	The center of the level meter is -12 dBFS. Clear monitoring of levels higher than -12 dBFS is possible. 	The center of the level meter is 0 VU (-20 dBFS). Clear monitoring of levels higher than 0 VU (-20 dBFS) is possible. 
Low Level	The center of the level meter is -20 dBFS. Clear monitoring of levels lower than -20 dBFS is possible. 	The center of the level meter is -10 VU (-30 dBFS). Clear monitoring of levels lower than -10 VU (-30 dBFS) is possible. 

Showing total recording time during long recording periods (Time Counter)

When recording for a long time, if the file size set with “File Max Size” is reached, recording will continue in a new take and the recording time will reset. You can change this, however, so that it is not reset and the total recording time is shown.


1. Press .

2. Use  to select REC/PLAY, and press .



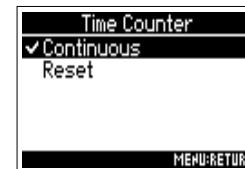
3. Use  to select File Max Size, and press .



4. Use  to select Time Counter, and press .



5. Use  to select Continuous, and press .



Setting value	Explanation
Continuous	When recording, even if the file size set with “File Max Size” is reached, the counter shown on the Home Screen will not be reset.
Reset	When recording, if the file size set with “File Max Size” is reached, the counter shown on the Home Screen will be reset to 000:00:00.



Setting the format of Ambisonic Mode

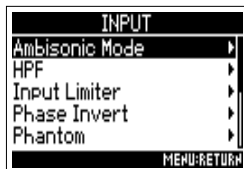
By connecting mics that can output ambisonics A-format signals to Inputs 1-4, audio can be converted to ambisonics B-format and recorded.



1. Press .

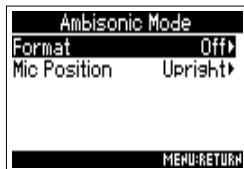
2. Use  to select INPUT, and press .





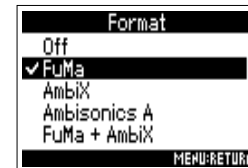
3. Use  to select Ambisonic Mode, and press .



4. Use  to select Format, and press .



5. Use  to select the format, and press .



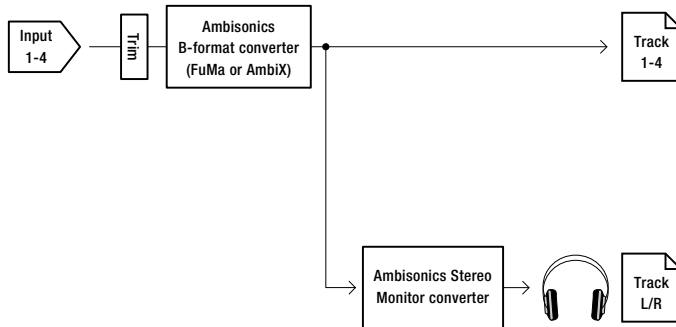
FuMa

This converts the signals from Inputs 1-4 to the ambisonics FuMa B-format, and saves them as a 4-channel polyphonic file.

AmbiX

This converts the signals from Inputs 1-4 to the ambisonics AmbiX B-format, and saves them as a 4-channel polyphonic file.

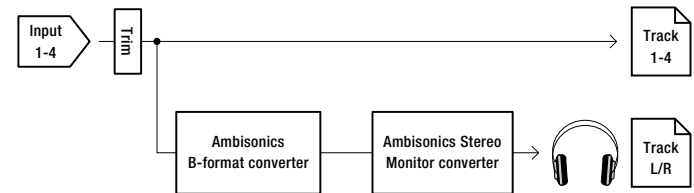
Format: FuMa, AmbiX



Ambisonics A (Stereo Monitor)

This saves the signals from Inputs 1-4 as a 4-channel polyphonic file without converting them to an ambisonics B-format. The monitoring signal is converted to ambisonics B-format and then to an ordinary stereo signal.

