Roland

BULKARIAN

SYSTEM GENERATOR MRB-500

Owner's Manual



MRB-500 Bulk Librarian Table of Contents

1. Before You Start · · · · · · 3	3. Other Functions · · · · · 31
1.1 Caring for Floppy Disks ····· 3	3.1 Adding a Memo
1.2 The MRB Software · · · · 4	3.2 Displaying the memo for a file · · · 32
1.3 "Booting the System" · · · · · 4	3.3 Determining Disk Usage · · · · · 32
1.4 Other Terms Used in This Manual…5	3.4 Determining Transfer Type · · · · · · 32
1.5 Preparing a System Disk · · · · · 6	4. Reference Materials · · · · · 33
2. Using the Software····· 9	4.1 Transfer Specifications · · · · · 33
2.1 Connection 9	4,2 Transfer Types ····· 34
2.1.1 One Way operation · · · · · · 9	
2.1.2 Handshake operation ····· 9	4.3 Error Messages ····· 37
2.2 Booting the Bulk Librarian · · · · · · 10	5. Examples · · · · · 41
2.3 MC-500 Controls (STANDBY) ····· 12	5.1 Handshake Operation
2.3.1 The STANDBY Display ······ 12	(Roland D-50) 41
2.3.2 Key functions (STANDBY)····· 13	5.1.1 Setup · · · · · 41
	5.1.2 Receiving bulk data · · · · · 41
2.4 Creating a new file · · · · · · · · · · 14	5.1.3 Transmitting bulk data······ 43
2.4.1 Part I. Setting up	
the MC-500 14	5,2 One—Way Operation
2.4.2 Part II. Record	(YAMAHA DX7) ····· 44
2,4,3 Part III, Give the file a name 17	5.2.1 Setup · · · · · · 44
2.4.4 Part IV. (Optional) Test ······ 18	5.2.2 Receiving bulk data · · · · · · 44
2.4.5 Status messages · · · · · 18	5.2.3 Transmitting 32-tone
	bulk data 46
2.5 Overwriting a File · · · · · · · 19	
	5.3 Handshake Operation with Roland
2.6 Transmitting a File · · · · · · 21	TR-707 · · · · · 47
2.6.1 Procedure 21	5.3.1 Setup · · · · · 47
2.6.2 Status messages · · · · · · 22	5.3.2 Receiving bulk data · · · · · 47
	5.3,3 Transmitting bulk data····· 49
2.7 RENAME Changing	
the File Name · · · · · · · 23	6. Transfer Type T-2 50
2.7.1 Procedure · · · · · · 23	
2.7.2 Status message · · · · · · 24	6.1 Receiving Data · · · · · 50
2.8 DELETE Erasing a file 25	6.2 Transmitting Data · · · · · 50
2.8.1 Procedure 25	
2.8.2 Status message · · · · · · 25	
2,9 COPY	
Copying a file to another disk ·· 26	
2.10 XFER	
Copying one disk to another · · 28	

1. Before You Start

1.1 Caring for Floppy Disks

- ●The floppy disk's hard plastic case conceals a thin disk of plastic film coated with a magnetic medium. Always handle with care because the slightest damage to this high-density recording medium can mean irretrievable loss of data.
- •Never turn the power on or off while there is a disk in the drive.
- ●Do not open the metal shutter which covers the access holes while the disk is not in use. Exposing the recording medium to dust and other contaminants can lead to irretrievable loss of data.
- •Never force a disk. When inserting it into the drive, slide it gently yet firmly in, until it snaps into place with an audible click. Always remove by pressing the eject button all the way. Avoid touching any other part of the drive.
- •Never insert or eject a disk while the disk indicator lamp on the drive's front panel is lit. Always wait for the drive to finish a particular operation. Avoid moving or bumping the drive while it is operating. Such sudden motions can lead to recording errors or even irreparably damage to the mediumitself.
- Avoid dusty environments. Dust that enters the case can scratch the rotating disk, destroying data,
- ●The small plastic switch in one corner of the disk is part of a mechanical interlock that prevents accidental erasures of data. The recommended procedure is to leave it in the PROTECT position at all times other than when you specifically wish to record new data on the disk
- •Make sure that the disk label is firmly in place in the recess provided. A loose label can interfere with smooth insertion and ejection.
- •Always store disks vertically in individual protective cases or filing boxes designed especially for 3,5 inch disks. Storage at an angle can lead to distortion of the plastic film inside.
- ♠Avoid temperatures outside the range of 5° C-50° C (41° F-122° F) --direct sunlight or a closed vehicle on a hot summer's day, for example. Extreme temperatures can warp the plastic film inside, rendering the disk unsuitable for use.
- Avoid headphones, speakers, and other sources of magnetic fields which can alter or destroy the data recorded on the disk.

1.2 The MRB Software

Thank you for purchasing the Roland MRB-500 Bulk Librarian package. This software allows you to store up to approximately 160 Kbytes of data from MIDI sources as a single file on a floppy disk in your MC-500 drive. You may store up to 100 such files—up to a total of 600 Kbytes—per disk and later transmit this data back to the same or other MIDI instrument.

A number of MIDI instruments provide a bulk dump (These and other special terms are defined on pp. 34-36.) command, a system exclusive message for transmitting large amounts of tone data or rhythm machine control data etc..

Note:

Not all MIDI instruments support this command. Check the Owner's Manual or Implementation Notes for availability.

This software supports the two most common forms of this command: the handshaking approach and the one-way approach.

1.3 "Booting the System"

When you first turn on the power, the MC-500 is capable of only one task, asking you to insert a system $disk-an\ MRC-500$ or MRB-500, for example. Although this extra step may seem an unnecessary inconvenience, the approach gives you complete flexibility: the MC-500 becomes whatever the system program, aspecial set of instructions on the disk, tells it to become.

Changing disks therefore changes the MC-500's functions, allowing the same hardware to perform two different sets of functions. When you insert a disk, the MC-500 looks for these instructions and copies them into its memory. This process is called "loading" or "booting" the system.

1.4 Other Terms Used in This Manual

Bulk Librarian This software (MRB-500).

Bulk dump

System disk Any disk containing software for the MC-500. In this manual, this

term will usually refer to a disk containing the MRB-500 software.

