

# Model FD-4

## Owner's Manual Supplement

By updating the software to V1.10, the FD-4 save/load functions will be extended. In addition to the current save/load functions using a DAT, saving/loading song data to/from either a removable or fixed external SCSI drive is possible.

In accordance with the above improvement, a new menu [Bk Format ?] which formats the diskette for backup purpose is newly added in the SETUP mode.

In this supplement, the way to save/load song data using an external SCSI drive and [Bk Format ?] are only mentioned. For save/load function using a DAT and other SETUP mode, please refer to the original FD-4 Owner's Manual.

Safety Instructions .....	2
Saving/Loading Song Data using SCSI Drive .....	3
Backup SCSI drive connection .....	3
Saving/Loading data using a SCSI drive as the current drive .....	4
Saving/Loading data using a 2.5-inch internal hard disk as the current drive ...	8
Extension of SETUP Mode .....	10
Reformatting a formatted disk (removable type) for backup .....	10
Reformatting a formatted disk (fixed type) for backup .....	11
Extension of other SETUP menu .....	11

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		

**CAUTION:**

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:**

POUR ...VITER LES CHOCS ...LECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**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.

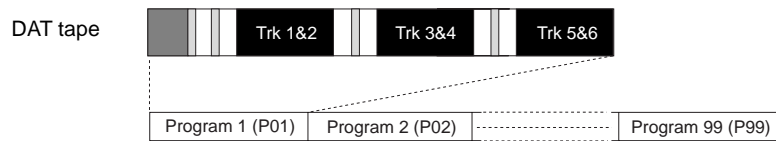
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or 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.

# Saving/Loading Song Data using SCSI Drive

As indicated below, saving/loading song data procedures using a SCSI backup drive differ from that using a DAT.

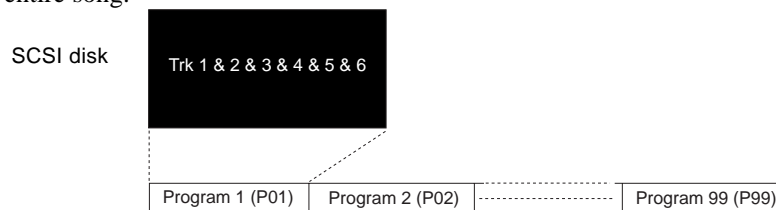
**● Using a DAT (S/P DIF digital signal) (Saving/Loading individual Program data: only in Mastering mode)**

Following about five seconds of pilot signal (shown in gray in the diagram below), song data in the current drive is output to a connected DAT. Two tracks of audio data (shown in black in the diagram) are output. To save data from Real tracks 1-4, two-track data will be output twice, which takes twice as much time as the song duration (ABS 0 to REC END). To save all data including Additional tracks 5-6, two-track data will be output three times, which takes three times the song duration. Save data is also loaded two tracks at a time.



**● Using a SCSI disk (Saving/Loading individual Program Data: in any mode)**

All Real Track data and Additional track data is output simultaneously to a SCSI disk as shown in black in the diagram. Therefore, saving and loading a Program takes much less relative to a DAT. No pilot signal or beep is recorded. If the available disk space is smaller than the song data size, you may use multiple disks (up to 99 disks) to save and load an entire song.



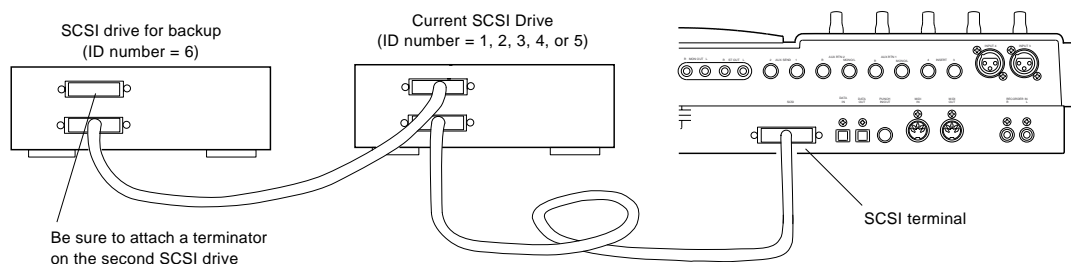
## Backup SCSI Drive Connection

The FD-4 with updated software allows you to connect a backup SCSI drive in addition to the current SCSI drive at the same time. For those who use the SCSI drive as the current drive, referring to the diagram below, connect the two SCSI drives in chain regardless of the connection order.

