

Glasstron

Operating Instructions

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WARNING

YOUR FAILURE TO FOLLOW THESE OPERATING INSTRUCTIONS MAY RESULT IN EYE FATIGUE, EYE DAMAGE, OR OTHER INJURY.

CAREFULLY READ THIS INSTRUCTION MANUAL AND BECOME FAMILIAR WITH ALL SAFETY INSTRUCTIONS FOR THIS PRODUCT.

THIS PRODUCT SHOULD NOT BE USED BY CHILDREN AGE 15 OR YOUNGER. IF YOU HAVE BEEN DIAGNOSED WITH EYE DISEASE OR EYE INJURY, CONSULT YOUR DOCTOR BEFORE USE AND DO NOT USE WITHOUT YOUR DOCTOR'S APPROVAL.

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Personal LCD Monitor
Glasstron™

PLM-A55

Glasstron is a brand-new concept in visual display

Congratulations on your purchase of a Sony Glasstron Personal Viewer. The Glasstron, using current technology in small, lightweight visual displays, provides a television viewing experience similar to watching a 52-inch television from a distance of approximately 2 m (6.6 feet). (Viewing experience may differ according to individual perception.)

The Glasstron Personal Viewer creates an image through two separate liquid crystal displays, in close proximity to your eyes. To insure your safe use of the Glasstron, please become familiar with its basic operations, including proper fitting instructions, and be aware of any symptoms of eye fatigue or other discomfort you may experience.

WARNING

YOUR FAILURE TO FOLLOW THESE OPERATING INSTRUCTIONS MAY RESULT IN EYE FATIGUE, EYE IMPAIRMENT, OR OTHER EYE INJURY, PROPERTY DAMAGE OR DEATH.

WARNING

THIS PRODUCT SHOULD NOT BE USED BY CHILDREN AGE 15 OR YOUNGER. THE EYES OF CHILDREN ARE STILL DEVELOPING AND MAY BE ADVERSELY AFFECTED FROM USE OF THIS PRODUCT.

Note on the LCD (Liquid Crystal Display)

The LCD screen is made with high-precision technology. However, black points or bright points of light (red, blue, or green) may appear constantly on the LCD screen. This is not malfunction. (Effective dots: more than 99.99%)

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

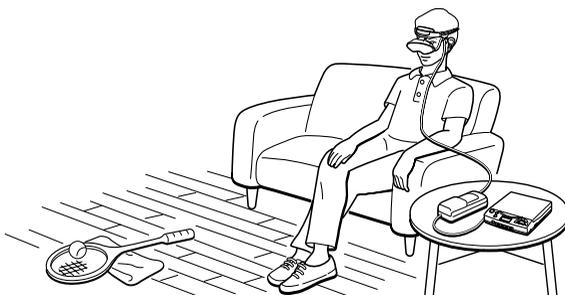


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SAFETY INSTRUCTIONS

THE SONY GLASSTRON PERSONAL VIEWER SHOULD BE USED IN STRICT ACCORDANCE WITH ALL INSTRUCTIONS TO PREVENT EYE OR OTHER INJURY, LOSS OF VISUAL FUNCTIONS, PROPERTY DAMAGE, OR DEATH.

USE RESTRICTIONS

Warning: No Use by Children Age 15 or Younger.

This product is designed for adult use.

The eyes of children are still developing and may be adversely affected by use of this product, and it may cause eye fatigue, eye damage, or loss of visual functions.

In addition, this product may not be adjusted to fit a child's head.

Safety Password: To prevent use by children age 15 or younger, this product has been equipped with a safety password protection system. For instructions on the use of the password protection system, see page 21.

Warning: Eye Disease/Eye Injury/Glaucoma.

If you have been diagnosed with or are susceptible to eye disease, eye injury, or glaucoma, consult your doctor before use and do not use without your doctor's approval. Use of this product by individuals with conditions such as glaucoma may cause these conditions to worsen.

Caution: Heart Disease/High Blood Pressure.

If you have a history of heart disease or high blood pressure, consult your doctor before use and do not use without your doctor's approval. Use of this product allows the viewer to feel they are in the action, which may result in increased anxiety or heart injury. If during viewing any increased anxiety is experienced, stop using the product immediately and rest. If the symptoms persist after rest, consult your doctor.

Caution: Seizures.

If you have a history of temporary spasms, unconsciousness, or epileptic seizures from light stimulation, consult your doctor before use and do not use without your doctor's approval. Use of this product by such individuals may cause spasms, unconsciousness, or seizures. If you experience such symptoms during use, stop using the product immediately and consult your doctor.

ADDITIONAL SAFETY INFORMATION.

- A. Health Concerns. See pages 5 through 6.
- B. Instructions for Safe Fit. See page 7.
- C. Warnings for Electronic Products. See page 8.

Health Concerns

Warning: Eye Fatigue/Eye Damage/Loss of Visual Functions.

Misuse or overuse of this product may result in eye fatigue, eye damage, or loss of visual functions. Stop using if you feel tired or experience headaches or discomfort.

Warning: No Use by Children Age 15 or Younger.