Bulk data

A block of data, usually large, transmitted with a special MIDI system exclusive command called bulk dump. A tone data block for a

synthesizer, for example, can run to dozens of Kbytes. (Note: One

Kbyte is 1,024 bytes.)

Bulk file Bulk data which the MC-500 has stored as a single unit, called a file,

on an MRB-500 system disk. This software also allows the MC-500

to later retransmit the data in such a file to other MIDI equipment.

The transmission of a large data block between MIDI instruments. In its narrow definition, the term applies only to the sending instrument. However, since there must always be a second instrument receiving (with its bulk load function), it usually has a broader meaning

covering both ends of the link.

Note: The normal procedure is to activate first the receiver's bulk load function

and then the sender's bulk dump function, but there are exceptions. (See

p. 34-36.)

One-way operation A bulk dump operation in which the two instruments are connected

by a single MIDI cable for data transmission in one direction only. Handshaking operation—A bulk dump operation using a second MIDI cable to transmit predetermined control signals from the receiver back

to the sender.

Note: When data is being transferred between the same madels, the one-way

type of operation takes longer than the handshaking operation.

Unit number The system exclusive message counterpart of the MIDI channel

number. With this number, the sender is able to specify which of otherwise identical instruments connected to the same MIDI network

is to receive the bulk data.

Notes (1) Some MIDI implementations use the terms device ID or device number instead of unit number.

(2) The MIDI standard numbers units from zero, but this software adds one toproduce a range of unit numbers from 1 through 16. (There

are Roland products that support unit numbers in the range 1-32.)

1.5 Preparing a System Disk

The disk included with this package contains special software, called the SYSTEM GENERATOR, that performs only one task: formatting. It prepares ("initializes") floppy disks for use with the MC-500 and then copies the MRB-500 software onto them so that they become system disks.

Note:

This disk is copy protected. Handle it with care because it is your only copy.

Procedure

Step 1 Turn on the power to the MC-500.

Roland MC-500



Insert System Disk and Press ENTER

- Step 2 Insert the disk with the SYSTEM GENERATOR software.
- Step 3 Press the ENTER key.

Loadin9 System Please Wait



MRB-System Generator Copyri9ht Roland

Step 4 Wait approximately 35 seconds for the software to load,

Insert New Disk and Press ENTER

Note: A histogram on the screen indicates the number of tracks read,

- Step 5 Insert a fresh disk.
- Step 6 Press the ENTER key. If the following display does not appear, refer to the notes at the end of this description.

Initializin9 Disk Please Wait

Step 7 Wait approximately two minutes until the buzzer sounds, and the following message appears on the display.

Note: When the track count in the lower right hand corner of the display reaches 159, the software starts erasing the histogram.

INIT Complete! Cont? Yes:ENTER No:STOP

Note: This system disk will not accept data from the MRC-500 software.

Step 8 Press the ENTER key to return to step 5 for a new disk or STOP to end the session.

Step 9 Press the eject button on the drive if you do not wish to use the MRB-500 software immediately.

Note: You have approximately 20 seconds to remove the last disk from the drive. If you leave it in after pressing the STOP key, the MC-500 automatically loads the MRB-500 software for you.

1. Before You Start

Special Cases

Step 6 produces one of the following two displays if the disk has already been formatted for use with the MC-500.

(1)

INIT to MRB Again ? Yes:ENTER No:STOP

This display tells you that the disk has already been prepared for use with the MRB-500 software. Pressing ENTER will crase all bulk data currently on the disk.

Note: Press STOP to cancel,

(2)

Remake into MRB ? Yes:ENTER No:STOP

This display tells you that the disk has already been prepared for use either with MRC-500, MRP-500, or other software for the MC-500 or with an S-50, personal computer, word processor, or other system. Pressing ENTER will erase all software and data currently on the disk,

Note: Press STOP to cancel.

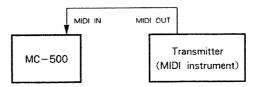
2. Using the Software

The MRB-500 is dedicated software for transferring bulk data between a MIDI instrument and the MC-500 floppy disk, an inexpensive high-capacity storage medium. It differs from the MRC-500 package in that it specializes in bulk data—that is, it ignores key events and other short MIDI messages and it has no "disk mode" (MRC-500 mode 2). Among other things, this means that there is no risk of sending non-bulk data. The software also assigns names to the files on the disk, Data management is therefore much easier.

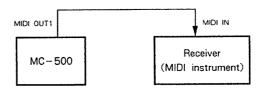
2.1 Connection

2.1.1 One-Way operation

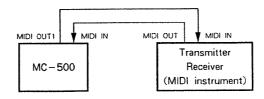
Storing Bulk Data on the MC-500



Sending Bulk Data from the MC-500



2.1.2 Handshake operation



Note: The software sends data to MIDI OUT 1, but not to MIDI OUT 2.

2.2 Booting the Bulk Librarian

Note:

If you left the disk in the drive after formatting it (See p.6.), there is no need for the following procedure because the formatting program automatically switches to the Bulk Librarian when it finishes.

Procedure

- Step 1 If the power to the MC-500 is on, turn it off.
- Step 2 Turn the power on.

Roland MC-500

Step 3 Wait for the beep and the following message on the display.

Insert System Disk and Press ENTER

- Step 4 Insert an MRB system disk into the drive.
- Step 5 Press the ENTER key.
- Step 6 Wait for the STANDBY display.

Loadin9 System Please Wait



MRB-500 Ver 1.00 Copyright Roland



Note:

The exact contents of this display depend on whether the disk contains any bulk data. If there are no bulk data files—as is the case with a freshly formatted disk—the first line of the display contains a blank.

File ▶ Free T- 1 Standby Otherwise, the upper right hand corner of the display gives the name of the first (in alphabetical order) file on the disk.

File • Sample file Free T- 1 Standby

Optional Steps

- Step 7 Wait for the drive indicator lamp to go out.
- Step 8 Press the eject button.

Note: At this point, the display immediate changes to the following. In other words, an MRB system disk must be in the drive at all times for the software to function.

