YAMAHA

MDF1

MIDI DATA FILER

OWNER'S MANUAL
MANUEL D'UTILISATION
BEDIENUNGSANLEITUNG

ABOUT THIS MANUAL

Thank you very much for purchasing the Yamaha MIDI Data Filer MDF1.
The MDF1 is an extremely practical MIDI Data Recorder capable of storing various types of MIDI information such as voice data from a DX-series synthesizer or sequencing data from QX-series sequencers. To do so, it uses convenient Quick Disks, which measure only 2,8 inches across.
In order to make full use of the MDF1's many superb features and to ensure years of satisfactory service, please read through this manual carefully before operating your new MIDI Data Filer.

FEATURES

★ The MDF1 is capable of storing system exclusive messages received from other Yamaha equipment on Quick Disks. The following are examples of such system exclusive messages:
- Voice data and performance data from DX-series synthesizers, TX-series tone generators, etc.
- Sequence data from QX-series sequencers.
- Pattern data and song data from RX-series rhythm machines.

★ A maximum of 59.9 kilobytes of data (in up to 19 files) can be stored on each side of a Quick Disk.

★ The MDF1 offers a host of practical features for editing. For example, you can delete data, check the remaining disk memory space, and copy data to other disks.

★ Data processing is much faster than with conventional cassette data recorders, and operation is simple and reliable.

CONTENTS

PRECAUTIONS

Location

Please avoid using your MDF1 in the following locations that may cause malfunction or damage:

- Close to windows or other places exposed to direct sunlight.
- Near heating appliances or other sources of heat.
- Extremely damp or dry places.
- Locations subject to excessive dust or vibration.

Power Source

- Please turn on the power of your MDF1 AFTER having turned on the power of the equipment used for sending or receiving data.
- The MDF1 uses the special AC power adapter PA-4 (supplied). Using any other kind of AC adapter could damage the MDF1 due to differences in polarity or voltage.
- During an electrical storm (lightning), we advise you to turn off the MDF1 and unplug the AC adapter from the AC receptacle.
- When not using your MDF1 for extended periods of time, please unplug the AC adapter from the AC receptacle.

Quick Disk

- Please handle your Quick Disks with care. (See page 6 for details.)

In Case a Foreign Object Gets Inside the MDF1...

- Should a foreign object somehow get inside the unit, unplug the AC adapter from the AC receptacle and contact the shop where it was purchased or your nearest Yamaha Service Center.

Magnetic Head Protection Sheet

- Before using your MDF1, remove the protective sheet inserted in the Quick Disk drive as a safeguard for the magnetic head. Be sure to insert this protection sheet whenever moving the MDF1.

Connections

- In order to avoid problems, make all connections between the MDF1 and other equipment with the power turned off.

MIDI Cables

- Use only standard MIDI cables.
- Avoid using cables of over 15 meters long. Use of longer cables may cause are problems due to wave form deterioration.

Handling and Relocation

- Avoid applying excessive force to the keys, switches, terminals and other parts.
- Please be sure to grasp the plug part when removing cables from their respective sockets. Pulling the cable itself can result in damage and even a short circuit.
- Before moving the unit, unplug all cables and the power cord to avoid damage and short circuits.

Cleaning the Exterior

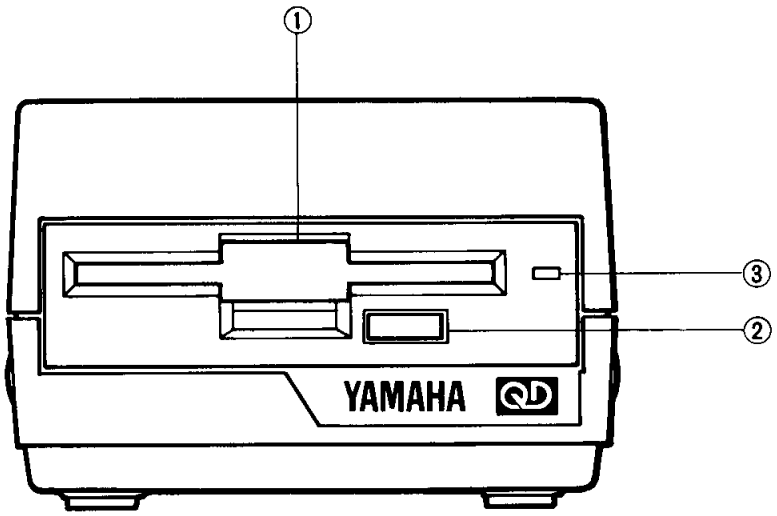
- To clean the exterior of the unit, use only a soft, dry cloth.
- Avoid using solvents such as benzine or thinner to wipe the exterior of the unit, and also do not use any aerosol.

Influence On Other Electric Appliances

- Since the MDF1 uses digital circuitry throughout, do not use it too close to radios, television sets and other appliances in which it may cause noise or similar disturbances.

NAME AND FUNCTION OF EACH PART

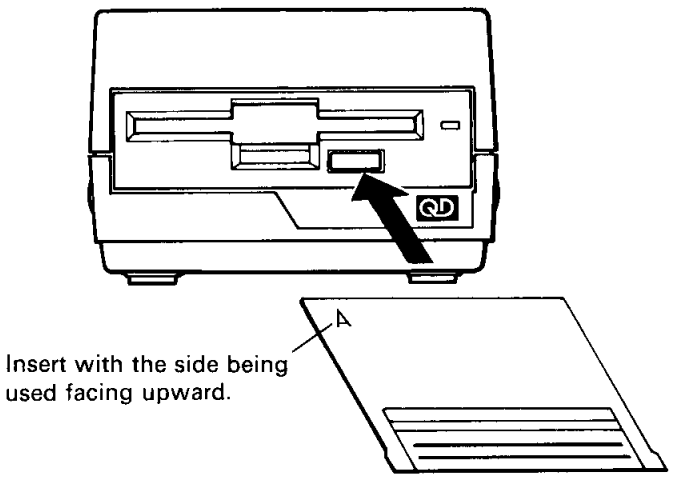
Front Panel



① Disk Slot

This slot is for the insertion of Quick Disks. Insert disks carefully, with the side being used facing upward.

