Digital Multitracker

Model FD-8

Quick Operation Guide

Welcome to the FD-8

Thank you for choosing the Fostex digital multitracker Model FD-8.

The FD-8 is a digital multitracker equipped with a high-performance eight input analog mixer, which enables eight-track recording and eight-track playback. The FD-8 uses a SCSI removable disk, such as a Zip drive, EZ drive, or MO drive, or a fixed SCSI disk, optional 2.5 inch IDE internal hard disk as the recording media.

The FD-8 also features high quality recording and playback, and non-destructive editing thanks to digital recording technology. The superior tonal quality and easy operation of the FD-8, compared to a conventional analog tape multitracker, will expand your creative musical world.

Documentation for the FD-8 consists of two parts: the Quick Operation Guide (this book) and the Owner's Manual. The Quick Operation Guide introduces you to the basic operations of the multitracker, including "Connecting a SCSI drive and formatting a disk," "Initial recording," "Playback," "Punch in/out recording," "Overdubbing," "Ping-pong recording," and "mixdown," so that you can start using your new recorder immediately. The Owner's Manual provides you with detailed information on the FD-8's many functions.

Please read both books thoroughly to make the best use of your FD-8. And, be sure to read the "Precautions" and "Notes on Operating the FD-8" in the Owner's Manual.

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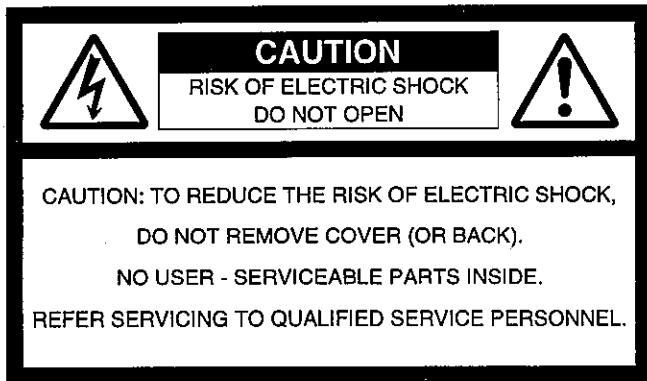
"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

SAFETY INSTRUCTIONS

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.

An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
    A. The power supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

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Notes on operating the FD-8

<Recording media>

The FD-8 is not equipped with recording media for recording and playback. You must prepare a SCSI drive and disk to record, play back, or edit data on the FD-8. Please refer to "Recording Preparation" on the next page.

For more information on removable SCSI disks supported by the FD-8, refer to the "List of drives with guaranteed operation" in the Owner's Manual.

<Damages>

Fostex is not responsible for any direct or consequential damage caused by operation of the FD-8 or a connected external SCSI drive or disk.

<Copyrights>

It is prohibited by law to use materials recorded on the FD-8 from music CDs and/or video tapes for which copyrights belong to a third party for commercial concerts, broadcasting, sales, or distribution, except for your own entertainment.

<Legend used in this Guide>

Characters in brackets ([ ]) appear on the display, and characters in quotation marks (" ") indicate the position of the switches, buttons, and knobs on the control panel.

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Recording Preparation

Please do the following preparation before you start recording, playing, or editing on the FD-8.

Preparing recording media

The FD-8 is not equipped with a recording medium, such as a hard disk. You need to connect an external SCSI drive (MO drive, Zip drive, EZ drive, or fixed hard disk drive) as the recording media. Fostex does offers an optional internal 2.5-inch IDE hard disk. For more information on removable SCSI drives and disks supported by the FD-8, please refer to the "List of the drives with guaranteed operation" in the Owner's Manual. Be sure to use a drive and disk with operation guaranteed by Fostex.

Prepare the following items. Select one of the following removable SCSI drives.
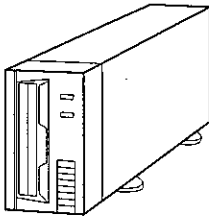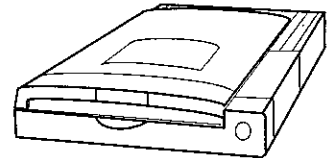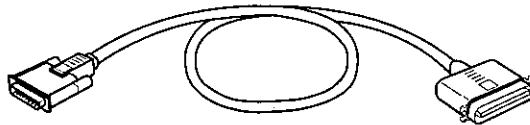
MO drive & MO disk   EZ drive & disk   Zip drive & disk
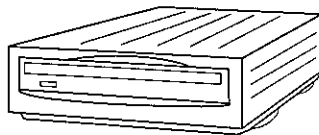
SCSI cable   SCSI terminator

Note: Using an MO drive may limit the FD-8's capabilities. For more information, refer to the "Formatting" section on page 7 regarding the Record mode.

* The type of SCSI cable used to connect the FD-8 differs depending on the type of connected SCSI drive. The FD-8 is equipped with a D-sub 25-pin female connector for SCSI connections, which requires a SCSI cable with a D-sub 25-pin male connector on one end.

* If your SCSI drive does not have a built-in terminator, you will need a SCSI terminator.

* In addition to the above removable type SCSI drive, the IDE hard disk or the optional 2.5 inch IDE hard disk can be installed in the FD-8. If a optional 2.5-inch hard disk is to be used, the Fostex Service Station will do the installation on the FD-8. For details, please inquire at your nearest Fostex service Station.

<Notes on handling SCSI drives and disks>

A SCSI drive and its disk are made of precision parts. Follow the instructions below when you handle them.
* Do not drop them or cause a strong impact.
* Do not expose them to strong vibration.
* Do not expose them to substantial changes in temperature or humidity.
* Do not locate them in a dusty place.
* Do not expose them to water.
* Do not place them near any device that generates a strong magnetic field.

Malfunction or misuse of the unit may erase the data recorded on SCSI disks. We recommend that you save important recordings to DAT.
Fostex will not be responsible for any damage due to erased data or any consequential damages caused by the use of the FD-8.

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Connecting a SCSI drive to the FD-8

Connect your SCSI drive to the SCSI connector on the rear panel of the FD-8.
Refer to the following "Notes on connection" and connect the drive correctly.

<Notes on connection>

* Before making connections, make sure that both FD-8 and the SCSI drive are turned off.

* Up to two SCSI drives can be connected to the FD-8 SCSI connector.
Normally, for real time record/playback, one SCSI drive is connected for the current drive (Refer to "Setup of ID number" below).
You can connect two drives if one is used for the "current drive" and the other for "backup (saving and loading song data)" (Refer to "Setup of ID number" below).
Refer to "Saving and Loading Song Data" in the Owner's Manual.

Current drive   Backup drive
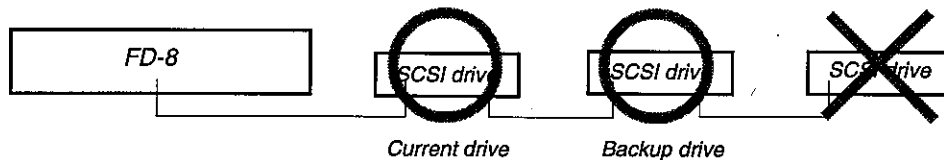
Setup of ID number:

Refer to the guidelines below to assign SCSI ID numbers for the connected SCSI drive(s).

"Current drive"	→ Use any number other than "6."
"Back-up drive"	→ Use number "6."

* The SCSI connector on the FD-8 is a 25-pin connector, compatible with Macintosh computers. Use a cable with connectors that conform to the standards for SCSI drive connections.

* The last SCSI drive on the SCSI chain should be terminated. Install a SCSI terminator, or turn the termination switch to "on" if the drive has such a switch (such as a Zip drive).

As explained in the above "Notes on connection," a SCSI drive as the current drive and second for backup can be chain connected to the FD-8 SCSI connector but in the "Quick Operation Guide" only a SCSI current drive is connected with the idea that record/playback is carried out in real time.

SCSI terminator

SCSI drive
(Current drive)

FD-8 rear panel

SCSI connector
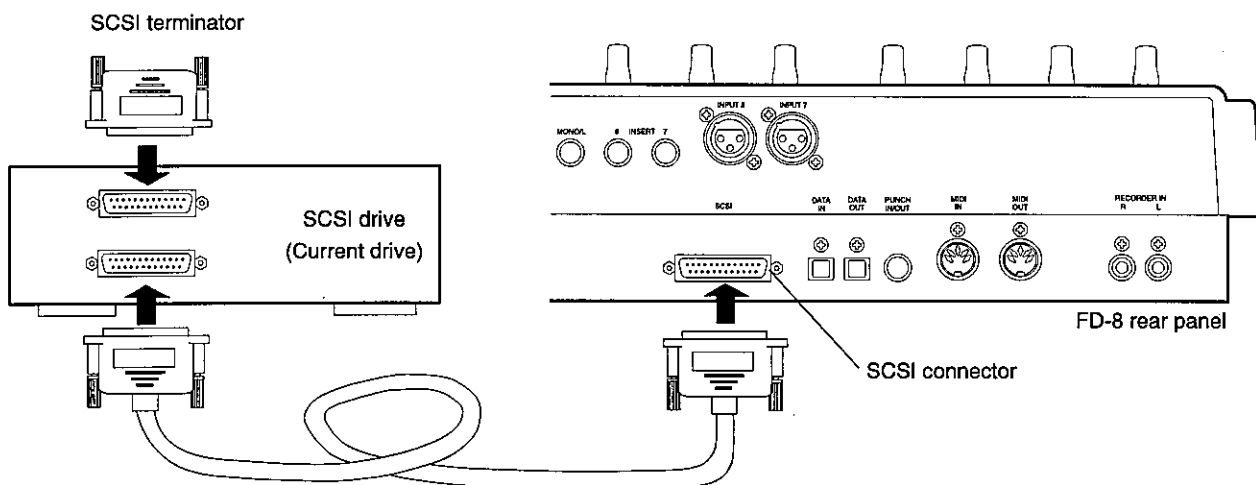
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Formatting (initializing) a disk

After you make connection, follow the steps below to format (initialize) the disk for use in a SCSI drive. The FD-8 uses FDMS-3 (Fostex Disk Management System-3) as the recording format. To perform real time recording and playback on the FD-8, you need to format the disk (regardless of whether the disk has been used). If you format a used disk, first make sure that the disk does not contain any important data. Formatting a disk erases all existing data.

1 Turn on the power to the connected SCSI drive and the FD-8.

If the SCSI connection has been made correctly, the SCSI drive will start running and the display on the FD-8 indicates the [Initial...] (Initialize) message, then the [No Disk] (there is no disk) message. (The following example assumes that a removable SCSI drive is connected. If you have connected an unformatted fixed disk or an optional Fostex 2.5-inch internal hard disk, the [UnFormat !] message appears instead of the [No Disk] message.)
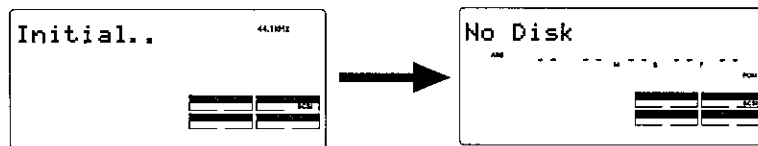

> **Note:** Before attempting to load a disk in the SCSI drive, make sure [No Disk] is shown in the FD-8 display.