Insert MRB-500 Disk and Press ENTER

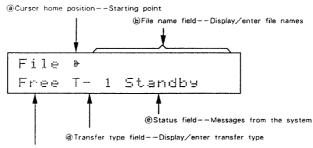
- Step 9 Insert an MRB-500 system disk into the drive.
- Step 10 Press the ENTER key.

2.3 MC-500 Controls (STANDBY)

This section describes the display and controls for the MRB-500's STANDBY mode only. The other displays and the related key functions appear in the sections describing the various procedures, which all start from this display.

2,3,1 The STANDBY Display

The STANDBY display is divided into five fields.



©Unit number filed -- Display/enter send/receive unit numbers

Note:

The cursor moves only among the first four fields. When it moves to {a}, {c}, or {d}, the entire field flashes, In field {b}, however, it appears as an underline ("__") one character long.

2.3.2 Key functions (STANDBY)

REC-- Record incoming bulk data as a new file

SHIFT+REC-- Replace existing file with incoming bulk data

Note: The notation "SHIFT+" means "hold down the SHIFT key and press the

specified key."

PLAY-- Transmit selected bulk data file

Alpha-dial-- Change settings:

(a) Select file(b) Enter file name

Shift cursor to {c}

(c), (d) Select parameter setting

FUNC--S hift cursor to {d}

MIDI--

| > | -- Shift cursor to (b) (if the disk has files)

| < | -- Shift cursor to {a} (if not currently in {b})

RESET -- Return to starting display

SHIFT+RESET-- Erase current file

PAUSE -- Copy current file to another disk

SHIFT+PAUSE-- Copy all files to another disk

MODE * -- Display current send/receive type

AVAIL MEMO*-- Display number of files and disk space remainin

MICRO SCOPE * - Display memo associated with current file

Note: The notation "*" means " the display remains only if the key is held

down."

SHIFT+MICRO SCOPE-- Edit memo associated with current file

STOP -- Cancel/terminate current operation and return to original STANDBY

display

2.4 Creating a new file

Note: The maximum size of any bulk data file -- for both handshake and one - way

operation -- is approximately 160 Kbytes.

2.4.1 Part I. Set up the MC-500

Step 1 Move the WRITE PROTECT tab on the disk to its WRITE position.

Step 2 (Optional) Press the RESET switch to return to the original display.

File **>** Free T- 1 Standby

Note: This step is not usually necessary. Step 6 below, for example, automatically

clears the display for you. Because you cannot change the transfer type or unit number after storing the file, however, it is generally a good idea

to start with a fresh state every time.

Note: At this point, it becomes impossible to transmit data -- until you cancel

with the STOP key.

Step 3 Press the FUNC key to shift the cursor to the transfer type field.

Step 4 Rotate the Alpha-dial or enter the setting directly with the ten-key numerical pad and ENTER. (See the chart on pp.34-36.)

File ♪ Free T- 1 Standby

Note: Step 2 resets the parameter to T-1.

- Step 5 Press the MIDI key to shift the cursor to the unit number field.
- Step 6 Repeat Step 4 for this field as well.

Notes

- (1) This specification is valid only when the incoming data includes a unit number specification—in which case, the software stores the new number instead of the given one. If the data includes no such number or you specify transfer type T-2, however, the software ignores the specification and changes it to U-? after the transfer.
- (2) Step 2 resets this field to "Free". If the incoming data includes a unit number, the software stores that number unchanged and displays it after the transfer. Although the most frequently used setting is "Free", this parameter allows you to change the unit number while recording the data so that you can save yourself the trouble of changing it when it comes time to transmit the data to an instrument.

File **>** Free T- 1 Standby

- (3) To specify a unit number above 16, change the unit number to 16, hold down the SHIFT key, and then rotate the Alpha-dial. (You cannot enter the numbers 17-32 with the numerical keys.) Remember, however, that the receiver may not support these higher unit numbers. Check its MIDI implementation notes first.
- (4) To return to the "Free" setting, either enter the number "0" or rotate the Alpha-dial past "1".

2.4.2 Part II. Record

Step 7 Press the REC key to activate the recording system.

File ***** Free T- 1 Waitin9

Step 8 Activate the MIDI instrument's bulk dump command. (Consult the instrument's owner's manual for the appropriate procedure.)

Note: Transfer types T-3 through T-13 (See pp. 35-36.) do not require that you direct the instrument to start sending. After you set the type (Step 4), pressing the MC-500 REC key automatically starts the transfer.

Note: When the transfer starts, the MC-500 changes to the following display.

File ⊭ Free T- 1 Receivin9

Step 9 To abort a transfer partway through, press the STOP key.

Note: The word "Aborted" appears for a few seconds, after which the MC-500 automatically returns to the STANDBY display.

Step 10 Otherwise, wait for the MC-500 to change to the appropriate display.

File > Free T- 1 Idling...

Step 11 (One-way operation only) Either send more data (See p. 50, "Special Useof Type 2" for the procedure.) or press the ENTER key to signal the end of the file.

Note: At this point, the MC-500 stops receiving and shifts the cursor to the file name field.

File ▶ _ U- 1 T- 1 Write name

2.4.3 Part III. Give the file a name

- Step 12 Use the Alpha-dial or the ten-key numerical pad to assign a name to the file.
 - (1) The software does not allow you to store a file without a name.
 - (2) Each key on the numerical pad has assigned to it a numeral and three letters or symbols. Multiple presses cycle between the four available choices. For example,
 - "A" > "B" > "C" > "1" > "A" >
 - (3) For lower case letters, hold down the SHIFT key.

Key		Sequence of letters				Key		5	Sequ	ienc	e o	f le	tter	s					
0	0	→		(8	pac	e)		>	0	5	5	>	М	>	N	\rightarrow	0	->	5
1	1	→	Α	>	В	>	С	->	1	6	6	>	P		Q	→	R	>	6
2	2	>	D	→	E	>	F	->	2	7	7	>	S		T	>	U	→	7
3	3	→	G	>	Н	>	1	→	3	8	8	→	٧		W	→	Χ	->	8
4	4	>	J	->	K	->	L	->	4	9	9	→	Υ	_	Z		!	→	9

- (4) The Alpha-dial provides additional symbols. (It is also possible to substitute SHIFT+ | > | and SHIFT+ | < | for Alpha-dial rotations.)
- Step 14 Use the | > | and | < | keys to shift to the next space in the file name field.
- Step 15 Repeat Steps 12 and 13 as often as necessary.
- Step 16 Press the ENTER key to store the bulk data as a file on the disk,

Note: Press the STOP key to discard the data and not create a new file onto the disk.

