Sega Dreamcast™

Visual Memory Unit

Instruction Manual

Contents:
Visual Memory Unit, Instruction Manual (this document) and two (2) lithium batteries (CR2032) inserted during manufacturing for testing.

Thank you very much for purchasing this Visual Memory Unit.
Before using the Visual Memory Unit, please read this Instructions Manual as well as the Instruction Manual and Important Safety Instructions provided with the Dreamcast. After reading this manual, be certain to keep it handy for future reference.

⚠ WARNING Failure to comply with all warnings associated with this symbol could result in serious bodily injury or death from fire or electric shock.

- Do not get the Visual Memory Unit wet or allow any liquid to get inside. Doing so could result in fire or electric shock.
- Do not use the Visual Memory Unit in humid locations, such as in the bathroom or near a humidifier. Doing so could result in fire or electric shock.
- Do not leave the Visual Memory Unit near heat sources. Doing so could melt the case, and also could result in fire or electric shock.
- Never use the Visual Memory Unit while driving a car or other vehicle. Doing so could cause an accident.
- Do not use the Visual Memory Unit while walking. Doing so could cause you to trip or otherwise become involved in an accident.
- In order to prevent the batteries from being swallowed by a small child, the batteries should only be replaced by a responsible adult. Batteries should be stored out of the reach of children.
- Swallowing a lithium battery could result in choking or poisoning. If someone swallows a battery, seek medical assistance immediately.

⚠ CAUTION Failure to comply with all warnings associated with this symbol may result in property damage, personal injury or fire caused by batteries bursting or leaking, or by other mishaps.

- Never attempt to disassemble or modify the Visual Memory Unit.
- Immediately flush your eyes with clean water and seek medical assistance if the lithium battery leaks and you get some of the liquid in your eyes. If you get any of the liquid on your skin or your clothes, wash the liquid away with clean water.
- Use CR2032 lithium batteries only. Never use any other type of batteries together. Failure to comply with these cautions may result in batteries bursting or leaking which could cause a fire or personal injury.
- When inserting batteries in the Visual Memory Unit, make sure that the positive ⊕ and negative ⊖ sides are oriented correctly as indicated on the Visual Memory Unit. Inserting the batteries with the wrong positive ⊕ and negative ⊖ polarities could cause the batteries to burst or leak which could result in fire or personal injury.

Usage Precautions Follow the precautions shown below when using the Visual Memory Unit. Failure to follow these precautions could damage the Visual Memory Unit or cause it to malfunction.

[Usage Environment]
- Do not use or place the Visual Memory Unit in an area that is very hot or cold, smoky, dusty, humid or in an area where water is common, such as near a sink or tub.
- If you carry the Visual Memory Unit into a heated room from outdoors on a cold day, the sudden temperature change may cause condensation to form inside of the Visual Memory Unit. In these circumstances, the Visual Memory Unit should be left to rest indoors for one hour before using it.
- The Visual Memory Unit should be used in the following environmental conditions:
  Temperature: 41°F to 95°F; humidity: 10% to 80% RH (with no condensation)

[Handling the Visual Memory Unit]
- The Visual Memory Unit contains precision electronic components. Do not drop or strike the Visual Memory Unit.
- Do not get the Visual Memory Unit dirty. Be especially careful to keep the connectors clean. If the Visual Memory Unit does get dirty, wipe the dirt away with a dry cloth. Never use cleaners, chemicals, or water to clean the Visual Memory Unit.
- Always keep the cap on the connector when the Visual Memory Unit is not connected to anything.
- Do not jerk or pull hard on the Visual Memory Unit while it is connected. Doing so could disable or damage the Visual Memory Unit.
- Do not leave the Visual Memory Unit connected to another Visual Memory Unit when it is not being used. Doing so could result in damage to the Visual Memory Unit, and will also run down the batteries.
- Do not bend or pull excessively on the cap of the Visual Memory Unit connector.