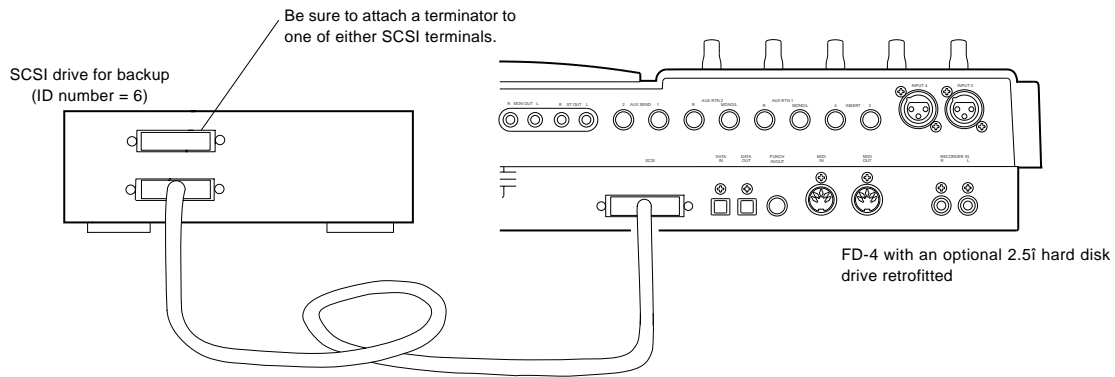
When connecting the two SCSI drives, set the SCSI ID number as listed below. Also be sure to attach a terminator on the second SCSI drive to terminate the SCSI chain. For your information, the backup SCSI drives which can be used on the FD-4 are listed in the <List of SCSI drive and media checked for function> in the first page of original owner's manual.

< SCSI ID Number Setting >

SCSI Drive to be used as Current Drive	Set the ID number to an elective one among 1 through 5i.
SCSI Drive to be used for Backup	Set the ID number to 6i.



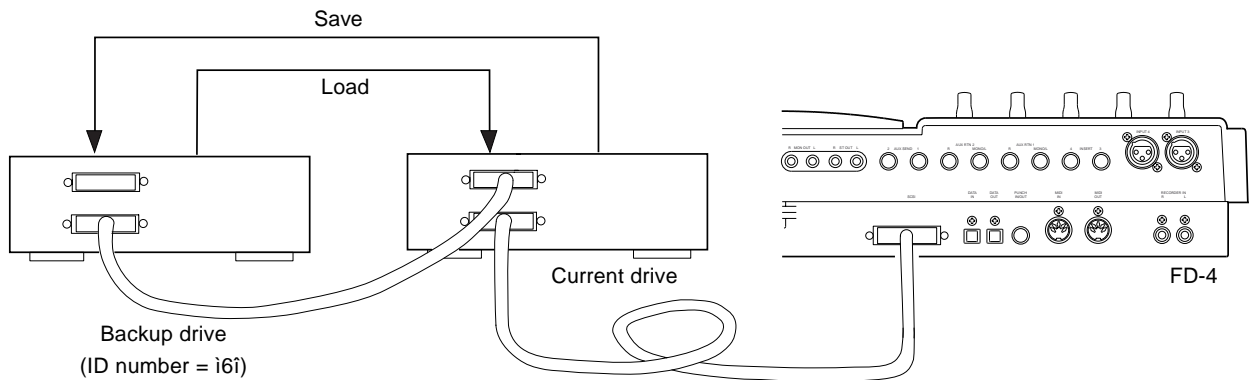
For those who use an optional 2.5i internal hard disk drive, saving and loading song data is realized by simply connecting a backup SCSI drive shown below. As mentioned before, the ID number for backup SCSI drive must be set to 6 and attach the terminator.



### Saving/loading data using a SCSI drive as the current drive

This section explains how to save and load data between a current SCSI drive (removable or fixed) and a backup SCSI drive. Turn off the power of all the connected devices before you make connections.

**Note:** Unlike the save/load operation using a DAT, you cannot abort the save/load operation that uses a SCSI drive while in process. Nor can you monitor audio data during operation. Also, you cannot load data to a disk formatted in a recording mode that differs from that on the backup disk. For example, you cannot load data from a backup disk in Normal mode to a disk in Mastering mode.