Note:

If there already is a file with the same name on the disk, the software asks for confirmation. Press the ENTER key to discard the old version or the STOP key to return to Step 12 and change the name.

Step 17 When the disk access lamp goes out and the MC-500 returns to the STANDBY display, return the WRITE PROTECT tab on the disk to its PROTECT position to prevent accidental erasures.

2.4.4 Part IV. (Optional) Test

Note: If you are performing this procedure for the very first time ,or for the first time with a particular instrument, it is a good idea to check data

integrity.

Step 18 Send the data back to the instrument. (See p. 21,"Transmitting a

File" for the procedure.)

Step 19 Test the data on the instrument,

Step 20 If there is anything wrong with the data, check the transmission link

and retransmit with the procedure on p. 19, "Overwriting a File".

2.4.5 Status messages

The following is a list of all messages that can appear during the course of the above procedure.

Standby -- The software is waiting for you to specify the transfer type and unit

number.

Waiting -- The software is waiting for the MIDI instrument to start transmitting.

Receiving -- Transmission is underway.

Idling -- (One-way operation only) Data has stopped coming in.

Note: If this message appears during handshake operation for transfer type T

-1 or a transmission with type T-3 or above, check the cable connections and the transmission settings. Then press the STOP key and

start over,

Saving -- The software is copying the bulk data onto disk.

WARNING: Do not remove or insert the disk while this message is on the display.

These changes cause the software to lose track of its position on the disk, thereby introducing the risk of damage to other data or even the software

itself.

Aborted -- You have told the software to cancel the previous operation without

waiting for completion.

Write name - The software is asking you to assign a name to the bulk data file.

2.5 Overwriting a File

This function differs from the preceding one only in that it destroys an existing file rather that create a new one. It becomes necessary when you have stored data with the wrong transfer type or unit number, when you have stored either too much or too little data in a particular file, and in other, similar situations. It is the equivalent of deleting a file (See p. 25.) and then creating a new one.

Procedure

- Step 1 Move the WRITE PROTECT tab on the disk to its WRITE position.
- Step 2 Rotate the Alpha-dial until the name of the unwanted file appears on the first line of the display.

Step 3 To change the transfer type, press the FUNC key and then use either the Alpha-dial or ten-key numeric pad plus ENTER.

Step 4 To change the unit number, press the MIDI key and then use either the Alpha-dial or ten-key numeric pad plus ENTER.

Step 5 Hold down the SHIFT key and press the REC key.

Note: If you forget to hold down the SHIFT key, the software creates a new file.

Note: The remaining steps are essentially the same as those for creating a new file

2. Using the Software

Step 6 Activate the MIDI instrument's bulk dump command.

Step 7 Wait for the MC-500 to change to the appropriate display.

Step 8 (One-way operation only) Either send more data (See p. 50, "Special Use of Type-2" for the procedure.) or press the ENTER key to signal the end of the file.

Note: Press the STOP key to discard the new data and leave the old file on the disk,

Step 9 When the disk access lamp goes out and the MC-500 returns to the STANDBY display, return the WRITE PROTECT tab on the disk to its PROTECT position to prevent accidental erasures.

2.6 Transmitting a File

Note:

The MRB-500 software also allows the MC-500 to operate in the reverse direction, transmitting a data file to a MIDI instrument.

2.6.1 Procedure

Step 1 Rotate the Alpha-dial until the file name appears on the display.

File > Send me U- 1 T- 1 Standby

Note: The names appear in alphabetical order. To skip between the first and the last, hold down the SHIFT key and rotate the Alpha-dial.

Step 2 If the unit number that appears on the display is different from the receiver's unit number (or MIDI channel), press the MIDI key and change it with either the Alpha-dial or the ten-key pad plus ENTER.

Note: This change is a temporary one that applies only to the transmitted data. It does not change the unit number stored in the file.

Note: It is not possible to change the transfer type. Although the software allows you to change the type on the display, it changes the display back to the one stored in the file when it starts transmitting.

Step 3 Activate the MIDI instrument's bulk load command.

Note: The procedures vary widely, so consult the instrument's Instruction Manual.

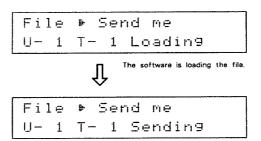
Some instruments do not require any setup.

Step 4 If the receiver has a MEMORY PROTECT function or switch, make sure that it is in its OFF or DISABLED position.

Step 5 If the receiver has a SYSTEM EXCLUSIVE function or switch, make sure that it is in its ON or ENABLED position.

If a bulk data of a different model is transmitted, the receiver unit may not operate properly.

Step 6 Press the PLAY key to load the file into memory for transmission.



The software is transmitting the file

Note:

If the file name field is blank—that is, if you have just pushed the RESET key or there are no files on the disk—pressing the PLAY key has no effect.

Step 7 Wait for the software to return to the STANDBY display.

2.6.2 Status messages

The following is a list of all messages that can appear during the course of the above procedure.

Loading -- The software is copying the bulk data from disk into its memory.

WARNING: Do not remove or insert the disk while this message is on the display.

These changes cause the software to lose track of its position on the disk, thereby introducing the risk of damage to other data or even the software itself.

Sending -- Transmission is underway.

Aborted -- You have told the software to cancel the previous operation without waiting for completion.

Idling— If this message appears during handshake operation for transfer type T-1 or a transmission with type T-3 or above, check the cable connections and the transmission settings. Then press the STOP key and start all over again.

2.7 RENAME - - Changing the File Name

This function allows you to change the name of a bulk data file on the disk,

2.7.1 Procedure

- Step 1 Move the WRITE PROTECT tab on the disk to its WRITE position.
- Step 2 Rotate the Alpha-dial until the name of the file appears on the first line of the display.