[Batteries]
- When the batteries are exhausted, replace them with new ones promptly.
- Batteries should only be replaced by a responsible adult. When replacing batteries, be careful not to lose the screw for the battery compartment cover.
- Use two CR2032 lithium batteries. When replacing the batteries, replace both batteries with new batteries.
- After replacing the batteries, always press the Reset Button. Use a narrow-tipped instrument to press the Reset Button.
- If the Visual Memory Unit does not work even if you just replaced the batteries, remove the batteries immediately and make sure that:
  – The polarity of the batteries (the orientation of the positive ⊕ and negative ⊖ sides) is correct.
  – The batteries are of the correct type (two CR2032 batteries).
  – Both batteries are new.
- Do not short-circuit the batteries. Do not attempt to disassemble, heat, recharge, modify or otherwise tamper with the batteries. Do not place the batteries into fire or water.
- When using new batteries, wipe the surfaces of the batteries with a dry cloth before putting in the Visual Memory Unit.
- If the Visual Memory Unit will not be used for an extended period of time, remove the batteries.

[LCD Screen]
- Do not subject the LCD screen of the Visual Memory Unit to strong impacts. Be particularly careful when carrying the Visual Memory Unit around.
- Do not apply pressure to the screen using a pen, pencil or any other device.

[Miscellaneous]
- Please be sure to dispose of the Visual Memory Unit package materials and the battery insulating tab properly.

FCC Warning
This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions; (1) this device may not cause harmful interference (2) this device must accept any interference that may be received, including interference that may cause undesired operation.

Compatible models: This Visual Memory Unit is compatible with Dreamcasts bearing the NTSC U mark.

Sega of America, Inc.
P.O. Box 7639 San Francisco, CA, 94120-7639
1-800-USA-SEGA & www.sega.com

- Note that files stored in this device could be lost or damaged under certain conditions. Sega makes no guarantees against the loss or damage of stored files.
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Export, use for profit, rental or leasing of this product is prohibited.
Further, Sega offers no warranty service or support outside of the US and Canada.

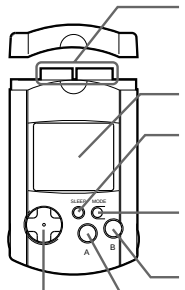
Product covered under one or more of the following U.S. Patent Nos: 5,525,770; 5,396,030; and Japanese Patent No. 2,870,538 (Patents pending in U.S. and other countries).

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670-14102A

Part Names and Functions

Front



Connector
Connects with Dreamcast peripherals (that have an expansion socket) and with other Visual Memory Units.

LCD Screen

Sleep Button
Turns the Visual Memory Unit power on/off.

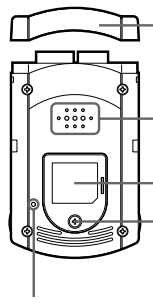
Mode Button
Selects file, game, or clock mode.

B Button
Cancels the selection of an item.

A Button
Selects or enters the selected item.

Directional Pad
Selects items.

Back



Cap

Speaker

Battery Compartment Cover

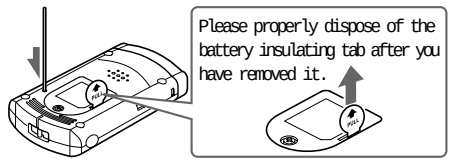
Battery Compartment Cover Screw

Reset Button
Returns the Visual Memory Unit to its initial state.

Introduction

Reset Button

Use a narrow-tipped instrument to press the Reset Button (located on the bottom of the Visual Memory Unit) in the situations described below. After the Reset Button has been pressed, the clock setting screen appears.
- When using for the first time (after removing the battery insulation tab)
- After the batteries have been replaced
- If the Visual Memory Unit has stopped functioning due to a strong impact, etc.
- If the screen is not displayed properly

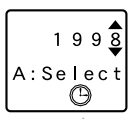


Notes
- Do not press hard on the Reset Button with a sharp-tipped instrument.
- All clock and other user settings are lost when the Reset Button is pressed. Saved files however, are not lost.
- Do not press the Reset Button except when necessary.