### SCSI drive connection and preparation

- \* Connect your backup SCSI drive to the SCSI connector on the current drive. Be sure to attach a terminator on the second SCSI drive to terminate the SCSI chain regardless of connection order.
- \* Be sure to set the ID number for the backup SCSI drive to 6. Also be sure to set the ID number for the current drive to an elective one among 1 through 5.
- \* Prepare the disk recorded as the current drive and a backup disk (unformatted at this stage).

**<Title of data to be saved to a backup SCSI disk>**  
 Data recorded in the current drive has a name, such as Program 1 or Program 2. (These titles appear abbreviated, such as [P01], [P02].)  
 On the other hand, a backup disk manages data using different titles, such as Backup 1 or Backup 2. (These appear abbreviated, such as [B01] or [B02] on the display.)  
 For example, Program 1 (P01) on the current drive disk is saved as Backup 1 (B01) for the backup disk.

## Saving data

\* You can back up data using the [Save PGM ?] menu in SETUP mode. The following procedures assume that a recorded disk has been inserted in the current SCSI drive, Program 1 (P01) has been selected, and an unformatted disk will be used as the backup disk.

### < [Save PGM?] menu >

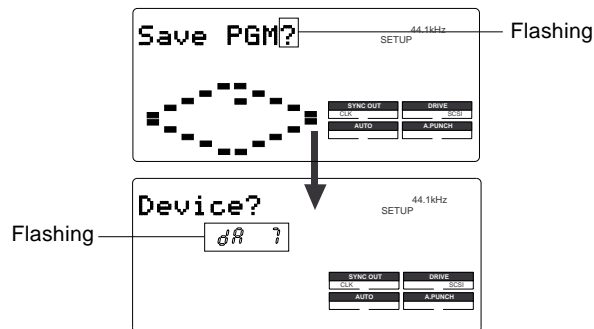
- \* Output signal options: [dAT], [SCSi id-6]
- \* Program options: P01 - P99 (an individual Program)
- \* Track options
  - DAT: track 1 - 4, track 1 - 6
  - SCSI disk: All tracks will be automatically selected.

**1. Insert an unformatted disk into the backup drive.**

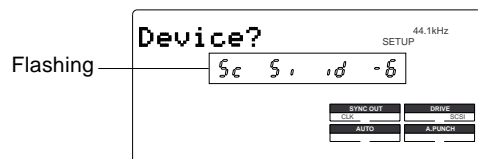
**2. Press the SETUP key to enter SETUP mode, then use the JOG dial to select [Save PGM ?] menu.**

**3. Press the EXECUTE/YES key.**

[Save Device ?] appears and the selected output signal option flashes. ([dAT] flashes.)

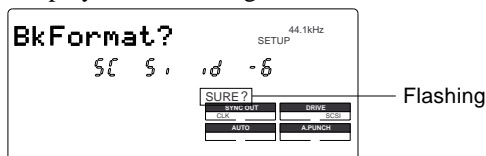


**4. Turn the JOG dial to select a flashing [SCSi id-6] to select the connected SCSI device as a save destination.**



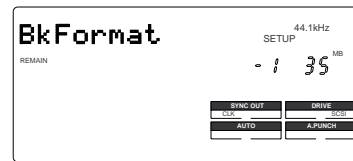
**5. Press the EXECUTE/YES key.**

The FD-4 recognizes that a disk in the backup drive is unformatted, and displays [Unformat?], then proceeds to the [Bk Format ?] menu (backup disk format) in SETUP mode, then displays the following.



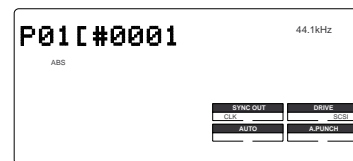
**6. Press and hold down the RECORD button, and press the EXECUTE/YES key.**

The FD-4 displays the following and starts formatting the disk. The unformatted disk area size will count down as the format operation progresses.



When the formatting operation is completed, [COMPLETED!] lights up, [SCSi id-6] flashes, then the FD-4 displays the following.

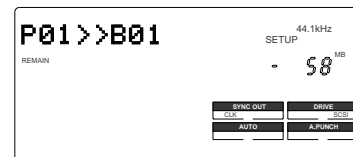
This example shows that the data to be saved is Program 1 on the current drive. If the current drive has multiple Programs, use the JOG dial to select the desired Program. (If only one program exists, [P01] is the choice you can make.)



