

# Addendum for D-160 Version 2.0

The software of this product has been upgraded to version 2.0 and the following functions have been added. This addendum describes only the added functions. For information regarding basic operation of the D-160, refer to the main Owner's Manual.

## <Additional Functions>

**1. Using a SCSI drive as the current drive, in addition to E-IDE disks. (See page 4.)**

In addition to an E-IDE hard disk, you may use an external SCSI device as the current drive. Up to two SCSI drives (current and backup) can be connected to the SCSI terminal on the D-160.

**2. Formatting has been changed. (See page 5.)**

The format function for the current drive disk (E-IDE or SCSI) and the backup drive disk (SCSI) has been changed.

**3. A Preview function has been added, and the RECALL key function has been expanded. (See page 11.)**

Pressing a Memory key while holding down the RECALL key enables you to preview fade-in or fade-out at a point stored in the corresponding Memory key.

**4. The Envelope function has been added, and the STOP button function has been expanded. (See page 13.)**

Pressing a RECORD RACK select key while holding down the STOP button enables you to perform digital scrubbing. you can simultaneously check the signal envelope of the corresponding track displayed on the screen.

**5. Storing function for the Locate points (edit points) has been updated. (See page 14.)**

Now up to 99 (01-99) Locate points can be stored.

**6. The Save/Load function for song data has been enhanced. (See page 18.)**

You can use a SCSI device as the current drive. This means that you can save and load using a SCSI device, as well as an E-IDE hard disk. You can also use a DOS-formatted backup disk to save and load .wav files (RIFF WAVE file format).

**<Note>**

*Due to version update, the procedure described in the "Saving and Loading Song Data" section of the original manual does not apply any more. Please refer to the procedure on page 18 of this addendum for information on saving and loading song data.*

# Table of Contents

List of SCSI drive and media checked for function.....3

## Connecting a SCSI device

Connections.....4  
 1. Using one SCSI device as the current drive.....4  
 2. Adding a SCSI device when an E-IDE hard disk is already installed.....4  
 3. Connecting a backup SCSI device to the current SCSI device.....5

## Changed Format function

Formatting the Current drive (E-IDE hard disk).....6  
 Newly formatting an unformatted E-IDE hard disk.....6  
 Reformatting a preformatted E-IDE hard disk.....6  
 Formatting the Current drive (SCSI disk).....7  
 Newly formatting the unformatted SCSI disk.....7  
 Reformatting a previously formatted SCSI disk.....8  
 Formatting of both E-IDE and SCSI equipment.....9  
 Formatting the Backup disk (SCSI disk).....10

## Addition of the Preview function

Executing the preview function.....12  
 Trimming the sound while previewing.....12

## Addition of the Envelope function

Digital scrubbing using the envelope function.....13

## Enhanced Locate Point storage

Storing data to the LOCATE key.....14  
 Storing in real-time.....15  
 Editing and storing locate data.....15  
 Edit and re-store data that is already stored.....16

## Enhanced Locate function

Locating a point by specifying the Locate number.....17

## New Save/Load function

Saving the data using DATA OUT.....19  
 Loading the data using DATA IN.....21  
 Saving the data using SCSI.....23  
 Loading the data using SCSI.....27  
 Saving or Loading using a SCSI hard disk as the current drive.....30  
 Save/Load using a DOS-formatted disk (WAV file).....31

## <List of SCSI drive and media checked for function (as of Aug. 1998)>

### <SCSI drive and media checked for function>

"The SCSI drive and media checked for function" are products that have been selected from the Fostex recommended list. They have been connected to an D-160 and their correct operation confirmed. However, in some cases, there is a subtle difference in performance from unit to unit, even in the same model from the same manufacturer, and therefore, this is not a guarantee of the performance of all recommended products on the list. This is also not a evaluation of the SCSI drive and their performance. The D-160 has two types of "Recording Mode" and there is a limit to the equipment which can be used (Refer to page 5).

### <Drive and media possible in record/playback when connecting to the D-160>

Maker/Drive name	Disk Capacity	Recording mode of the D-160	
		8 track format	4 track format
lomega zip	100 MB	X	○ (Approx. 17 minutes)
MO drive related	640/540/230 MB	X	○ *1
External fixed SCSI hard disk *3	-	○	○

(\*1): Record/playback time will differ depending on the capacity of the disk used (640/540/230 MB).

The drive and media which can be used are as follows (The time in the following is the approximate mono track recording time).

Maker name	Drive	Media type	Recording time
			4 track mode
FUJITSU	M2513A/M2513E	640/540/230 MB	(Approx. 119/101/42 minutes)
	M2513D/M2512A	230 MB	(Approx. 42 minutes)
OLYMPUS	MOS350/MOS341 series	640/540/230 MB	(Approx. 119/101/42 minutes)
	MOS332 series	230 MB	(Approx. 42 minutes)

(\*2): Recording time could be shorter than the time written in above chart, depending on the drive used.

Therefore, the recording time should be checked after formatting, and then checking the REMAIN display.

(\*3): Record/playback time depends on the drive memory capacity.

# Connecting a SCSI device

You may now use a SCSI device (removable or fixed) as the current drive. This section explains how to connect a SCSI device as the current drive, and provides some guidelines. Follow the guidelines below to learn how to use SCSI devices correctly. For more information on the type of SCSI devices that can be used as the current drive, refer to page 3 "List of SCSI drive and media checked for function" in this Manual.

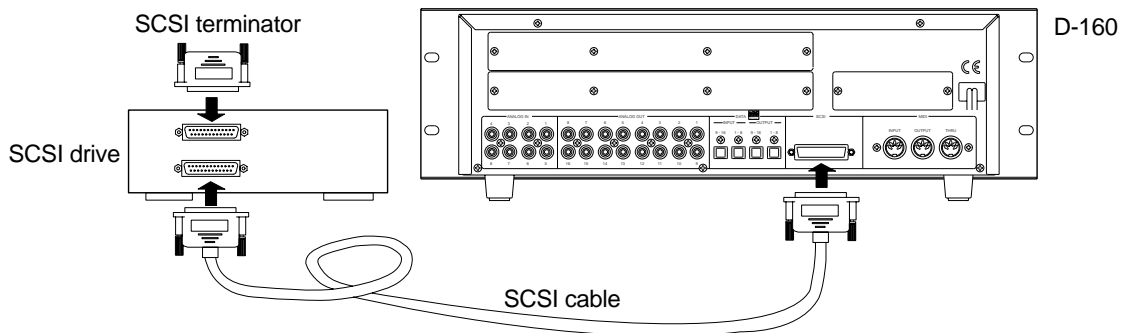
## Connections

You can connect a SCSI device to the D-160 Version 2.0 in one of three configurations:

1. Using one SCSI device as the current drive
2. Adding a SCSI device when an E-IDE hard disk is already installed
3. Connecting a backup SCSI device to the current SCSI device

### 1. Using one SCSI device as the current drive

As shown in the diagram, connect a SCSI device to the SCSI terminal on the D-160 Version 2.0. Be sure to install a SCSI terminator on another SCSI terminal on the SCSI device. (If the SCSI device uses a termination switch, be sure to turn it on.) You can connect only one SCSI device as the current drive. (You may connect an additional SCSI device as a backup drive.) When you turn on the power to the D-160 and the SCSI device, the D-160 will recognize the connected SCSI device as the current drive.

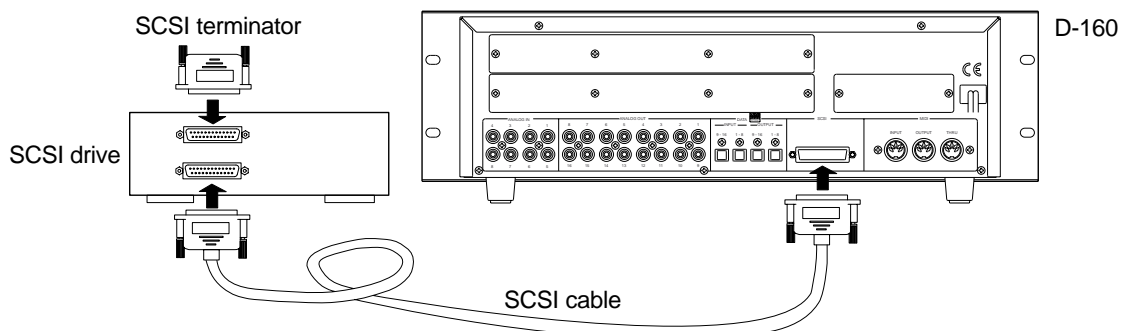


#### <Notes on setting the SCSI ID number of the SCSI device (IMPORTANT!!)>

Select any number from 1 to 5 EXCEPT "6" for the ID number of the SCSI device. (ID number "6" should be used for a backup SCSI device.) Earlier versions of the D-160 automatically recognized the ID number set for the backup SCSI device. Therefore, no such restriction was necessary. However, due to a version update, a SCSI device can now be used as a current drive, and this restriction must apply.

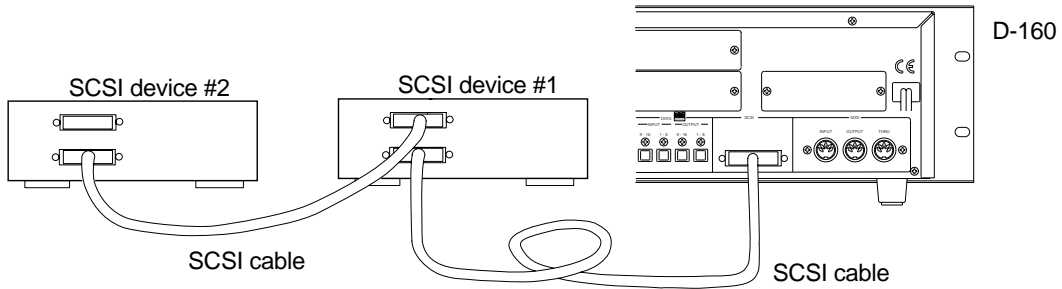
### 2. Adding a SCSI device when an E-IDE hard disk is already installed

Connect a SCSI device to the SCSI terminal on the D-160 Version 2.0. Follow the steps described above to install a SCSI terminator and set the ID number. When you turn on the power to two current drives and the D-160, the D-160 will recognize the connected E-IDE hard disk as the current drive. If you wish to use the SCSI device as the current drive, use the [Drive Sel.?] menu in Setup mode to switch the current drive.



### 3. Connecting a backup SCSI device to the current SCSI device

To use another SCSI device as a backup drive, connect two SCSI devices in chain as shown below. There is no restriction regarding which device comes first. However, be sure to install the terminator on the second SCSI device (the device at the end of the chain). Refer to the “Notes on setting the SCSI ID number of the SCSI device (IMPORTANT!!)” section on the previous page for more information on setting the ID number of each SCSI device.



## Changed Format function

The format of the current drive disk and backup disk has changed. The format of the current drive disk is as follows, depending on the type of devices:

E-IDE hard disk	16-track format
SCSI device	Select from 8-track format, 4-track format

[Backup format] is used for a backup disk (which is used to save and load song data). Refer to the table below for more details. See the next page for information on how to format a disk.

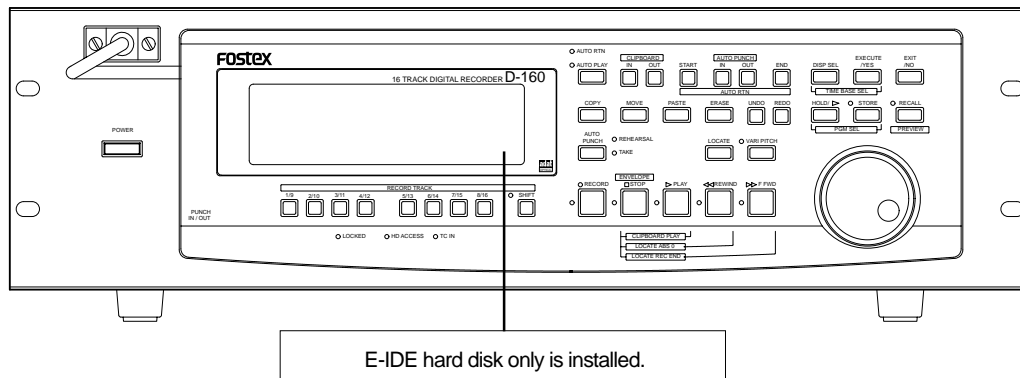
Application	Current drive			Backup drive
	E-IDE hard disk	SCSI drive (removable or fixed)		
Supported media	E-IDE hard disk	SCSI fixed disk	SCSI fixed disk SCSI removable disk (MO or zip)	SCSI drive (removable or fixed)
Recording format	16 track format	8 track format	4 track format	Backup format
Quantization	16-bit, linear	< -	< -	
Sampling frequency	44.1/48kHz	< -	< -	
Maximum recording time	~17min/100MB (converted one track)	< -	< -	
Recording/playback track	16 tracks	8 tracks	4 tracks	
Record/playback function	<ul style="list-style-type: none"> <li>* 16-track simultaneous recording of adat digital signals</li> <li>* 16-track simultaneous recording of adat digital signals via eight digital-ins and eight analog-ins</li> <li>* 8-track simultaneous recording of S/P DIF digital signals via two digital-ins and six analog-ins</li> <li>* 8-track simultaneous recording of analog input signals</li> </ul>	<ul style="list-style-type: none"> <li>* 8-track simultaneous recording of adat digital signals</li> <li>* 8-track simultaneous recording of S/P DIF digital signals via two digital-ins and six analog-ins</li> <li>* 8-track simultaneous recording of analog input signals</li> </ul>	<ul style="list-style-type: none"> <li>* 4-track simultaneous recording of adat digital signals (ch1-4)</li> <li>* 4-track simultaneous recording of S/P DIF digital signals via two digital-ins and two analog-ins</li> <li>* 4-track simultaneous recording of analog input signals</li> </ul> <p><b>Note:</b> Simultaneous recording by MO disk is a maximum two tracks.</p>	<ul style="list-style-type: none"> <li>* Real-time recording/playback is not available, since this disk is dedicated to saving and loading song data.</li> </ul>
Save/Load function	Available via a DAT, adat, or SCSI device	Available via a DAT, adat, or SCSI device	Available via a DAT, adat, or SCSI device	
Available Additional tracks	8 tracks (Tr 17-24)	16 tracks (Tr 9-24)	20 tracks (Tr 5-24)	

## Formatting the Current drive (E-IDE hard disk)

This section explains formatting when only an E-IDE hard disk is installed for the current drive.

### Newly formatting an unformatted E-IDE hard disk

The following explanations will be on the assumption that D-160 is already has an unformatted E-IDE hard disk installed.



**1. Switch ON power to the D-160.**

After display of [Current IDE Drv] -> [Model name], the [Unformat!] message is displayed and the D-160 will automatically enter the [Disk Format?] menu of the SETUP mode.

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

The display will change to the record mode and [?] and [SURE?] of the [16 track format] will start to blink.

**3. Press the EXECUTE/YES key while pressing the RECORD button.**

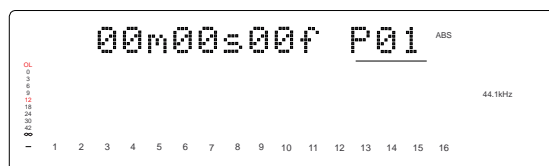
The unformatted area on the hard disk to be formatted will be displayed and a count down will start as formatting progresses. At the start of formatting, the [∞] section FL in the display level meter will light and then successively extinguish from the right end as formatting progresses. This requires time especially when formatting a large capacity hard disk. When formatting is completed, [COMPLETED!] will be lit in the display and access to the disk will stop.