Setting the Date and Time

When the Reset Button has been pressed (for example, after replacing the batteries), the Visual Memory Unit automatically enters the date and time setting mode. Some games may not run properly if the date and time are not set correctly. However, if the Visual Memory Unit is only going to be used as backup memory for the Dreamcast, the date and time do not have to be set.

First setting screen



Select by pressing up or down on the Directional Pad. Enter or cancel by pressing A or B Button.
Follow the screen display and set the year, month, day, hour, and minute, in that order.

Final setting screen



Once all settings have been completed, confirm whether to finalize those settings. If there are no changes to be made, select "Yes." The Visual Memory Unit title screen is then displayed.
To change the settings, select "No" and then press the A Button (or the B Button) in order to return to the previous screen and change the settings.

Using the Visual Memory Unit as a Memory Card

The Visual Memory Unit is an external memory card* that is used by plugging it into an expansion socket on a Dreamcast peripheral, such as the Dreamcast controller.
A Visual Memory Unit has a file storage capacity of up to 200 blocks. It is necessary to initialize the Visual Memory Unit the first time you use it.
For details on initialization, refer to the instruction manual that was provided with the Dreamcast.
* A "memory card" can be used to save various files from games that support this capability.

Initialization (Deleting All Files)

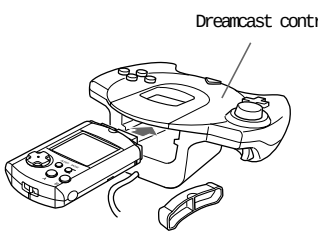
The "initialization" procedure is necessary in order to use the Visual Memory Unit. If you want to delete all files in a Visual Memory Unit or if you can no longer load any files from a Visual Memory Unit, connect it to the Dreamcast and initialize it.

Notes on Initialization
- If a Visual Memory Unit in which files have already been saved is initialized, all files in the Visual Memory Unit will be deleted. If those files are needed, copy them to another Visual Memory Unit beforehand. Refer to "File Mode" (reverse side) in the "Selecting the Mode" section for details.
- Never turn off the Dreamcast, disconnect the controller plug from the Dreamcast, or turn off the power while initializing, file deleting, or file copying is in progress (while the warning icon is displayed). **Also,** do not connect or disconnect any other expansion units. Doing so could damage the files you are saving, making it impossible to load them. Once a file has been damaged to the point that it cannot be loaded, the only recourse is to delete it.

Notes on Connection
- The Visual Memory Unit can be plugged into or removed from the Dreamcast controller without turning off the Dreamcast power.
- When a Visual Memory Unit is plugged into an expansion socket on a Controller, the screen display on the Visual Memory Unit will:
  1. Auto shut off after a set amount of time if the Dreamcast power is off, 2. Display the Visual Memory Units initialized icon if the Dreamcast is currently displaying its Main menu and 3. Display an application program or game icon if the Dreamcast is currently running an application or game. Please note that how an icon is displayed is application or game dependant.
- When a Visual Memory Unit is plugged into an expansion socket on a controller, the screen display on the Visual Memory Unit will shut off.
- The amount of free space required to save a file depends on the software.
  For details on the amount of free space required, refer to the instruction manual that was provided with the software.
- Although very uncommon, it is possible for files to be damaged if the Visual Memory Unit has had files written to it an inordinately high number of times.
- If the Visual Memory Unit will not be used for a while, unplug either the controller from the Dreamcast or the Visual Memory Unit from the controller. Leaving the Visual Memory Unit plugged in will drain its batteries.

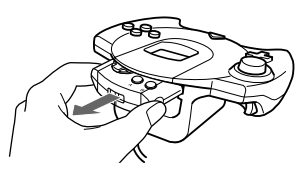
The methods for saving and loading files differ according to the software. For details, refer to the instruction manual provided with the Dreamcast, and the software.

Plugging in the Visual Memory Unit



Remove the cap from the Visual Memory Unit, and then plug the Visual Memory Unit into the expansion socket on the controller. Store the cap in a safe place so that you do not lose it.

Unplugging the Visual Memory Unit



Grasp both sides of the Visual Memory Unit and carefully pull it out.