* Please do not insert the supplied magnetic head protection sheet when the POWER switch ④ is set to ON as this may damage the unit's internal magnetic head.



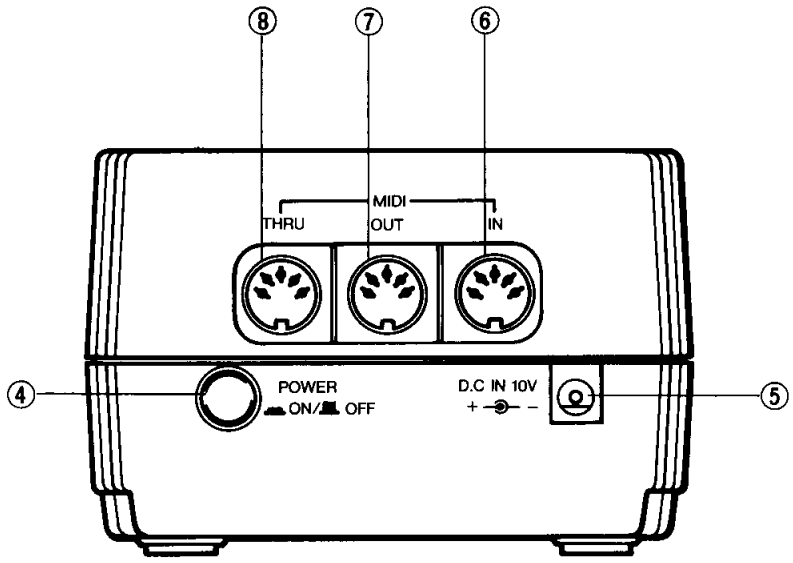
② Eject Button

In order to remove the inserted disk, push this button. However, be sure not to remove the disk when the disk access indicator ③ is lit as this may damage the unit's internal magnetic head as well as the disk.

③ Disk Access Indicator

This indicator lamp lights up when the disk drive mechanism is operating.

Rear Panel



④ POWER Switch

Setting this switch to the ON position powers up the unit. At the same time, a message will appear on the LED display ⑨. Please insert and remove disks with the power turned ON.

⑤ DC IN 10V Terminal

This terminal is for connection of the supplied special AC adapter PA-4.

⑥ MIDI IN Terminal

This is the input terminal for the voice data, sequence data and other MIDI data you wish to store on a disk. It is connected to devices such as a DX-series synthesizer or a QX-series sequencer.