**4. To exit from the SETUP mode, press the EXIT/NO key (or STOP button).**

Upon completion of formatting, the display will change to the Program 1 time base (head of the ABS 0 program).

**5. Switch to the REMAIN display by pressing the DISP SEL key and check the recordable time after formatting.**

After this check, press the DISP SEL key to return to the original time base display.



### Reformatting a preformatted E-IDE hard disk

A previously formatted E-IDE hard disk will be reformatted here. If the disk is reformatted again, not only will all program data which had been recorded be erased but the program numbers and various settings of D-160 will be returned to the initial state.

**1. Switch ON power to D-160.**

The D-160 will start up in the initial display (Time base: ABS 0) of the program which had been active previous to switching OFF the D-160.

**2. After switching to the SETUP display by pressing the DISP SEL key, press the EXECUTE/YES key.**

The D-160 will enter the SETUP mode, the SETUP menu which had been active previous to switching OFF power will be displayed (under the initial setting, and the [Drive Sel.?] menu will be displayed.)

**3. Rotate the JOG dial to select the SETUP menu [Disk Format?] and then press the EXECUTE/YES key.**

[IDE] will change to blinking. This is an indication that the D-160 is in the standby mode for formatting the internal E-IDE hard disk.

**4. While [IDE] is blinking, press the EXECUTE/YES key.**

The E-IDE hard disk will be formatted in the same manner as detailed in above "Newly Formatting An Unformatted E-IDE Hard Disk." After completing formatting, [COMPLETED!] will light in the display and disk access will stop.

## 5. Exit from the SETUP mode by pressing the EXIT/NO key (or STOP button).

The display will change to the program 1 time base indication to which it will be set after formatting.

## 6. Switch to the REMAIN display by pressing the DISP SEL key to check the recordable time after this formatting.

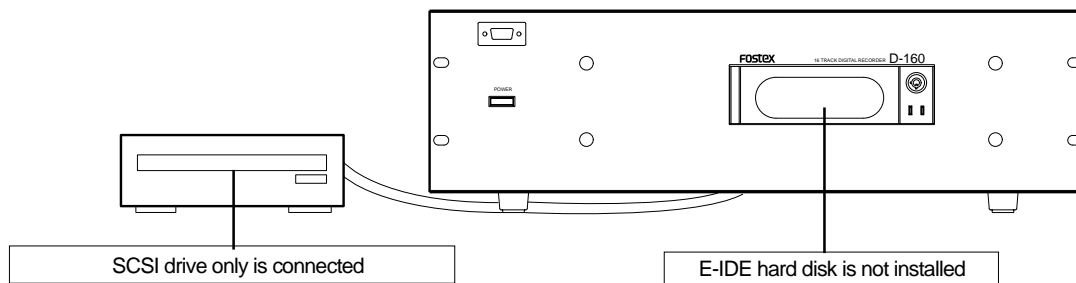
After this check, press the DISP SEL key to return it to the original time base display.

## Formatting the Current drive (SCSI disk)

How to format a removable disk (or hard disk) which is connected as the current drive.

### Newly formatting the unformatted SCSI disk

In the formatting explanation below, the D-160 is assumed to a SCSI type removable disk (or hard disk) for the current drive and that an unformatted disk is not in the disk drive.



## 1. Switch ON power to both pieces of equipment.

The D-160 will display the [Initial...] message. This will change to [No Disk]. In the case of a hard disk, following the display of the [Initial...] message at switch ON of power, the [Unformat!] message and enter the SETUP mode follows. Continue from Step 3, below.

## 2. Set the unformatted removable disk in the current drive.

After displaying [Current Dr] -> [SCSI drive name] -> [Unformat!] messages, the D-160 will automatically enter the SETUP mode [Disk Format?] menu and the [SCSI #] (# = SCSI ID number) message will blink in the display.

## 3. After checking that [SCSI#] is blinking, press the EXECUTE/YES key.

The ID number and the drive name will be displayed and [SURE?] will blink in the display.

## 4. Then, press the EXECUTE/YES key again.

The display will change to record mode select and [8 track format] will blink.

## 5. Select the desired record mode with the JOG dial.

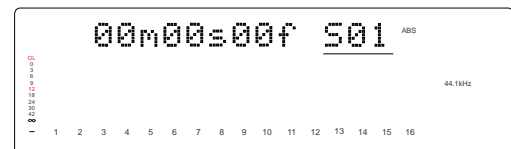
When the JOG dial is rotated, [8 track format] and [4 track format] can be alternately selected. Either the [8 track format] or [4 track format] can be selected only when the SCSI drive is used as the current drive. Normally, when making a recording with the D-160, the [8 track format] is selected for formatting. The [4 track format] is selected depending on the purpose of the recording.

## 6. After selecting the recording mode, press the EXECUTE/YES key while pressing the RECORD button.

Formatting will start in the selected recording mode. During formatting, [REMAIN] will be lit in the display, the disk unformatted area (capacity) will be displayed and counted down with progress of formatting. [COMPLETED!] will light upon completion of formatting and the disk will stop.

## 7. Exit from the SETUP mode by pressing the EXIT/NO key (or STOP button).

The display will change to the program 1 time base display (00m 00s 00f S01) to which it will be set after formatting.



## 8. Switch to the REMAIN display by pressing the DISP SEL key to check the recordable time after formatting.

Press the DISP SEL key after this check to return it to the original time base display. In order to eject the removable disk from the current drive, press the EXIT/NO key while pressing the STOP button. To format other removable disks, after ejecting the formatted disk, load another one in the current drive and repeat the above procedure.

## Reformatting a previously formatted SCSI disk

Here is how to reformat previously formatted SCSI disk for use in the current drive or for backup. When a disk is reformatted, any previously recorded program data will all be erased and, at the same time, the number of programs and various settings will revert to its original state. The explanations below are based on the assumption that a SCSI drive is connected as the current drive, that a formatted disk is not loaded in the SCSI drive and, [No Disk] is shown in the display.

### **\* Steps in reformatting a disk which have been formatted for use in the current drive**

#### **1. Load disk in the drive.**

After display of the [8 track mode] or [4 track mode] in which it had been formatted, the display will change to time base (00m 00s 00f S01) of the current drive.

#### **2. After switching to the SETUP display by pressing the DISP SEL key, press the EXECUTE/YES key.**

At the same time as entering the SETUP mode, the SETUP menu which was active previous to switching off power will be displayed. Under this initial setting, the [Drive Sel.?] menu will be displayed.

#### **3. Select [Disk Format?] in the SETUP menu by rotating the JOG dial, and then press the EXECUTE/YES key.**

The display will change to blinking of [SCSI #] (# = ID number of the SCSI equipment).

#### **4. Press the EXECUTE/YES key while [SCSI #] is blinking.**

ID number and drive name will be displayed and both [?] and [SURE?] will blink.

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

The display will change to select the record mode and [SURE?] will blink.

#### **6. After selecting the record mode by rotating the JOG dial, press the EXECUTE/YES key while pressing the RECORD button.**

Formatting will start in the selected record mode. After formatting is completed, [COMPLETED!] will blink and disk access will stop.

#### **7. Exit from the SETUP mode by pressing the EXIT/NO key (or the STOP button.)**

The display will change to the program 1 time base (ABS 00m 00s 00f S01) to which it will be set after formatting.

*In order to eject the removable disk from the current drive, press the EXIT/NO key while pressing the STOP button.*

### **\* Steps in reformatting a disk which have been formatted for backup use (including DOS formats)**

#### **1. Load disk in the drive.**

After display of [Illegal format], the display will change to the backup disk time base (00m 00s 00f B01).

**< Note >:** The backup disk time base that appears here is displayed simply for entering the SETUP mode and will be ignored by displaying [Void command] even if an attempt is made to record from this state.

#### **2. After switching to the SETUP display by pressing the DISP SEL key, press the EXECUTE/YES key.**

Simultaneous with entering the SETUP mode, the SETUP menu which was active prior to switch off of power will be displayed under the initial setting, the [Drive Sel. ?] menu will be displayed.

#### **3. Select the SETUP menu [Disk Format?] by rotating the JOG dial and press the EXECUTE/YES key.**

The display will change to blinking of [SCSI #] (# = ID number of SCSI equipment).

#### **4. Press the EXECUTE/YES key while [SCSI #] is blinking.**

The ID number and drive name will be displayed and [?] and [SURE?] will blink.

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

The display will change to selecting the record mode and [SURE?] will blink.

#### **6. After selecting the record mode with the JOG dial, press the EXECUTE/YES key while pressing the RECORD button.**

Formatting will start in the selected recording mode. Please wait patiently during formatting. [COMPLETED!] will be lit upon completion of formatting and disk access will stop.

#### **7. Exit from the SETUP mode by pressing the EXIT/NO key (or the STOP button).**

The display will change to the program 1 time base display (ABS 00m 00s 00f S01) to which it will be set after formatting.

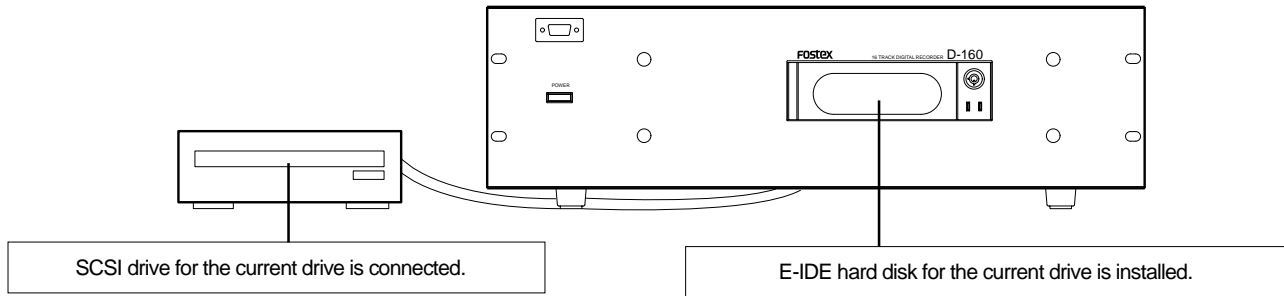
*In order to eject the removable disk from the current drive, press the EXIT/NO key while pressing the STOP button.*



## Formatting of both E-IDE and SCSI equipment

In a situation where both the E-IDE hard disk and a SCSI drive are used for the current drive, each current drive disk will be formatted here. Normally, when power is switched ON to equipment using both types as the current drive, the E-IDE hard disk will automatically become active as the current drive.

In the D-160, regardless to which is the current drive, the presently active current drive can format the other current drive. In the procedure below, it is assumed that the E-IDE hard disk had been formatted in according to the above "FORMATTING THE CURRENT DRIVE (E-IDE HARD disk" and this, then will format the SCSI drive. It is also assumed that the E-IDE time base is shown in the display.



**1. After switching to the SETUP display by pressing the DISP SEL key, press the EXECUTE/YES key.**

The D-160 will enter the SETUP mode and the display will change to the SETUP menu which was in effect prior to switch OFF of power.

**2. Select the [Disk Format?] menu by rotating the JOG dial and press the EXECUTE/YES key.**

[IDE] will change to blinking and as the JOG dial is rotated. This will alternately switch and allow a choice between the blinking [IDE] and blinking [SCSI #] (# = ID of the SCSI equipment).

**3. After selecting [SCSI #] with the JOG dial, press the EXECUTE/YES key once again.**

No matter whether an unformatted or formatted disk is loaded in the SCSI drive, the ID number and drive name will be displayed and [SURE?] will blink.

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

The display will change to selecting the recording mode and [8 track format] will blink.

**5. Select the desired recording mode with the JOG dial.**

Either [8 track format] or [4 track format] can be selected alternately by rotating the JOG dial. Only when the SCSI drive is used for the current drive, either the [8 track format] or [4 track format] can be selected. Normally, the [8 track format] is selected for formatting when recording with the D-160. Depending on the purpose of the recording, it can also be formatted in the [4 track format].

**6. After selecting the recording mode, press the EXECUTE/YES key while pressing the RECORD button.**

Formatting will start in the selected recording mode. [REMAIN] will be lit during formatting, the disk unformatted area (capacity) displayed and will count down with progress of the formatting. After formatting is completed, [COMPLETED!] will light and the disk will stop.

**7. Exit from the SETUP mode by pressing the EXIT/NO key (or STOP button).**

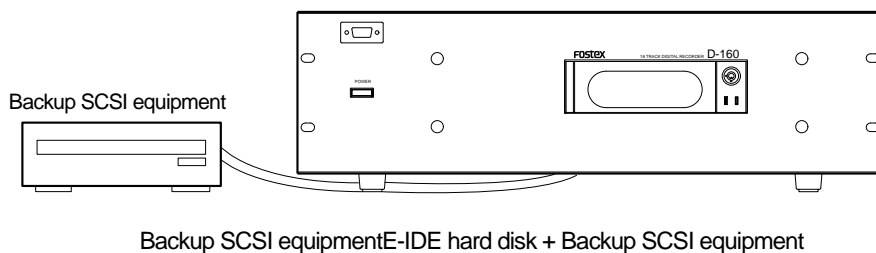
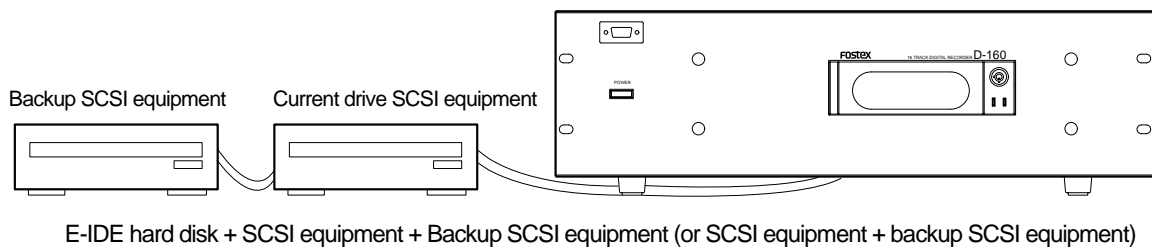
The display will change to the time base shown prior to entering the SETUP mode.

*In order to confirm REMAIN upon completing the formatting, enter the SETUP mode [Drive Sel. ?] menu while the E-IDE hard disk is in the current drive state, and then after changing the current drive, switch to the REMAIN display. In order to eject the removable disk from the current drive after formatting, press the SCSI drive EJECT button.*

## Formatting the BACKUP disk (SCSI disk)

In the D-160, song data recorded in the current drive can be saved /loaded by using the backup SCSI drive disk, not to mention DAT and adat. In addition to the current drive, when a backup SCSI drive is connected to D-160, the ID number for the backup SCSI drive must be set to “6” and the disk must be formatted in the backup exclusive recording mode. Even if the backup disk is loaded in the SCSI drive, the disk information cannot be displayed such as by the current drive. For this reason, in order to format the backup disk, same as with the aforementioned current SCSI disk formatting, it must be forcibly executed by the SETUP mode [Disk Format?] menu. In this example, assume that the current drive and backup drive are connected as shown below and that it is in the time base for the E-IDE hard disk.

**< Note>:** A disk intended for save/load by WAV file cannot be formatted by the D-160 [Disk Format?] menu. The WAV file (DOS format) disk must be formatted beforehand in another computer (PC/AT type).



**1. After switching to the SETUP display by pressing the DISP SEL key, press the EXECUTE/YES key.**

The D-160 will enter the SETUP mode and the display will change to the SETUP menu which was active prior to switch OFF of power.

**2. Select the [Disk Format?] menu by rotating the JOG dial, then press the EXECUTE/YES key.**

[IDE] will change to blinking and when the JOG dial is rotated, the alternately blinking [IDE] and [SCSI 6] can be easily selected (If a current drive SCSI is also connected, [SCSI #] (# = ID number of the SCSI drive) will also be displayed).