Step 3 Press the | > | key to shift the cursor to the file name field.

Step 4 Use the procedure in "Part III. Give the file a name" to give the file a new name,

Notes: The following additional editing commands are available.

SHIFT+SKIP--Erases all characters from the current cursor position to the end of the field.

SHIFT+RESET--Erases all characters in the field.

Note: The software does not accept a totally blank field as a name.

Step 5 Press the ENTER key to record the change or the STOP key to cancel.

Note: If there already is a file with the same name on the disk, the software asks for confirmation.

Press the ENTER key to discard the old version or the STOP key to return to Step 1 and change the name.

Step 6 When the disk access lamp goes out and the MC-500 returns to the STANDBY display, return the WRITE PROTECT tab on the disk to its PROTECT position to prevent accidental erasure.

2.7.2 Status message

Only one message appears during the course of the above procedure:

Renaming -- The software is changing the file name on the disk.

WARNING: Do not remove or insert the disk while this message is on the display.

These changes cause the software to lose track of its position on the disk, thereby introducing the risk of damage to other data or even the software itself.

2.8 DELETE -- Erasing a file

This function allows you to erase files that are no longer needed.

2.8.1 Procedure

- Step 1 Move the WRITE PROTECT tab on the disk to its WRITE position.
- Step 2 Rotate the Alpha-dial until the name of the file appears on the first line of the display.

Step 3 Hold down the SHIFT key and press the RESET key.

Step 4 When the disk access lamp goes out and the MC-500 returns to the STANDBY display, return the WRITE PROTECT tab on the disk to its PROTECT position to prevent accidental erasure.

The display gives the name of either the next file or, if the file was the last one on the disk, the preceding one (which is now the last one on the disk).

2.8.2 Status message

Note:

Only one message appears during the course of the above procedure:

Deleting -- The software is erasing the file from the disk.

WARNING: Do not remove or insert the disk while this message is on the display.

These changes cause the software to lose track of its position on the disk, thereby introducing the risk of damage to other data or even the software itself.

2.9 COPY -- Copying a file to another disk

This function allows you to copy a bulk data file from one disk to another—when you wish to re-organize your disk library, for example.

Procedure

Step 1 Rotate the Alpha-dial until the name of the file appears on the first line of the display.

Step 2 Press the PAUSE key to copy the file into the MC-500's memory.

Step 3 Wait for the following display.

- Step 4 Move the WRITE PROTECT tab on the target disk (the disk to receive the file) to its WRITE position.
- Step 5 Change to the target disk and press the ENTER key.

Note: If you have not changed disks, the COPY function terminates, and the MC

 $-500\ returns$ to the STANDBY display.

Note: If there already is a file with the same name on the disk, the software

asks for confirmation.

RENEW? Same name Yes:ENTER No:STOP

Press the ENTER key to discard the old version or the STOP key to return to Step 1 and change the name.

Step 6 When the disk access lamp goes out and the MC-500 returns to the STANDBY display, return the WRITE PROTECT tab on the target disk to its PROTECT position to prevent accidental erasure.

File **>** D-50 No.003 U- 1 T- 1 Standby

2.10 XFER -- Copying one disk to another

This function allows you to copy all data files from one disk to another—for backup purposes, for example. It closely resembles the MRC-500 Mode 4 XFER function.

Note:

The MRB-500 software does not include a separate backup function. You must first format the target disk (See p. 6 for the procedure.) and then use this function.

Procedure

- Step 1 Place the source disk, the disk containing the files to be copied, in the MC-500 drive.
- Step 2 Hold down the SHIFT key and press the PAUSE key.

File XFER
Insert source>>ENTER

Step 3 When the following display appears, press the ENTER key to copy the files into the MC-500's memory.

File XFER Loading Files

Step 4 Wait for the MC-500 to beep and change to the following display.

File XFER Insert dest. >>ENTER

Step 5 Move the WRITE PROTECT tab on the target disk (the disk to receive the files) to its WRITE position.

Step 6 Insert the target disk and press the ENTER key.

File XFER Saving Files

Note: If the amount of data to be copied exceeds the MC-500's memory capacity, you will have to change back to the source disk and repeat steps 3 8--possibly even more than once.

Step 7 If there already is a file with the same name on the disk, the software asks for confirmation.

RENEW? Same name Yes:ENTER No:SKIP

Press the ENTER key to discard the old version or the SKIP key to proceed to the next file.

Step 8 If there is something wrong with a file on the source disk, the software pauses with the name on the screen.

▶ Destroyed CANNOT READ >> SKIP

Note the name and press the SKIP key to proceed to the next file.

Step 9 When the following message appears, press the STOP key to return to the STANDBY display.

Step 10 When the disk access lamp goes out, return the WRITE PROTECT tab on the target disk to its PROTECT position to prevent accidental erasures.

3. Other Functions

3.1 Adding a Memo

The MRB-500 software allows you to store a memo up to 20 characters long with each file.

Procedure

- Step 1 Shift the WRITE PROTECT tab on the disk to its WRITE position.
- Step 2 Rotate the Alpha-dial until the name of the file appears on the first line of the display.

Step 3 Hold down the SHIFT key and press the MICRO SCOPE key to display the current memo on the second line of the display.

Note: A blank line indicates that the file has no memo.

Step 4 Use the Alpha-dial or the ten-key numerical pad to assign a name to the file.

Notes

The following additional editing commands are available.

SHIFT+SKIP -- Erases all characters from the current cursor position to the end of the field.

SHIFT+RESET--Erases all characters in the field.

Step 5 Press the ENTER key to store the memo and return to the STANDBY display.

Note: Press the STOP key to return to the STANDBY display without storing the memo.

3.2 Displaying the memo for a file

To view the memo for the current file (the one whose name is on the first line of the display), hold down the MICRO SCOPE key.

Note:

Allow the software time to retrieve the memo from the disk.

3.3 Determining Disk Usage

Holding down the AVAIL MEMO key changes the second line of the display to a report of how much space is left on the disk and how many files there are.

3.4 Determining Transfer Type

Holding down the MODE key displays the name of the current transfer type on the first line of the display.