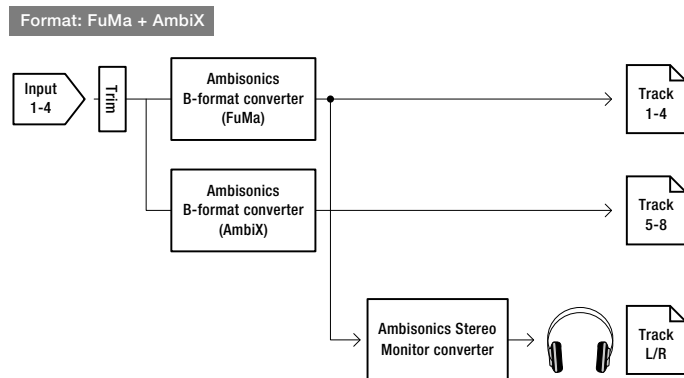
Format: Ambisonics A (Stereo Monitor)



Setting the format of Ambisonic Mode (continued)

FuMa + AmbiX

This converts the signals from Inputs 1-4 to the ambisonics FuMa B-format, and records them to tracks 1-4. It also converts the signals from Inputs 1-4 to the ambisonics AmbiX B-format, and records them to tracks 5-8. These can be recorded at different input levels.

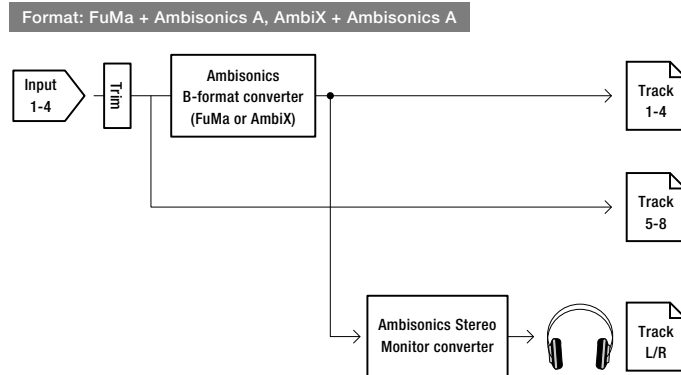


FuMa + Ambisonics A



This converts the signals from Inputs 1-4 to the ambisonics FuMa B-format, and records them to tracks 1-4. It also records the signals from Inputs 1-4 to tracks 5-8 without converting them to an ambisonics B-format.


AmbiX + Ambisonics A

This converts the signals from Inputs 1-4 to the ambisonics AmbiX B-format, and records them to tracks 1-4. It also records the signals from Inputs 1-4 to tracks 5-8 without converting them to an ambisonics B-format.





NOTE

- The sampling rate can only be set to 192 kHz when the format of Ambisonic Mode is Off.
- Ambisonic files are saved as 4-channel polyphonic files, not as mono or stereo files.
- A ZOOM mic capsule can only be used when the format of Ambisonic Mode is Off.
- The following parameters cannot be set for tracks using Ambisonic Mode input.
 - Dual Channel Rec
 - Trim Link
 - Phase Invert
 - Pan
 - Input Delay
 - Stereo Link
- A Files recorded when the format of Ambisonic Mode is not Off will play back as ambisonic audio sources rather than ordinary 4-channel polyphonic files. For this reason, these tracks cannot be panned or muted during playback.
- When the  indicator is lit, FuMa + AmbiX, FuMa + Ambisonics A, and AmbiX + Ambisonics A cannot be selected.
- When FuMa + AmbiX, FuMa + Ambisonics A, or AmbiX + Ambisonics A is selected, the  indicator cannot be lit.
- Tracks 7/8 can only be assigned when FuMa + AmbiX, FuMa + Ambisonics A, or AmbiX + Ambisonics A is selected.
- If an ambisonic file in FuMa + AmbiX, FuMa + Ambisonics A, or AmbiX + Ambisonics A is played back on the **F4**, the sound of tracks 5–8 will not be played.