**3. After selecting [SCSI 6] with the JOG dial, press the EXECUTE/YES key again.**

Even though an unformatted or formatted disk is loaded in the SCSI drive, the ID number and drive name will be displayed and both [?] and [SURE?] will blink.

**4. Then, press the EXECUTE/YES key again.**

[Backup format?] will be displayed and both [?] and [SURE?] will blink. This is an indication that it is in standby for formatting the backup disk by the [Backup format].

**5. Press the EXECUTE/YES key while pressing the RECORD button.**

Formatting will start in the backup format mode. During formatting, [REMAIN] will be lit in the display, the disk area (capacity) not yet formatted will be displayed and count down will continue with progress of formatting. After formatting is [COMPLETED!] will be lit and disk will stop.

**6. Exit from the SETUP mode by pressing the EXIT/NO key (or the STOP button).**

The display will change to the current drive time base prior to entering the SETUP mode.

*To retrieve the disk from the backup drive, press the drive EJECT button.*

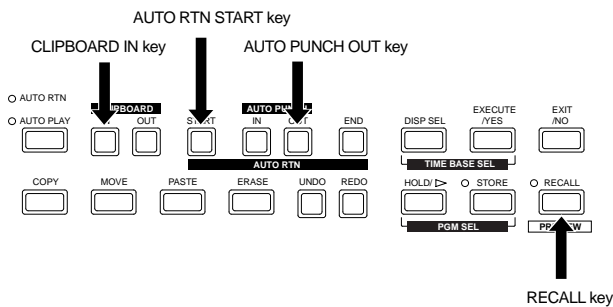
# Addition of the Preview function

The preview function enables you to repeatedly audition the rise (fade in) or the fall (fade out) of the sound data at a locate point (edit point) that is stored in the AUTO PUNCH IN/OUT, AUTO RTN START/END, or CLIPBOARD IN/OUT key. This is also called “point rehearsal.”

With this function, you can check the locate points in real-time. You can also use this function to fine-tune the position of the locate points while previewing the sound. This function is effective only when the D-160 is stopped.

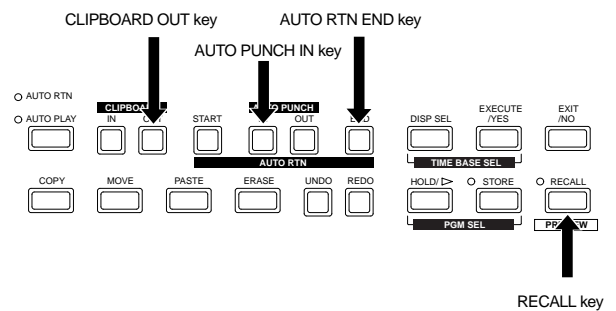
- Previewing the rise of the sound (fade in)**

While holding down the RECALL key, press the AUTO RTN START key, the AUTO PUNCH OUT key, or CLIPBOARD IN key.

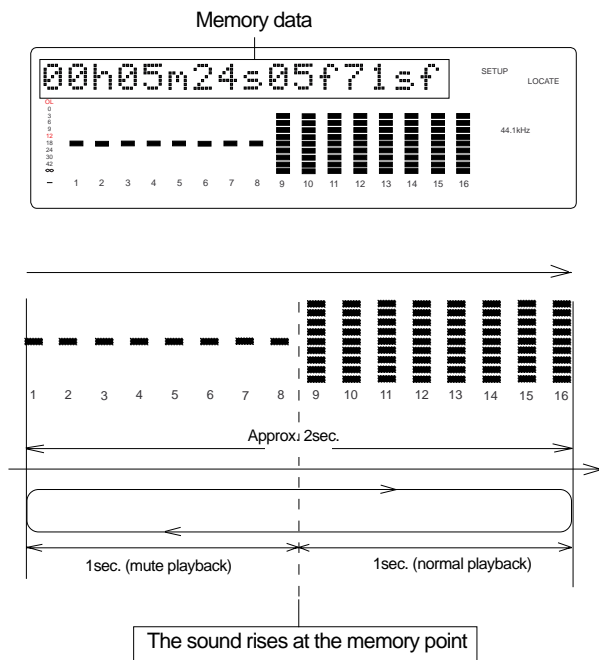


- Previewing the fall of the sound (fade out)**

While holding down the RECALL key, press the AUTO END START key, the AUTO PUNCH IN key, or the CLIPBOARD OUT key.

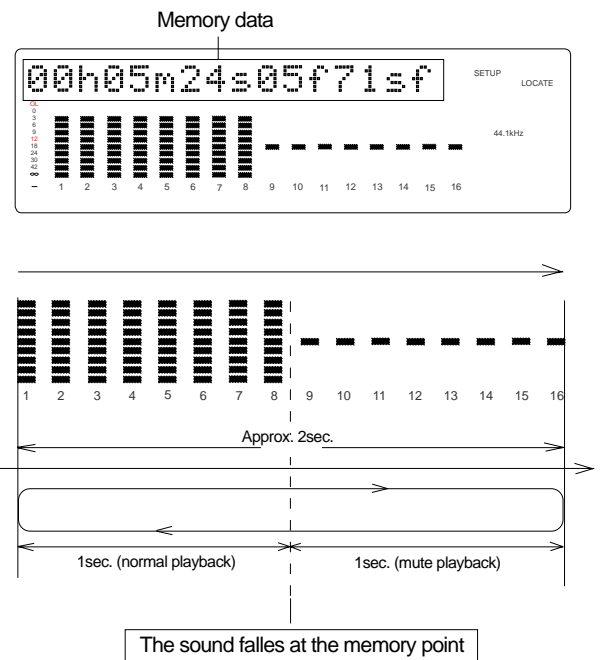


## <Display indication during the Preview operation>



The D-160 repeats playback the “rise sound” at the locate point (edit point). As shown in the diagram, one-second of data prior to the locate point is muted during playback. The mute is off (fade in) at the locate point and the sound is played back for one second. The D-160 will repeat this operation until you quit the Preview function.

## <Display indication during the Preview operation>



The D-160 repeats playback of the “fall sound” at the locate point (edit point). As shown in the diagram, one-second of data prior to the locate point is played back, then muted (fade out) at the locate point. The muted playback continues for one second. The D-160 will repeat this operation until you quit the Preview function.

## Executing the Preview function

**1. Press the desired memory key while holding down the RECALL key when the D-160 is stopped.**

Pressing the desired memory key will enable you to preview the sound at the locate point (edit point) stored in the corresponding memory key.

Memory key	Operation
AUTO PUNCH IN key AUTO RTN END key CLIPBOARD OUT key	The D-160 plays the fall (fade out) of the sound at the locate point stored in the keys.
AUTO PUNCH OUT key AUTO RTN START key CLIPBOARD IN key	The D-160 plays the fall (fade in) of the sound at the locate point stored in the keys.

**2. Adjust the monitor sound of the selected track so that it can be monitored on the mixer.**

**Note:** If data stored in each memory key is in the initial state, all memory keys will be in ABS time 00h 00m 00s. In other words, the program head value is in the memory. Should fade out preview be executed in this condition, the [Void Data !] message and memory data [00h 00m 00s] will alternately flash in the display as a warning. However, for fade in preview, this will function as the memory data [00h 00m 00s] point.

**3. Press the STOP button or the EXIT/NO key.**

## Trimming the sound while previewing

You can trim the position of the locate point (edit point) using the JOG dial while you preview the sound. At this time, you can also adjust the size of the trimming steps (the amount of offset controlled by the JOG dial). Trimming allows you to fine-tune the position of the locate point stored in the memory keys while previewing the sound. Use this function to change the Auto Punch In/Out points, the start point of Copy & Paste and Move & Paste, and the start and end points of the Erase function.

**<Notes>**

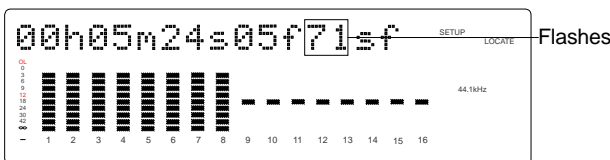
- You can audition the result of trimming during the next preview. That is, if you trim the position while previewing the sound for the first time, you can check the result when you preview the sound next time.
- If the locate point is shifted outside the range of the preview playback as a result of trimming, [Void Data!] and the locate point indication appear alternately. In this case, you cannot use the Preview function. Trim the position again so that it will be within the playback range.
- When Auto Punch mode is turned on and you trim the Auto Punch In or Auto Punch Out point while previewing the sound with [Void Data!] indicated on the display, Auto Punch mode will be cancelled.

**1. Start previewing the sound by following the steps described on the previous page.**

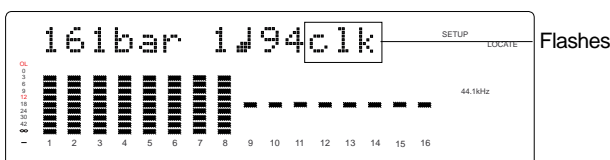
**2. Use the JOG dial to trim the position.**

When previewing starts, the unit of JOG trimming flashes on the screen. For example, value of SF (sub-frame) flashes if ABS Time Base or MTC Time Base is selected. CLK (clock) flashes if BAR/BEAT/CLK is selected. The flashing value also indicates the position you can trim.

Example: Time Base is ABS (value of SF flashes.)



Example: Time Base is BAR/BEAT/CLK (CLK flashes.)



**3. To change the unit of trimming, press the HOLD/> key, or turn the SHUTTLE dial.**

These key or dial will change the trimming unit as follows:

	Time Base	
	ABS or MTC	BAR/BEAT/CLK
HOLD/> key		
SHUTTLE dial (clockwise)		
SHUTTLE dial (counter clockwise)		

**4. Trim the position at the selected unit (digit).**

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

The trimmed locate point (edit point) data will be stored in the corresponding memory key.

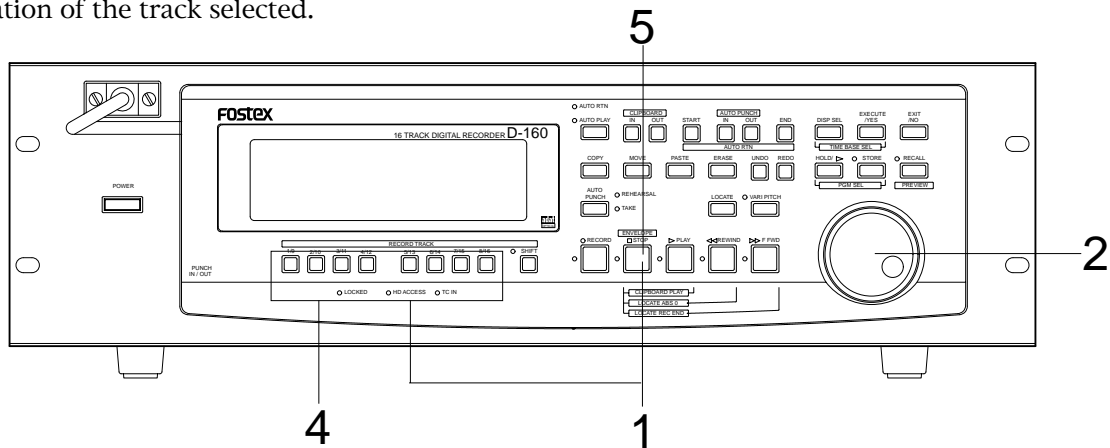
# Addition of the Envelope function

The envelope function is the ability to reproduce in the display the signal level recorded in the real track, and digital scrub utilizing this function becomes possible. As digital scrub can be executed by selecting any single real track while D-160 is stopped, the desired point can be accurately confirmed with your eye and ear, and therefore, quickly located.

The prerequisite of the following operation is that the time base is ABS, however, the operation can be executed in any time base. To execute this function with a non-ABS time base there is a need to priory switch over to the desired time base.

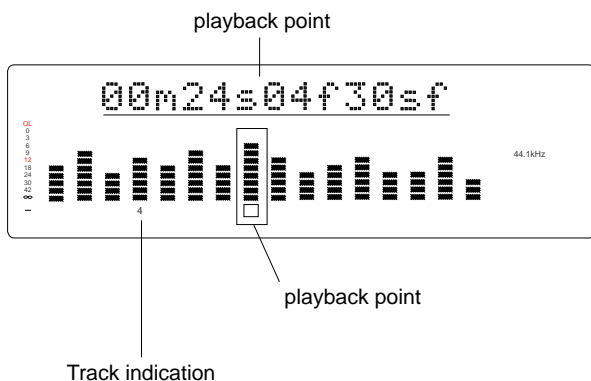
## Digital scrubbing using the envelope function

You may perform digital scrubbing using the “Envelope Function” of the D-160 while the recorder section is stopped. The envelope function allows digital scrubbing for each track recorded. The display will show the envelope indication of the track selected.



**1. While the D-160 is stopped, depress the STOP button and then press the RECORD TRACK select key of the desired record track.**

This turns ON the envelope function. The envelope indication of the selected track will appear on the display. The following example shows the indication of track 4 envelope, after RECORD TRACK select key 4 is pressed. At this time the recorder section is in the STILL status (scrub mode is in still status) and the REWIND LED and F FWD lights up.



**2. You can use the JOG dial to digitally scrub the performance of the track selected.**

The envelope of the performance recorded on the track variates in real-time. During forward direction scrub the F FWD LED lights up, and during rewind direction scrub the REWIND LED lights up.

**3. Adjust the monitor sound of the selected track so that it can be monitored on the mixer.**

**4. Press the RECORD TRACK select key of the desired record track to select another track.**

[Please Wait!] will briefly appear and then go to the envelope indication of the selected track. The following example shows the case when the indication is switched from track 4 to track 8.



**5. Press the STOP button to stop the envelope function.**

Doing so will turn OFF the envelope function. The D-160 will return to the time base indication prior to turning the envelope function ON.

# Enhanced Locate point storage

Now you can store up to 99 Locate points for a simple Locate function using the LOCATE key. The function of other Memory keys (\*) has not changed.

With the previous version, the last Locate data (except for ABS 0 LOCATE and REC END LOCATE) was always stored in the LOCATE key. This function has been enhanced, and now you can assign any Locate number (01-99) to the LOCATE key to simply locate the point. The last Locate point is stored in Locate number 00.

Although the procedure for storing the points in the Memory keys has not been changed, part of the indication on the display has been changed. When you store a Locate point (edit point) in a Memory key, refer to the notes below.

This addendum explains only how to store Locate data into the LOCATE key. For more information on other Memory keys, refer to the main User's Guide.

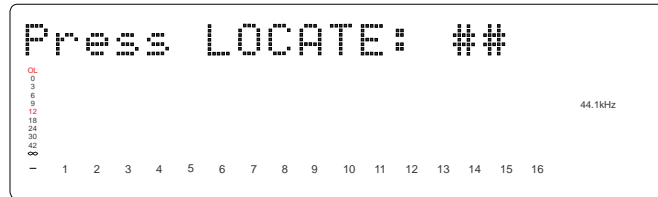
## (\* Memory keys

Memory keys are capable of storing time data for locating or editing points. There are six Memory keys (AUTO PUNCH IN/OUT, CLIPBOARD IN/OUT, AUTO RTN START/END).

### <Notes on storing data to the Memory keys>

Due to the version update, part of the indication on the display has changed. Follow the guideline below when you store Locate points (edit points) into the Memory keys:

When you press the STORE key to store real-time or edited time data into a Memory key, the following indication appears. This parameter is used to assign a Locate number to the LOCATE key, and is not related to storing data into Memory keys. Ignore this indication and press the desired Memory key.



Use of this parameter is explained in the following section.