4. Reference Materials

4.1 Transfer Specifications

Maximum file size · · · · · · 160 Kbytes

Disk capacity · · · · · · · · 100 files or 600 Kbytes

Transfer modes · · · · · · · One - way or handshake

Note: The handshake mode operation is available to an equipment using Roland

Exclusive Format Type IV, or the equipment on the list (See pp. 34-36).

Message interval · · · · · · · Stored with data

(between bytes F7H and F0H)

Note: When transmitting data, however, the MRB-500 limits intervals to a

maximum of 3.5 seconds.

4.2 Transfer Types

Transfer type	Manufacturer	Model	Transf	er type	Unit	N1	
transier type	ivianulacturer	iviodei	Handshaking	One-way	Number	Note	
T-1	Roland	∝ JUNO-1/2	0	0	0		
(Automatic)		HS-80	0	0	0		
		JX-10	0	-	0		
		S-10	*	0	0	*The S-10, MKS-100, and S-220 do not support the handhshaking mode of operation	
		D-50	0	0	0	Sopport the horizonaring mode of operation	
		MKS-50	0	0	0	•	
		MKS-70		0	0	•	
		MKS-80	0		0	•	
		MKS-100	*	0	0	•	
		S-220	*	0	0	•	
		D-550	0	0	0		
		GM-70		0	0		
		VP-70	-	0	0	•	
		MSQ-100	-	0	×		
		TR-626	-	0	0		
	ҮАМАНА	DX Series *	-	0	0	*All DX models DX7, DX7s, DX7 II , DX7 II F DX21, and DX2 except those lacking MID	
		QX Series *	-	0	0	version 1.00 support. *Models QX5, QX7, and QX21	
		TX Series *	-	0	0	*Models TX7, TX81Z, and TX802	
		RX Series *	-	0	0	*Models RX5, RX11, RX15, and RX17	
		DMP-7	-	0	0		
	CASIO	CZ - 1	0	_	0	See types T-6 through T-10 for other Casio models,	
	KORG	SQD-1	_	0	×		
		DDD-1/5	-	0	×		
		DS-8		0	0		
	Oberheim	Matrix - 6/6R	-	0	×		
		Xpander	-	0	×		
	Sequencial	T-8	_	0	×		
	Circuit	том	-	0	×		
	Mirage	ESQ-1		0	0	Don't use the SEQ TO MIRAGE command.	
	KAWAI	K5	0		0	When transmitting from the K5 to the MC-500	
	ľ	R100			0	terminate manually when the Idling messages appears.	
	Other	Other	One-wa		×	The unit number is ignored.	

This type requires that the MIDI instrument be capable of transmitting with either handshaking or one—way operation.

[●] In the one-way mode, the software accepts bulk data from equipment not on this list, but may not recognize messages giving the unit number.

[•] The user has the option of changing the unit number either when receving or transmitting data.

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note					
T-2 (Simple method)	Unlimited Unlimited One-way only X									
	 (See also types The software also operation under t This type does n 	T-3 through $T-13$ accepts bulk data type $T-1$.). from models other to change any unit n	than the o	ong with one-way operation. Ones listed as supporting one-way nat may be present in the data. It sources.					

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note			
T-3	Roland	TR-909	Handshaking only	×				
(TR-909/707		TR-707/727	nandshaking only	×				
These instrument transmit automatically—that is, they require no panel operations. To receive, activate the PATTERN PLAY or TRACK PLAY mode and press the STOP key.								

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T-4	Roland	DDR-30	Handshaking only	0	
(DDR-30)	● The DDR-30	transmits and rec	ceive automatically	<i>'</i> .	

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T-5	Roland	SBX-80	Handshaking only	0	
(SBX-80)	● The SBX-80	transmits and red	ceives automatical	ly.	

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T-6	CASIO	CZ - 101		0	
(CZ-series)		CZ - 1000		0	
		CZ-2000S	Handshaking only	0	
		CZ-3000		0	
		CZ-5000		0	Tone data only, Use T-7 for sequencer data,
	● These CZ mo	odels transmit and the CZ-1.	receive automatic	ally.	

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T-7 (CZ-5000)	CASIO	CZ-5000	Handshaking only	0	Sequencer data only. Use T-6 for tone data.
(62 – 5000)	● The CZ-5000	O transmits and re	eceives automatica	illy.	

4. Reference Materials

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T – 8 (CZ – 230S)	CASIO	CZ - 230S	Handshaking only	0	
	● The CZ-230	S transmits and re	eceives automatica	illy.	

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T-9 (RZ Sampling)	CASIO	RZ – 1	Handshaking only	0	Sampling data only. Use T-10 for sequencer data.
	-	ansmits and receiv tivate the PATTEF	•	.CK PLA	Y mode and press the STOP key.

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T-10	CASIO	RZ – 1	Handshaking only	0	Sequencer data only. Use T-9 for sampling data.
(RZ Rhythm)		ansmits and receiv	•	ACK PLA	Y mode and press the STOP key

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note	
T-11	KORG	POLY 800 I	Handshaking only	×		
(POLY 800 II)	● The POLY 800 II transmit and receive automatically.					

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T-12 (DW/EX-8000)	KORG	DW-8000	Handshaking only	0	
		EX-8000		0	
(5117 2)(0000)	● The DW and	EX models trasmi	t and receive aut	omatically	у.

Transfer type	Manufacturer	Model	Transfer type	Unit Number	Note
T – 13 (DVP – 1)	KORG	DVP-1	Handshaking only	0	
	● The DVP tran	nsmits and receive	s automatically.		

4.3 Error Messages

Error 1

Error 1 RAM CHECK See owner's manual!

Cause: The memory chips inside the MC-500 may be defective.

Action : Contact your nearest authorized Roland service center for replacements.

Error 2

Error 2 ILLEGAL DISK See owner's manual!

Cause: The disk has not been formatted for use with the MC-500
 -- because it is new or for another piece of equipment, for example.

Action: Insert an MC-500 system disk and press the ENTER key.

Error 3

Error 3 DISK I/O See owner's manual!

Cause : Physical or other damage to the media means that the MC -500 is unable to load the MRB-500 software from the disk.

Action: (1) System generator disk—Insert another system generator and press the ENTER key. Contact your nearest authorized Roland service center for a replacement for the defective disk.