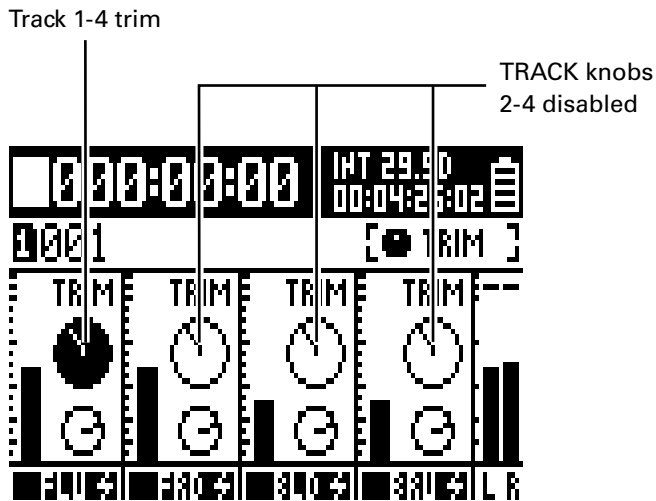
- When FuMa + AmbiX, FuMa + Ambisonics A, or AmbiX + Ambisonics A is selected, the sound of tracks 5–8 will not be shown by the level meters and monitoring will not be possible even if  is pressed.

HINT

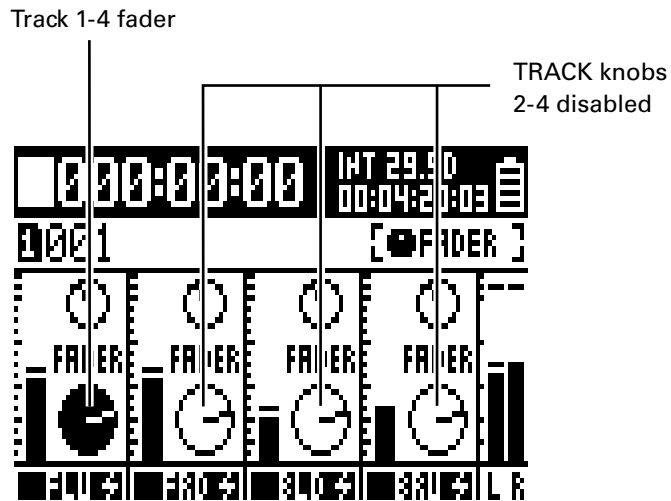
- Ambisonic Mode can be set during use as an audio interface (Multi Track). The FuMa + AmbiX, FuMa + Ambisonics A, and AmbiX + Ambisonics A formats, however, cannot be selected.
- Even when the format of Ambisonic Mode is Off, you can press track  to monitor their input sounds. When PFL mode is set to PFL, you can monitor sounds before they are converted to ambisonics B-format. When PFL mode is set to SOLO, you can monitor sounds after they are converted to Ambisonics B-format.
- The input levels of the Ambisonic Mode input tracks are linked, so  for Input 1 can be used to adjust their input levels.
- The input enabled/disabled statuses of the Ambisonic Mode input tracks are linked, so the settings of all assigned tracks can be switched simultaneously by pressing any of their track keys.
- The following parameters that can be set on the PFL screen are linked for input tracks using Ambisonic Mode.
 - HPF
 - Input Limiter
 - Phantom
 - Fader
 - PFL Mode

Setting the format of Ambisonic Mode (continued)

When Ambisonic Mode is enabled, the Home Screen will appear as follows.



When TRIM set as parameter
adjusted by TRACK knobs





When FADER set as parameter
adjusted by TRACK knobs



Setting the mic position used for ambisonic recording (Mic Position)

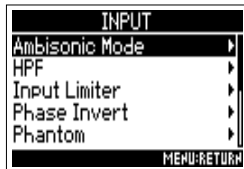
By setting the mic orientation used during ambisonic recording as an **F4** parameter, proper positioning can be maintained when converting to ambisonic B format if the mic orientation is changed from upright to upside down or horizontal.

1. Press .

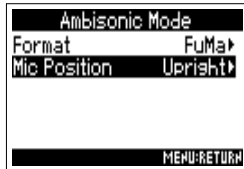
2. Use  to select INPUT, and press .