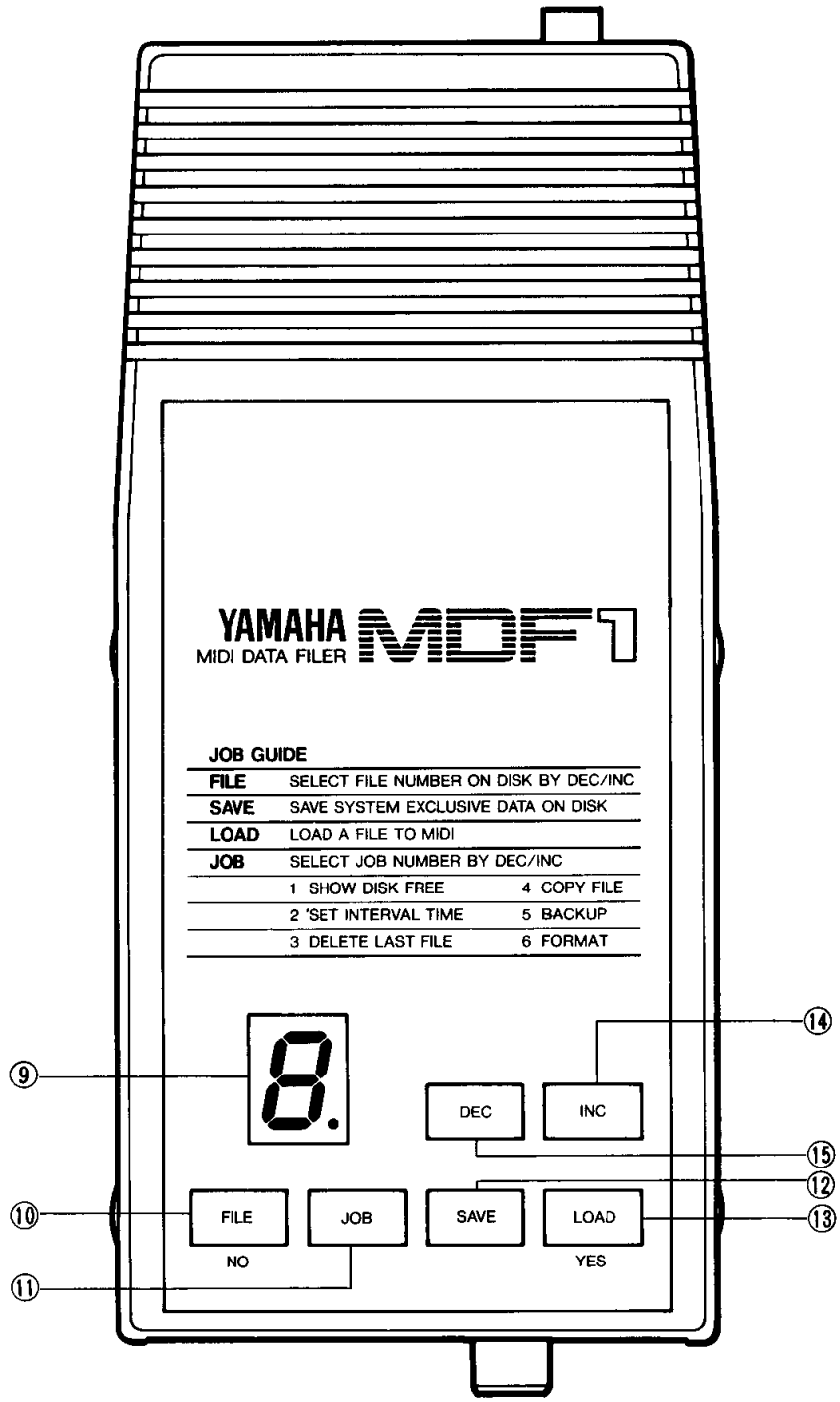
⑦ MIDI OUT Terminal

The MIDI OUT terminal is used to transmit the voice data, sequence data and other MIDI data stored on a disk to devices such as a DX-series synthesizer or a QX-series sequencer, etc.

⑧ MIDI THRU Terminal

The signal received at the MIDI IN terminal ⑥ is transmitted from this terminal without any changes, meaning you can use it to send exactly the same signal as the one received to another MIDI device. To do so, simply connect this terminal to the MIDI IN terminal of the other MIDI device.

Control Panel



⑨ LED Display

A 7-segment display which indicates the present condition of the MDF1 using numerals, letters and symbols. When operating the unit, watch this display.

⑩ FILE/NO Key

This key is used to enter the File mode.

The MDF1 can store up to 19 files of data on each side of a disk, and file numbers are automatically affixed to the data in the order recorded. The File mode lets you specify a file number when sending data to external equipment or when editing.

In order to specify a file number, press this key to set the unit to File mode. The currently selected file number is displayed, and you are then able to specify any desired file number by using the INC key ⑭ or the DEC key ⑮ .

In addition, this key also has the function of entering NO ("do not execute") before the execution of JOB commands.

⑪ JOB Key

This is the key used to enter the Job mode.
The Job mode offers 6 different jobs which are used mainly for editing. Pressing this key enters the Job mode, which means you are able to select the desired job number using the INC key ⑭ or the DEC key ⑮ .

⑫ SAVE Key

Use this key when you want to enter the Save mode.
Press the SAVE key when storing data received from the equipment connected to the MIDI IN terminal ⑥ on the rear panel. This will place the unit in the Save mode and enable data storage.

⑬ LOAD/YES Key

This key is used to enter the Load mode.
When you want to send data recorded on a disk back to external equipment, i.e. when you want to "load" it, press this key. The unit will be set to the Load mode, enabling data transfer to the connected equipment.
In addition, this key is also used to execute JOB commands.

⑭ INC Key

This is one of the keys used to specify file numbers, etc. Pressing this key once increases the value displayed in single steps. (In other words, it specifies the next file, etc.)
When the value reaches the largest number, the loop will start again from the smallest.

⑮ DEC Key

This is the other key used to specify file numbers. Pressing this key once decreases the value displayed in single steps. (In other words, it specifies the preceding file.)
When the smallest number is reached, the loop will start again from the largest.

ABOUT THE QUICK DISK

The Quick Disk is a storage medium in the form of a film whose surface is coated with a magnetic substance. Since this magnetic surface is extremely delicate, great care should be taken when handling Quick Disks.

Format

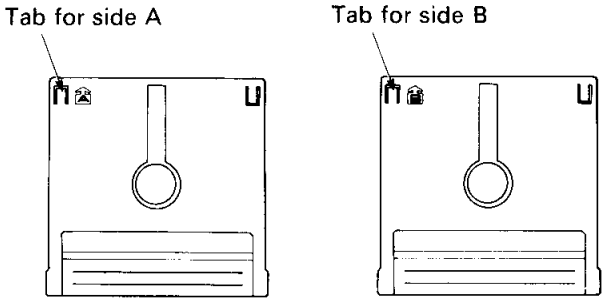
- When purchasing new disks, ask for 2.8 inch Quick Disks. (We recommend Yamaha QD2.)
- A Quick Disk has two sides, A and B, both of which can be used for data storage.
- When inserting a disk, be sure the side you wish to use is facing upward. (See page 2)
- Using the MDF1, up to 59.9 kilobytes (19 files) per side can be stored.

Handling Quick Disks

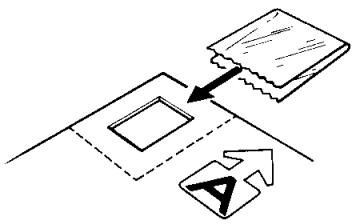
- Do not touch the magnetic surface (internal part of the disk) or let it come into direct contact with smoke or sprays. If the internal magnetic surface becomes soiled or damaged, the disk may become unusable. Please also avoid dust.
- Do not place or use disks near television sets, radios, loudspeakers or any other electric equipment which generates strong magnetic fields that may destroy recorded data.
- Make sure the disks are not bent when storing them. Keep them in a box or similar container and avoid direct sunlight and heat.

Protection of Stored Data

Breaking out one of the erasure protection tabs of a disk makes it impossible to record on one side of that disk, thus protecting valuable data from accidental erasure. Since there are separate tabs for sides A and B, simply break out the tab for the side you want to protect.



Should you wish to record again on a side whose tab has been broken out, simply apply adhesive tape so as to cover the tab hole.



Initializing

In order to use the supplied disk or any purchased disk with the MDF1, it is necessary to first initialize it. Please refer to page 10 for information on "Initializing Disks".

* Take care not to inadvertently initialize disks which already have data stored on them as this will erase them completely.

FUNCTION TABLE

The functions of the MDF1 are selected by specifying the respective mode and/or job. The following shows mode and job configuration and gives an outline of the respective functions.