Selecting the Mode

The Visual Memory Unit has three modes: "file," "game," and "clock."
The functions and operations available in each mode are different. For details, refer to the descriptions of the individual modes.

Note
The mode cannot be changed while a file is being loaded or saved.

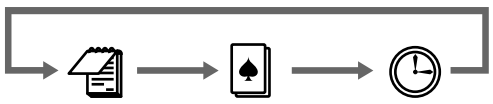
Selecting the Mode

1. Press the Sleep Button to turn the power on.
2. Press the Mode Button repeatedly until the icon for the desired mode is flashing.
3. Press the A Button to switch to the desired mode.

Cancelling the Mode

To cancel any mode, press the Mode Button. The Visual Memory Unit title screen will be displayed.

Pressing the Mode Button cycles through the modes in the following sequence:



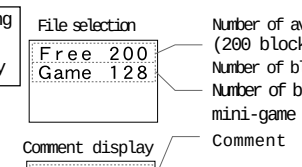
Auto power Off

If there is no input for two minutes while the Visual Memory Unit is in file mode or clock mode, the Visual Memory Unit shuts itself off automatically. To turn the power back on, press the Sleep Button. When in game mode, the auto power off feature may be enabled, but only if the game supports the feature.

Game Mode

When a mini-game has been saved in the Visual Memory Unit by the Dreamcast, the mini-game screen is displayed. For details on how to save, play, and operate mini-games, refer to the instruction manuals provided with the software and the Dreamcast.

Saving a mini-game into the Visual Memory Unit



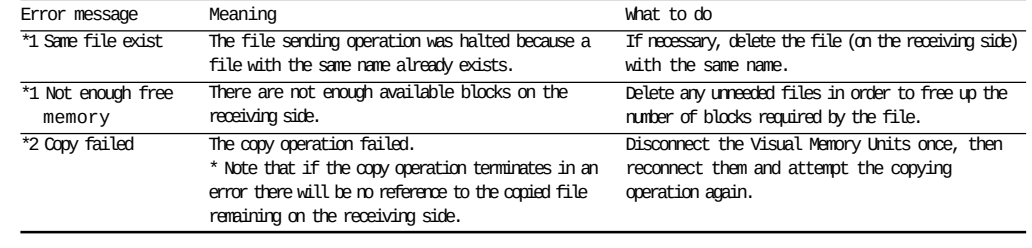
Remove the cap from the Visual Memory Unit and plug the Visual Memory Unit into an expansion socket on the controller. Store the cap in a safe place so you do not lose it.

Notes
- Game mode cannot be selected while the Visual Memory Unit is connected to the controller.
- Do not press the reset button or unplug the Visual Memory Unit from the controller while a file transfer is in progress. Doing so may damage the file.
- The cap should be kept on the connector when the Visual Memory Unit is not connected to a controller.
- When connecting the Visual Memory Unit with a Dreamcast peripheral or another Visual Memory Unit, please ensure that the Visual Memory Unit is oriented correctly before connection. Also please ensure that the Visual Memory Unit connector is fully seated.
- Do not short the pins in the Visual Memory Unit connector.
- When not playing a game, press the Sleep Button to turn the Visual Memory Unit off.

Clock Mode

This mode is used to display the clock, set the clock, and select the clock animation display. While the clock is displayed, the left and right sides of the Directional Pad (or the A Button and the B Button) can be used to switch between the data display and the clock display. When setting the clock, it is possible to select from among three types of animation for the clock display (dog, fish or bird).

Setting the Clock



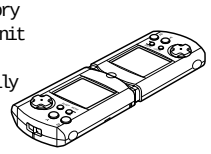
File Mode

This mode is used to copy and delete files that have been saved, and can manage files up to a maximum capacity of 200 blocks.
It is necessary to initialize the Visual Memory Unit the first time that you use it. For details on file initialization, refer to the instruction manual provided with the Dreamcast.