> **Note:** If the [Initial...] message and the [No Drive !] message flash alternately, the FD-8 does not recognized the connected SCSI drive. In this case, turn off the power to both devices. Check to make sure the SCSI cable is connected securely and that the cable is not defective, then turn on the power to both devices.

2 Insert a disk in the SCSI drive.

If you insert an unformatted disk or a disk in a different format in the SCSI drive, the FD-8 indicates [UnFormat!] on the display, then shows the [Format ?] (formatting a current drive disk) menu located in Setup mode. At this time, the SCSI ID number for the drive will appear as shown below ([SCSi id-2]), and [SURE ?] flashes. This means that the FD-8 has entered the formatting standby mode.
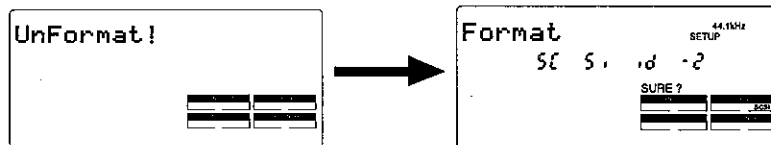
3 When [SURE ?] appears, press the EXECUTE/YES key.

The FD-8 displays [Pls Wait !] (Please Wait !) briefly, and then show the menu for Record mode selection. Initially, [Normal] for Record mode appears. [SURE ?] flashes at the same time.
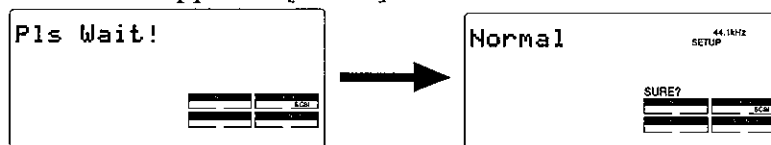
4 Use the JOG dial to select the desired record mode.

You may select [Normal] (Normal mode: A.D.A.C mode), [Master] (Mastering mode).
If a removable type disk such as MO, Zip or EZ is used for the current drive, select only the [Normal] mode for recording, and if the fixed hard disk or optional 2.5-inch IDE hard disk is used, either the [Normal] or [Master] mode should be selected for formatting (For details on the recording mode, refer to the chart in the next page.).

```
Normal          44.1kHz
                SETUP

            SURE?
            [___] [___]
                  SCSI
            [___] [___]
```

```
Master          44.1kHz
                SETUP

            SURE?
            [___] [___]
                  SCSI
            [___] [___]
```

<Record Mode>
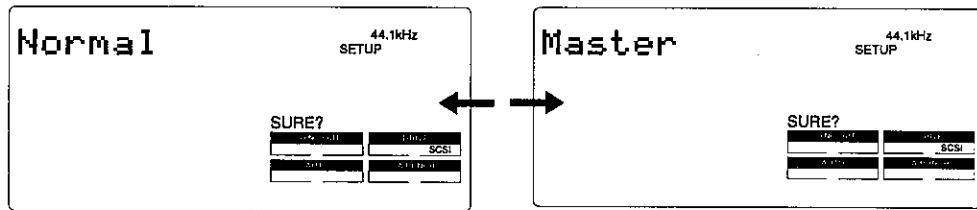
Record Mode	[Normal] (Normal mode)	[Master] (Mastering mode)
Quantumize	A. D. A. C. (*)	16 bit liner
Sampling frequency	44.1kHz	44.1kHz
Available recording time	Approx. 67 minutes/100MB (converted to one track)	Approx. 17 minutes/100MB (converted to one track)
Compatible media	MO disk, EZ disk, Zip cartridge, Fixed hard disk 2.5-inch IDE internal hard disk (option)	Fixed hard disk 2.5-inch IDE internal hard disk (option)
Recording	* Simultaneous 8 track recording by adat digital input is possible. * 4 tracks simultaneous recording by S/P DIF digital signal (two inputs) and analog signal (two inputs) is possible. *Note: Simultaneous recording by MO disk is a maximum two tracks.*	* Simultaneous 8 track recording by adat digital input is possible. * 4 tracks simultaneous recording by S/P DIF digital signal (two inputs) and analog signal (two inputs) is possible .
Save/Load	Save/load is possible only with external SCSI drives. Save/load is not possible with DAT and adat.	Save/load is possible with the external SCSI drive, DAT or adat.

(*) A.D.A.C. is the next generation digital audio coding technique maximized for multitrack recording, which has been developed by joint research of Matsushita Electric Industry Corporation and Fostex Corporation.

> ***Note:*** *Available recording time varies depending on the disk capacity and type. For actual available time for a particular disk, please refer to the "List of the drives with guaranteed operation" in the Owner's Manual.*

> ***Note:*** *To cancel the formatting operation, press the EXIT/NO key before proceeding to Step 5. Each press of the EXIT/NO key will return you to the previous display, and finally exit setup mode.*

> ***Note:*** *Use only the above [Normal] mode to format removable type disks. Even if it has been formatted by the [Master] mode, sufficient recordable area cannot be obtained.*
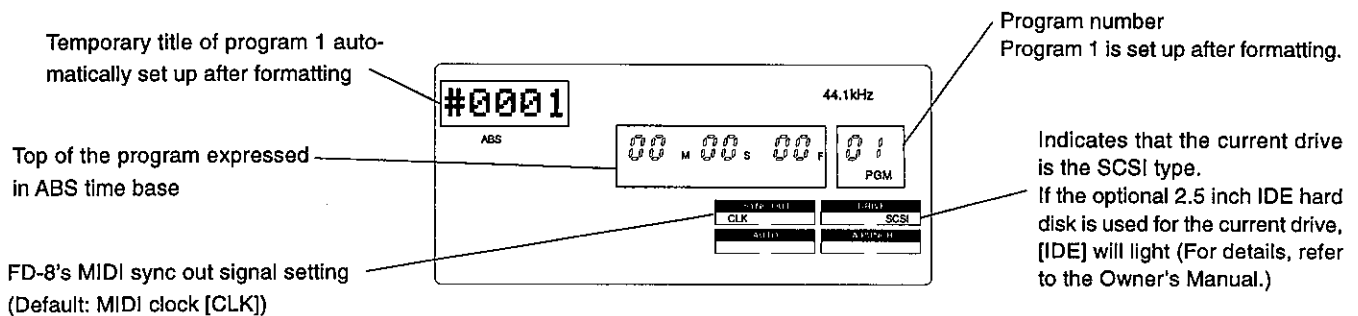
5 Press and hold down the RECORD button and press the EXECUTE/YES key.

When the FD-8 starts formatting, it displays the size of the unformatted area on the disk (e.g.: [-135MB]), and counts down as formatting progresses.

Wait a moment. When the FD-8 finishes formatting, it displays [COMPLETED !] and stops accessing the disk (The access LED turns off.).

6 Press the EXIT/NO key to quit the setup mode.

The display indicates the top of the program in ABS Time Base ([ABS 00M 00S 00F]), as shown below:

Temporary title of program 1 automatically set up after formatting

Top of the program expressed in ABS time base

FD-8's MIDI sync out signal setting
(Default: MIDI clock [CLK])

```
#0001              44.1kHz
ABS
        00 M 00 S 00 F  0 I
                        PGM
            [___] [___]
             CLK   SCSI
            [___] [___]
```

Program number
Program 1 is set up after formatting.

Indicates that the current drive is the SCSI type.
If the optional 2.5 inch IDE hard disk is used for the current drive, [IDE] will light (For details, refer to the Owner's Manual.)

> **<Memo>:** *One Program is automatically set up after the disk format operation so that you can start recording. To set up multiple programs, refer to "Creating a new program," the last section in this Guide.*

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Checking available recording time on a formatted disk

It is a good idea to check the available recording time after you format the disk. The following procedure assumes that the FD-8 has exited Setup mode and is displaying the ABS time, with disk access stopped.

1 Press the DISP SEL key to change from the ABS time indication to the REMAIN time indication.

The FD-8 displays the available recording time and recording space in ABS time base. This time value indicates how many minutes of data can be recorded on the formatted disk, and how much of the space on the disk can be used for recording. The REMAIN time values are based on mono track recording. If you wish to record on all eight tracks, you can find out how many minutes of a song you can record by dividing the REMAIN time value by "8."
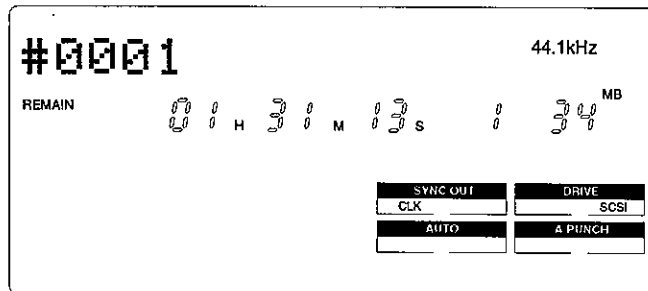
The example at left is the REMAIN display immediately after formatting a removable type disk in the [Normal] mode.
The numbers in the display indicate a remain time of 1 hour 31 minutes 13 seconds or, in disk capacity, 134 MB that can be recorded in mono track format. For example, if this disk is used to record on all 8 tracks, about 11 minutes can be recorded.

2 Press the DISP SEL key to return to the previous time base display.

Formatting the disk again

If you wish to change the recording mode of a formatted disk or to reformat a used disk, you need to set the FD-8 to SETUP mode and use the [Format ?] menu. The procedure assumes that the formatted disk is in the SCSI drive and the FD-8 is stopped, with the ABS time base displayed.

1 Press the SETUP key to change to setup mode.

The FD-8 will enter the setup mode, and display the first hierarchy of the setup menu. If this is the first time you access this menu, the FD-8 displays the [Sign. Set ?] (Time signature setting) menu.
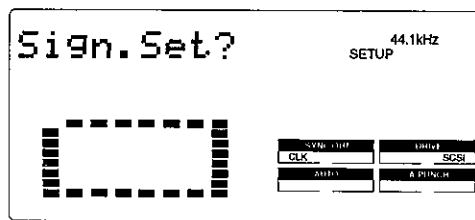
2 Turn the JOG dial to select [Format ?] and press the EXECUTE/YES key.