Mode and Job Configuration

- Save Mode
- Load Mode
- File Mode
- Job Mode
  - JOB 1: FREE DISK (Displays free disk space)
  - JOB 2: INTERVAL TIME (For interval time setting)
  - JOB 3: DELETE (Deletes final file)
  - JOB 4: COPY (For copying files)
  - JOB 5: BACK UP (For copying disks)
  - JOB 6: FORMAT (Initializes disks)

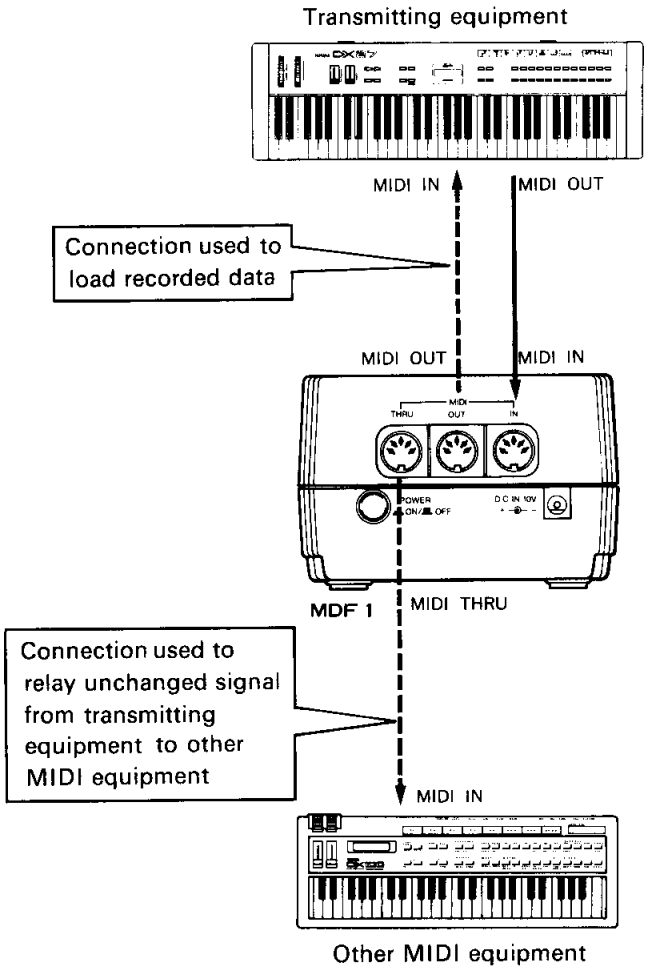
Outline of Mode and Job Functions

Name	Outline	For explanation see p.
Save Mode	Enables recording ("saving" for storage) of external equipment data on disks.	11
Load Mode	Enables loading of data stored on disks to external equipment in single file units.	15
File Mode	Allows selection of file no. (1~19) affixed to each recording as well as checking of total number of files.	14
Job Mode	Lets you select jobs 1~6.	5
JOB 1: FREE	Lets you check the remaining disk memory space (in ten steps, 0~9).	16
JOB 2: INTERVAL TIME	When there are several data messages within one file, you can set the time interval between messages transmitted during loading (data transmission) in the range 0~1.9 sec.	21
JOB 3: DELETE	Enables deletion of the data in the final file (file with highest number).	20
JOB 4: COPY	Lets you copy data from any desired file to another disk.	17
JOB 5: BACK UP	Allows creation of a back-up disk, i.e. copying of all data files on a disk to another one.	18
JOB 6: FORMAT	Lets you initialize disks. Can also be used to delete all data files on a disk.	10

SETTING UP YOUR MDF1

When using the MDF1, please set it up in the following order.

1. Connections



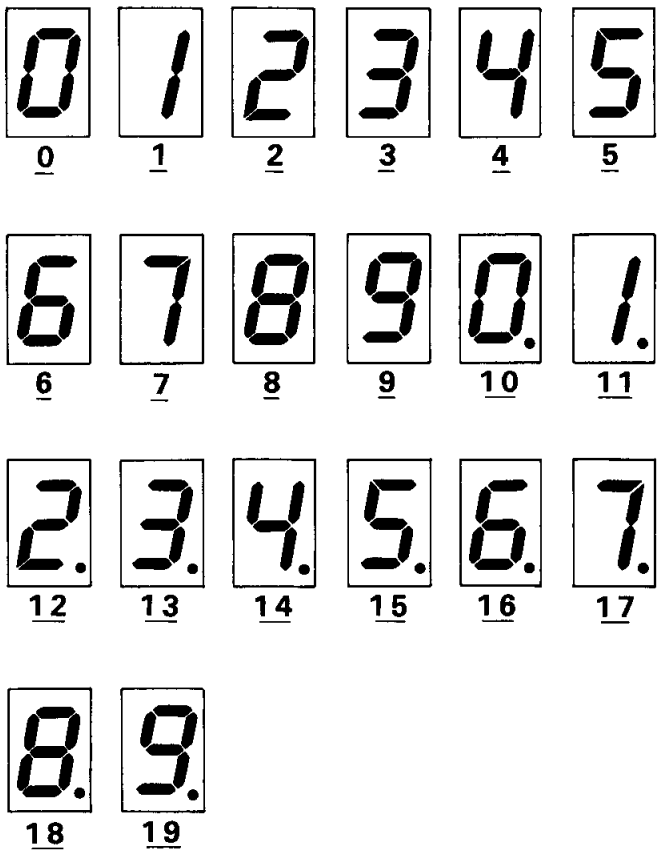
2. Turn power ON

After turning on the the transmitting equipment, power up the MDF1. If you have another piece of MIDI equipment connected to the MIDI THRU terminal, also turn on the power of that unit. (In other words, power up all equipment in the order of signal transmission.)
When the MDF1 is turned on, the following message will appear on the LED display:

This message indicates that no disk has yet been inserted.