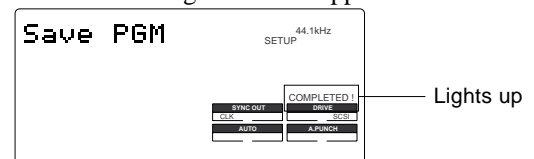
**7. Use the JOG dial to select the desired Program and press the EXECUTE/YES key.**

The save operation starts and the following indication appears.

This example shows that Program 1 [P01] data is being saved as Backup data 1 [B01]. As the save operation progresses, the REMAIN value (e.g.: -58MB) counts down.



When the save operation is completed, [COMPLETED!] lights up and the following indication appears.



**8. Press the EXIT/NO key to exit SETUP mode.**

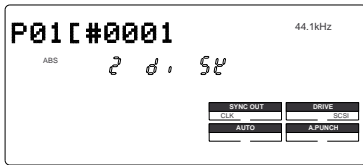
The FD-4 displays ABS 0 of the Program on the current drive.

**Note:** The backup data will use the number of the saved Program. (e.g., if you save P01 [#0001] data, the backup data will be named as B01 [#0001]. You cannot edit the title of the backup data.

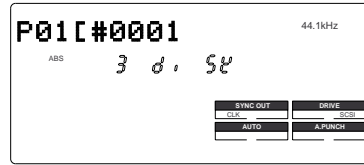
The above procedures assume that the saved data size is smaller than the available backup disk space. Because of this, only one disk is required to back up the data. To save data larger than a single backup disk capacity, refer to the <Memo> which explains about saving data using multiple backup disk in detail in the next page.

**<Memo>**

If program data to be saved is larger than the space available on one backup disk, the FD-4 tells you how many backup disks are required when you select a Program in Step 6 of the 'Saving Data' procedure in the previous page.



(e.g.)  
Two backup disks are required.



(e.g.)  
Three backup disks are required.

When you set the first disk, the save operation starts. When the disk is full, the FD-4 automatically ejects the disk and displays [Ins. Disk 2], meaning 'Please insert the second disk.'

Insert the second disk to continue the save operation.

**Note:** Mark the disks so that you can identify the order of the disks and you will be able to insert the disks in the correct order to perform the load operation.

**Loading data**

\* You can load data using the 'Load PGM ?' menu in SETUP mode. The following procedures assume that the backup disk has been inserted into the backup SCSI drive, and a formatted disk has been inserted into the current SCSI drive.

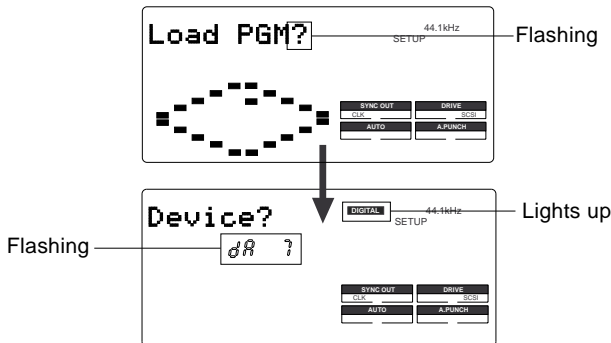
**< [Load PGM ?] menu >**

- \* Input signal options: [dAT], [SCSi id-6]
- \* Program options: P01 - P99 (an individual Program)
- \* Track options
  - DAT: track 1 - 4, track 1 - 6
  - SCSI disk: All tracks will be automatically selected.

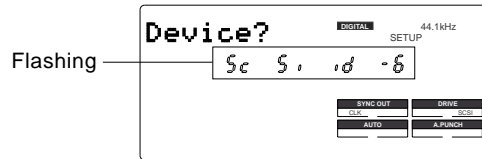
**1. Press the SETUP key to enter SETUP mode, then use the JOG dial to select [Load PGM ?] menu.**

**2. Press the EXECUTE/YES key.**

[Device ?] appears, [DIGITAL] lights up, and the selected input signal option flashes. ([dAT] flashes.)

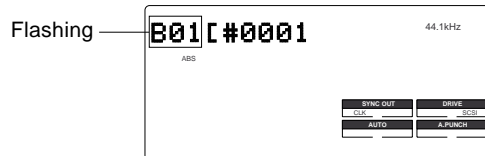


**3. Turn the JOG dial to select a flashing [SCSi id-6] to load data from the connected SCSI disk.**



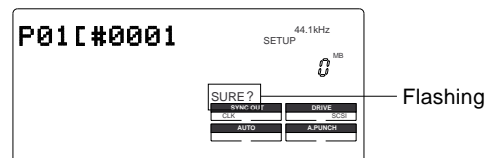
**4. Press the EXECUTE/YES key.**

The saved backup number (B01) flashes. This means that B01 on the backup disk is selected to load. If only this backup file exists on the disk, turning the JOG dial will allow you to select [B01] or [Eject]. Select [Eject] if you wish to change the disk. If there are multiple backup files on the disk, using the JOG dial allows you to select the desired backup data (B01, B02, B03, etc.) or [Eject].