## Storing data to the LOCATE key

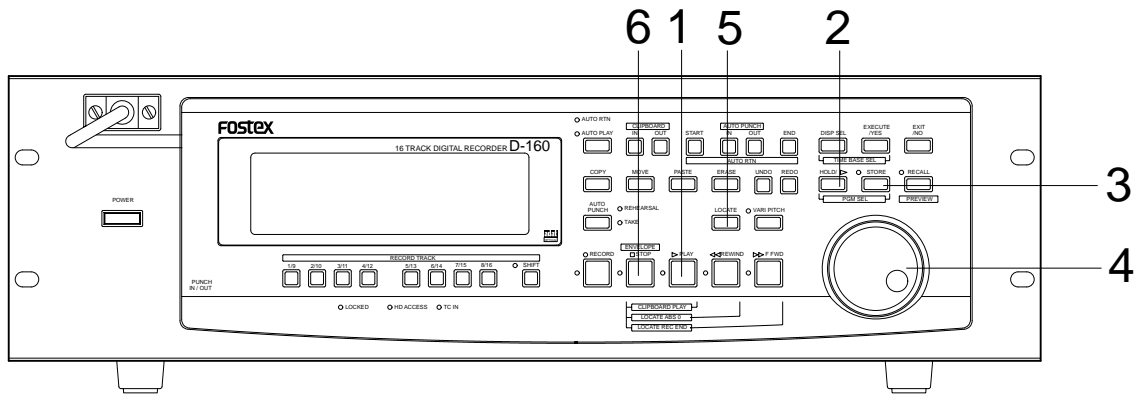
Up to 99 Locate points (time data) can be stored in the LOCATE key to perform simple Locate functions. You can assign any Locate number from 01-99 to manage the time data. You may then specify the desired Locate number to locate the corresponding position in the data. You can also edit this time data to locate a different point, or store the data into any other Memory key.

### <Notes>

- The last Locate data (located via a Memory key or the LOCATE key) is stored as Locate number 00. This means that the data will be overwritten by new data each time a point is located. Therefore, do not use Locate number 00 as an independent Locate data.
- You cannot preview the data stored in the LOCATE key.
- If you wish to use any Time Base other than ABS time, first use the DISP SEL key and EXECUTE/YES key to select the desired Time Base.
- Stored or edited Locate point data is effective only within the current Program.

## Storing in real-time

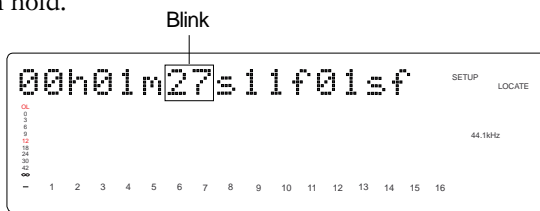
You can store the locate point (in the ABS, MTC, or BAR/BEAT/CLK Time Base) in real-time while the D-160 is playing.



**1. Press the PLAY button to start playback.**

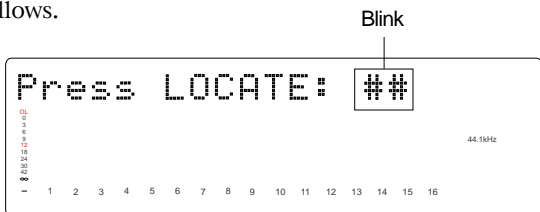
**2. Press the HOLD/> key in the store location.**

When you press the HOLD/> key the time base (or bar/beat/clock) will return to the edit mode of the data put on hold.



**3. Press the STORE key (the STORE LED lights up).**

The memory number selection menu will appear, as follows.



**4. Select the LOCATE number desired using the JOG dial.**

LOCATE number from 00-99 are selectable. However, select a number other than 00.

**5. Next press the LOCATE key.**

The time base (or bar/beat/clock) put on hold is stored as data in the LOCATE number selected. The system will return to the original time base when the storage process is completed, and playback is resumed.

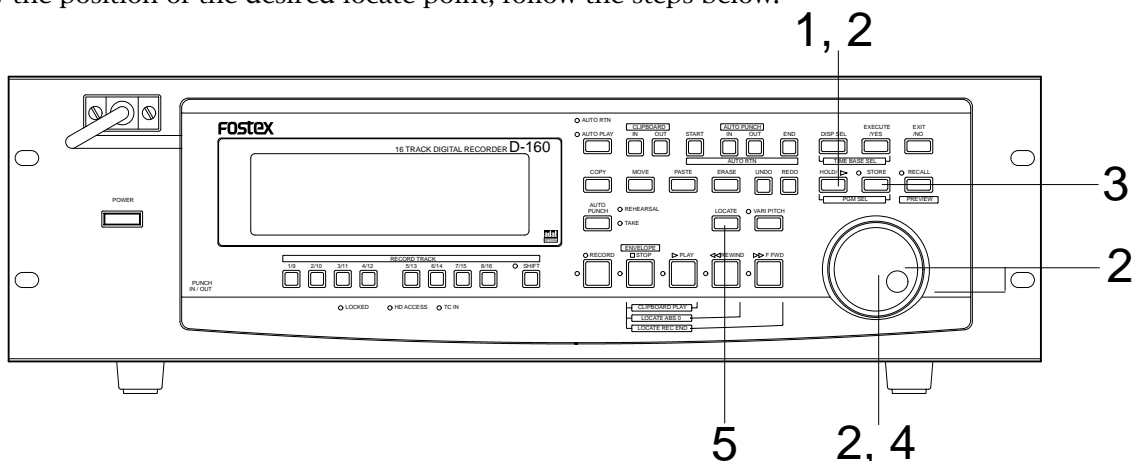
- You can omit Step 2 to speed operation.

**6. After completing the store process, press the STOP button to stop the recorder section.**

- If you set "BAR/BEAT Resolution mode" in SETUP mode to ON, the D-160 will round off the CLK value of the captured bar/beat/clock value. That is, the locate point will be at the beginning of the beat (00).

## Editing and storing locate data

If you know the position of the desired locate point, follow the steps below.



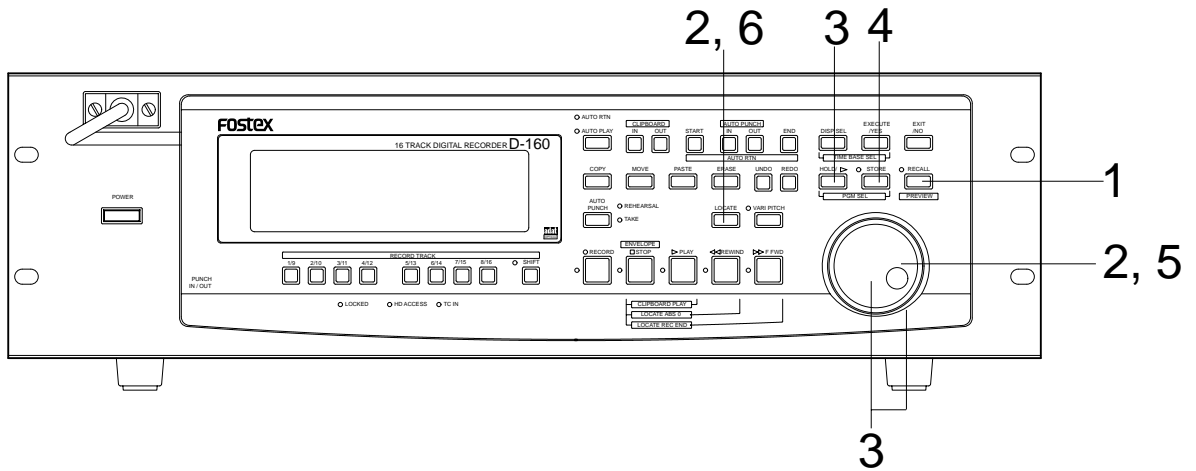
1. Press the HOLD/> key while the D-160 is stopped.  
The currently-displayed time value (or bar/beat/clock value) is captured and the D-160 enters data edit mode.
2. Press the HOLD/> key, or turn the SHUTTLE dial to move the flashing cursor on the time value digit, and use the JOG dial to increase or decrease the value.
3. Press the STORE key.

4. Select the LOCATE number desired using the JOG dial.
5. Press the LOCATE key.  
The edit time data is stored as the time data for the selected LOCATE number.

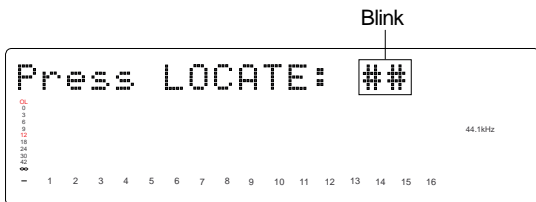
• Press the STORE key instead of the HOLD/> key in Step 1 and omit Step 3 to speed operation.

## Edit and re-store data that is already stored

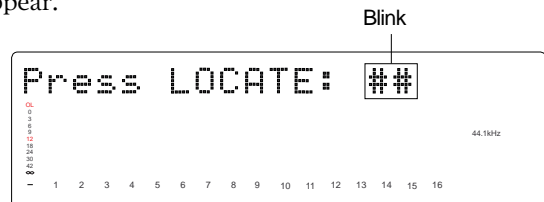
RECALL the desired time data already stored in the LOCATE key, edit that data and re-store it.



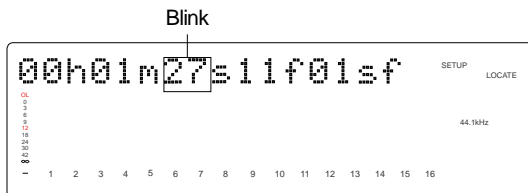
1. Press the RECALL key while the D-160 is stopped.  
The menu to select the LOCATE number will appear.



4. Press the STORE key (the STORE LED lights up).  
The LOCATE number selection menu to store data will appear.



2. Turn the JOG dial to select the desired LOCATE number, then press the LOCATE key.  
The data edit mode will appear when the data stored in the selected LOCATE number appears.



•If the STORE key is press instead of the LOCATE key at this stage, it becomes possible to directly LOCATE the time data of the selected LOCATE number. For more details refer to the next section on "Location Functions."

3. Press the HOLD/> key, or turn the SHUTTLE dial to move the (cursor) column of the time indication to edit (cursor flashing point), increase or decrease the number setting with the JOG dial or input the desired time base.

5. You can use the JOG dial to input the desired LOCATE number.
6. Press the LOCATE key.  
The edit time data is stored as the time data for the selected LOCATE number.

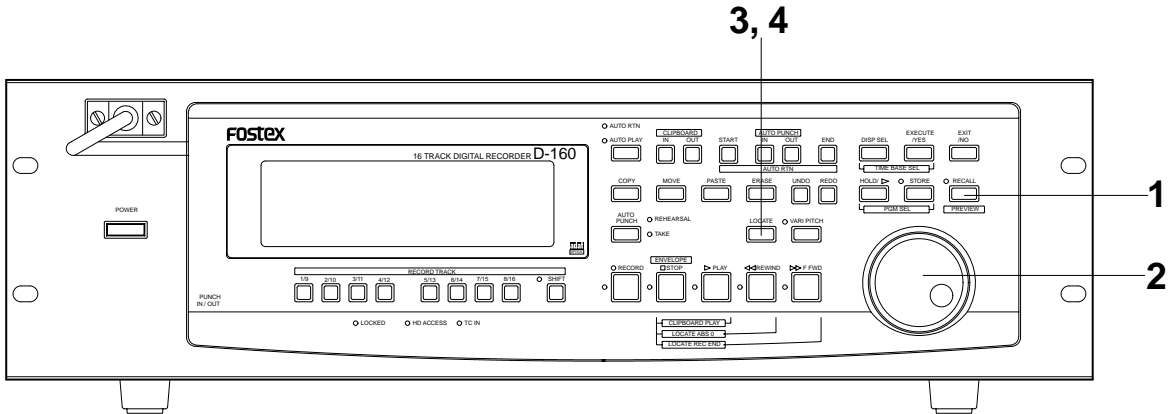


# Enhanced Locate function

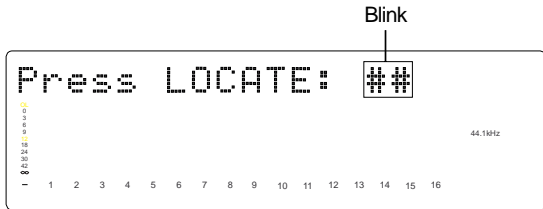
The function of storing Locate points has been enhanced. You can store up to 99 Locate points into the LOCATE key to perform a simple Locate function. Specifying the desired Locate number will locate the corresponding point immediately.

This section explains how to locate a point by specifying the Locate number. For more information regarding how to locate ABS 0 (top of a Program), REC END (end of recording), and points stored in the Memory keys, refer to the main Owner's Manual.

## Locating a point by specifying the Locate number



**1. Press the RECALL key while the D-160 is stopped.**  
The D-160 displays the Locate number selection.

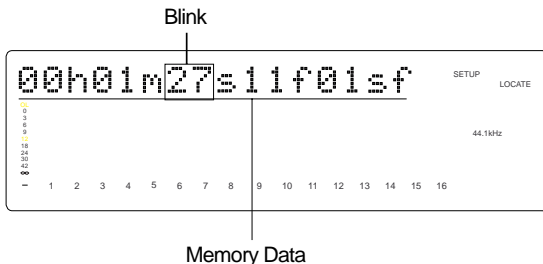


**2. Use the JOG dial to select the desired Locate number.**

You can enter any number from 00 to 99. Locate number 00 always contains the time data of the last Locate point.

**3. Press the LOCATE key.**

The corresponding time data appears. You can edit this time data. The value flashes in seconds.



If you wish to locate the point with this time data, go to step 4. If you wish to edit this time data, use the HOLD/> key or the SHUTTLE dial to move a flashing cursor to the numbers you wish to edit, then use the JOG dial to modify the value.

**4. Press the LOCATE key.**

The D-160 immediately locates the point that corresponds to the displayed memory data (time data). If you have edited the time data, the D-160 locates the new corresponding point. The time data of the Locate point is automatically stored in Locate number 00.

If you wish to store the edited data, instead of locating the point, press the STORE key, not the LOCATE key. The D-160 displays the Locate number selection. Enter the desired Locate number and press the STORE key. The edited time data will be stored in the selected Locate number.

# New Save/Load function

The upgraded version enables you to save and load data using an E-IDE hard disk or a SCSI device as the current drive. In this case, may use an external DAT machine, adat, or a backup SCSI device. When you use a backup SCSI device to save and load data, you can use a DOS-formatted disk to save and load wav files (RIFF WAVE file format). In this way, you can utilize the D-160 Ver.2.0 data with computer music software.