The FD-8 displays the ID number of the connected SCSI drive and flashes [SURE ?].
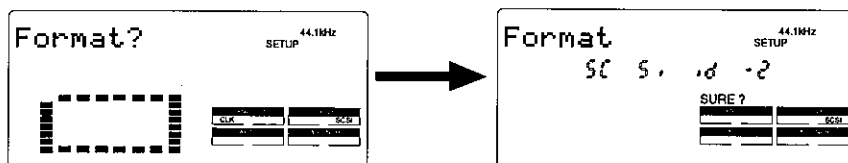
3 Use the JOG dial to select the desired record mode.

Ejecting a disk from the SCSI drive

Follow the procedure below to eject a disk from the SCSI drive after the FD-8 exits the setup mode and disk access has stopped. You cannot eject a disk using the eject button on the drive.

1 **Press and hold down the SHIFT key and press the EXIT/NO key.**

The disk will be ejected from the current drive.

Before turning off the power to the FD-8

Before turning off the power to the FD-8 and the connected SCSI drive, check the following items:

> * The SCSI disk is not being accessed. (The ACCESS LED is turned off.)
> * The FD-8 has exited the setup mode and displays the ABS or BAR/BEAT/CLK time base.
> * The output volume of the FD-8 and all connected audio devices is set to minimum.

Turning on the power again with a disk loaded in the SCSI drive

There is no procedure for turning on the power without a disk loaded in the SCSI drive but if power is switched off with a disk, and then power needs to be switched on again, follow the procedure below:

1 **First, turn on the power to the SCSI drive loaded with the disk.**

2 **First, make sure that the orange LED on the SCSI drive lights up in green and that the disk is not being accessed, and then turn on the power to the FD-8.**

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Before you start recording, please remember the following:

You need to reset all the controls (faders, switches, and buttons) on the control panel to their initial settings before you start recording, playing, or editing. This procedure prevents important data from being erased, and incorrect operation of the FD-8 because of prior settings. This procedure is called "Initializing the FD-8," and should be performed before you start each new session.

<Tips for initializing the FD-8>

1. Lower the input channel faders and master faders L/R.
2. Set the LEVEL switches from Channels 7 and 8 to "H (-10dBV)."
3. Set all other knobs and switches to the center position or the "0" position.
4. Set all RECORD TRACK select keys to "OFF (SAFE)."
5. Set all switches in the recorder section to OFF (the LEDS should be off).
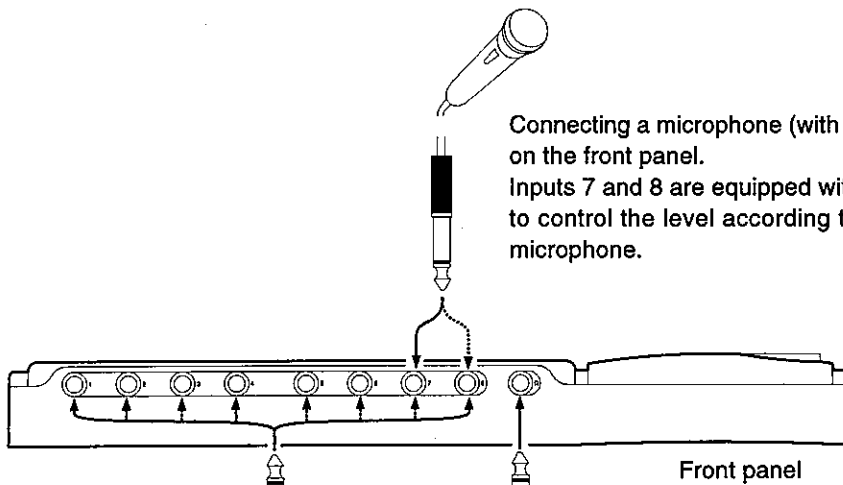

Tip 3   *Tip 4*

Tip 1   *Tip 2*   *Tip 5*

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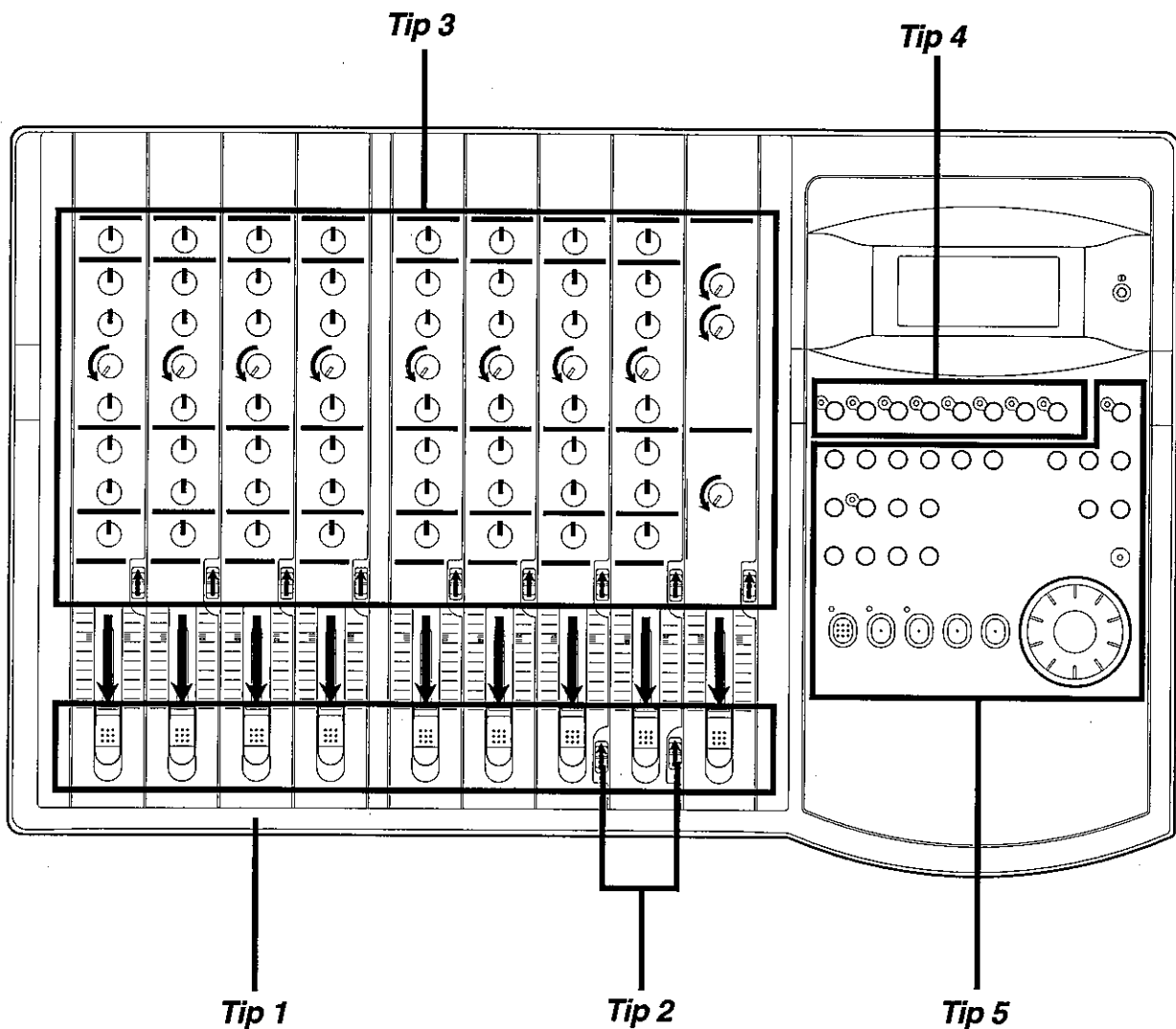
Your First Recording Session

This section explains how to record using the FD-8 for the first time.

Connecting a musical instrument or audio device to the FD-8

Please refer to the following diagram to connect a musical instrument, headphones, or audio devices to the FD-8.

Connecting a microphone (with an unbalanced plug) to Input 7 or 8 on the front panel.
Inputs 7 and 8 are equipped with LEVEL switches that enable you to control the level according to the input level of the connected microphone.

Front panel

Monitoring headphones

Connect a guitar or a keyboard to one of Inputs 1-8.
If you wish to adjust the level of the signal, connect that instrument to Input 7 or 8.
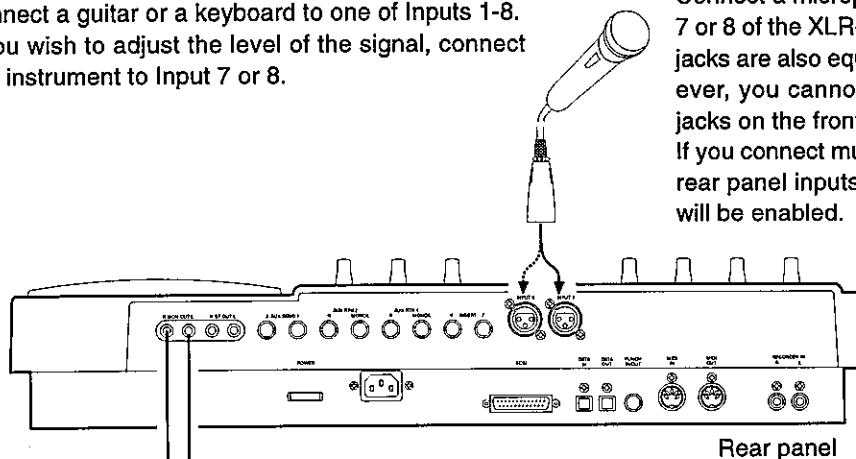
Connect a microphone with a balance plug to Input 7 or 8 of the XLR-type jack on the rear panel. These jacks are also equipped with LEVEL switches. However, you cannot use these jacks when the input jacks on the front panel are being used.
If you connect musical instruments to both front and rear panel inputs, only the jacks on the front panel will be enabled.

Rear panel

Connect powered monitor speakers or a power amplifier and speakers to the MON OUT jacks on the rear panel.