3. Insert a disk

Next, insert a disk. Push it into the slot gently, with the side you want to use facing upward.
When a disk is inserted, the unit is automatically set to File mode and the following kind of display will appear:



This message shows you how many data files have already been recorded on the side of the inserted disk you are using (that is to say, how many times you have already saved data on that side).
However, if the inserted disk has not been initialized yet, the following message will be displayed, indicating that you must first format the disk.

Unformatted

See page 10, "Initializing Disks", on how to format a disk.

FUNCTION GUIDE

The following chapters explain the functions of each mode and job in greater detail and show you how to operate the unit accordingly. Please note that when explaining operations, we assume that you have already carried out the steps indicated in the preceding section on "Setting Up Your MDF1".
If an error message appears during operation, please consult the Error Message Table on page 24 and follow the recommended procedure.

Initializing Disks (JOB 6: Format)

When using the supplied disk or any newly purchased disk for the first time, you must first of all initialize (or "format") it. In order to do so, use job 6, the format function.

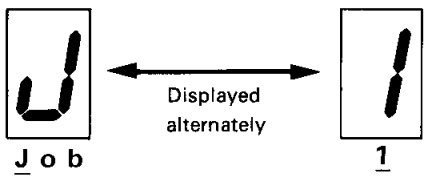
CAUTION:

Please note that initializing (formatting) a disk already containing data files will entirely erase that data.

How to Initialize a Disk

1 Press the JOB key to enter the Job mode.

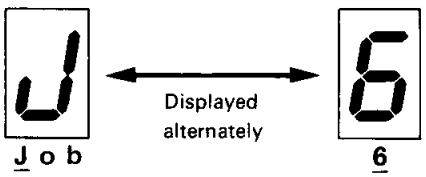
Pressing JOB...



...enters Job mode.

2 Set the unit to job 6. Repeatedly press either the INC key or the DEC key until the display alternately shows "Job" and "6".

Press INC or DEC...



...to display the above.

3 Press the YES key to obtain the following display:

Press YES....

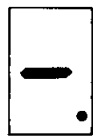
Blinks 

O K ?

...to obtain the above blinking display.

4 Press the YES key once more to implement disk initialization (formatting).

When you press the YES key to format.....



...the above display is shown.

After a while, formatting is completed....

0

...and the above display appears.

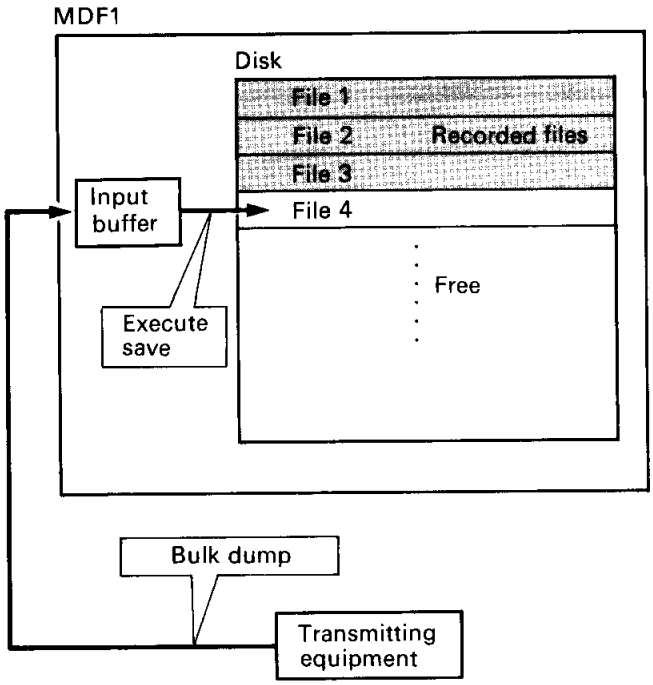
If the NO key is pressed without pressing the YES key, initialization (formatting) is not carried out. Instead, the unit enters File mode.

Storing Data (Save mode)

The Save mode is used when you want to store (record) voice data, sequence data, or other data from external equipment on the disk inserted in the MDF1.

★ Output data from external equipment is performed using the so-called bulk dump function of that unit. For details, please read through the relevant sections of the owner's manual for that piece of equipment.

★ The received data is first stored in a memory called "input buffer". When the save command is executed, the data provisionally stored in this buffer is then recorded on the disk.



★ The memory capacity of the input buffer is approximately 60 kilobytes, and it is capable of storing system exclusive messages (data) consecutively up to that capacity. However, an error message will appear and all data in the buffer cleared if the total data volume reaches 60 kilobytes. Therefore be careful when saving large amounts of data. (See page 24 for information on error messages.)

★ The memory capacity of one side of a Quick Disk when formatted is 59.9 kilobytes maximum, and up to 19 files can be recorded on each side. File is the group of data stored on a disk during a single save operation. However, an error message will appear and no further data will be stored if the maximum memory capacity of 59.9 kilobytes is reached, even if the total number of files is still less than 19. (See page 24 for information on error messages.)

★ The following are the main kinds of bulk dump functions available on Yamaha MIDI instruments and YRM-series equipment. Please take notice of the number of bytes transmitted during each bulk dump (corresponds to MDF1 memory space used up during save operation; listed in the right column). This will give you an idea of how much MDF1 memory space you are using. The byte numbers given for RX and QX models are their maximum data volumes.