Due to the version update, the format was changed and the procedure described in the “Saving and Loading Song Data” section of the original manual no longer applies. Please refer to the procedure described in this addendum to save and load song data. Note the followings when you save and load data using an external DAT machine or adat:

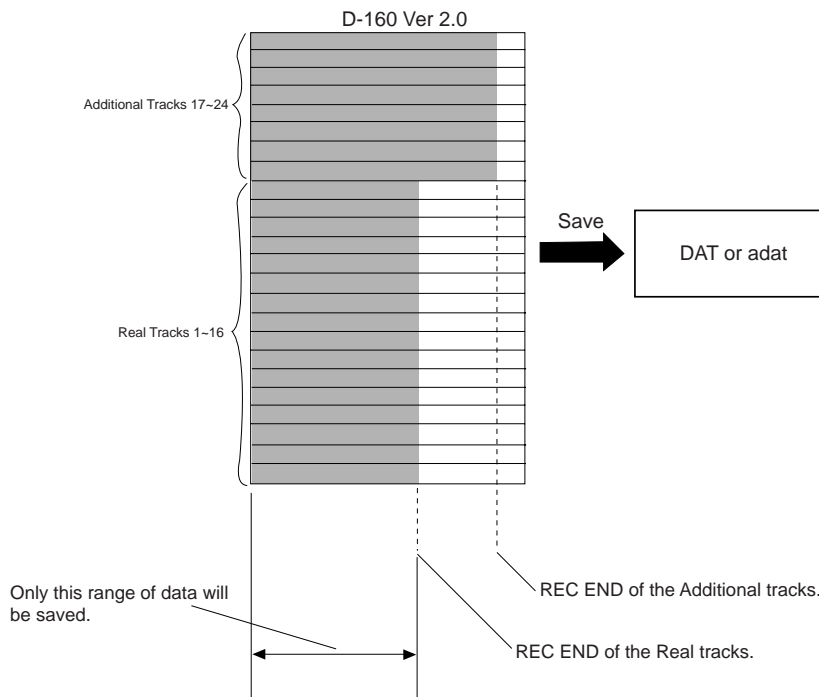
### <Notes on saving song data using a DAT or adat>

Refer to the following notes when you save all track data (Real tracks and Additional tracks) using a DAT or adat.

The duration of the data that can be saved on the disk is calculated based on the duration of the song data (ABS 0 - REC END) on the Real tracks. Therefore, if you try to save data on an Additional track that is longer in duration than the data on the Real track, only that part of the Additional track (up to the same time indication of the Real Track) will be saved.

For example, assume that you moved 10-minutes of data on a Real track to an Additional track (using the Track Exchange function), then you recorded three minutes of data on the same Real track. In this case, only three minutes of the Additional track data will be saved. The rest (seven-minutes of data) will not be saved.

If this happens, set the save time longer (up to 59 minutes and 59 seconds) using the save time editing procedure (see Step 7 on page 20). Alternatively, move the longest data on the Additional track to a Real track, then perform the save operation. At this time, be careful not to accidentally erase important data on the Additional tracks. Refer to the main Owner's Manual for more information on the Track Exchange function.



## Saving the data using DATA OUT

S/P DIF digital signal (or adat digital signal) from the DATA OUT jack of the D-160 is saved. The prerequisite is that an E-IDE hard disk is used as a current drive.

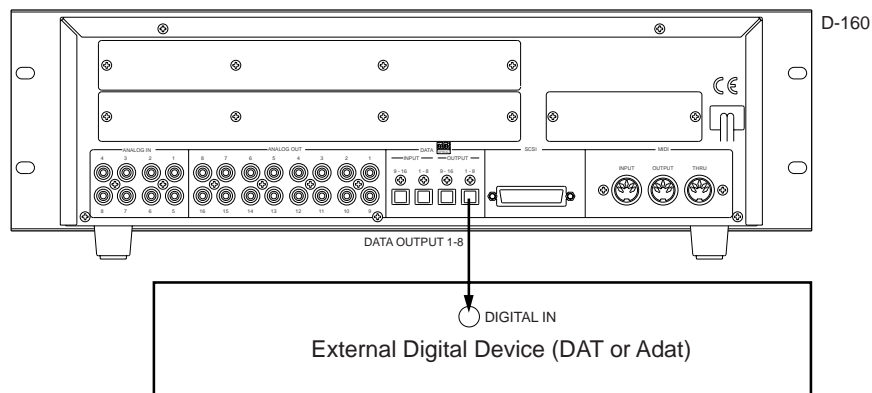
- \* Restore the initial settings on the D-160.
- \* Set the same sampling rate on the external digital device and the D-160.

### Connecting an external device

Connect DATA OUTPUT 1-8 connector of the D-160 to the digital input connector on the external digital device.

**<Notes>**

- \* The D-160 has DATA OUT connectors for an S/P DIF digital signal (OPTICAL) and for an adat digital signal. These connectors have the same shape but carry different information.
- \* Use the DATA OUTPUT 1-8 connector to save data. Do not use the DATA OUTPUT 9-16 connector.



- \* If the external device has only COAXIAL type (RCA) digital I/O connectors, connect an optional COP-1 (optical/coaxial converter) to use an S/P DIF digital signal.
- \* Connecting both output and input connectors on the D-160 to the input and output connectors on the external digital device respectively may generate a digital loop.

### Setting up an external device

**1. Set the same sampling rate to that of the D-160.**

**2. Select digital input on the external device so that the external device will accept a digital signal.**

On some external devices, you may have to set up so that the external device will synchronize with the incoming digital signal.

**<Note>**

*If the external device does not accept the digital signal or if you notice digital noise, check the connection, cabling, and the settings of the D-160 and the external device.*

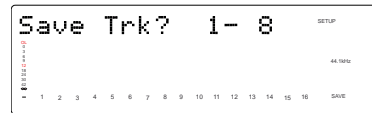
- \* Refer to the instruction manuals that came with any external digital device for details.

### Executing the save operation

Use the "Save PGM?" menu in Setup mode.

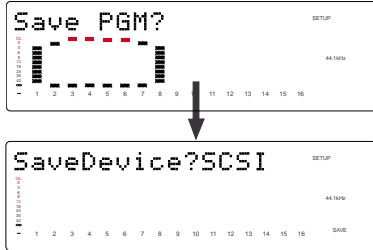
- \* Output format available:    adat, DAT, SCSI (6)
- \* Programs available:        P01 - P99
- \* Track available:            When using an adat or DAT: Tracks 1-8, Tracks 1-16, Tracks 1-24, Tracks 9-16, Tracks 9-24, Tracks 17-24;  
   When using a SCSI disk: All tracks will be automatically selected.

**1. Press the DISP SEL key to select "SETUP"**  
 ("SETUP" will flash), then press the EXECUTE/YES key. ("SETUP" will light up.)  
 The D-160 enters Setup mode.



**2. Use the JOG dial to select "Save PGM?" ("?" will flash.).**

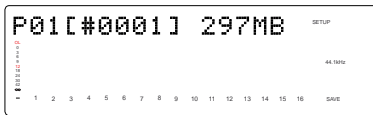
**3. Press the EXECUTE/YES key.**  
 The message "Save Device?" and an indication of the digital signal to be saved ("DAT," "adat," or "SCSI") will flash on the display.



**4. Rotate the JOG dial to select a type of digital signal format to be used for the save operation.**

Selecting "adat" will save data in the adat digital signal format. Selecting "DAT" will save data in the S/P DIF digital signal format. Select "SCSI" if you are saving or loading data via SCSI. The following operation will be that when "adat" or "DAT" is selected for "Save Device?."

**5. Press the EXECUTE/YES key.**  
 Selection of the digital signal format for the save operation will be confirmed, and the existing Program numbers will flash on the display.



**6. Rotate the JOG dial to select a Program to save.**  
 You can select any existing Program (up to 99) to save.

**7. Press the EXECUTE/YES key.**  
 The length of the time (ABS 0 - REC END) of the program recording selected appears and the time shown can be edited. The time is usually saved according to the time displayed, however, it is possible to shorten the time to save at this stage when saving the time. In other words, though the actual recording may be 9 minutes 00 seconds, as shown in the example below, that time can be edited to 5 minutes when saved.

As mentioned in the <Note> above, if the data on the additional track is longer the time can be set to a longer time and saved (however, the maximum time that can be edited is 59 minutes 59 seconds).



**8. Press the EXECUTE/YES key again.**  
 "Save Trk ? 1-8" ("1" is flashing) appears on the display and you can select tracks to save. While "1" is flashing, rotate the JOG dial to select "1"->"9"->"17." To select "8"->"16"->"24," use the SHUTTLE or press the HOLD/> key to flash "16" and rotate the JOG wheel.

**9. Select the desired track range using the JOG dial.**  
 You can select 1, 9 and 17 of the points that are flashing (left). Use the SHUTTLE or HOLD/> key to move the flashing cursor to the left, then turn the JOG dial to select 8, 16 and 24. You can select track saving combinations from Tr1-16, Tr1-24, Tr9-16, Tr9-24 and Tr17-24, in addition to Tr1-8.

**<Note>**  
 Refer to the <Note> on page 18 prior to saving data including the additional track.

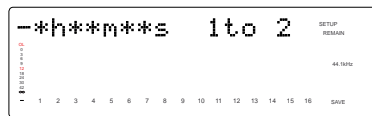
**10. Press the EXECUTE/YES key.**  
 "Rec Start DAT!" (Start recording on the DAT) or "Rec Start adat!" (Start recording on the adat) appears on the display, and "SURE?" flashes.



**11. Confirm that the external device is syncing with the digital input signal, and start recording on the external device (DAT or adat).**  
 Setting a START-ID (DAT) or a locate point at the recording start point will facilitate future loading operations.

**12. Confirm that the recording on the external device has started, and press the EXECUTE/YES key. ("REMAIN" will light.)**

The save operation starts, and the time required for the save operation appears on the display and a few seconds later, it will start counting down. This few seconds delay is due to the pilot signal which is recorded to mark the beginning of the Program to facilitate future load operation. Therefore, the actual save operation starts when counting down starts. Two tracks are saved each time in the order of Track 1 and 2, 3 and 4, etc. to a DAT machine. Eight tracks are saved each time in the order of Track 1-8, 9-16, etc. to an adat machine. The level meter indication during save of DAT will always be for only tracks 1 and 2 and always for tracks 1~8 in save of adat.



**13. When data is successfully saved a "COMPLETED!" message will appear on the display, and stop the external DAT or adat.**

**14. Press the STOP button or the EXIT/NO key to quit the Setup mode.**  
 The display will return to the previous time base indication.

\* To cancel the operation or restore the indication shown before you pressed the EXECUTE/YES key, press the STOP button or the EXIT/NO key. Pressing one of these keys repeatedly takes you to the previous layer, finally quitting the Setup mode, and the display will return to the previous time base indication. If you press the STOP button or the EXIT/NO key any time after you execute the save operation but before it is complete, the saved song data will be invalid.

## Loading the data using DATA IN

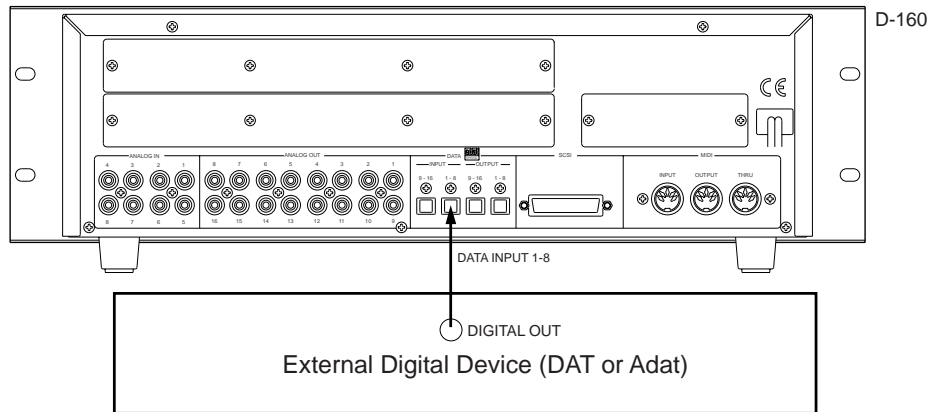
Load the data by S/P DIF digital signals (or adat digital signals) from the DATA IN jack of the D-160. The prerequisite is that an E-IDE hard disk is the current drive, as in the save conditions mentioned earlier.

- \* Restore the initial settings on the D-160.
- \* Set the same sampling rate on the external digital device and the D-160.

### Connecting the external device

Connect DATA INPUT 1-8 connectors of the D-160 to the digital output connectors on the external digital device.

- <Notes>**
- \* The D-160 has DATA INPUT 1-8 connectors for an S/P DIF digital signal (OPTICAL) and for an adat digital signal. These connectors have the same shape but carry different information.
  - \* Use the DATA INPUT 1-8 connector to load data. Do not use the DATA INPUT 9-16 connector.
  - \* Do not remove the optical cable or perform any other operation that would disconnect the S/P DIF signal until the session is complete. Otherwise, the D-160 will generate noise, and affect the connected device.



- \* If the external device has only COAXIAL type (RCA) digital I/O connectors, connect an optional COP-1 (optical/coaxial converter) to use an S/P DIF digital signal.
- \* Connecting both output and input connectors on the D-160 to the input and output connectors on the external digital device respectively may generate a digital loop.

### Setting up an external device

1. Setup the external device so that it can output a digital signal.
2. Locate the beginning of the pilot signal recorded in the saved data.

- \* Refer to the instruction manual that came with your external digital device for details.

### Executing the load operation

You will use the “Load PGM ?” menu in Setup mode.

- \* Input format available:     adat, DAT, SCSI (6)
- \* Programs available:        P01 - P99
- \* Track available:            When using an adat or DAT: Tracks 1-8, Tracks 1-16, Tracks 1-24, Tracks 9-16, Tracks 9-24, Tracks 17-24;  
                                  When using a SCSI disk: All tracks will be automatically selected.

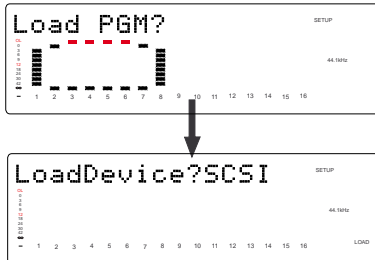
**1. Press the DISP SEL key to select “SETUP” (“SETUP” will flash) and press the EXECUTE/YES key. (“SETUP” will light up.)**

The D-160 will enter the Setup mode.

**2. Use the JOG dial to select “Load PGM ?” (“?” will flash.).**

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

The message “Load Device?” and the type of digital signal to be loaded (“DAT,” “adat,” or “SCSI”) will flash on the display.

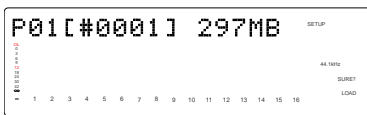


**4. Rotate the JOG dial to select the type of digital signal format to be used for the load operation.**

Selecting “adat” will load data in the adat digital signal format. Selecting “DAT” will load data in the S/P DIF digital signal format. Select “SCSI” if you are loading data via SCSI. The following operation will be that when “adat” or “DAT” is selected for “Load Device?.”

**5. Press the EXECUTE/YES key. (“SURE?” flashes.)**

The digital signal selected is set and the program number currently set on the load destination current drive flashes. The size of the program recording is also displayed.



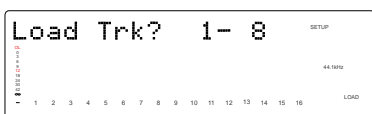
**6. Rotate the JOG dial to select a Program into which to load data.**

You can select any existing Program (from up to 99). If you select a Program that already contains data and execute the load operation, the existing data will be overwritten by the new data. If you do not wish to overwrite any data in any current Program, use the JOG dial to select “New PGM” to execute the load operation. You can do this only when the number of existing Programs is 99 or less and the hard disk has enough free space to accommodate the new data.

*If a program that is already recorded with some sort of data is selected and loaded, only the song data loaded will be valid. All the data of the programs recorded on that same track up to then will be erased.*

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

Now you can select tracks into which to load.



**8. Select the desired track range using the JOG dial.**

You can select 1, 9 and 17 of the points that are flashing (left). Use the SHUTTLE or HOLD/> key to move the flashing cursor to the left, then turn the JOG dial to select 8, 16 and 24.

You can select track loading combinations from Tr1-16, Tr1-24, Tr9-16, Tr9-24 and Tr17-24, in addition to Tr1-8.