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In this example, we will record the sound of an electric guitar connected to input 1. This procedure assumes that program 1 has been created automatically after the disk format operation, and that the ABS time base value is 00M 00S 00F (top of the program). First, initialize the FD-8.
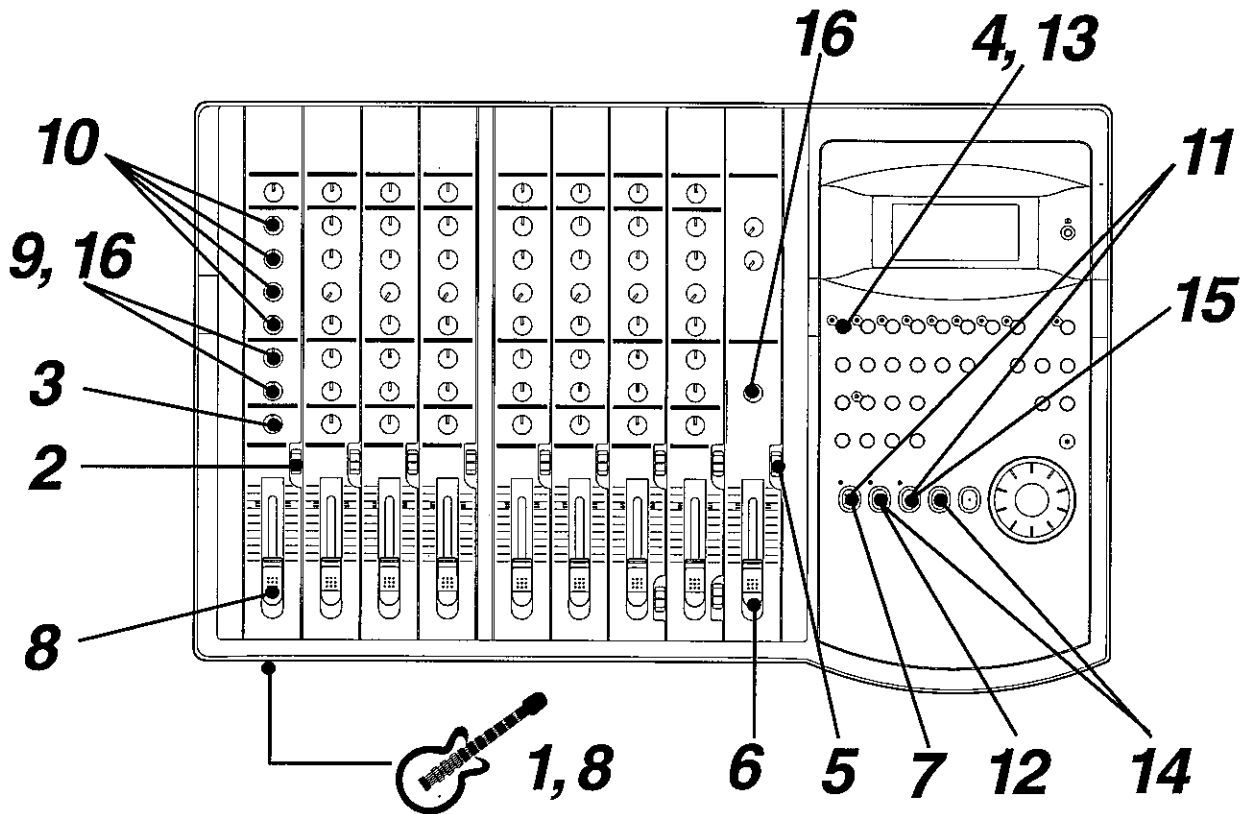
## Connecting a musical instrument and setting the controls

1. Connect the electric guitar to input jack 1.

2. Set the INPUT SEL switch for channel 1 to "INPUT."
The guitar signal will be routed to the channel 1 input fader.

3. Turn the channel 1 PAN knob to "L" (all the way to left).
The guitar signal will be routed to stereo bus L.

4. Press the RECORD TRACK select key 1/L.
The 1/L key indicator flashes, indicating that track1 is ready for recording.

Adjusting the recording level

5. Set the SELECTOR in the monitor section to "MON."
This enables you to monitor the recorder output signal during recording.

6. Raise the master faders L/R to "7-8" marks.

7. Press the RECORD button.
The RECORD button LED flashes, and track 1 enters input monitoring mode.
This means that the guitar signal routed to track 1 is output from the recorder section.

8. **While playing the guitar, gradually raise the channel 1 input fader. Set the optimum recording level while observing the level of meter 1.**

As you raise the fader, meter L respond. This means that the signal is routed to stereo bus L (STEREO OUT L output). Try to set the fader so that the meter peaks at "0".

```
#0001          44.1kHz
        AB5      00.00.00.01
                              PGM
1 2 3 4 5 6 7 8 L R
```
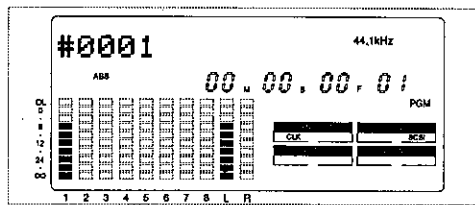
> **Note:** If the "OL" segment of the meter lights up consecutively, the sound will distorted during recording.
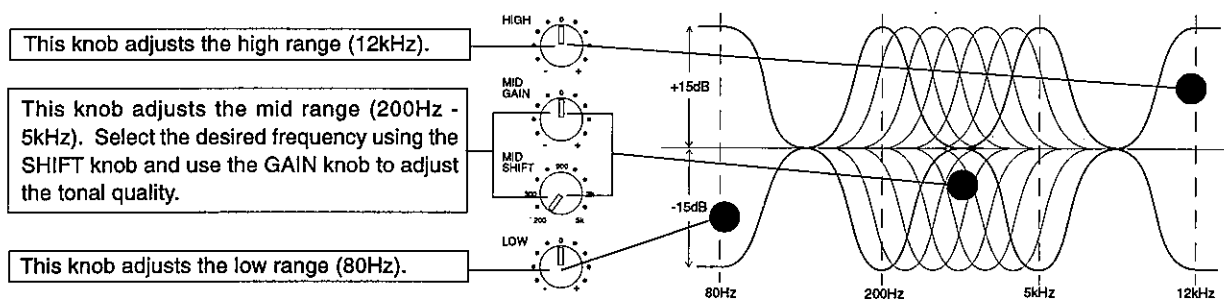
Adjusting the monitor level

9. **Turn the MON knob located in the channel 1 MON mix section to "TRK 1" and rotate the MASTER knob clockwise in the monitor section.**

Adjust the monitoring balance using the MON PAN knob.

10. **Adjust the channel 1 equalizer.**

If equalizing the signal causes the "OL" segment of the meter to light up, lower the channel 1 INPUT fader. Use the following knobs to control the corresponding frequency bands.

| This knob adjusts the high range (12kHz). |

| This knob adjusts the mid range (200Hz - 5kHz). Select the desired frequency using the SHIFT knob and use the GAIN knob to adjust the tonal quality. |

| This knob adjusts the low range (80Hz). |

```
HIGH
MID GAIN           +15dB
MID SHIFT
                  -15dB
LOW
        80Hz    200Hz    5kHz    12kHz
```

Starting recording

11. **Press and hold down the RECORD button and press the PLAY button.**

The flashing RECORD button LED and the recording track LED will light steadily, indicating that the FD-8 has started recording. You can now monitor the guitar sound you are playing through the recording track.

Finish recording

12. **Press the STOP button to finish recording.**

> **Note:** Press the STOP button immediately when you finish recording.
> Recording unnecessary silence will waste free disk space and might reduce space required for future edit operations.

Playing the recorded performance

13. **Press the RECORD TRACK select key 1/L to turn off its LED.**

14. **Press and hold down the STOP button and press the REWIND button to locate the beginning of the program.**

15. **Press the PLAY button to play back the program.**

16. **Turn the MON knob of the channel 1 MON mix section toward "TRK 1" and gradually turn up the MASTER knob in the monitor section.**

You will hear the recorded guitar sound on track 1.

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You just finished recording your first session on track 1. Did you like it?
To continue recording on track 1 from other input jacks, or on another track, read the following "Hints."

<Hints>

* Recording your performance on a track other than track 1

Use the channel PAN knob and the RECORD TRACK select key. If the PAN knob is set to "L," tracks 1, 3, 5, and 7 are available for recording. If the PAN knob is set to "R," tracks 2, 4, 6, and 8 are available for recording. Then, use the RECORD TRACK select key to select the track you wish to record. You can record data on eight tracks simultaneously on any disk other than an MO disk. For example, if you set all RECORD TRACK select keys to "READY" and set the channel PAN knobs for all connected sound sources to "center," you could record all sources to tracks 1-8 simultaneously.

* Monitoring a track recording sound

To monitor a recording sound, use the MON mix section of the channel that corresponds to the recording track number. That is, if you are recording data to track 1, use the channel 1 MON mix section.
If you are recording data to track 5, use the channel 5 MON mix section.
If a musical instrument connected to INPUT jack 1 (channel 1) is recorded to track 8, you will need to use the channel 8 MON mix section to adjust the monitoring level.

Rerecording

One of the great functions of the FD-8 is that if you make a mistake during recording, you can restore the data before you made the mistake. And, you can also restore the data that was obtained after you made a mistake. These functions are called the "undo function" and the "redo function." The UNDO/REDO key on the control panel controls these functions.
The undo function enables you to cancel the latest recording or edit and restore the previous status. Using the redo function after you use the undo function enables you to cancel the undo operation and restore the latest recording or edit. The limits of these functions are described in the *<Note>* below.

<Note>
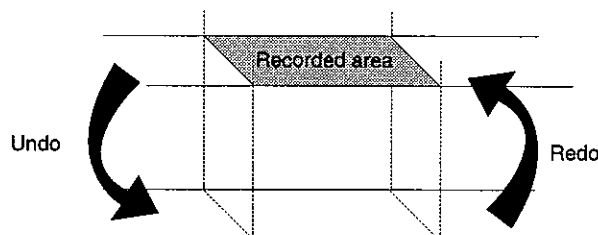
You can continue using the Undo/Redo functions over and over until the following:

* When a new recording made.
* After a new edit is executed. (Copy/Paste, Move/Paste, Auto Punch in/out, Erase, etc.)
* If the power is switched off.
* When the program is changed.
* When the disk is ejected.