(2) System disk — Insert another system disk and press the ENTER key. Avoid using this disk in future.

Note:

Although the disk is no longer usable because its system area is damaged, some or all of the data may still be intact. Test each file individually by transferring it to another instrument or copying it to another disk. Reformat or discard the disk once you have salvaged all that you can.

4. Reference Materials

Error 4

Error 4 MEMORY FULL Press STOP

Cause : The volume of incoming data exceeds the MC-500's

memory capacity (160 Kbytes).

Action: It is impossible to store this data as a single file. Press the

STOP key to abort the recording operation.

Error 6

Error 6 NOT READY Insert Disk & STOP

Cause : There is no disk in the drive for a file copy or transfer

operation.

Action: Insert a disk, press the STOP key, and start over.

Error 10

Error10 ILLEGAL DISK Chan9e Disk & STOP

Cause: The disk has not been formatted for use with the MRB-500

software,

Action: Insert an MRB-500 disk and press the STOP key to return

to the STANDBY display.

Error 11

Error11 PROTECTED
Protect OFF & STOP

 $\textbf{Cause} \hspace{0.1in}:\hspace{0.1in} \textbf{The software cannot write to the disk because the WRITE}$

PROTECT tab is in its PROTECT position.

Action: Press the STOP key to abort the operation and return to the STANDBY display. Shift the tab and start over.

Error 12

Error12 DISK I/O See owner's manual!

Cause: (1) Physical or other damage to the media means that the MC-500 is unable to load the MRB-500 software or a particular bulk data file from the disk,

(2) The target disk for a copy operation is unformatted.

Action: (1) Press STOP, change disks, and avoid using this disk in future,

Note: Such damage is usually localized, so most of the data may still be intact. Test each file individually by transferring it to another instrument or copying it to another disk. Reformat or discard the disk once you have salvaged all that you can.

(2) Press STOP to abort the operation, format the target disk, and start over.

4. Reference Materials

Error 15

Error15 DISK FULL Change Disk & STOP

Cause : There is not enough room on the disk for the new file.

Action: Insert a new disk, press STOP to abort the operation, and start over.

Error 21

Error21 PROTECTED Protect OFF & ENTER

Cause : The software cannot write to the disk because the WRITE PROTECT tab is in its PROTECT position.

Action: Shift the tab to its WRITE position and press the ENTER key to continue.

Error 22

Error22 DISK I/O See owner's manual!

 $\textbf{Cause} : \text{ Physical or other damage to the media means that the MC} \\ -500 \text{ is unable to write to the disk}.$

Action: Press STOP, change disks, and avoid using this disk in future.

5. Examples

5.1 Handshake Operation (Roland D-50)

5.1.1 Setup

Use MIDI cables to connect the MIDI IN connectors on the MC-500 and D-50 to the MIDI OUT connectors on the other machine. (See "Connection" on p. 9.)

5.1.2 Receiving bulk data

On the MC-500

Step 1 Shift the WRITE PROTECT tab on the disk to its WRITE position.

Step 2 Press the RESET key to bring up the STANDBY display.

File ▶ Free T- 1 Standby

Step 3 Press the REC key,

File **»** Free T- 1 Waiting

Note:

It is not necessary to change either the transfer type or unit number.

On the D-50

Step 4 Press the DATA TRANSFER key.

Step 5 Select B. Dump.

Step 6 Press the ENTER key to start the transfer.

On the MC-500

Note: The screen changes to the following display.

File ▶ Free T- 1 Receivin9

5. Examples

Step 7 Wait for the transfer to end and the screen to change to the following display.

- Step 8 Check the D-50 display for error messages.
- Step 9 Use the Alpha-dial or ten-key numeric pad plus ENTER to enter a name for the new file.

Step 10 Press the ENTER key to save the file to disk or the STOP key to return to the STANDBY display without saving the data.

Step 11 When the disk access lamp goes out, return the WRITE PROTECT tab on the disk to its PROTECT position to prevent accidental erasures.

5.1.3 Transmitting bulk data

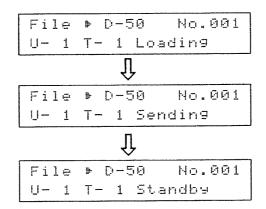
On the D-50

- Step 1 Shift the MEMORY PROTECT function to OFF.
- Step 2 Set the MIDI 3 function, Exclu, to ON.
- Step 3 Press the DATA TRANSFER key.
- Step 4 Select B. Load.
- Step 5 Press the ENTER key.

On the MC-500

Step 6 Rotate the Alpha-dial to select the file.

Step 7 Press the PLAY key.



Step 8 Wait for the MC-500 to copy the file into memory and then send it to the D-50.

On the D-50

- Step 9 Check the display for error messages.
- Step 10 Press the EXIT button to return to the PLAY display.
- Step 11 Shift the MEMORY PROTECT function to ON.
- Step 12 Press the INTERNAL key to access the newly received patch data,

5.2 One-Way Operation (YAMAHA DX7)

5.2.1 Setup

Use a MIDI cable to connect the MIDI IN connector on the receiver to the MIDI OUT connector on the transmitter. (See "Connection" on p. 9.)

5.2.2 Receiving bulk data

On the MC-500

- Step 1 Shift the WRITE PROTECT tab on the disk to its WRITE position.
- Step 2 Press the RESET key to bring up the STANDBY display.

File ⊳ Free T- 1 Standby

Note: If the transmit and receive channels of the DX7 are set to the same number, skip Steps 3 and 4, going to Step 5,

- Step 3 Press the MIDI key.
- Step 4 Use the Alpha-dial or ten-key numeric pad plus ENTER to enter the unit number, the channel on which the DX7 is receiving.
- Step 5 Press the REC key.

File ► Free T- 1 Waiting

Note: It is not necessary to change the transfer type.

On the DX7

- Step 6 Press the FUNCTION key.
- Step 7 Press the "8" key until the SYS INFO display appears.
- Step 8 Press the YES key to change the setting to AVAIL.

Note: When the power is first applied, this setting is always UNAVAIL.

Step 9 Press the "8" key until the "TRANSMIT?" display appears.