**5. Press the EXECUTE/YES key.**

The FD-4 indicates that the load destination disk (current drive disk) does not have any data, then indicates a flashing [SURE?].



In this condition, using the JOG dial allows you to select the load destination Program.

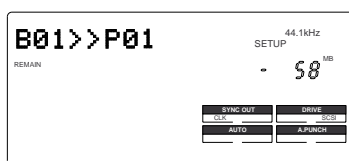
Since there is only one Program in the destination disk in this example, you can select only [P01].

If the destination disk contains multiple Programs, see the following <Memo>.

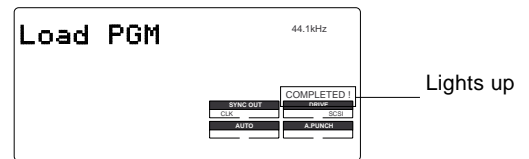
**6. Use the JOG dial to select the load destination Program and press the EXECUTE/YES key.**

The FD-4 starts loading data.

Backup data [B01] is loaded to Program [P01] on the current disk. As the operations progresses, the REMAIN value counts down.



When the load operation is completed, [COMPLETED!] lights up.



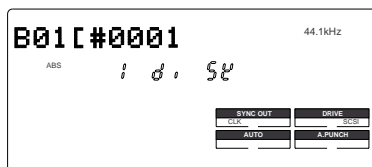
**7. Press the EXIT/NO key to exit SETUP mode.**

The Time Base display of the loaded Program appears.

**8. Press the EJECT button on the backup drive to eject the backup disk.**

**<Memo>**

If you saved one Program to multiple backup disks, the FD-4 indicates that the disk in the drive is the first disk, as follows:



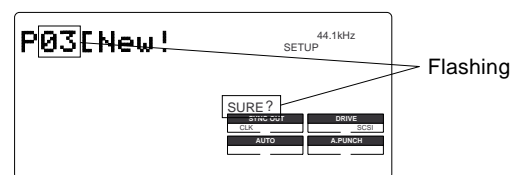
Confirm that this message appears, and execute the load operation. When data in the first disk is loaded, the FD-4 automatically ejects the disk and displays [Inst. Disk 2], meaning 'Please insert the second disk.' Insert the second disk and continue the load operation.

**Note:** Make sure that you insert the disks in the correct order. If you insert the wrong disk, the FD-4 displays [Wrong disk] and ejects the disk. Follow the disk markings you made during the save operation.

**<Memo>**

If the load destination disk contains multiple Programs, the FD-4 asks whether you wish to set up a new Program in the Step 5 of the procedure above. ([03] and [SURE?] flash.)

This is because the existing Programs may already contain data. If you do not mind overwriting the existing data with the loaded data, select the desired Program number as the load destination.



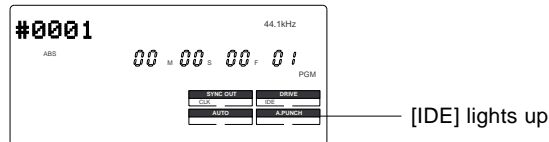
In the above display example, the FD-4 asks you if you wish to create a new Program 3, since Programs 1 and 2 on the current disk drive contain data.

## Saving/loading data using a 2.5-inch E-IDE internal hard disk as the current drive

This section explains how to save and load data between a SCSI backup drive and an optional 2.5-inch internal hard disk. Recording mode on the current drive does not affect this operation. Refer to the before mentioned *Saving/Loading data using a SCSI drive as the current drive* for more information on the procedures.