- **DX7:** 1-voice bulk dump ..... 163 bytes
  32-voice bulk dump ..... 4104 bytes
- **DX21/27/27S/100:**
  1-voice bulk dump ..... 101 bytes
  32-voice bulk dump ..... 4104 bytes
- **TX7/TF1:** 1-voice bulk dump ..... 163 bytes
  32-voice bulk dump ..... 4104 bytes
  1-performance bulk dump ..... 102 bytes
  64-performance bulk dump ..... 4104 bytes
- **RX 11:** Pattern/song bulk dump ..... approx. 8 Kbytes
- **RX21/21L:** Pattern/song bulk dump ..... approx. 4Kbytes
- **QX7/21:** Sequence bulk dump ..... approx. 48 Kbytes

- **QX5:** Sequence bulk dump ..... approx. 128 Kbytes
- **FB-01:** 1-voice bulk dump ..... 139 bytes
  48-voice bulk dump ..... approx. 6 Kbytes
  1-configuration bulk dump ..... 171 bytes
  16-configuration bulk dump ..... approx. 2.6 Kbytes
- **YRM-302 (RX Editor):**
  Pattern/song bulk dump ..... approx. 8 Kbytes
- **YRM-304 (DX7 Voicing Program II):**
  32-voice bulk dump ..... approx. 8 Kbytes
- **YRM-305 (DX21 Voicing Program):**
  32-voice bulk dump ..... approx. 4 Kbytes
- **YRM-501 (FM Music Composer II):**
  SFG 48-voice bulk dump ..... approx. 6 Kbytes
- **YRM-506 (FB-01 Voicing Program):**
  48-voice bulk dump ..... approx. 6 Kbytes
  16-configuration bulk dump ..... approx. 2.6 Kbytes

* For the QX5, disk memory space of up to approx. 128 Kbytes may be necessary since this is the maximum data volume of that model. If you are unable to save all QX5 data on a disk at once, divide the data into several tracks on the QX5 and repeat the save operation using two or three disk sides.

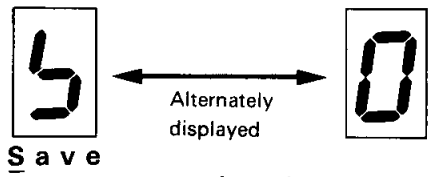
★ File numbers are automatically affixed in the order data was saved. It is not possible to specify a file number when saving (recording).

How to Save Data

1 Press the FILE key to enter File mode.

2 Pressing the SAVE key then sets the unit to stand-by for data reception.

Pressing SAVE.....



Save

...sets unit to data reception stand-by.

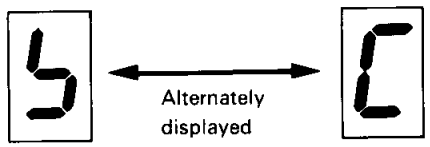
3 To transmit data to the MDF1, perform a bulk dump operation on the external equipment.

When bulk dump is executed, the receive symbol....

receive

...is displayed, indicating data reception. Then...

When reception is completed....



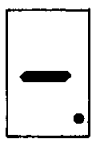
S a v e

...the display alternately shows the Save and Completed symbols, indicating that the data reception has been completed.

The symbols r and S will alternately blinks during the reception in which data is divided up in small segments to be transmitted one after the other.

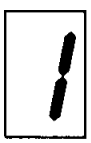
4 Press the SAVE key to record the data currently stored in the buffer on the inserted disk.

Pressing SAVE displays the record symbol...



...indicating that the unit is recording. Then...

When recording is completed...



...the file number of the recorded data is displayed.

Checking the Total Number of Files (File mode)

After having recorded a certain amount of data, you will occasionally want to check how many files are currently stored on a disk. This can be done very easily by simply entering the File mode.

How to Check the Number of Files

Press the FILE key to display the number of files.

Pressing FILE to enter File mode....

...displays the total number of files on the disk.

★ The unit automatically reverts to File mode after completion or interruption of save, load or job operations. Please note, however, that the file number displayed after completion of a load operation (See below.) or interruption of a copy operation (page 17) is the file number selected during the respective load or copy procedure. This is not necessarily identical with the total number of files on the inserted disk. Also remember: as long as the power is ON, the display will continue to show the number of files on the previous disk even after it is replaced by a different disk. If you wish to display the total number of files on the inserted disk in the cases just described, simply press the FILE key again.

Selecting a File Number (File mode)

When you wish to load data saved on a disk to external equipment, or when you want to copy the data in a certain file to another disk, it is necessary to first specify the file number of the data by using the File mode function described below.

How to Select a File Number

1 Press the FILE key to enter File mode.
2 Use the INC or DEC key in order to display the desired file number. This completes selection.

Specify number using INC or DEC.

Desired file number

Loading Data (Load mode)

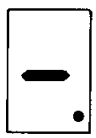
When you want to load (transmit) data stored on a disk to external equipment, use the Load mode.

★ Before actually beginning a load operation, it is necessary to set up the external equipment so that it can receive data. To perform the required set up, please consult the owner's manuals for your equipment.
If several large-volume data messages have been consecutively stored in a single file, errors may occur on the receiving side when a load operation is carried out. In such cases, it is preferable to set a certain time interval between the data messages being transmitted before actually loading. (See page 21 for details on "Setting the Load Time Interval for Multiple Data".)

How to Load Data

1 Press the FILE key to enter File mode.
2 Using the INC or DEC key, display the number of the file you wish to transmit (load).
3 Press the LOAD key to execute loading.

Pressing LOAD displays...



...which then changes to...

Load

...indicating that loading has commenced. Then..

When loading is completed...

File number of the transmitted data (1-19)

...the file number of the transmitted data is displayed.

If you want to check the total number of files on the disk, press the FILE key again. (See page 14 for details on "Checking the Total Number of Files".)

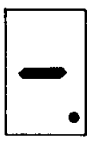
Displaying the Remaining Disk Space (JOB 1: FREE DISK)

After having recorded a certain amount of data on a disk, you will occasionally want to check how much memory space you have left on that side. This can be done by using the job 1 function, Free Disk.