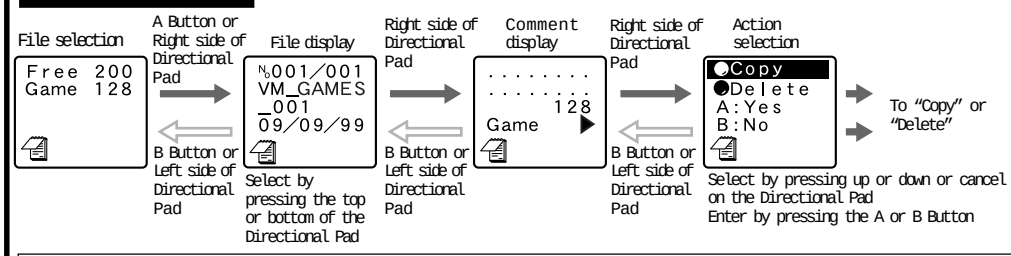
Connecting a Visual Memory Unit to another Visual Memory Unit

Files can be transferred from one Visual Memory Unit to another by connecting them directly to each other.

Remove the caps from the Visual Memory Units and ensure each Visual Memory Unit is oriented correctly. When connecting them, ensure that the connectors are fully seated.



Managing Files



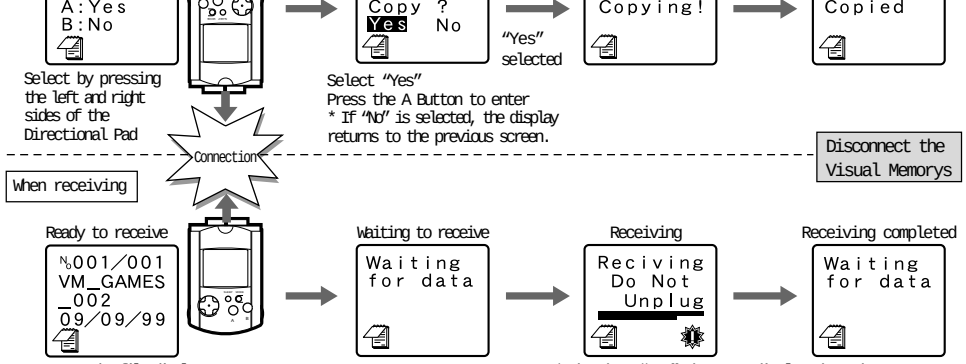
Reading the Display

Delete

This function deletes files that are no longer needed or that can no longer be loaded. If no files have been saved, "Delete" cannot be selected.

Copy

When copying a file, confirm that there are a sufficient number of blocks available on the receiving side. When copying multiple files, unplug the Visual Memory Units once after each file has been copied. Repeat the free space check, copy and unplug process for each file you wish to copy.



Error Messages

Error message	Meaning	What to do
*1 Same file exist	The file sending operation was halted because a file with the same name already exists.	If necessary, delete the file (on the receiving side) with the same name.
*1 Not enough free memory	There are not enough available blocks on the receiving side.	Delete any unneeded files in order to free up the number of blocks required by the file.
*2 Copy failed	The copy operation failed. * Note that if the copy operation terminates in an error there will be no reference to the copied file remaining on the receiving side.	Disconnect the Visual Memory Units once, then reconnect them and attempt the copying operation again.

Copying a Game

When copying a game, confirm that there are a sufficient number of blocks available on the receiving side. If there are not enough blocks available, use the Dreamcast File menu to delete some files and then copy the game.

Replacing the Batteries

Lithium Batteries

The Visual Memory Unit uses lithium batteries for its internal clock and for game play. When the screen becomes hard to see or the "Please change battery" message appears, replace the batteries promptly. Continuing to use batteries that are nearly exhausted will cause the Visual Memory Unit to operate incorrectly.

When using the Visual Memory Unit as a memory card:
Batteries are not required when using the Visual Memory Unit as a memory card. However, the Visual Memory Unit will not operate correctly even as a memory card if it contains exhausted batteries. In this case, remove the batteries. Note that although the Visual Memory Unit can still be used as a memory card if you remove the batteries, the clock setting will not be retained and you will not be able to play any mini-games.