### <Note on the save/load operation using an optional 2.5-inch E-IDE internal hard disk>

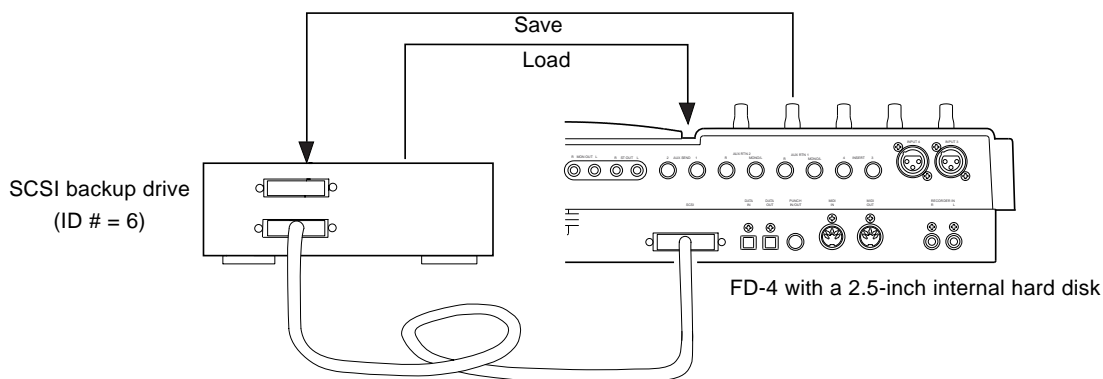
When you are using an optional 2.5-inch E-IDE hard disk for the save and load operation, make sure that [IDE] lights up in the current drive section of the display. If a SCSI drive is connected to the FD-4 as the current drive, disconnect the drive. Alternatively, turn off the power to the SCSI drive before you turn on the power to the FD-4.



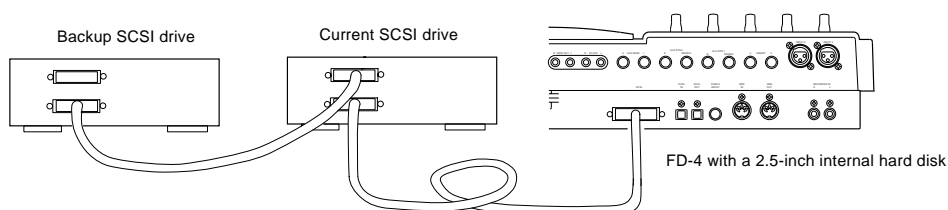
Connect a SCSI backup drive (ID # = 6) to the SCSI connector on the FD-4 with a 2.5-inch E-IDE hard disk retrofitted.

### < Note on connections >

Be sure to connect a SCSI backup drive to the FD-4 SCSI connector.  
Make sure that the ID number for the SCSI backup drive is set to 6.



**Note:** As shown in the drawing, when the SCSI drive assigned for the current drive is daisy chained to the SCSI drive for backup and also connected to the optional 2.5-inch E-IDE internal hard disk which is in the current drive mode, please note the following items.



### When the 2.5-inch hard disk is assigned as the current drive:

Switch on power to the FD-4 only and not to the two SCSI drives connected.

If save/load of song data is to be executed using the SCSI drive assigned for backup, switch on power to the SCSI drive assigned for backup and then the FD-4. Do not switch on power to the SCSI drive assigned for the current drive. By utilizing either method, the FD-4 will always recognize the internal 2.5-inch E-IDE hard disk as the current drive.

### When the SCSI drive is assigned as the current drive:

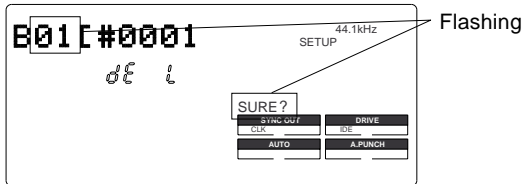
Power to any equipment that is interconnected must, of course, be switched on. The SCSI drive will be automatically recognized as the current drive.



## < Quick Troubleshooting >

If you are stuck in one of the following situations while saving and loading song data using a SCSI backup drive, refer to the explanations below for corrective actions.

### # The FD-4 displays the following during the save operation using a SCSI backup drive.



The backup disk contains some data and does not have enough free space to record new data. The FD-4 is asking you whether or not the existing data should be deleted. Take one of the following actions.