This product is designed for adult use.

The eyes of children are still developing and may be adversely affected by use of this product, and it may cause eye fatigue, eye damage, or loss of visual functions.

In addition, this product may not be adjusted to fit a child's head.

Caution: Sickness/Headache/Nausea.

If during use you experience any of the following symptoms, stop using this product immediately and rest. These symptoms may indicate that you are misusing or overusing the product (see "Instructions for Safe Fit," page 7) or that you should not use the product for health reasons. If the following symptoms persist after rest, consult your doctor.

- sore eyes, eye fatigue, or double vision
- headache
- inability to focus on the screen
- nausea or motion sickness
- stiff or sore shoulders or neck

After six hours the product automatically turns off to prevent eye fatigue or eye damage. For instructions on these functions, see page 25.

Caution: Motion Sickness from Viewing Programs.

Some viewers may experience motion sickness, headache, or nausea from viewing movies or video programs, especially those with intense action and movement. If you feel any of these symptoms, stop using the product immediately. To avoid personal injury or injury to others, do not drive a car or motorcycle, nor do anything that requires concentration until the symptoms disappear.

Health Concerns

Caution: Motion Sickness from External Motion.

Do not use this product while subject to external motion — for example, as a passenger in a car. Use of this product under these conditions may cause motion sickness.

Caution: Accidents.

Do not use this product while walking, skating, bicycling, operating a motor vehicle or other power equipment, or while engaged in any other similar activity.

Use of this product under these conditions may result in an accident, injury, or death to yourself or others.

Caution: Sound Volume.

Avoid using headphones at high volume. Hearing experts advise against continuous, loud, and extended play. If you experience a ringing in your ears, reduce volume or discontinue use.

Instructions for Safe Fit

Warning: Proper Fit.

Each time this product is used adjustment screens will appear, requiring the viewer to properly fit the product. Proper fit means that an asterisk (*) will appear in each corner of the display. Failure to properly fit the product each time may result in eye fatigue, eye damage, or loss of visual functions and may result in accident or injury. For instructions on how to properly fit this product, see pages 16 through 20.

Warning: No Use by Children Age 15 or Younger.

This product is designed for adult use.

The eyes of children are still developing and may be adversely affected by use of this product, and it may cause eye fatigue, eye damage, or loss of visual functions.

In addition, this product may not be adjusted to fit a child's head.

Safety Password: To prevent use by children age 15 or younger, this product has been equipped with a safety password protection system. For instructions on the use of the password protection system, see page 21.

Warnings for Electronic Products

Caution: Electric Shock.

Failure to observe all operating and maintenance instructions may cause damage to your product and may result in property damage or injury or death from electric shock, fire, or other cause.

Caution: Do Not Disassemble.

Any required service on this product should be performed by a trained authorized servicer. Failure to comply with this warning may result in property damage or personal injury or death from electric shock, fire, or other cause.

Caution: Avoid Wet, Humid, Dusty and Smoky Environments.

This product may be adversely affected by wet, humid, dusty, and smoky conditions which may result in property damage, personal injury or death. Do not use this product near or around water. Avoid using or storing this product under these conditions.

Caution: Avoid High Temperature or Direct Sunlight/Avoid Mechanical Shock.

This product may be deformed by high temperature or direct sunlight and also by dropping the product or other mechanical shock. Avoid these conditions, as the screens may lose proper alignment and it may cause eye fatigue or eye damage.

Caution: Unplug the Product When Not in Use.

Always unplug this product when it will not be in use for extended periods of time or during vacations.

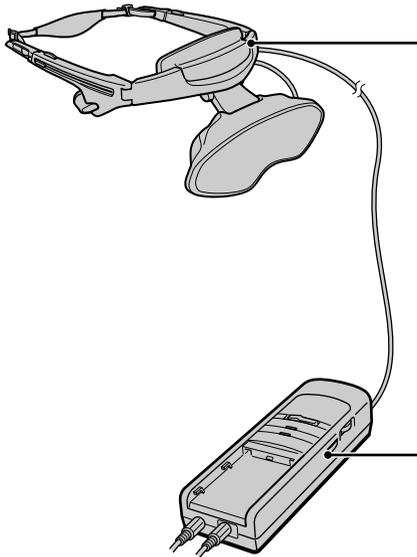
About the Glasstron

Caution: The screen is always right in front of you.

The Glasstron is a head-mounted display. With this type of display, the screen is always in front of you even if you move your head. Because of this feature, you can concentrate on the screen more easily compared with ordinary TVs and you have a sense of being in the action.

- It is easy to adjust the Glasstron to your eyes. You can use the display unit even while wearing glasses.
- Every time you use the Glasstron, the adjustment screen appears to help you adjust the display unit properly. You can also check whether the left and right screen positions are properly aligned or not.
- Cautions appear on the screen about every two hours to remind you to check for eye fatigue. The power will automatically turn off if you do not press the SEL/PUSH EXEC jog dial. If you keep using the Glasstron continuously for six hours, a warning appears on the screen and the power will turn off automatically.