Battery Life

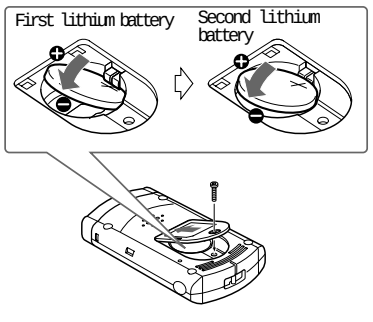
The battery life will vary greatly, depending on how the Visual Memory Unit is used. Guidelines for replacing the lithium batteries are listed below:
- If only the clock function is used, replace the batteries after about 130 days.
- The batteries will last for about seven days of continuous use when playing games. Playing against another Visual Memory Unit or saving data frequently will use up the batteries faster.
- Frequent copying of files in file mode will also use up the batteries faster.

Replacing the Lithium Batteries

Batteries should only be replaced by a responsible adult. When replacing the batteries, be careful not to lose the screw for the battery compartment cover.

Notes
- Before replacing the batteries, wipe the surfaces of the new batteries with a dry cloth.
- If the Visual Memory Unit does not work even though you just replaced the batteries, remove the batteries immediately and make sure that:
  – The polarity of the batteries (the orientation of the positive side ⊕ and negative ⊖ side) is correct.
  – The batteries are of the correct type (two CR2032 batteries).
  – Both batteries are new.

1. Use a small screwdriver (Phillips) to loosen the battery compartment cover screw on the back of the Visual Memory Unit. When the screw is loose, remove the battery compartment cover. Please note that it is not necessary to completely remove the battery compartment cover screw in order to remove the battery compartment cover.
2. Remove the old batteries, and insert two new CR2032 lithium batteries by pushing the batteries edge-first into the terminal, making sure that the positive ⊕ and negative ⊖ sides are oriented correctly.
3. Replace the battery compartment cover, and secure it with the screw.



When inserting the second lithium battery, press down on the side of the battery that will be closest to the battery compartment cover and then slide the battery into place. When closing the battery cover, make sure that the side of the battery is touching the terminal correctly.

Notes
- Do not press down on the lithium batteries with excessive force. Doing so could bend or break the terminal.
- Make sure that the lithium batteries are making good contact with the terminals.

Troubleshooting

Before requesting repair service, please check the following items.

General

- No audio or visual display
  - Is the Visual Memory Unit in the sleep state?
  - Are the batteries installed correctly?
  - Are the batteries dead?

When connected to a controller or another Visual Memory Unit

- No audio or visual display
  - Is the power on for both this Visual Memory Unit and the other device?

- Cannot copy files
  - Is there enough free space to copy the file?
  - Is the file a copy protected file?
  - Is the file damaged? Enter file mode and make sure that no errors are displayed on the screen. If there are other problems noted with the operation of the Visual Memory Unit or its display, press the Reset Button and select file mode again.

- Even though you performed the correct operation, one of the following messages is displayed by the Dreamcast:
  "Could not initialize"
  "Could not delete"
  "Could not copy"
  In this case, it is possible that the Visual Memory Unit requires repairs. Contact Sega's Technical Support at "www.sega.com" or "1-800-USA-SEGA".

Error Messages

"Format memory"
- Initialize the Visual Memory Unit.

"System error"
- Use the Dreamcast File menu to copy all the files from the Visual Memory Unit that gave the error message to another Visual Memory Unit. (Note that copying may not be possible if the files are damaged or copy protected.) Once all of the files have been copied, initialize the Visual Memory Unit that gave the error.

Storing Data

During file save operations to the Visual Memory Unit refrain from performing any of the following actions. Performing any of the following actions may result in a file save error or possibly damage files already saved in the Visual Memory Unit.
- Turn off the Dreamcast power.
- Disconnect the controller from the Dreamcast unit.
- Unplug any other expansion unit that is connected to an expansion socket on the controller.
- Copy or delete files more than necessary.

In order to prevent the loss of important data, we recommend making a backup copy of data on a different Visual Memory Unit.

Note that we cannot bear any responsibility for the loss or destruction of data.