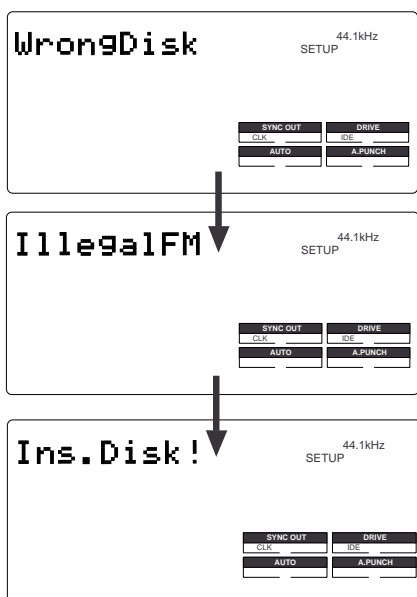
#### \* If you wish to delete the existing data:

Press the EXECUTE/YES key twice. Pressing the key once causes [Del. All ?] and [SURE ?] to flash, and pressing it again deletes the existing data so that you will be able to continue the save operation.

#### \* If you do not wish to delete the existing data:

Turn the JOG dial to display [Eject], then press the EXECUTE/YES key. The disk will be ejected. Insert another backup disk in the drive.

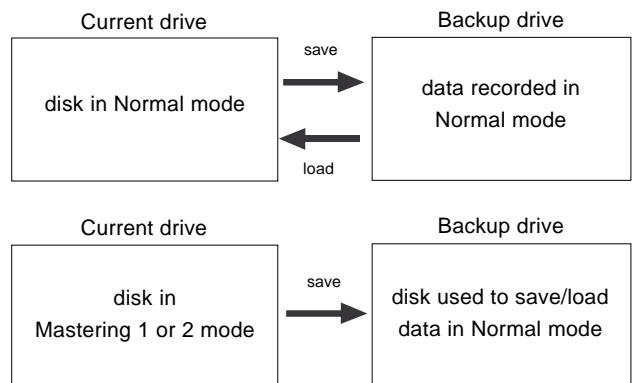
### # When you inserted a SCSI backup disk into the backup drive to save data, the following messages appeared in turn and the disk was ejected.



The FD-4 recognizes that the backup disk cannot be used in its current condition. There are two reasons for this.

- \* You inserted a disk that was used for the current drive.
- \* The disk's recording mode differs from that of the data to save or load.

For example, the disk used to save or load data in Mastering 1 or 2 mode is inserted to save data in Normal mode. That is, you tried to use a disk (that was once used to save or load data in a particular recording mode) to save data in a different recording mode.



To be able to use the ejected disk, you need to reformat it as described below.

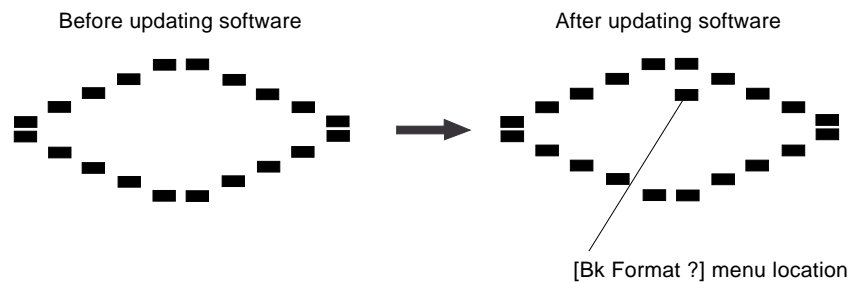
- \* Quit SETUP mode and return to the Time Base display of the current disk, then insert the disk in the backup drive.
- \* Select the [Bk Format ?] menu in SETUP mode and reformat the backup disk.

## Extension of SETUP mode

As mentioned in the beginning, by updating the software, a SCSI drive for backup can be connected to the FD-4. In accordance with this improvement, a SETUP menu [Bk Format ?] is newly added. If save/load operation is executed with an unformatted disk inserted to the SCSI backup drive, the FD-4 automatically advances to the [Bk Format ?] SETUP menu. However, when reformatting a pre-formatted disk for backing up purpose, you need to select the [Bk Format ?] menu to execute.

**Note:** The [Bk Format ?] is the disk format menu exclusively used for backing up purpose. Formatting the disk used for current drive is executed by the [Format ?] menu in the SETUP mode.

With addition of [Bk Format ?] menu, please note that the arrangement of SETUP menu has been altered as indicated below.



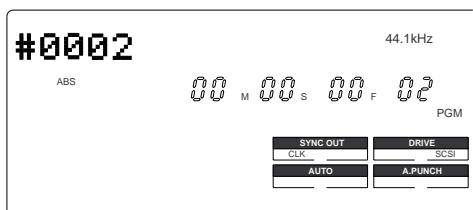
### Reformatting a formatted disk (removable type) for backup

This section explains how to reformat a backup or current drive disk (Mastering 1, 2 or Normal mode) as a backup disk. (The FD-4 recognizes a disk formatted by a computer as an unformat disk.) The following procedures assume that removable type SCSI drives are used for a current drive as well as a backup drive and that the FD-4 display shows the Time Base for the current drive.