How to Check Remaining Disk Space

1 Press the JOB key to enter Job mode. Since the unit is set to "JOB 1: Free Disk" when the Job mode is entered, it is not necessary to use the INC or DEC keys.
2 Press the YES key to display the remaining disk (memory) space.

Pressing YES displays...



Then...

Free

Alternately displayed

Remaining memory space (0-9)

...the remaining memory space is displayed in 10 steps from 0 to 9.

Copying a File (JOB 4: COPY)

The job 4 function, Copy, is used when you want to copy recorded data to another disk in units of one file. It is also possible to copy files to the free memory space remaining on the same disk.

★ The disk to which you want to copy must have sufficient free memory space to accommodate the data volume to be copied. Also note that it is not possible to copy to a disk that has not yet been initialized (formatted) or whose erasure protection tabs have been broken out.

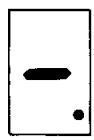
★ If the disk to which you are copying already contains data, the copied data will have the file number following that of the existing data.

★ If you wish to copy all file data of a disk, refer to page 18 for details on "Copying Disks".

How to Copy Files

1 Press the FILE key to enter File mode.
2 Use the INC or DEC key in order to display the number of the file you wish to copy.
3 Press the JOB key to enter Job mode.
4 Select job 4. To do so, press the INC or DEC key until the display alternately shows "J" and "4".
5 Press the YES key to obtain the following display.

Pressing YES displays...



Then...

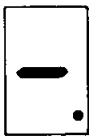
Blinks 

O K ?

...the display blinks, showing the above symbol.

6 Remove the disk you are copying from and insert the disk you want to copy to. If you are copying to a new file on the same disk, leave the disk as it is and continue with the next step.
7 Press the YES key to execute copying.

Pressing YES displays...



Then...

When copying is completed...

New file number of copied data

...the new file number of the copied data is displayed as shown above.

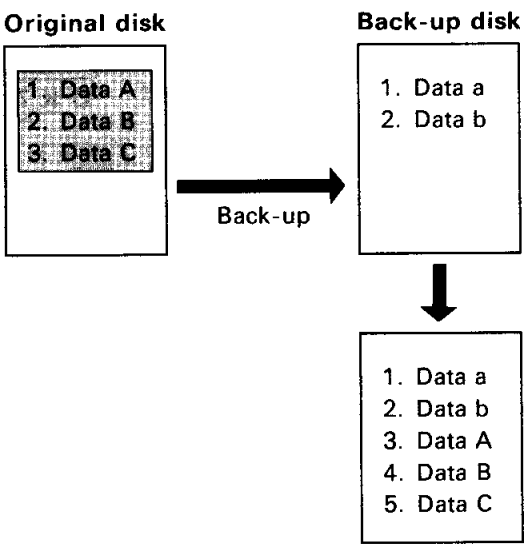
If the NO key is pressed instead of the YES key, File mode is entered without carrying out copying. The file number displayed in such a case is the file number selected in step (2). Should you wish to check the total number of files on the disk, please press the FILE key once more. (See page 14 for details on "Checking the Total Number of Files".)

Copying Disks (JOB 5: BACK UP)

Use the job 5 function, Back Up, to copy all data on a disk (The disk you want to use for back up.) to another disk.

★ The disk you want use for back-up must have free memory space sufficient to accommodate the data volume to be copied. Also note that it is not possible to use a disk for back-up that has not yet been initialized (formatted) or whose erasure protection tabs have been broken out.

★ If the disk you wish to use for back-up already contains data, the back-up data will have file numbers following those of the existing data.

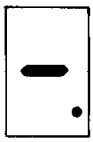


★ When you wish to copy the data of a single file, refer to page 17, "Copying a File".

How to Create a Back-Up Disk

1 Press the JOB key to enter Job mode.
2 Select job 5. To do so, press the INC or DEC key until the display alternately shows "Job" and "5".
3 Press the YES key to obtain the following display.

Pressing YES displays...



Then...

Blinks 

O K ?

...the display blinks, showing the above symbol.

4 Remove the original disk you wish to back up and insert the back-up disk you want to copy to.
5 Press the YES key to execute back-up.

Pressing YES displays...

Then...

When copying is completed...

New final file number of backed up data

...the new final file number of the backed up data is displayed.

If the NO key is pressed instead of the YES key, File mode is entered without carrying out back-up.

Deleting the Final File (JOB 3: DELETE)

The job 3 function, Delete, is used to delete the final file of recorded data.

★ Only the final file can be deleted. It is not possible to delete any file other than the one with the highest (final) file number. However, the job 4 function, Copy, can be used to this effect. If you copy only the required files to another disk or the reverse side of the inserted disk, you can thus edit out (indirectly delete) unnecessary files.

★ Should you wish to delete all data (blank page reference) recorded on a disk, use the procedure described under "Initializing Disks" on page 10.

How to Delete Files

1 Press the JOB key to enter Job mode.
2 Select job 3. To do so, press the INC or DEC key until the display alternately shows "Job" and "3".
3 Press the YES key to obtain the following display.

Pressing YES calls up....

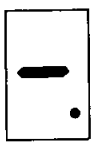
Blinks 

O K ?

The display blinks, showing above symbol.

4 Press YES again to execute delete.

Pressing YES to execute displays...



Then...

When deleting is completed...

File number of file preceding the one deleted

...the file number of the file preceding the one just deleted is displayed.

If the NO key is pressed instead of the YES key, File mode is entered without carrying out deletion.

Setting the Load Time Interval for Multiple Data (JOB 2: INTERVAL TIME)

If several large-volume data messages have been consecutively stored in a single file, errors may occur on the receiving side when a load operation is carried out since the receiving equipment is not able to deal with such a large amount of data at once. In such cases, before loading it is best to set a certain time interval between the data messages being transmitted. To do so, use job 2, Interval Time.