**9. Press the EXECUTE/YES key. (“SURE?” flashes.)**



**<Notes>**

\* If digital signal is being input correctly, a red “DIGITAL” and “EXT SYNC” indicator will light up on the display. If the red “DIGITAL” and “EXT SYNC” indicator flashes, check the connection, cabling, and the settings of the D-160 and the external device.

\* The FS indication will flash and warn you if the sampling frequency of the D-160 and DAT vary when loading with S/P DIF digital signals. Be careful when setting the sampling frequency for adat digital signals because there will be no FS warning though there may be a discrepancy.

**10. Press the EXECUTE/YES key again.**

“Play DAT!” (Start playing the DAT) or “Play adat!” (Start playing the adat) appears on the display.



**11. Play the corresponding external device (DAT or adat).**

The load operation starts when the D-160 accepts the incoming digital signal. The time required for the load operation appears on the display and starts counting down. Two tracks are loaded at a time from a DAT machine in the following order: Track 1 and 2, 3 and 4, etc. from a DAT machine. Eight tracks are loaded each time in the order of Track 1-8, 9-16, etc..



**12. When the load operation is complete, “COMPLETED!” flashes on the display.**

**13. Press the STOP button or the EXIT/NO key to quit Setup mode.**

The display will indicate the time base set for the loaded Program.

*Press the STOP button or EXIT/NO key to return to one previous menu prior to the EXECUTE/YES key or if you want to cancel a procedure. Everytime you press these keys you will move back one previous hierarchy, and eventually escape from the SETUP mode and return to the time base display. Note that all the song data saved will be invalid if you press the STOP button or EXIT/NO key while saving at <Step 11>.*

## Saving the data using SCSI

This procedure will SAVE/LOAD using a SCSI hard disk that is a backup disk. A backup purpose SCSI hard disk is generally used after formatted in the backup format, however, a DOS formatted (computer format) SCSI hard disk can also be used to SAVE/LOAD in WAV. Data saved in WAV can be re-loaded and even directly be read by the computer. Therefore, this kind of data can be used as music software, as well. The prerequisite is that an E-IDE hard disk is the current drive as mentioned in the save section using a DAT or adat device.

### About SCSI device

Be sure to use a drive and a disk with operation guaranteed by Fostex. For more information on disks supported by the D-160, refer to page 5 "Changed Format function" in this manual.

**<Note>**  
 These SCSI devices have already been tested for performance at Fostex. However, any product lot includes variance in quality. The test at Fostex does not include inspection for such variance. When you use external SCSI devices, check the operation carefully. Fostex is not liable for any damage (data loss or damage) caused by using the D-160 with external SCSI devices.

### Connecting a SCSI device

Refer to the diagram to connect a SCSI device to a D-160.

**<Notes on connection>**

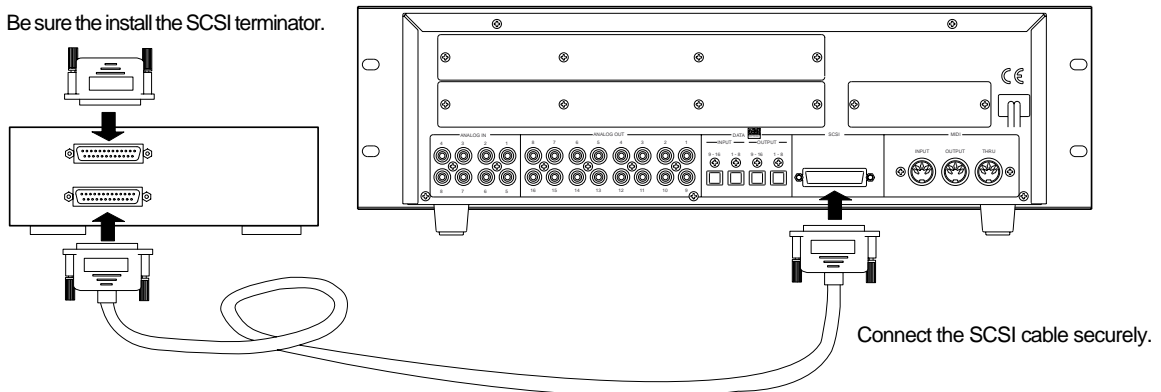
- \* Before making connections, make sure that both the D-160 and the SCSI drive are turned off.
- \* Up two SCSI drives may be connected on a SCSI chain with the D-160. Connect one SCSI drive as a "current drive" for real-time recording/playback. (Refer to "SCSI ID number setting" below.)
- \* The SCSI connector on the D-160 is a 25-pin connector compatible with Macintosh computers. Use a cable with connectors that conform to the standards for connecting a SCSI drive.
- \* 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 a termination switch (like a zip drive).

**<SCSI ID number setting>**

- \* Be sure to set the SCSI ID number for the SCSI drive correctly, according to the purpose of the drive (as a current drive or a back-up drive). The ID setting is very important.

Using the SCSI drive as a current drive	➔	Select any number from 0 to 5, but not "6."
Using the SCSI drive as a back-up drive	➔	Select "6."

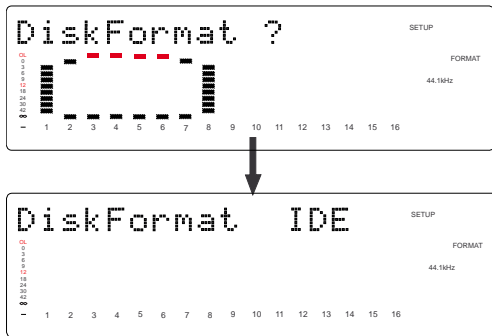
\* You must format the SCSI disk after you connect it to the D-160. Refer to the "Formatting" section on the next page for the formatting procedure.



## Formatting a SCSI disk

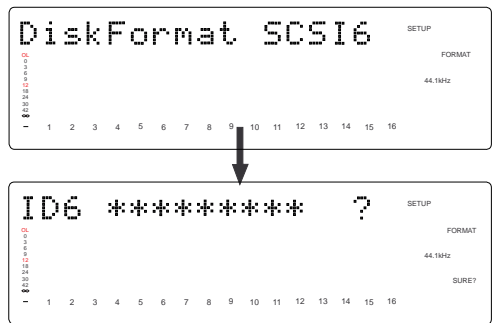
An unformatted disk or a disk used with the computer can also be used. Check to see that the data on the disk is no longer necessary prior to formatting a disk that was previously used with the computer. Once formatting is started it cannot be stopped. The formatting process will erase all data. Be especially careful not to erase the data that you still need. The prerequisite here is that a removable disk is used. The same procedures apply for a fixed SCSI hard disk, as well.

1. Connect the SCSI device to the D-160 and turn the power on to the both machines.
2. If you are using a removable disk, insert the disk into the drive.
3. Press the DISP SEL key to select the Setup mode, and press the EXECUTE/YES key.  
The Setup mode menu appear on the display.
4. Turn the JOG dial to select "Disk Format?" ("?" flashes), and press the EXECUTE/YES key again.  
"Disk Format IDE" ("IDE" flashes) appears.



**CAUTION:** If format is executed while "IDE" is blinking, the internal IDE hard disk will be formatted and data in the IDE hard disk will be lost.

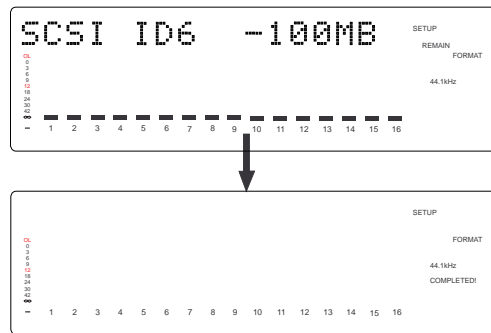
5. Rotate the JOG dial to display the flashing "SCSI6" and press the EXECUTE/YES key.  
The ID number and name of the connected SCSI device appear on the display, and "?" and "SURE?" flash.



6. Press the EXECUTE/YES key.  
The "Backup format?" ("?" flashing) message appears and "SURE?" flashes. This indicates that you are in the stand-by mode to format the backup purpose SCSI hard disk in the "Backup Format".



7. Press and hold down the RECORD button and press the EXECUTE/YES key.  
"REMAIN" lights up and formatting starts.  
As the formatting operation progresses, the size of the area to be formatted on the disk will count down on the display. Also, when the formatting operation starts, all the FL indicators (for Tracks 1-16) at level∞ of the level meters light up. As the formatting operation progresses, these indicators will be turned off from Track 16. This condition indicates that the disk is being formatted correctly.  
When formatting is complete, "COMPLETED!" will appears and all the FL indicators will turn off.



8. Press the EXIT/NO key or the STOP button to quit the Setup mode.  
The D-160 returns to the ABS display of the Program that was selected before it entered Setup mode.



Your backup purpose SCSI hard disk has been formatted after completing the steps up to this point. The SCSI hard disk is now ready to SAVE/LOAD. To continuously format another disk, remove the disk from the SCSI drive and then repeat the same procedures. Press the eject switch on the SCSI drive to remove the disk from the SCSI drive.

In addition to the formatting procedure mentioned above, you can also use the following steps to format an unformatted disk. Install an unformatted fixed disk or removable disk, and go to the "Drive Sel.?" menu in Setup mode. Change the current drive from "IDE" to "SCSI". The D-160 will recognize that the SCSI disk is not formatted and automatically enter the "Disk Format ?" menu in Setup mode, where you can follow the procedure mentioned above to format the disk.



## Saving data of an individual Program

When saving with a SCSI hard disk it is possible to save each program or all programs. This section will explain the procedures to save each program. Go to the next Chapter for more details on how to save all programs.

- \* Output format available: adat, DAT, SCSI 6
- \* Programs available: P01 - P99, or All Program
- \* Track available: When using an adat or DAT: Tracks 1-8, Tracks 1-16, Tracks 1-24, Tracks 9-16, Tracks 9-24, Tracks 17-24;  
When using a SCSI disk: All tracks will be automatically selected.

**<Note>**  
Label each disk with a serial number (1, 2, 3...) prior to saving one program on several removable disks. This makes it easier to load the program, as explained later.

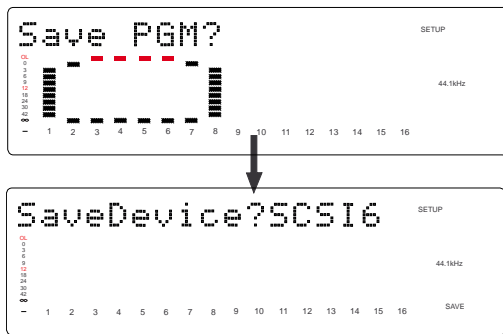
**1. Press the DISP SEL key to select "SETUP"**  
("SETUP" will flash), and then press the EXECUTE/YES key.

"SETUP" will light up. The D-160 will enter the Setup mode.

**2. Use the JOG dial to select "Save PGM?" ("?" will flash.)**

**3. Press the EXECUTE/YES key. ("SAVE" lights up.)**

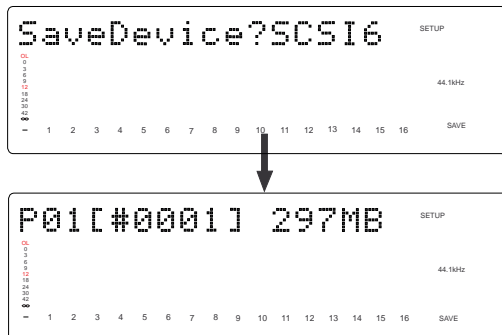
The indication of the type of digital signal to be saved will flash on the display.



**4. Rotate the JOG dial to select a flashing "SCSI 6."**

**5. Press the EXECUTE/YES key. ("SURE?" flashes.)**

The digital signal to save is set on "SCSI 6", the program number currently set on the current drive flashes and the size of that program appears.



**6. Rotate the JOG dial to select a Program to save.**

You can select any existing Program individually or all Programs (Save All). (Refer to the next section for information on saving all Programs.)

As mentioned previously, the display indication differs as follows depending on whether the selected Program to save requires only one removable disk or multiple disks.

\* If you have selected a Program that has no recorded:



\* If you have selected a Program that requires only one disk to save:

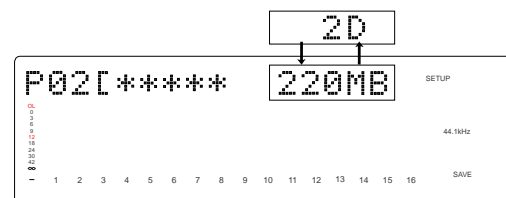


\* If you have selected a Program that requires multiple disks:

The following indication, for example, appears. (\*\*\*\* is the tentative title, the program number flashes, the information on the size of the program and number of disks necessary, alternate)

This display indicates that one SCSI hard disk is not enough to save the program chosen, and that several disks are necessary to proceed with the save procedure. In the following example you see a "2D" indication as the number of disks necessary. This indicates that 2 disks are necessary to execute the save procedure.

This program can be selected and executed even when using a fixed disk. However, in this case saving with several disks is not possible, and therefore, the save procedure will be interrupted.



**7. Press the EXECUTE/YES key. ("SURE?" flashes.)**

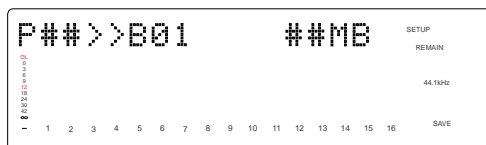
The D-160 performs the save operation differently depending on the selected Program.

**\* When selecting a program that can be saved on one backup disk:**

The backup disk will indicate that a new program is going to be created (backup disk shows B01).



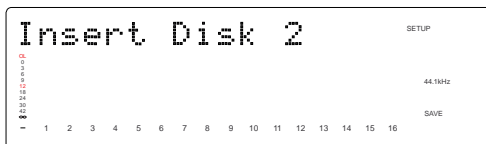
Pressing the EXECUTE/YES key will start save operations and then the following indication will appear. This indicates that the song data of the current drive selected is being saved on the B01 backup disk. The disk space necessary to save the data is counted down while the data is being saved.



When the data is saved, the system goes to the program time base indication prior to going to the SETUP mode, then "COMPLETED!" lights up.

**\* When selecting a program to save that requires several disks:**

Save will immediately start if the EXECUTE/YES key is pressed at <Step 7>. The save process appears as in the above case. When the first disk is full, that disk is ejected and the display will indicate "Insert second disk!".



Save is automatically resumed when the second disk is inserted in the SCSI drive. The same process is repeated when a third, or more disks are required.

When the program is successfully saved on the last disk, the program time base indication (ABS 0) that was started up prior to entering the SETUP mode appears and "COMPLETED!" lights up.

**8. Press the EXECUTE/YES key. ("SURE?" flashes.)**

The D-160 performs the save operation differently depending on the selected Program.

**<Note>**

You cannot interrupt the save operations on the SCSI hard disk, as with DAT or adat.

You will have to start the save process from the very first disk again, if you erroneously press the EXIT/NO key during the insertion of several disks required to save the program on.

Press the eject switch on the SCSI drive to remove the disk from the SCSI drive after the program has been successfully saved.

The instructions on the left was based on use of disks that were already formatted for backup use, when saving programs using several disks.

It is recommended that all the disks to save data on are already formatted prior to the save process. However, there may be times that you will unexpectedly not have enough formatted disks during the save process thus, forcing you to use an "unformatted disk" or a "used disk" that already has other data saved on it. Observe the respective procedures described when inserting the disk according to the [Insert Disk 2] or [Insert Disk 3] message that prompts you to "Insert another disk!!" as shown in the instructions on the left.