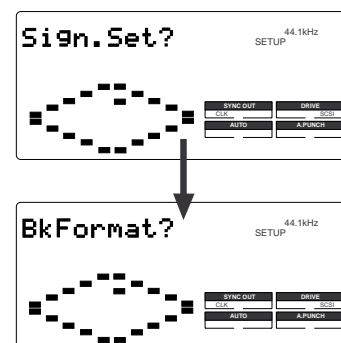
**Note:** Before reformatting a formatted disk, first make sure that the disk does not contain data that you want to keep. Otherwise, you may lose your important archives.  
 To cancel the format operation, press the EXIT/NO key or STOP button prior to the Step 4 mentioned later to return to the previous level the menu hierarchy and exit SETUP mode.  
 The alternative way is to turn the JOG dial and select [Eject] in Step 3 to eject the disk before formatting.  
 Please refer to the following procedures in detail.

**1. Insert a formatted disk into the backup drive.**

The display continues to show the Time Base indication for the current drive. (The example below indicates the Time Base display for the current drive Program 2.)



**2. Press the SETUP key to enter SETUP mode, and turn the JOG dial to select the [Bk Format ?] menu.**



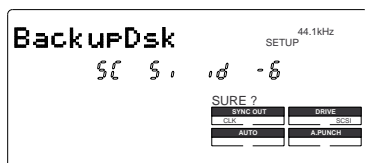
### 3. Press the EXECUTE/YES key.

The FD-4 displays the recording mode that corresponds to the disk format. The [SCSi id-6] message appears and [SURE?] flashes.

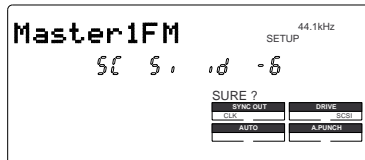
A different message appears depending on the type of format used by the disk.

In this condition, if you turn the JOG dial, [Eject] appears, and pressing the EXECUTE/YES key ejects the disk.

(e.g.) Disk formatted for backup



(e.g.) Disk formatted by Mastering 1 mode



### 4. Press and hold the RECORD button and press the EXECUTE/YES key.

The FD-4 starts formatting.

[REMAIN] lights up on the display, and the negative value of the unformatted disk area will count down as the format operation progresses.

Please wait a while.

When formatting is completed, [COMPLETED!] lights up on the display, and the FD-4 stops spinning the disk.

At the same time, the FD-4 shows the maximum recordable space. To check the REMAIN time and space, refer to the < Memo > below.

### 5. Press the EXIT/NO key or the STOP button.

The display will change from the REMAIN indication for the backup disk to the Time Base indication for the current drive.

#### <Memo>

To check the REMAIN time for the backup disk after formatting, eject the disk, then replace it with the disk in the current drive (removable type). Next, press the DISP SEL key to show the REMAIN display. You can check the REMAIN time of the backup disk in this way. However, you cannot perform another operation using the backup disk at this time. Attempting to do so will cause the FD-4 to display [Illegal FM] and ignore your operation.

To eject a disk from the backup drive or the current drive after the format operation, follow the procedure below:

\* To eject a disk from the backup drive:

**Press the Eject button on the drive.**

\* To eject a disk from the current drive:

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

## Reformatting a formatted disk (fixed type) for backup

You can use a fixed disk for backing up purpose by setting its ID number to i6i. The formatting procedures described before also applies to formatting a fixed disk as a backup disk.

### < Extension of other SETUP menu >

Besides the addition of [Bk Format ?] menu, part of [Save PGM ?] and [Load PGM ?] menus have been altered. As already described previously, the selection of output (input) signals when executing SAVE (LOAD) operation was [dAT] only before updating the software. However, after updating the software, the selection has become either [dAT] or [SCSi id-6].

Select [dAT] when saving/loading song data to and from a DAT recorder.

When using a SCSI drive for backup, select [SCSi id-6].

**Fostex**<sup>®</sup>

**FOSTEX CORPORATION**

3-2-35 Musashino, Akishima-shi, Tokyo 196-0021, Japan

**FOSTEX CORPORATION OF AMERICA**

15431 Blackburn Ave., Norwalk, CA 90650, USA