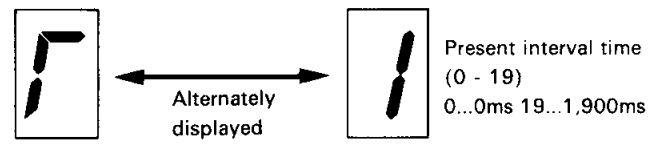
★ Interval time can be set in 100ms steps between 0 and 1,900ms (1.9 seconds).

★ The default value (= the setting when power is turned on) is 100ms. If loading cannot be performed properly with this value, gradually increase the interval time in single steps (200ms, 300ms, and so on) and try again.

How to Set the Interval Time

1 Press the JOB key to enter Job mode.
2 Select job 2. To do so, press the INC or DEC key until the display alternately shows "Job" and "2".
3 Press the YES key to obtain the interval time display.

Pressing YES alternately displays...



...a "T"-symbol indicating time and the present interval time.

4 Use the INC and DEC keys to set the required interval time.

SPECIFICATIONS

Memory Capacity

Unformatted	64 Kbytes each on A/B side
Formatted	59.9 Kbytes each on A/B side
Storage Medium	2.8 inch Quick Disk
Display	7-segment LED
Connection Terminals	MIDI IN, MIDI OUT, MIDI THRU, DC IN 10V
Operating Temperature	10°C~35°C
Operating Humidity	20%~80% (no dewing!)
Power Supply	AC adapter PA-4
Dimensions	114mm x 75mm x 263.3mm
Weight	1.6kg
Accessories	Special AC adapter PA-4, MIDI cable, Quick Disk (blank)

* According to our policy of continuous improvement, specifications are subject to change without notice.

MIDI DATA FORMAT

As shown below, MIDI messages in general can be divided into several types. The MDF1 is designed exclusively for the reception and transmission of type (3), System Exclusive Messages.

- MIDI Message
  - Channel Message
    - 1 Channel Voice Message
    - 2 Channel Mode Message
  - System Message
    - 3 System Exclusive Message
    - 4 System Common Message
    - 5 System Real Time Message

1. Received Data

System Exclusive Message

Status 11110000 (F0H)
ID No. 0iiiiiii (YAMAHA: 43H)
(The intermediate byte values are determined by the manufacturer)
EOX 11110111 (F7H)

* The value of the ID (identification) number is determined individually by each manufacturer. The YAMAHA ID number is 43H. If for instance the status message F0H is followed by 43H, this indicates that the data being received is from YAMAHA MIDI equipment.
* The maximum memory capacity is 59.9 kilobytes for MIDI data + time data.
* Please eliminate the sentence.

2. Transmitted Data

Same as received data.

TABLE OF DISPLAYED CHARACTERS

Display	Meaning
0 123456789	0~9
0. 1.2.3.4.5.6.7.8.9.	10~19
C	MIDI data reception completed.
E	Disk R/W (read/write) error (see page 24, Error Message Table)
E.	MIDI input error (see page 24, Error Message Table)
F.	Disk full (see page 24, Error Message Table)
J	Indicates Job mode.
Y.	OK? (Do you wish to execute?)
L	Currently loading from disk.
n.	No disk (see page 24, Error Message Table)
o.	Buffer overflow (see page 24, Error Message Table)
P.	Memory protect (see page 24, Error Message Table)
r.	Currently receiving MIDI data.
S	Stand-by for saving MIDI data.
T	Indicates interval time.
U.	Unformatted disk (see page 24, Error Message Table)
-.	Currently reading data from disk or writing data to disk.

ERROR MESSAGE TABLE

Whenever you have tried to operate this unit incorrectly or any other kind of error has occurred, a so-called error message will appear on the LED display to warn you. When this happens, check the cause of the error and then proceed with the steps listed under "What to do". Please note that the following table also contains messages easily mistaken for signs of a defect in the unit.

Message	Meaning	What to do
 Disk R/W error	An error was detected during reading from or writing to the disk.	If this occurs even after changing the disk, it may indicate a defect in the unit. Please consult the shop where purchased or your nearest Yamaha Service Center.
 MIDI input error	An error occurred during MIDI data input.	Is the MIDI cable firmly connected? Please check for proper connections.
 Disk full	Disk memory capacity was exceeded during saving. Or else, an attempt was made to record data whose file number would be 20.	Press any key to exit from error display, or change the disk.
 No disk	No disk inserted.	Insert the disk you want to use.
 Buffer Overflow	Buffer capacity was exceeded during data reception.	Buffer contents is automatically deleted.
 Memory Protect	Disk tabs are broken out.	Apply adhesive tape etc. to cover disk tab hole.
 Unformatted	Inserted disk has not been formatted (initialized).	Format inserted disk.

[MIDI Data Filer] Date : 10/2, 1986
Model MDF1 MIDI Implementation Chart Version : 1.0

Function ...		Transmitted	Recognized	Remarks
Basic	Default	×	×	
Channel	Changed	×	×	
Mode	Default	×	×	
	Messages	×	×	
	Altered	**********		
Note Number		×	×	
	True voice	**********		
Velocity	Note ON	×	×	
	Note OFF	×	×	
After Touch	Key's	×	×	
	Ch's	×	×	
Pitch Bender		×	×	
Control Change		×	×	
Prog Change		×	×	
	True #	**********		
System Exclusive		o	o	
System Common	Song Pos	×	×	
	Song Sel	×	×	
	Tune	×	×	
System Real Time	Clock	×	×	
	Commands	×	×	
Aux Mes- sages	Local ON/OFF	×	×	
	All Notes OFF	×	×	
	Active Sense	×	×	
	Reset	×	×	
Notes				

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO × : No

SINCE 1887 YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

OMD-205M 87 03 0.8 CR Printed in Japan