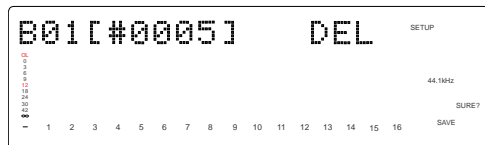
**\* When inserting an unformatted disk**

The D-160 automatically recognizes an "Unformatted" disk, and will indicate [Unformat!], then automatically go to the [Disk Format?] menu in the SETUP mode, to format the backup disk. Follow the formatting procedures to actually format the backup disk.

The save process automatically resumes when the disk is successfully formatted.

**\* When inserting a disk that is saved or loaded with other data**

The following display may appear as an example, when inserting such type of disk. This prompt is asking you whether you want to erase the existing data saved on the disk that was inserted, and indicates that you have entered the [Delete PGM?] menu in the SETUP mode.



If it is okay to erase that disk, press the EXECUTE/YES key. The [Delete ALL PGM?] message will appear. Press the EXECUTE/YES key to delete all programs.

Save is automatically resumed after the programs are deleted. If it is not okay to erase the disk, turn the JOG dial to select [Eject] when the above indication appears to eject the disk. Press the EXECUTE/YES key after [Eject] is selected.

When the disk is ejected, then a prompt to [Insert Disk] will appear on the display. Insert another disk.

**\* When inserting a disk that was used as the current drive**

[Wrong Disk] will briefly appear, the [Disk Format?] menu of the SETUP mode will appear for backup formatting, then the following indication will appear.



If it is okay to proceed formatting, then execute the formatting process as done in the above case. If it is not okay to proceed formatting, then turn the JOG dial to select [Eject] to eject the disk.

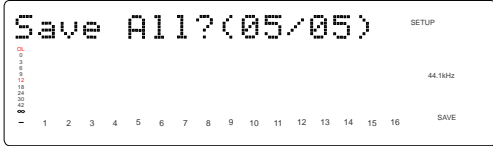
The save operations can automatically be resumed in such manner when the disk is formatted as a backup disk or when a program is deleted.

## Saving all Programs (Save ALL)

1. Follow Steps 1 through 5 of the “Saving an individual Program” procedure.

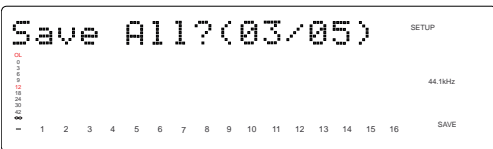
2. Use the JOG dial to select “Save ALL?” (“?” flashes.).

Selecting “Save All?” will cause the following display to appear.

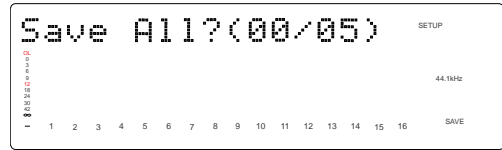


This indicates the number of ALL the programs being saved and the actual number of programs that can be saved. The number on the right side of (\*\*/\*\*) indicates the total number of programs existing, and the number on the left side indicates the number of programs that can be saved.

Therefore, when the numbers on the left and right are equal then all the programs can be saved, as shown in the case above. However, you must note the following indications that are individually described.



“03/05” means that three Program out of five Programs can be saved.



“00/05” means that no Programs can be saved. If you press the EXECUTE/YES key at this point, “Void Command!” appears and you cannot proceed with the save operation.

**<Note>**  
 If you have selected “Save All”, you cannot use multiple disks to save.  
 In this case, chose the save operation for an individual Program.

3. Press the EXECUTE/YES key (“SAVE” light up.)

The save process is started and save is taking place serially from Program 1. “COMPLETED!” lights up when the program is successfully saved.

4. Press the STOP button or the EXIT/NO key to return to the previous Time Base display.

**<Note>**  
 You cannot abort a load operation on a SCSI device while it is in progress.

## Loading the data using SCSI

Here you are loading on the current drive, the data of each program or the data of all programs saved on the backup purpose SCSI hard disk. The prerequisite is that the current drive is an E-IDE hard disk, as in the case of save procedures mentioned earlier, and that a backup SCSI hard disk is connected to the D-160.

### Load the data saved on one removable disk (or fixed disk).

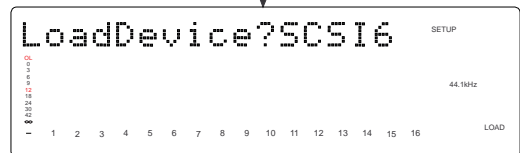
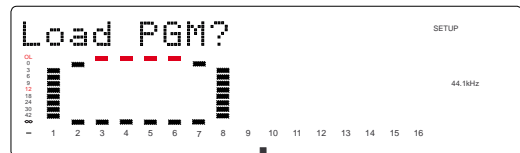
Load the program with the "Load PGM?" menu in the SETUP mode. This assumes that a saved disk is inserted in the backup purpose SCSI hard disk.

- \* Input format available:     adat, DAT, SCSI 6
- \* Programs available:         P01 - P99, or All Program
- \* Track available:            When using an adat or DAT: Tracks 1-8, Tracks 1-16, Tracks 1-24, Tracks 9-16, Tracks 9-24, Tracks 17-24;  
                                   When using a SCSI disk: All tracks will be automatically selected.

1. Press the DISP SEL key to select “SETUP” (“SETUP” will flash) and press the EXECUTE/YES key. (“SETUP” will light up.)  
 The D-160 will enter the Setup mode.

2. Use the JOG dial to select “Load PGM?” (“?” will flash.).

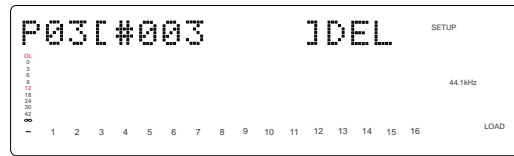
3. Press the EXECUTE/YES key. (“LOAD” will light.)  
 An indication of the type of the digital signal to be loaded will flash on the display.



**4. Rotate the JOG dial to select a flashing “SCSI 6.”**

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

The external digital device is set to “SCSI 6,” and the existing Song numbers will flash on the display.



**6. Rotate the JOG dial to select the data to load.**

You can choose to load any existing Song individually or all Songs collectively.

The display indication differs as follows depending on whether you selected an individual Song number or all Song numbers.

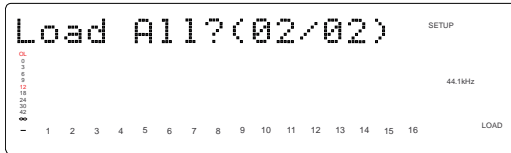
**\* When selecting a specific backup number**

The example shows that backup number 2 (B02) has 45MB of disk space (02 flashes).



**\*When selecting all backup numbers**

This is an example of all backup data selected when there are two backup data present. (? flashes)

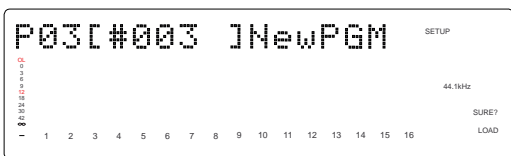


**7. Press the EXECUTE/YES key. (“SURE?” flashes.)**

The load destination (current drive) program can now be selected. The following indications will appear when selecting individual or ALL programs in the previous step.

**\* When selecting a specific backup number**

A prompt inquiring whether to setup a new program on the current drive appears (New PGM indication appears and [SURE?] flashes).



Turning the JOG dial in this state makes it possible to select another program, other than the above, on the current drive. The size of the program appears when the program is selected. If you select a program that is already recorded with data and load is executed for the load destination, the existing data is deleted while loading takes place.

If you do not want to overwrite the existing data, select "New PGM" mentioned above, prior to loading.

**\* If you have selected “Load All?(\*\*/\*\*):**

The D-160 will indicate the destination Program number on the internal hard disk. Use the JOG dial to select a desired destination Program number into which to load data.

If the destination hard disk already contains data and you select a Program, “DEL” (Delete) appears following the Program number.

This is because the “Load All” operation will first erase any Program data on the disk before loading Song data. Pressing the EXECUTE/YES key at this point will cause “Delete All PGM?” (deleting all Programs) to appear, and then “SURE?” will flash.

**<Note>**  
*Be careful when choosing "Load All?" since all programs on the load destination will be erased. Check to see that the data on the current drive is not important prior to going ahead with the "Load All?" procedure. If there is any important data on the disk, cancel the load process at this stage.*

Turning the JOG dial in this state makes it possible to select another program for the load destination, as well as the "Eject" choice. To remove the disk at this point, select the "Eject" feature then press the EXECUTE/YES key.

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

Song data will be loaded to the selected Program. If, for example, backup 1 is started for Program 1, then "B01>>P1 \*\*\*MB" will appear, "REMAIN" lights up, load proceeds, and "\*\*\*MB (program size)" is counted down, when individual programs are loaded.

If the EXECUTE/YES key is pressed to load all programs, then the display will show "Delete ALL PGM?". Loading is started when the EXECUTE/YES key is pressed again.

When the load operation is complete, “COMPLETED!” will light and the D-160 will display the Time Base that was shown before the unit entered the Setup mode.

**9. Press the STOP button or the EXECUTE/YES key, and “COMPLETED!” will turn off.**

**<Note>**  
*You cannot abort a load operation on a SCSI device while it is in progress.*

**Loading data saved on several removable disks**

As an example here, we will load the data of a Program saved onto two removable disks.

**1. Insert the first disk (Disk-1) into the SCSI device.**

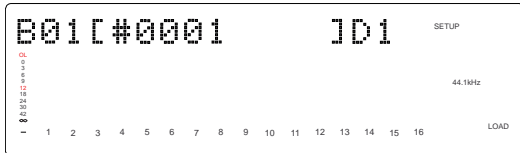
**<Note>**  
 Make sure that you insert the disks in the correct order. If you insert the wrong disk, the D-160 displays [Wrong disk] -> [Illegal No!] and ejects the disk. Follow the disk markings you made during the save operation.

When Disk 1 loading is completed, an "Insert Disk 2" message appears, and Disk 1 is automatically ejected.

**2. Follow Steps 1-4 of the "Loading Song data" procedure.**

**3. Select "SCSI" and press the EXECUTE/YES key. ("LOAD" lights up).**

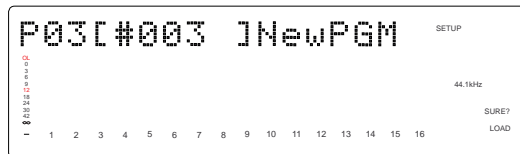
The external digital device is set to "SCSI". The display flashes the number of the existing Backup data in the SCSI disk, and then indicates that the first disk has been inserted.



Rotating the JOG dial will toggle between "B01" and "Eject." If you wish to cancel the load operation and remove the disk, select "Eject" and press the EXECUTE/YES key.

**4. Press the EXECUTE/YES key after "B01[#0001]D1" appears.**

A prompt inquiring whether to set a new program on the current drive which is the load destination will appear. ([New PGM] appears and [SURE?] flashes.)



Turning the JOG dial in this state makes it possible to select a program on the current drive. The size of the program appears when the program is selected.

If you select a program that is already recorded with data and load is executed for the load destination, the existing data is deleted while loading takes place. If you do not want to overwrite the existing data, select "New PGM" mentioned above, prior to loading.

**5. Press the EXECUTE/YES key after selecting the program.**

Loading is started and the display will show "B01>>P\*\*.\*\*\*MB". This indicates that the backup data (B01) on the SCSI harddisk is being loaded on the current drive program (P\*\*). The ".\*\*\*MB" (load size) is counted down as loading proceeds.

**6. Insert Disk 2 (second disk) into the SCSI hard disk drive according to what the display requests.**

Loading automatically resumes when Disk 2 is inserted.

The display will show the same count down as shown for Disk 1. The size of the program is counted down along with the load process.

When all data is loaded, "COMPLETED!" lights up, and the program time base (ABS 0) started up prior to going into the SETUP mode will appear.

The "COMPLETED!" prompt can be canceled by pressing the EXIT/NO key or STOP button.

**<Note>**  
 You cannot abort a load operation on a SCSI device while it is in progress.

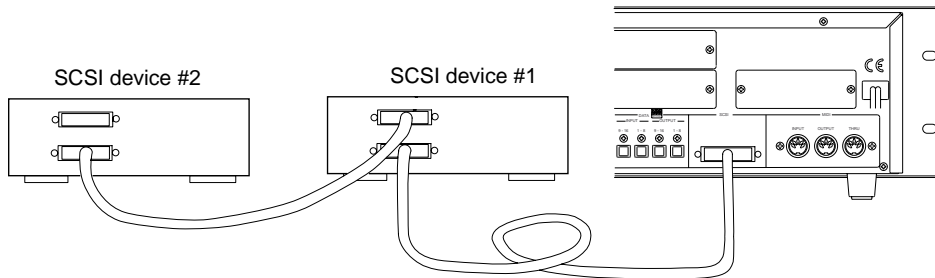
## Saving or loading using a SCSI hard disk as the current drive

The [SAVE/LOAD] process described up to the previous page is based on the prerequisite that an E-IDE hard disk is used as the current drive. This section will describe the procedures necessary for the SAVE/LOAD process when using a SCSI drive as the current drive.

SAVE/LOAD procedures using a SCSI drive, DAT, adat or backup purpose SCSI drive as the current drive are basically the same as when using an E-IDE hard disk. However, you must be careful of the following points when using a SCSI drive as the current drive.

### Backup drive connections

Connect the backup purpose SCSI disk to the other open SCSI terminal of the SCSI device that is already connected as the current drive, as shown in the figure below. (there is no specific chronological order concerned when connecting the equipment)



#### <Note>

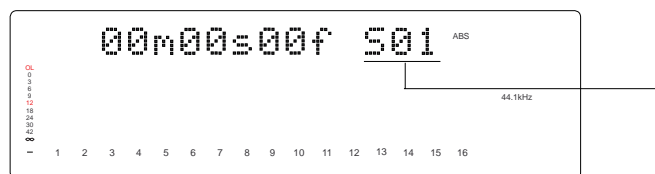
Always terminate the empty SCSI terminal of the second SCSI device using a SCSI terminator when connecting a second SCSI device. Leave the termination switch ON if the Zip or other SCSI devices are switched type systems. When using a switched SCSI device for both the current drive and backup drive, turn the switch OFF for the first device and the switch ON for the second device.

#### <Setting the ID number (IMPORTANT!)>

Set the SCSI devices that is the current drive with ID numbers 1, 2, 3, 4 or 5. Do not use ID number 6 for the current drive. Always assign the backup equipment to ID number "6".

### Switching the current drive

The current drive can be mounted with the SCSI device by turning on the power if only a SCSI device is used as the current drive (no E-IDE hard disk mounted). However, if both E-IDE hard disk and SCSI devices are used, the E-IDE hard disk always mounts as the current drive when the power is turned ON. Based on this fact, to SAVE/LOAD data recorded on the current drive that is a SCSI device, there is a need to switch the current drive to the SCSI device through the "Drive Sel.?" (current drive setup) menu in the SETUP mode. Check to see that the display resembles the following figure prior to proceeding with the SAVE/LOAD process.



#### <Note>

If the current drive is an E-IDE harddisk then the program displayed during the SAVE/LOAD process will come with a [P] (standing for Program) prefix, in the manner of P01, P02, etc.

If the current drive is a SCSI device then the program displayed during the SAVE/LOAD process is differentiated with a [S] (standing for SCSI) prefix, in the manner of S01, S02, etc.

Further, in the case of a backup purpose SCSI device the prefix will be a [B] (standing for backup) prefix, in the manner of B01, B02, etc.

Keep this in mind when executing "SAVE/LOAD" operations as mentioned earlier.