Step 10 Press the YES key.

On the MC-500

Note:

The screen changes to the following display.

File *
Free T- 1 Receiving

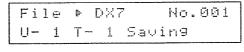


File > Free T- 1 Idling...

- Step 11 Wait for the transfer to end and the screen to change to the following display.
- Step 12 Press the ENTER key.

Step 13 Use the Alpha-dial or ten-key numeric pad plus ENTER to enter a name for the new file.

Step 14 Press the ENTER key to save the file to disk or the STOP key to return to the STANDBY display without saving the data.





File DX7 No.001 U- 1 T- 1 Standby

Step 15 When the disk access lamp goes out, return the WRITE PROTECT tab on the disk to its PROTECT position to prevent accidental erasures.

5.2.3 Transmitting 32-voice bulk data

On the DX7

Step 1 Shift the MEMORY PROTECT function to OFF.

Note: When the power is first applied, this function is always OFF.

Step 2 Change the SYS INFO setting to AVAIL.

Note: When the power is first applied, this setting is always UNAVAIL.

On the MC-500

Step 3 Rotate the Alpha-dial to select the file.

Step 4 Press the PLAY key.

Step 5 Wait for the MC-500 to copy the file into memory and then send it to the DX7.

On the DX7

- Step 6 Check the display for error messages.
- Step 7 Press the INTERNAL button to return to the PLAY display.
- Step 8 Shift the MEMORY PROTECT function to ON.

5.3 Handshake Operation with Roland TR-707

It is sometimes possible to transmit data to instruments that do not have separate bulk load commands.

5.3.1 Setup

Use MIDI cables to connect the MIDI IN connectors on the MC-500 and TR-707 to the MIDI OUT connectors on the other machine. (See "Connection" on p. 9.)

5.3.2 Receiving bulk data

On the TR-707

Step 1 Switch to the PATTERN PLAY or TRACK PLAY mode and press the STOP key.

On the MC-500

- Step 1 Shift the WRITE PROTECT tab on the disk to its WRITE position.
- Step 2 Press the RESET key to bring up the STANDBY display.

Step 3 Press the FUNC key.

- Step 4 Use the Alpha-dial to change the transfer mode to T 3.
- Step 5 Press the REC key.

Note: It is not necessary to change the unit number.

Note: The screen changes to the following display.

5. Examples

Step 6 Wait for the transfer to end and the screen to change to the following display.

Note: If the message Idling appears, press the STOP key, check the cable connections and the transmission settings, and then start over.

Step 7 Use the Alpha-dial or ten-key numeric pad plus ENTER to enter a name for the new file.

Step 8 Press the ENTER key to save the file to disk or the STOP key to return to the STANDBY display without saving the data.

Step 9 When the disk access lamp goes out, return the WRITE PROTECT tab on the disk to its PROTECT position to prevent accidental erasures.

5.3.3 Transmitting bulk data

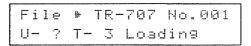
On the TR-707

Step 1 Switch to the PATTERN PLAY or TRACK PLAY mode and press the STOP key.

On the MC-500

Step 2 Rotate the Alpha-dial to select the file.

- Step 3 Press the PLAY key.
- Step 4 Wait for the MC-500 to copy the file into memory and then send it to the TR-707.





File ▶ TR-707 No.001 U- ? T- 3 Sendin9



File ▶ TR-707 No.001 U- ? T- 3 Standby

6. Transfer Type T-2

The one-way mode of operation allows you to chain sets of bulk data into a single file. The normal approach (transfer type T-1) is to store all data under a common transfer type and unit number so that the user can, if necessary, change this number when storing or transmitting data. (See p. 15 for the procedure.) A problem arises, however, when these sets come from different instruments. Changing the unit number works for the first set, but not necessarily for the others. The MRB-500 software therefore provides an alternate one-way transfer type, T 2, which does not allow the user to change the unit number.

6.1 Receiving Data

Step 1 When the Idling message appears on the MC-500, shift the cables to the next instrument and resume transmission.

Step 2 After the last instrument, press the ENTER key to save the data to

Step 3 After assigning a name to the file, note the configuration in the memo field. (See p. 32 for the procedure.)

Example

File name: Live A set

Memo: D50=2, DX7=1, MKS70=3

6.2 Transmitting Data

Step 1 Use a MIDI THRU box or MIDI output selector to simultaneously connect all instruments to the MC-500.

Step 2 Transmit from the MC-500.

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BULK LIBRARIAN MODEL MRB-500

MIDI Implementation

Date: Aug. 31. 1987

Version: 1.00

1. RECOGNIZED DATA

1.1 MEMORIZED DATA

SYSTEM EXCLUSIVE

Status FOIL: SYSTEM EXCLUSIVE F7IL: EOX (End of Exclusive)

2. TRANSMITTED DATA

2.1 All memorized message are transmitted.

2.2 Created message.

■ PROGRAM CHANGE

Status Cnll Second ppl l

pp=program number: 00H ~3FH (0~63)

When protocol is set at $\rm\,T^{-}\,12$ or $\rm\,T^{-}13$ under receiving condition, program change outputs MIDI OUT 1,

Status FOH: SYSTEM EXCLUSIVE F7H: EOX (End of Exclusive)

Under hand -shake communication, needful system exclusive outputs MIDLOUT 1,

MIDI Implementation Chart

Date : Aug. 21. 1987

Version: 1.00

	Function	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	× ×	×	
Mode	Default Messages Altered	× × ******	×	
Note Number	True Voice	× ******	×	
Velocity	Note ON Note OFF	× ×	×	
After Touch	Key's Ch's	× ×	× ×	
Pitch Bende	r	×	×	
Control Change	0-121	×	×	
Prog Change	True #	O ******	×	*
System Excl	usive	0	0	
System Common	Song Pos Song sel Tune	× × ×	× × ×	
System Real Time	Clock Commands	×	×	
Aux Message	Local ON/OFF All Notes OFF Active Sense Reset	× × ×	× × ×	
Notes		* Only T-12 or T-13.	(0-63)	

Mode 1: OMNI ON, POLY Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO Mode 4: OMNI OFF, MONO ○ : YesX : No