---

1. **After you record (or play back newly recorded data), press the UNDO/REDO key.**

   The FD-8 will display [Undo !], then [COMPLETED !], and displays the previous time base indication. Undoing the recording will restore the status prior to recording.
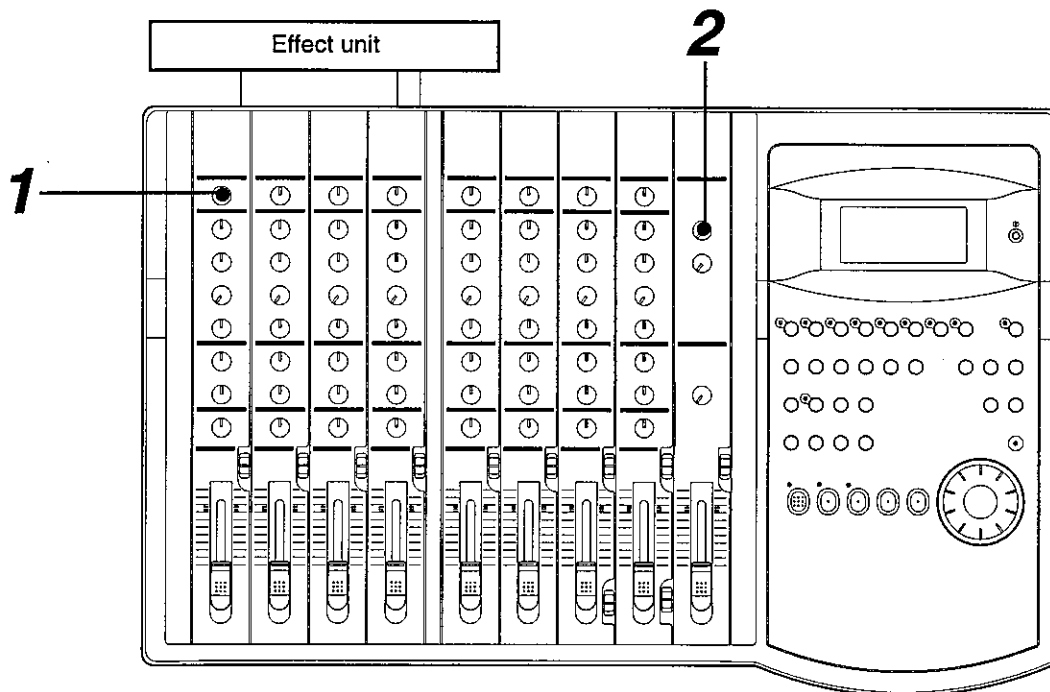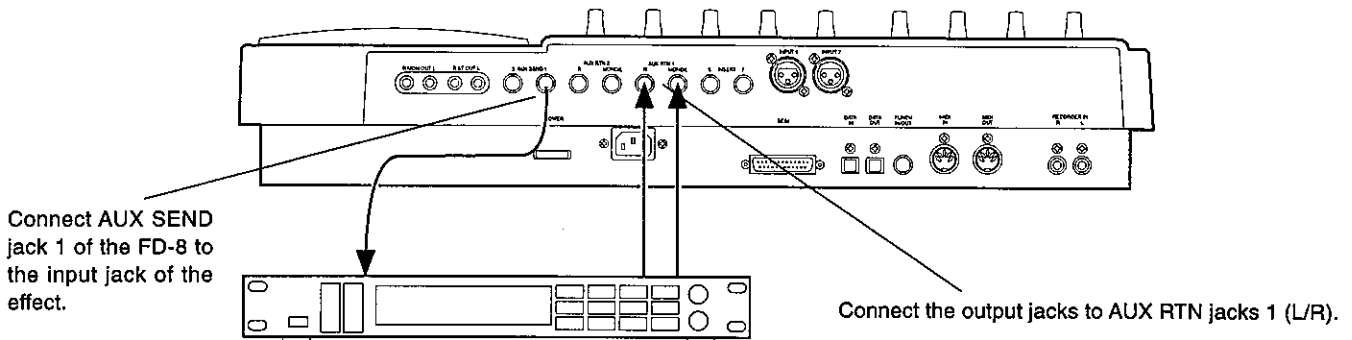
2. **To cancel the undo operation, press the UNDO/REDO key again.**

   The FD-8 will display [Redo !], then [COMPLETED !], and displays the previous time base indication. Performing the Redo operation will cancel the undo operation and restore the status obtained after recording.

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Recording while effects

This section explains how to record a sound source connected to input 1 while applying the effects.
Connect a signal processor to the FD-8 as shown below. This example assumes that you have a mono-in, stereo-out effector.
This section describes how to adjust the effect sound. Refer to the previous section for more information on how to record sound sources.


Connect AUX SEND jack 1 of the FD-8 to the input jack of the effect.

Connect the output jacks to AUX RTN jacks 1 (L/R).

Adjusting the effect sound

1. Turn the channel 1 AUX knob toward "AUX 1" (counterclockwise) to adjust the signal sent to the effector.
As you turn the knob, more signal will be sent to the effect.

2. Turn the AUX RTN knob 1 clockwise to adjust the signal returned to the FD-8.
The processed signal will be routed to the stereo bus L/R.

Apply the effects to the recording sound source in this way.

FOSTEX

You can rerecord only part of a song with which you are not satisfied or in which you have found a mistake. This operation is called "Punch In/Out Recording." "Punch In" means switching from playback to recording and "Punch Out" means switching from recording to playback. Punch In/Out recording can be done automatically (Auto Punch In/Out) or manually using a foot switch (Manual Punch In/Out). This section explains Auto Punch In/Out recording. To perform this operation, you need to set the punch-in time and punch-out time. The FD-8 features rehearsal mode, in which you can first practice your punch in/out until you are satisfied. As an example, we rerecord part of the guitar performance we have recorded on track 1 in the previous section.
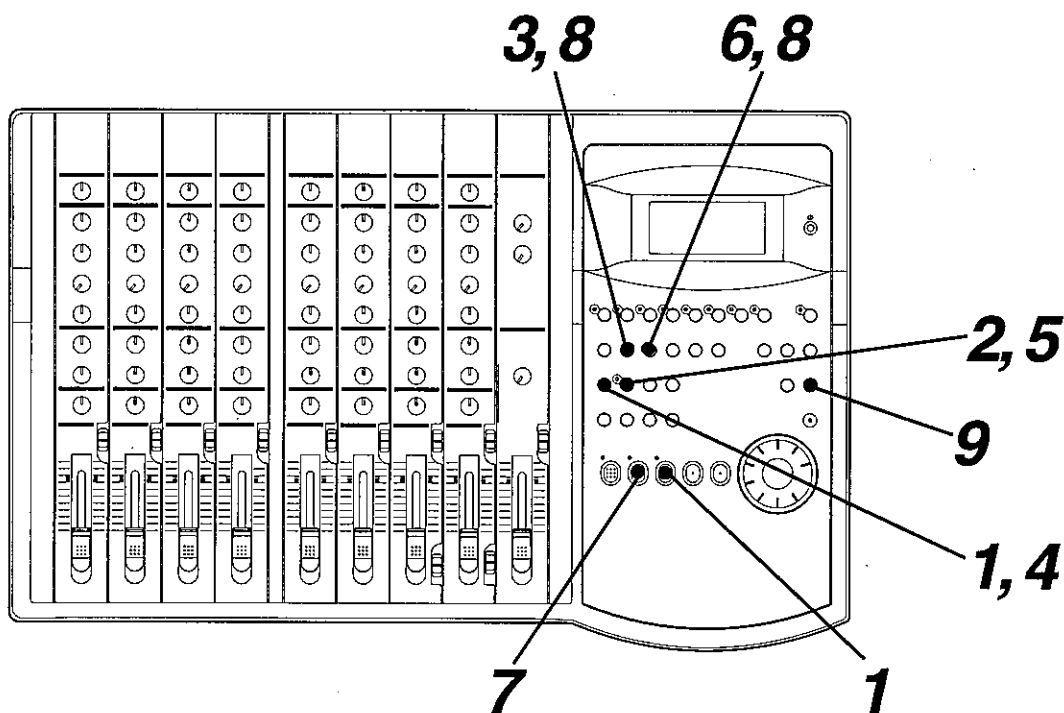
Programming the edit points

1. **Play the song from the beginning and press the HOLD/> key at the point you wish to perform Auto Punch In.**

2. **Press the STORE key. (The STORE LED lights up.)**

3. **Press the AUTO PUNCH IN key.**
   The position (time) at which you pressed the HOLD/> key is stored as the "Auto Punch In point" in memory, and the STORE LED turns off. The recorder continues playback.

4. **Press the HOLD/> key at the point you wish to perform auto punch out.**

5. **Press the STORE key. (The STORE LED lights up.)**

6. **Press the AUTO PUNCH OUT key.**
   The position (time) at which you pressed the HOLD/> key is stored as the "Auto Punch Out point" in memory, and the STORE LED turns off. The recorder continues playback.

7. **Stop the recorder section.**

Checking the stored edit points

8. **Press the AUTO PUNCH IN key or the AUTO PUNCH OUT key while the recorder is stopped.**
   The stored time value of the corresponding edit point appears on the display.

9. **Press the EXIT/NO key to return to the previous display.**

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Auto Punch In/Out rehearsal

In the rehearsal mode, the part between the auto punch in point and the auto punch out point enters input monitoring mode and is not recorded.

In this way, you can repeatedly practice your performance technique and adjust the recording level until you are satisfied. Practice in rehearsal mode until you are ready, then proceed to Take mode.
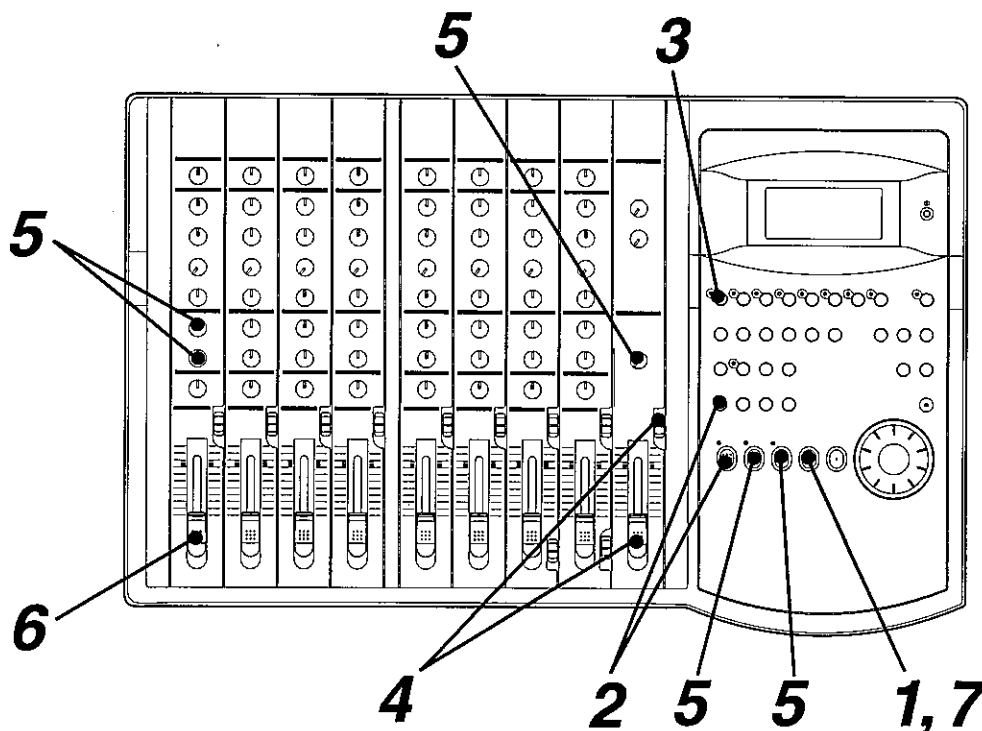

1. **Locate a point slightly before the auto punch in point.**
   You can use the AUTO PUNCH IN/OUT keys to locate the corresponding positions. Press the AUTO PUNCH IN key, then the LOCATE key to locate the auto punch in point. Then, use the REWIND button to locate a point slightly before the auto punch in point.