## SAVE/LOAD using a DOS-formatted disk (WAV file)

As mentioned earlier in the SAVE/LOAD procedures using a SCSI disk, you can setup the D-160 with a DOS-formatted disk, in addition to the usual backup disk, to SAVE/LOAD in WAVE file (RIFF WAVE file format, hereafter WAV). Data saved or loaded in WAV file allows the user to save and re-read data as in the earlier case of "SAVE/LOAD". The data saved is read into the computer (PC AT) and can be used as materials to play or edit using music software that run WAV.

### <Formatting>

The D-160 does not have the function to format disks in DOS from the "Disk Format?" menu in the SETUP mode. Therefore, all disks used to save or load WAV must be pre-formatted on the computer prior to use. When formatting in DOS format a removable disk or a fixed disk with more than 2GB space you may have to select a file format of either [FAT16] or [FAT32]. The D-160 is only compatible with the [FAT16] file format. Make a point to select only the [FAT16] file format when formatting a disk. Note that disks that are formatted in [FAT16] can only have up to a maximum of 2GB of space in one area. This means, that regardless of how much disk space there is, the D-160 can only recognize data up to 2GB in size. Also note that saving and loading in WAV is not compatible with partitioning. Therefore, the system will only recognize the first partition of hard disks that have been partitioned. The other partitions will not be recognized at all.

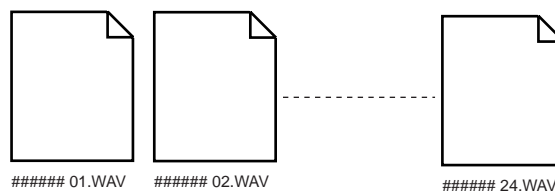
To save or load in WAV, always use a disk that has been newly formatted. Using a disk that has been previously saved or loaded may result in slower access speed.

### <Note 1>

Saving and loading in WAV only accesses the file on the route and therefore, the folder is not recognized. Note that there is a limit to the number of characters and symbols that can be input for the title since DOS file names only allow for 8 characters and an extension (.WAV) and cannot accommodate long file names. Therefore the title input on the current drive may be replaced with other characters/symbols when saved. It is important to input a recognizable title when saving the file. (For more details refer to "How To Save" operations described below)

WAV file names are identified with a 6 character file name, with the remaining 2 characters indicating the track number (equaling 8 characters). The track number is automatically assigned when the file is saved.

When saving one program (song) in WAV, 24 WAV files as shown in the figure below are created (1 file for 1 track). Files like that shown in the figure below are created for tracks that are not recorded, as well. ##### (6 characters) indicates the title name and 01, 02 indicates the track number. (Example: icon indication)



### <Note 2>

It is recommended that you always backup the data on the current drive prior to saving or loading on a DOS formatted disk to prevent damaging or losing the data due to error taking place on the D-160.

### <Note 3>

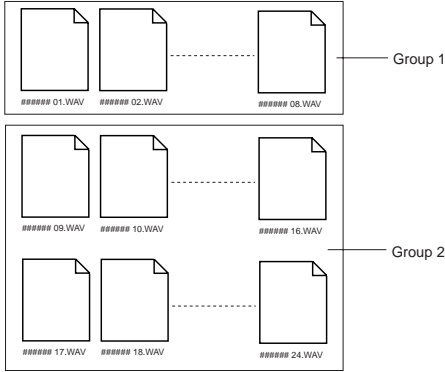
Saving in WAV also saves the silent range as "Zero Data", therefore, it may take more disk space. If, for example, 2 minutes of space are recorded, with a breakdown of 1 minute between the points ABS 0" to ABS 1", and 1 minute between ABS 10" to ABS 11" (ABS 1 minutes to 10 minutes are not recorded), only 2 minutes worth of space are consumed on the current drive, however in WAV, a total of 11 minutes of space is consumed.

**<Keep In Mind!>**

As it was already mentioned earlier, saving files in WAV will save all the program data on the current drive. If the saved titles of the files on tracks 1-24 are the same, all data of the track can be loaded, as in the case with the save function. It is also possible to load only the voluntary track data saved with WAV.

This, for example, means that a voluntary track from the track data saved can be edited with computer software and allow for you to load only that track data. Simply put, data can be freely loaded in such manner.

To make this possible the title name of the file and the extension (.WAV) mentioned earlier play an important role. Remember, WAV recognizes a file by the 6 character title plus the 2 digit track number, along with the extension following the (8 character) file name. Therefore, those identifiers can be changed so that the file is not recognized. (Refer to following example)



Let's, for example change the title name of the files for track 1-8, of the files saved (all title names are the same) as shown in the left figure. This means it is now possible to individually select Group 1 and Group 2 when loading the file. If, for example, you want to load only the data of tracks 1-8, select Group 1. If you want to load only tracks 9-24, then select Group 2 to execute the process. If you want to save each track individually, all you have to do is give respective titles to each track, in a similar manner.

There is also the option to store a file that you do not want to load in a folder that was separately created in addition to this, on the disk. WAV only recognizes the files on the disk and does not recognize a folder, therefore WAV can only load the files that are outside the folders.

**<Note>**: Do not use a disk created with folders in such manner, for save purposes. If you do, there will be an error generated in the remaining disk space when saving data, which will prevent the data from being saved properly. When using such disk for save purposes always take the file out of the folder.

**<Note when loading voluntary track data>**

When loading with WAV, data is overwritten while being loaded. If data already exists as a program on the current drive, then the existing data will be overwritten for the amount of the data loaded.

You can also effectively use this feature when loading a similar program on the program saved, since it is possible to edit only the voluntary track on the computer and then load that data back to the original program. If for example, you want to load the data of only tracks 1-8 on a program that is already recorded with data of tracks 1-24, then only tracks 1-8 that are loaded are overwritten, and the previous data of tracks 9-24 remain intact. However, there is a need to be very careful when applying this procedure to load different programs since the loaded program result in a mixture of different data.

**Saving with WAV file...**

The following procedure is based on the prerequisite that the backup purpose SCSI drive is set with a DOS formatted disk and the current drive is an E-IDE disk.

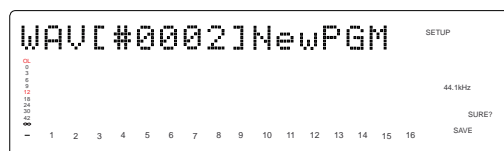
1. Press the DISP SEL key to go to the "SETUP" menu, then press the EXECUTE/YES key.  
This will put you in the SETUP mode.
2. Select "Save PGM?" ("?" is flashing) with the JOG dial, then press the EXECUTE/YES key.  
The digital signal that is currently set to be saved flashes.
3. Use the JOG dial to select "SCSI 6" that is flashing then press the EXECUTE/YES key.  
The [Drive Name] and [DOS format] appears, then the program number of the current drive flashes as when saving to a SCSI disk, as mentioned earlier.
4. Use the JOG dial to select the program to save.  
When selecting a program that can be saved on one disk, only the program number flashes.

When selecting a program that requires multiple disks to be saved on, the program number flashes, along with the size indication and the number of disks required to save the data that will alternately flash.

There is no "Save All" option when saving with WAV. If only one program that can be selected exists, the indication will remain the same even if the JOG dial is turned.

5. After selecting the program to save, press the EXECUTE/YES key.

The indication to create a new program appears on the DOS disk that is the save site, then [SURE?] flashes. You can select [Eject] (eject disk) by turning the JOG dial at this time.





**6. Press the EXECUTE/YES key again.**

The menu to input the title of the data being saved will appear. The beginning of the title flashes. By turning the JOG dial of the flashing point you can input the number or symbol desired. You can move the flashing point (cursor) with the HOLD/> key or SHUTTLE dial. Refer to the <Note> mentioned earlier, to input the title.

**<Note>**

WAV can only recognize 6 characters in a title. Always create a title with 6 characters. If you attempt to save a long title that was input on the current drive, the alphabet and symbols may be replaced with alphabets and symbols that WAV can recognize (within WAV's limit), with only up to 6 characters being valid. If, for example, a title was made in lower case on the current drive, it may be replaced with upper case characters on WAV.

You can input the following alphanumeric and symbols at this stage.

**Number: 0-9**

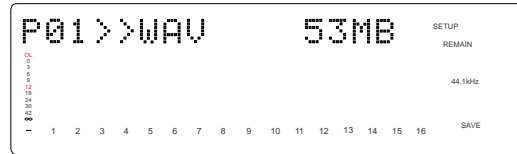
**Symbol: ! # \$ % & ' ( ) @ ^ \_ -**

**Alphabet: A-Z**

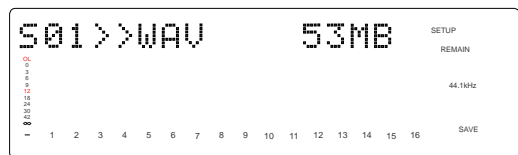
**7. Input the title then press the EXECUTE/YES key.**

The title is saved and the following indication appears. The following example may appear depending on the current drive. The save progress and the size indication is counted down.

<When saving from E-IDE hard disk (example)>



<When saving from SCSI device (example)>



When the save process is completed, the time base indication of the program that was started prior to entering the SETUP mode appears, and [COMPLETED!] lights up.

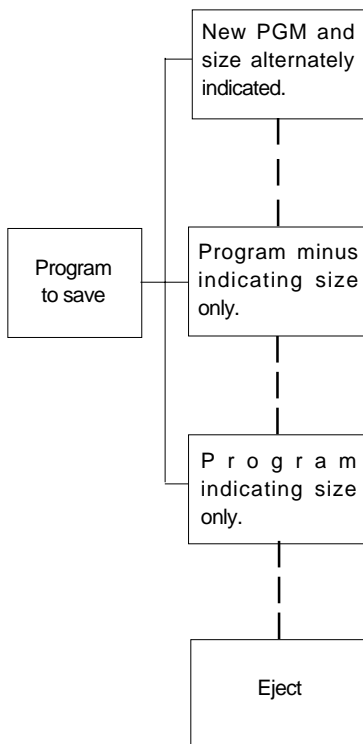
**8. Press the EXIT/NO key or STOP button.**

[COMPLETED!] turn OFF.

**<Note when using a disk that is already saved with other programs>**

The instructions indicated above apply to a disk without any data saved on it (immediately after formatting). However, when using a disk with data already on it, the program saved can be selected in the following manner.

By turning the JOG dial the program, New PGM and Eject operations of the save side can alternately be selected.



This refers to creation of a new program on the disk. However, it indicates that there is not enough disk space "indicated" to create a new program. If save is attempted by selecting this indication a [Disk Full!] message appears, followed by a [Delete All WAV?] message. If you proceed with the save process all programs on the disk are erased, and only the new data is saved. ALL Programs data on the disk are erased and the newly saved data only is saved on the disk.

This indicates that there is not enough space "indicated" to save the program selected. If save is attempted by selecting this indication a [Disk Full!] message appears, followed by a [Delete All WAV?] message. If you proceed with the save process all programs on the disk are erased, and only the new data is saved. ALL Programs data on the disk are erased and the newly saved data only is saved on the disk.

This indicates that there is enough space on the disk to save the program selected. If save is attempted by selecting this indication, a [DEL] indication appears after the Program indication. Saving in such manner will erase only the selected programs, while saving. In other words, only the selected data is overwritten with new data and the other programs remain intact.

You can eject the disk by selecting this indication and pressing the EXECUTE/YES key. Select this indication to cancel the save process or to switch disks.

**<Note>**

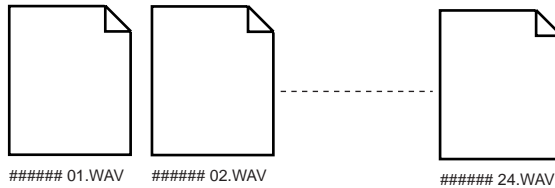
Note that the access speed of the disk is compromised when using a disk that has been repeatedly saved or loaded and overwritten with data many times, such as in the above mentioned manner. It is recommended that you use a newly formatted disk to prevent any compensation in speed.

**Loading with WAV file**

The following procedures are based on the prerequisite that the backup purpose SCSI drive is set with a disk saved in WAV, with a current drive that is an E-IDE harddisk.

**<Note when loading>**

When data that is already saved is edited on the computer and then saved on the computer, be careful of any changes in the title. It is possible to completely load the files of all tracks if the title name remain the same as when they were saved. However, if due to some reason a voluntary file is attempted to be saved under a different title name, the D-160 will recognize this as multiple files, as described earlier. Before changing the title, always check to see that the title only consists 6 characters, that the track number is correctly input, and the title comes with an "extension" (.WAV), prior to loading. The file cannot be recognized when loading the file if the title is longer than 6 characters, the track number is incorrect, or if the title contains no extension. Therefore, it is important that these prerequisites are properly observed.



**<Note when inputting a title on the computer>**

You must use the following symbols and alphanumerics to use the computer to input the title name of the data saved. If you use any alphanumerics or symbols other than those indicated below, the file on the disk may not be recognized. It is important that you do not use any spaces between characters, as well.

**Number: 0-9**  
**Symbol: ! # \$ % & ' ( ) @ ^ \_ -**  
**Alphabet: A-Z**

**<Hint!>**

You can switch tracks upon loading if the track number (only) is changed prior to loading while the title remains the same, as when conducting Track Exchange. For example, if you change [#####02.WAV] to [#####05.WAV], and change [#####05.WAV] to [#####02.WAV] and attempt loading, tracks 2 and 5 will be replaced with each other.

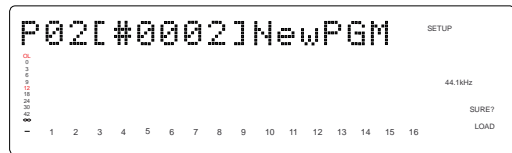
**1. Press the DISP SEL key to go to the "SETUP" menu, then press the EXECUTE/YES key.**  
 This will put you in the SETUP mode.

**2. Select "Load PGM?" ("?" is flashing) with the JOG dial, then press the EXECUTE/YES key.**  
 The digital signal that is currently set to be loaded flashes.

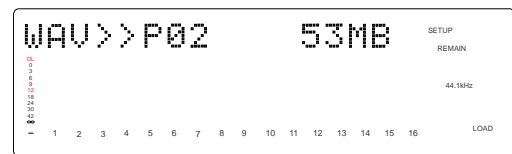
**3. Use the JOG dial to select "SCSI 6" that is flashing then press the EXECUTE/YES key.**  
 The [Drive Name] and [DOS format] appears, then the program size saved appears and [SURE?] flashes.

**4. Use the JOG dial to select the program to load.**  
 If there are several programs saved on the disk, use the JOG dial to select the Program/Size of the program saved or select [Eject] to eject the disk.  
 If there is only 1 program saved on the disk, you can only select the Program or [Eject] option even if the JOG dial is turned for other choices.

**5. After selecting the program to load, press the EXECUTE/YES key.**  
 The indication to create a new program appears on the load destination E-IDE harddisk and [SURE?] flashes. You can select the Program/Size of the files existing on the E-IDE harddisk by turning the JOG dial at this time.



**6. Press the EXECUTE/YES key again.**  
 Select the menu to create a new program and execute loading to immediately start loading that program. If an existing program is selected to be loaded, [Overwrite!] will appear on the display, followed by a flashing [SURE?] message. If you proceed with this procedure the existing program data is overwritten while loading takes place. Continue the procedure by pressing the EXECUTE/YES key to start loading while overwriting data.



When loading is completed the [COMPLETED!] indication lights up, and the time base indication of the program that was started prior to entering the SETUP mode, appears.

**7. Press the EXIT/NO key or STOP button.**  
 Only the [COMPLETED!] message turn OFF.



**Fostex**<sup>®</sup>

FOSTEX CORPORATION

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

FOSTEX CORPORATION OF AMERICA

15431, Blackburn Ave., Norwalk, CA 90650, U. S. A.