3. Use  to select Ambisonic Mode, and press .



4. Use  to select Mic Position, and press .

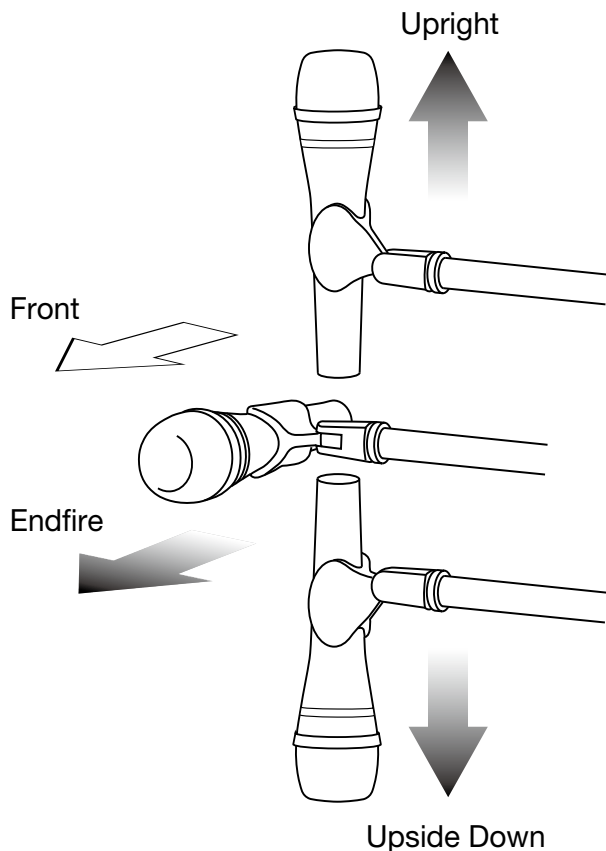


5. Use  to select the mic orientation, and press .



Setting value	Explanation
Upright	Use this setting to record with the mic upright.
Upside Down	Use this setting to record with the mic upside down.
Endfire	Use this setting to record with the mic oriented horizontally.

Setting the mic position used for ambisonic recording (Mic Position) (continued)



HINT

- Using the mic upright is recommended for ambisonic recording in order to minimize reflections from the floor and the mic itself.
- When it is difficult to use the mic in an upright orientation, you can place it upside down or pointing forward and change the Mic Position setting accordingly.



NOTE

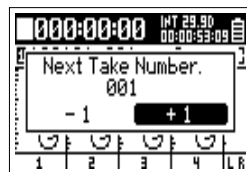
- If this setting and the mic position do not match, sound positioning will not be properly re-created during conversion to ambisonic B format.

Changing the number of the next recorded take

The number given to the next recorded take can be changed when the Home Screen is open.

1. Press and hold .

2. Use  to increase or decrease the take number by one, and press .



NOTE

During recording/playback or when Date set as how scenes are named (Name Mode), this function cannot be used. How scenes are named can be changed using the following menu items.

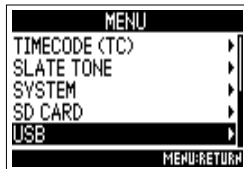
MENU>METADATA(Next Take)>Scene>Name Mode



Setting **FRC-8** fader and knob operation (Knob/Fader Mode)

How the **FRC-8** faders and TRIM/PAN knobs operate when their positions differ from actual parameter values can be set.



1. Press .

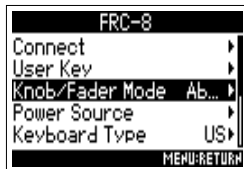
2. Use  to select USB, and press .





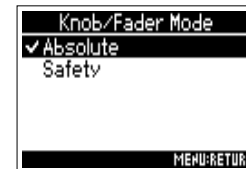
3. Use  to select FRC-8, and press .



4. Use  to select Knob/Fader Mode, and press .



5. Use  to select the fader and knob operation, and press .



Setting value	Explanation
Absolute	When a knob or fader is operated, the parameter value will change to the value shown by that knob or fader.
Safety	When a knob or fader is operated, the parameter value will not change until the knob or fader first matches that value.

NOTE

The **FRC-8** headphone volume operation cannot be changed.

Other new functions

- Extended the HPF setting ranges from 80-240 Hz to 10-240 Hz.
- Enabled the option to edit “Note” and “Track Name” metadata while recording. While recording, press **1** to open the Note editing screen or **3** to open the Track Name editing screen.
- Changed SD card volume labels to “F4_SD1” and “F4_SD2” respectively.



ZOOM CORPORATION

4-4-3 Kanda-surugadai, Chiyoda-ku, Tokyo 101-0062 Japan

<http://www.zoom.co.jp>