2. **Press and hold the SHIFT key and press the RECORD button.**
   The [RHSL] message flashes in the [A. PUNCH] mode display section, indicating that auto punch mode is turned on.

   This flash ——————

   | A. PUNCH |
   | RHSL |
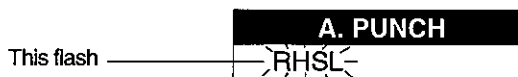
3. **Press the RECORD TRACK select key 1/L to set track 1 ready for recording.**

4. **Raise the master faders L/R to "7-8" marks, and set the SELECTOR to "MON."**

5. **Press the PLAY button to playback the recorder. (The flashing [RHSL] message will light steadily when playback starts.)**

   This lights up ——————
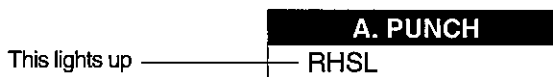
   | A. PUNCH |
   | RHSL |

6. **Play the guitar accompanying the playback sound on track 1, and adjust the recording level between the Auto Punch In/Out points.**
   You will hear the recorded sound up to the auto punch in point, and you will hear your current performance between the Auto Punch In/Out points. Use the channel 1 input fader to adjust the recording level of your current guitar performance. To adjust the playback level and the monitoring level between the Auto Punch In/Out points, turn the MON knob in the MON mix section toward "TRK 1." During rehearsal, the RECORD LED and the RECORD TRACK LED flash between the Auto Punch In/Out points.

7. **When you finish rehearsing, stop the recorder and locate a position slightly before the auto punch in point.**

FOSTEX
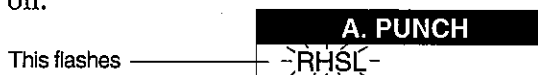
Auto Punch In/Out Take

When you are ready, proceed with a take.
The basic operation is almost the same as for rehearsal, except that the part between the auto punch in and out points will enter the record mode during an actual take.
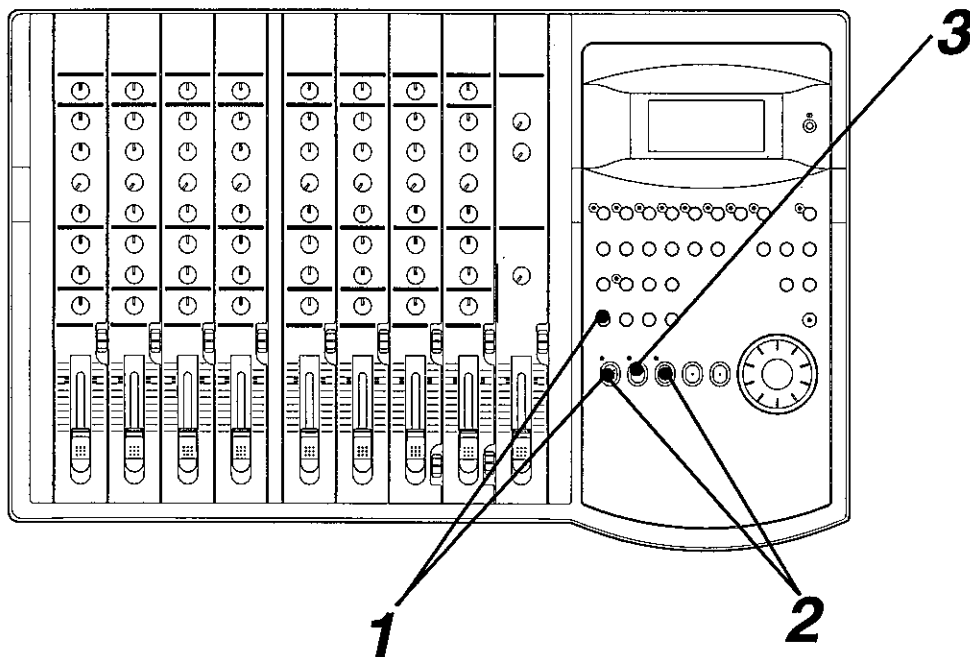
## 1. Make sure that auto punch mode is turned on and [RHSL] is flashing.

If the mode is not turned on, press and hold down the SHIFT key and press the RECORD button to turn the auto punch mode on.

This flashes ————————

A. PUNCH
-RHSL-

2. Press and hold the PLAY button, and press the RECORD button.

The flashing [RHSL] message turns off and [TAKE] lights up.
As in rehearsal mode, playback will continue up to the auto punch in point. Then, your performance will be recorded between the auto punch in and out points. During auto punch recording, the RECORD LED and the TRACK SELECT LED will light.

A. PUNCH
TAKE ——————— This lights up
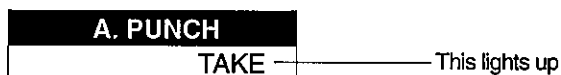
In the take mode, the FD-8 exits auto punch mode automatically when the auto punch out point is reached. The [A. PUNCH] mode display is blank.

> **Note**: *The sound on the recording track will be muted momentarily after the auto punch out point. This is normal.*

3. Press the STOP button to stop the recorder.

4. Play track 1 to check the recording.

## *Redoing Auto Punch In/Out recording*

You can redo Auto Punch In/Out recording if the results are not satisfactory.
Press the UNDO/REDO key to restore the data obtained before you performed Auto Punch In/Out recording. Then, you can create a new Auto Punch In/Out recording.

Overdubbing

"Overdubbing" refers to the practice of recording a new sound to a one track while listening to other previously recorded tracks. You can overdub multiple performances of musical instruments and vocals.
This technique is central to multi-track music production.
In this example, we overdub a keyboard performance on track 2 while listening to the recorded guitar sound on track 1.
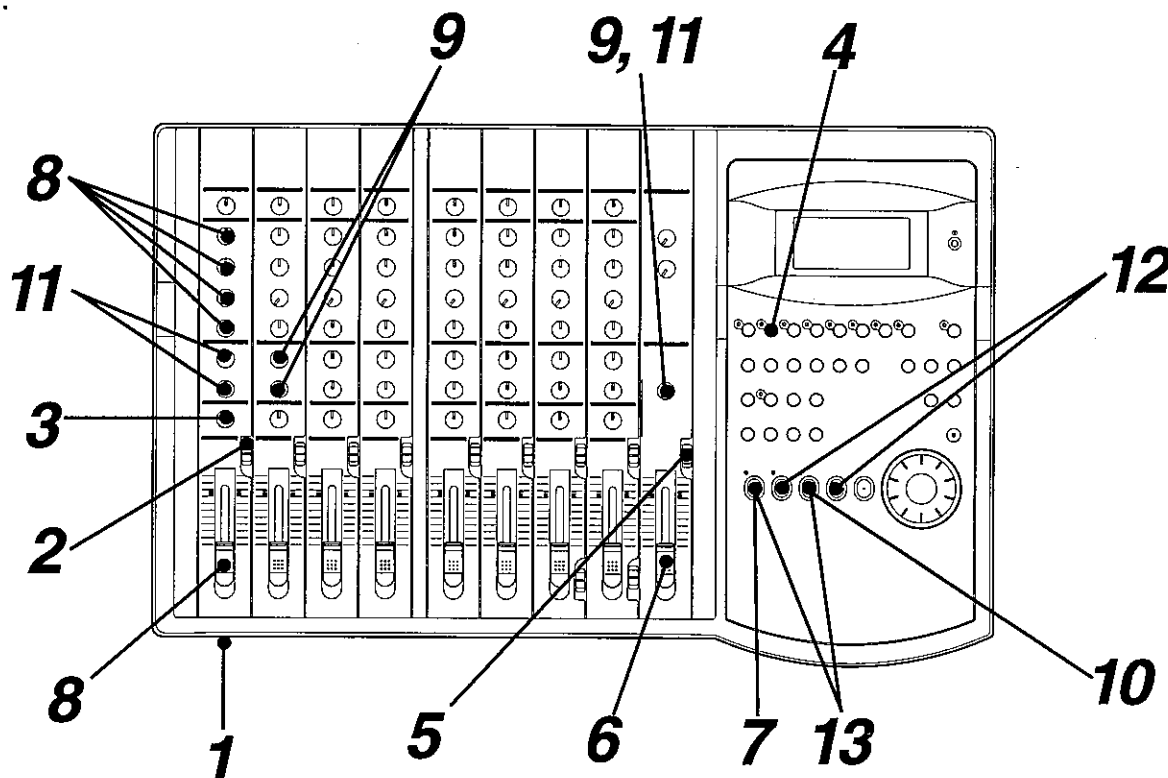
Connecting a keyboard

1. Connect the output jack of the keyboard to input jack 1 (or an available input jack) on the FD-8.

Setting the controls

2. If you have connected the keyboard to input 1, set the channel 1 INPUT SEL switch to "INPUT."

3. Turn the channel 1 PAN knob all the way to "R."
   The keyboard signal will be routed to the stereo bus R, and will be recorded on track 2.

4. Press the RECORD TRACK select key 2/R to set track 2 ready for recording.

Adjusting the keyboard recording level

5. Set the SELECTOR in the monitor section to "MON."

6. Raise the master faders L/R to the "7-8" mark.

7. Press the RECORD button.
   Track 2 enters input monitoring mode.

8. While playing the keyboard, raise the channel 1 input fader gradually.
   Adjust the recording level casually while observing level meter 2. Adjust the equalizer if necessary.
   If equalizer adjustments cause the level to change and the [OL] segment of the meter to light up, lower the input fader.

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Monitoring your keyboard performance

9. Use the channel 2 MON mix section to adjust the keyboard monitor sound.

Turn the MON knob toward "TRK 2" and turn the MASTER knob in the monitor section clockwise gradually. You will hear the keyboard sound. Also, use the MON PAN knob to set the pan of the monitor sound.

Practicing the overdubbing

Play the keyboard while listening to the playback of the recorded guitar on track 1.
At this time, make sure that the RECORD TRACK select key 2/R LED and the RECORD button LED are flashing.

10. Press the PLAY button to start playback from the beginning of the program.

11. Adjust the guitar playback sound in the channel 1 MON mix section.

Play the keyboard while monitoring the guitar sound on track 1.
You can adjust the track 1 playback sound using the channel 1 MON mix section, and you can adjust and monitor the track 2 input monitoring sound using the channel 2 MON mix section.
At this point, your keyboard sound has not been recorded yet. Practice your performance until you are satisfied.

Overdubbing

12. Press and hold down the STOP button, and press the REWIND button to locate the beginning of the program.

13. Press and hold down the RECORD button, and press the PLAY button to start recording.

Play the keyboard while listening to the guitar sound recorded on track 1.

14. When you finish overdubbing, stop the recorder, locate the beginning of the program, and listen to the recording.

Redoing overdubbing

If the result is not satisfactory, you can redo the overdub by performing an undo operation to cancel the overdubbed contents, and then overdub again.

Continue to overdub other sound sources on other tracks while listening to the recorded tracks.

> **Note:** Before each overdub session, make sure there is sufficient available recording time on the disk as described on page 8.
> The Undo/Redo function also requires that there be sufficient free space on the disk. Check the REMAIN time frequently. If there is not enough free space, the FD-8 indicates [Disk Full!] and recording and other functions are disabled. In this case, use the Erase function (described on page 59 in the Owner's Manual) to erase unnecessary data on the disk.

Arranging recorded tracks

This section explains how to arrange the recordings made in the "First recording session" and "Overdubbing" sections.

Bouncing performances recorded on multiple tracks to another track

You can play and mix multiple recordings (made in the "Overdubbing" section) and record them onto an empty track. This operation is called Ping-pong recording, which enables you to use tracks efficiently.
Since ping-pong recording empties previously recorded tracks, you can reuse those tracks for new recordings. In this way, you can keep recording additional sound sources on the FD-8.

As an example, we mix recordings on tracks 1-4 and bounce them onto track 5.
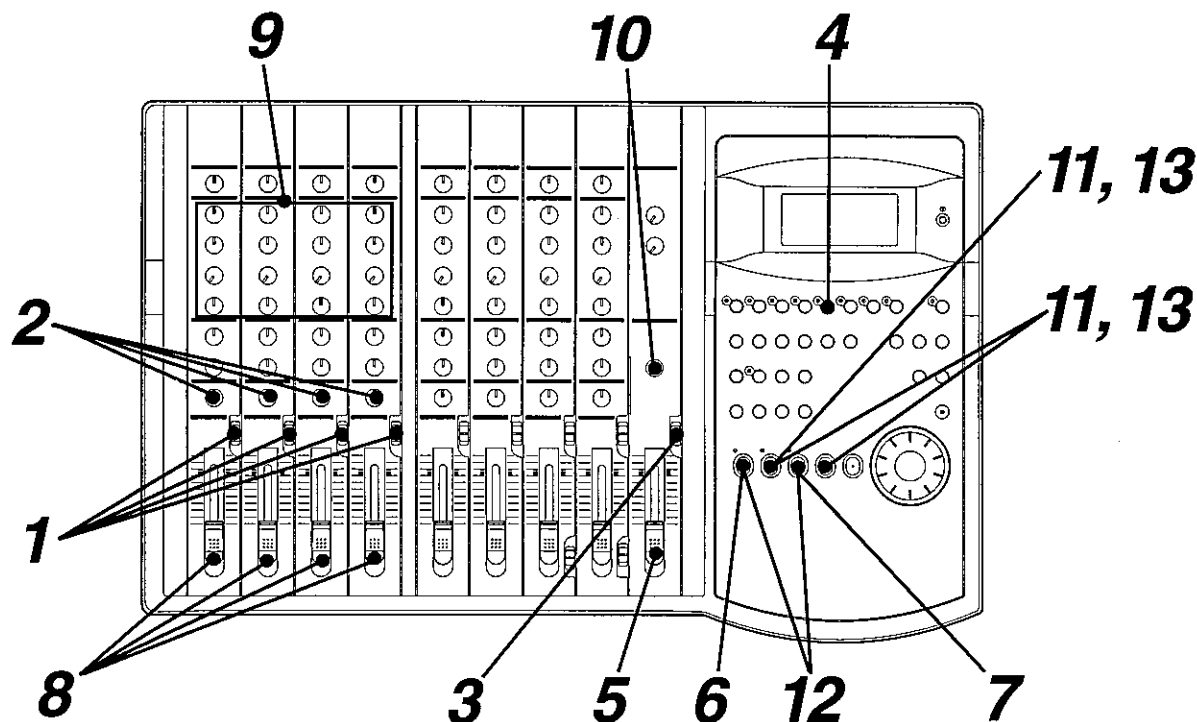
Setting the controls

1. **Set the channels 1-4 INPUT SEL switches to "TRK."**
   Tracks 1-4 playback signals will be routed to the corresponding channel input faders.

2. **Turn the channels 1-4 PAN knobs all the way to "L."**

3. **Set the SELECTOR in the monitor section to "L/R."**
   Now you can monitor the stereo bus L/R output signals.

4. **Press the RECORD TRACK select key 5/L to set track 5 ready for recording.**

5. **Raise the master faders L/R to "7-8" marks.**

Adjusting the recording level and rehearsing

6. **Press the RECORD button to set track 5 to input monitoring mode.**

7. **Press the PLAY button to start playback from the beginning of the program.**

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8. **Use the channels 1-4 input faders to adjust the track's output level. Also, adjust the recording level on track 5.**

The level meters 1-4 indicate each track's output level, and meter 5 indicates the recording level of the signals bounced to track 5. Meter L indicates the output level of the stereo bus L.

Moving the channels 1-4 input faders up and down will change the track 5 recording level. Adjust the level carefully until the [OL] segment of the meter lights up.

Indicates output level of tracks 1~4.	Indicates recording level of track 5.	Indicates output level of stereo bus L.
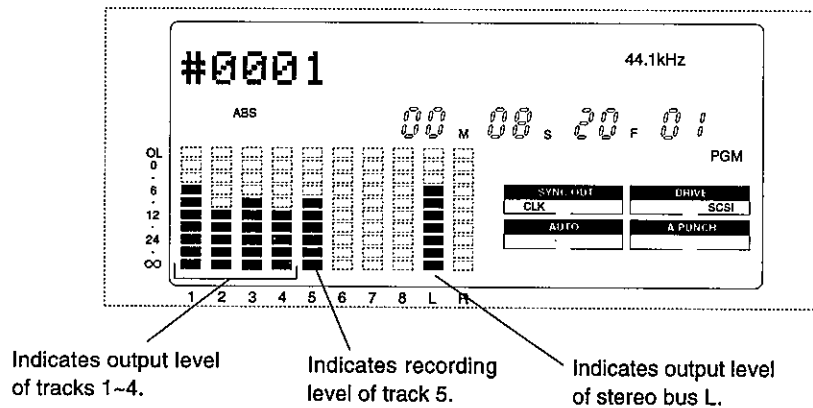
9. **Adjust the channel 1-4 equalizers, if necessary.**

10. **To monitor the mixed signals, raise the MASTER knob in the monitor section gradually.**

11. **After setting the level and equalizers, stop the recorder and locate the beginning of the program.**

Ping-pong recording take

12. **Press and hold down the RECORD button, and press the PLAY button to start recording.**

The signals on tracks 1-4 will be mixed at the levels you set during rehearsal and will be recorded onto track 5.

13. **When ping-pong recording is completed, stop the recorder and locate the beginning of the recording.**

Checking the result of ping-pong recording

1. **Set the SELECTOR in the monitor section to "MON."**

2. **Play the program from the beginning.**

3. **Turn the MON knob in the channel 5 MON mix section to "TRK 5," and turn the MASTER knob in the monitor section gradually.**

You will hear the mix of tracks 1-4 as they were recorded on track 5.

Redoing ping-pong recording

If the result is not satisfactory, you can redo ping-pong recording by performing the undo operation to cancel the recording, and performing ping-pong recording operation again.

Now you can record (overdub) new takes on tracks 1-4.

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Two channel stereo mixdown

After overdubbing and ping-pong recording, you can mix all track data into two channel stereo and record it onto your master recorder. This final process of multitrack recording is called "mixdown." You can apply effects, such as reverb, to any track data during the mixdown.

Connecting external devices (master recorder/reverb effect unit)

1. Connect the input jacks of the master recorder (DAT or analog recorder) to the STEREO OUT L/R jacks of the FD-8.

2. Connect the input jack of the reverb effect unit to the AUX SEND 1 jack of the FD-8, and connect the AUX RTN 1(L/R) jacks of the FD-8 to the output jacks of the reverb unit.

FOSTEX
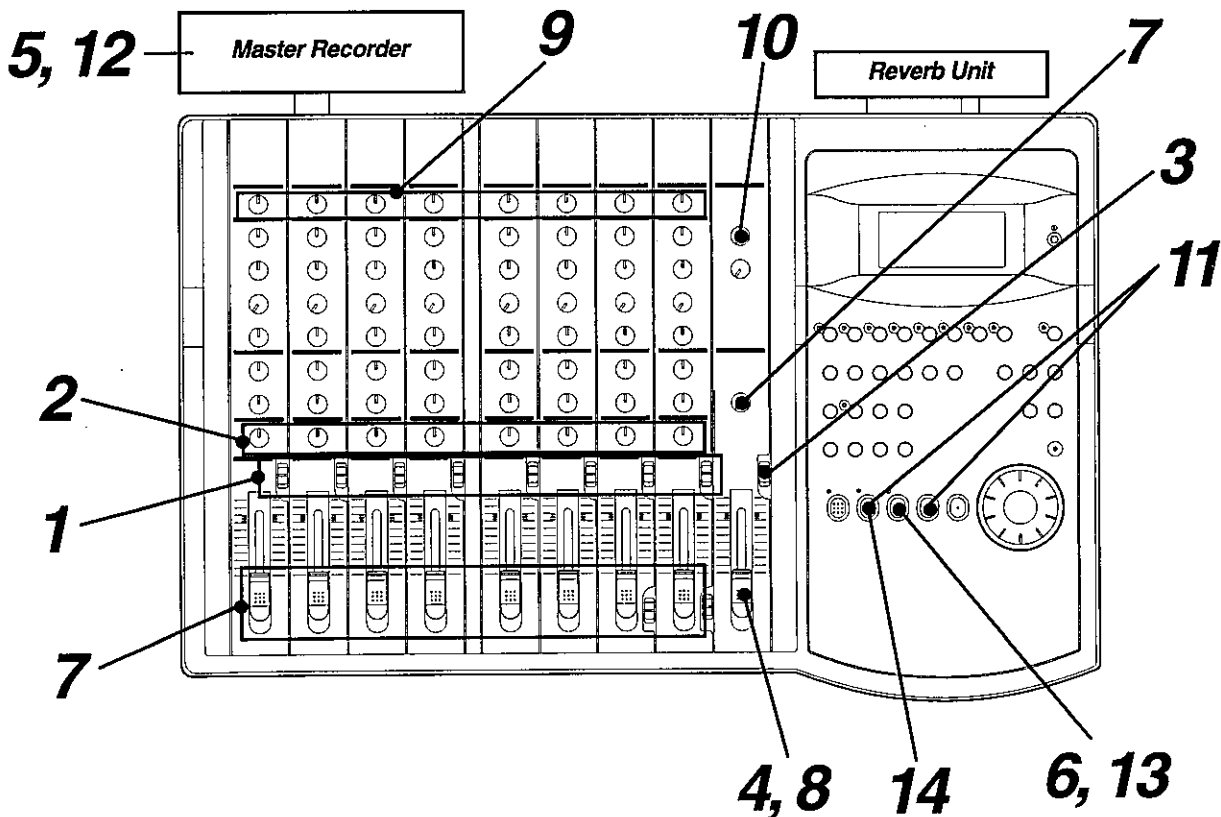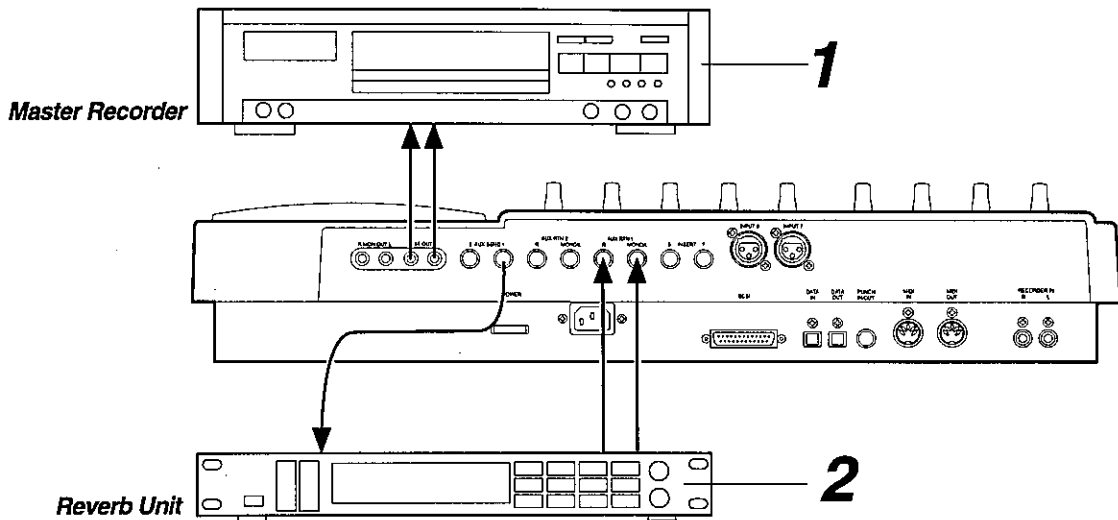
Setting the controls on the FD-8

1. Set the INPUT SEL switches for channels 1-8 to "TRK."
Tracks 1-8 playback signals will be routed to the channel input faders.

2. Set the channel PAN knobs accordingly.
There are no rules for setting the PAN knobs. It depends on the type of sounds and the song you wish to create. For example, you can pan some instrument sounds to the left and set the vocal to the center. Set the pan to suit your preferences.

3. Set the SELECTOR in the monitor section to "L/R."

4. Raise the master faders L/R to "7-8" marks.

Setting the FD-8 output level and the master recorder recording level

5. Prepare the master recorder to record, and set it in recording standby mode.
Set up the master recorder so that you can check the recording level on the recorder.

6. Press the PLAY button on the FD-8 to play the program from its beginning.

7. Raise the channel input faders and turn the MASTER knob in the monitor section clockwise gradually to monitor the track data.
Adjust the track level and balance while monitoring.
At this time, observe the level meters L and R (stereo bus L/R outputs) and adjust the channel input faders so that the [OL] segments of the meters will not light up with the peak sound level.

8. After you have adjusted the entire output balance, use the master faders L/R to adjust the output level at the STEREO OUT L/R jacks.
At this time, also adjust the input level at the master recorder.

Setting the effect

9. Turn the AUX knob of the channel to which you wish to apply the effect toward "AUX 1," to adjust the amount of the signal sent to the effector.

10. Use the AUX RTN 1 knob to adjust the return signal level from the effector. This processed signal is routed to the stereo bus L/R.

Mixdown

11. Press and hold down the STOP button and press the REWIND button to locate the beginning of the program.

12. Start recording on the master recorder.
Adjust the recording level on the master recorder so that the level meter responds to the same level as the level meters L/R on the FD-8.

13. Press the PLAY button on the FD-8 to play the program from its beginning.
Mixdown will use the level and balance settings that you have made.
If you wish to fade the recording in and out, use the master faders L/R.

Completing the mixdown

14. Stop the master recorder and the FD-8.

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Creating a new program

The previous explanation of how to record and play data on the FD-8 is based on using one program on the disk. However, you can set up multiple programs (up to 99) on the disk as described in the Owner's Manual, and record and play individual programs. This section describes how to create a new program on the disk.

> **Note:** Although you can create up to 99 programs on the disk, the available total recording time is not affected by the number of programs. For example, if you use all available recording time for one program, you will be unable to record in another program. Also, additional programs do require a very small amount of disk space.
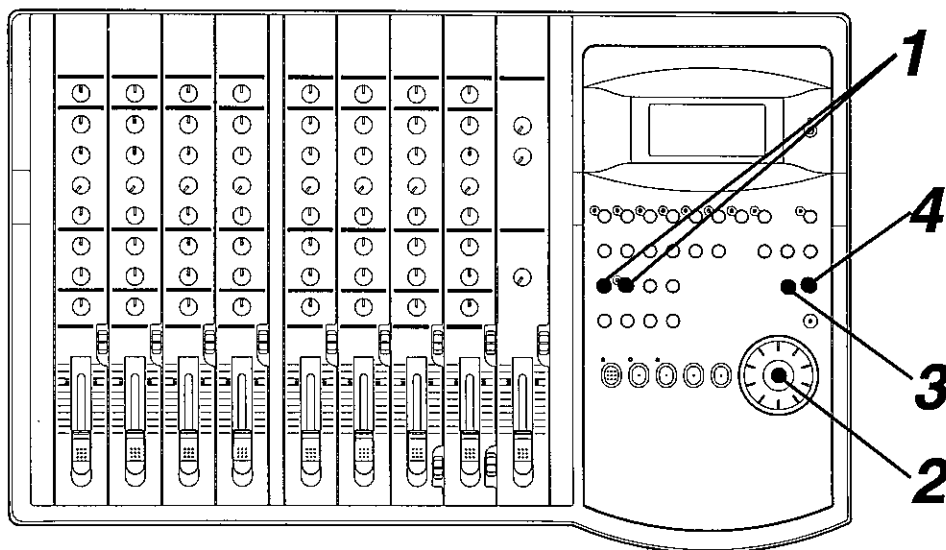
1. While the FD-8 is stopped, press and hold down the HOLD/> key and press the STORE key.

The FD-8 enters program select mode, and displays [Select PGM] momentarily, then the following indication. This means that program 1 is currently selected and the FD-8 is ready to create a new program. ([01] and [SURE ?] flash.)
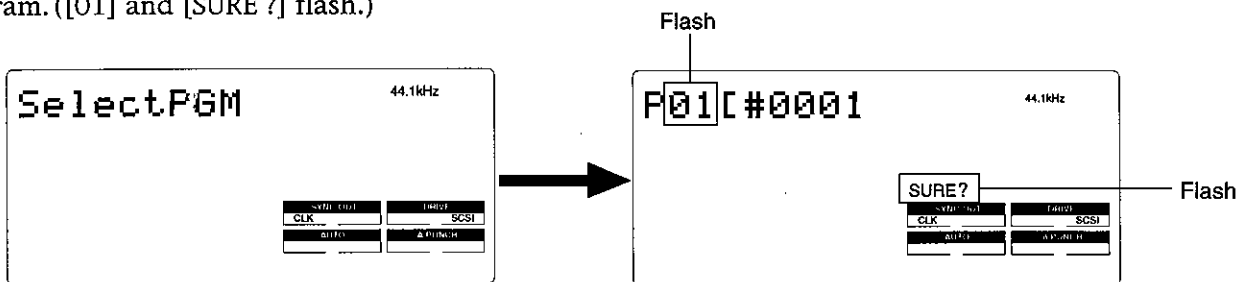
Flash

Flash

2. Turn the JOG dial clockwise to select [New PGM ?] ("?" flashes).

[SURE ?] flashes.
If only one program has been set up, moving the JOG dial immediately causes [New PGM ?] to appear.

Flash   Flash

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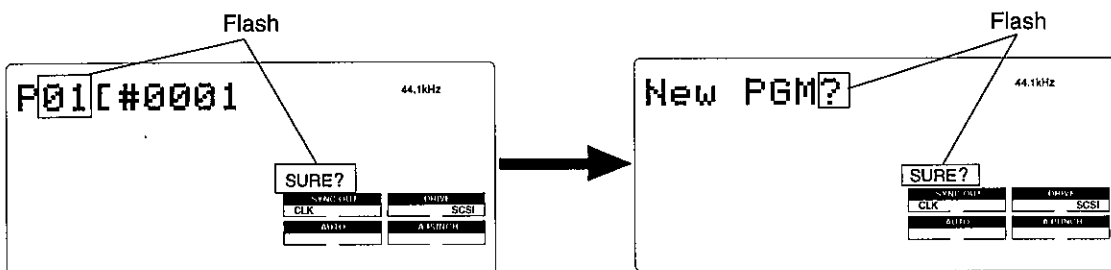
3. Press the EXECUTE/YES key.

When a new program is created (program 2 in this example), the FD-8 displays [Title Edit ?] menu in setup mode, as shown below.
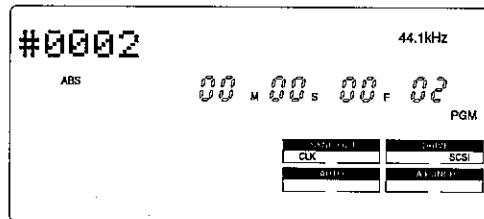
This message menu asks whether or not you wish to edit the title of program 2. In this example, we leave the title as is [#0002]. (You can change the title later.)

"t" and "?" flash alternately.
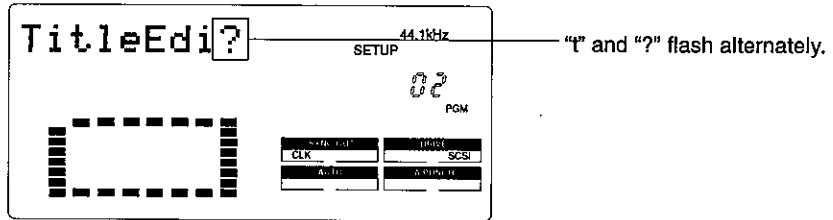
4. Press the EXIT/NO key.

New program 2 is created with a temporary title [#0002], and the FD-8 displays the beginning of the program (Time Base [ABS 00M 00S 00F]).

Now you have programs 1 and 2 on the disk.

<Memo>

To select the desired program from multiple programs, rotate the JOG dial in Step 1 on the previous page to display the program numbers. (For example, if you have three programs, the FD-8 displays [01], [02], then [03].) Select the desired program and press the EXECUTE/YES key.

This Quick Operation Guide explains basic recording, playback, and editing. Detailed operation and other functions are described in the Owner's Manual. Please refer to the Owner's Manual for more detailed information on the functions and operation of the FD-8.