The Glasstron consists of the following items:



Display unit

The display unit is equipped with two small (left and right) LCDs. You can adjust the sound volume. You can also use the SHUTTER switch to see the surrounding environment.

Power supply box

You can use Sony's recommended optional battery pack. You can also use the house current for viewing or for charging a battery pack. To use the Glasstron, connect your video equipment to A/V IN on the power supply box.

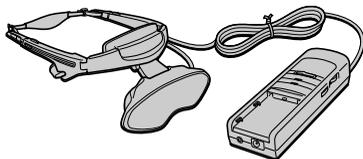
Features

- A powerful, big screen experience comparable to watching a 52-inch screen from approximately 2 m (6.6 feet) away.
- Handy portable folding display.
- Solid and lightweight components made of magnesium alloy with the display unit weighing only 150 g (5.3 oz).
- The see-through function allows you to see the surrounding environment even while wearing the Glasstron.
- You can use the Glasstron while wearing glasses.
- You can connect optional headphones to the headphones jack to enjoy the high quality sound.
- Approximate continuous use for up to 2 hours 20 minutes with Sony's recommended battery pack, NP-F550.

Checking the supplied accessories

Check that the following accessories are supplied with your Glasstron. If any item is not supplied, contact your Sony dealer or local authorized Sony service facility.

- Display unit/power supply box (1)



- Audio/video cable (special miniplug ↔ special miniplug) (1)



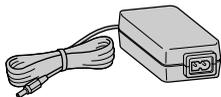
- Sunshades (1 pair)



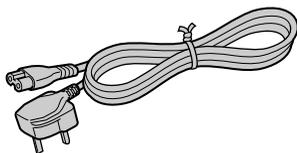
- Carrying cases (2)



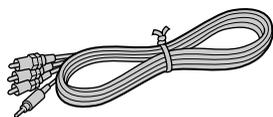
- AC power adapter AC-PLM2 (1)



- AC power cord (1)



- Audio/video cable (special miniplug ↔ phono plug) (1)

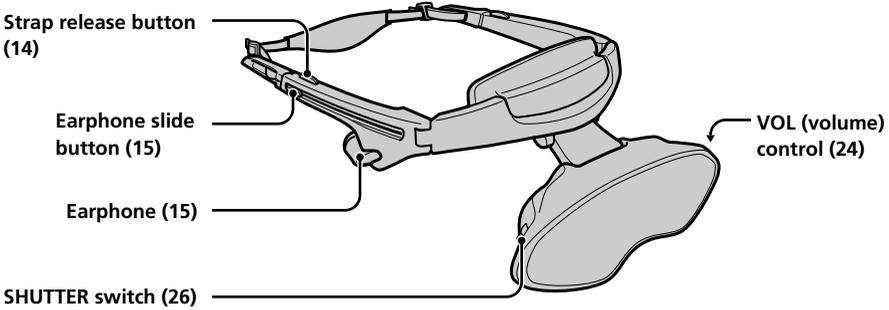


- Operating instructions manual (1)

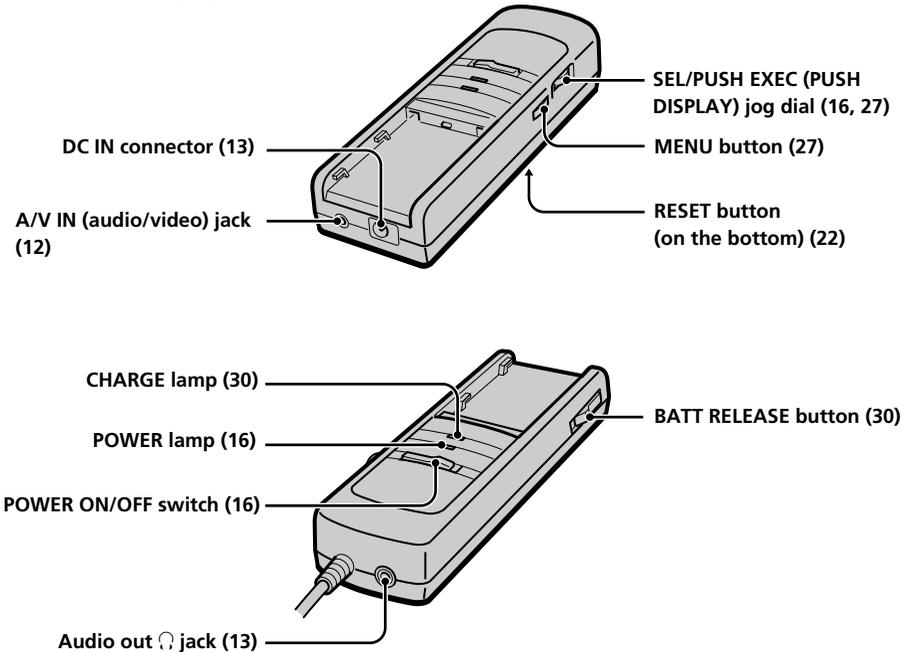
Locating the parts and controls

Refer to the pages indicated in parentheses () for details.

Display unit



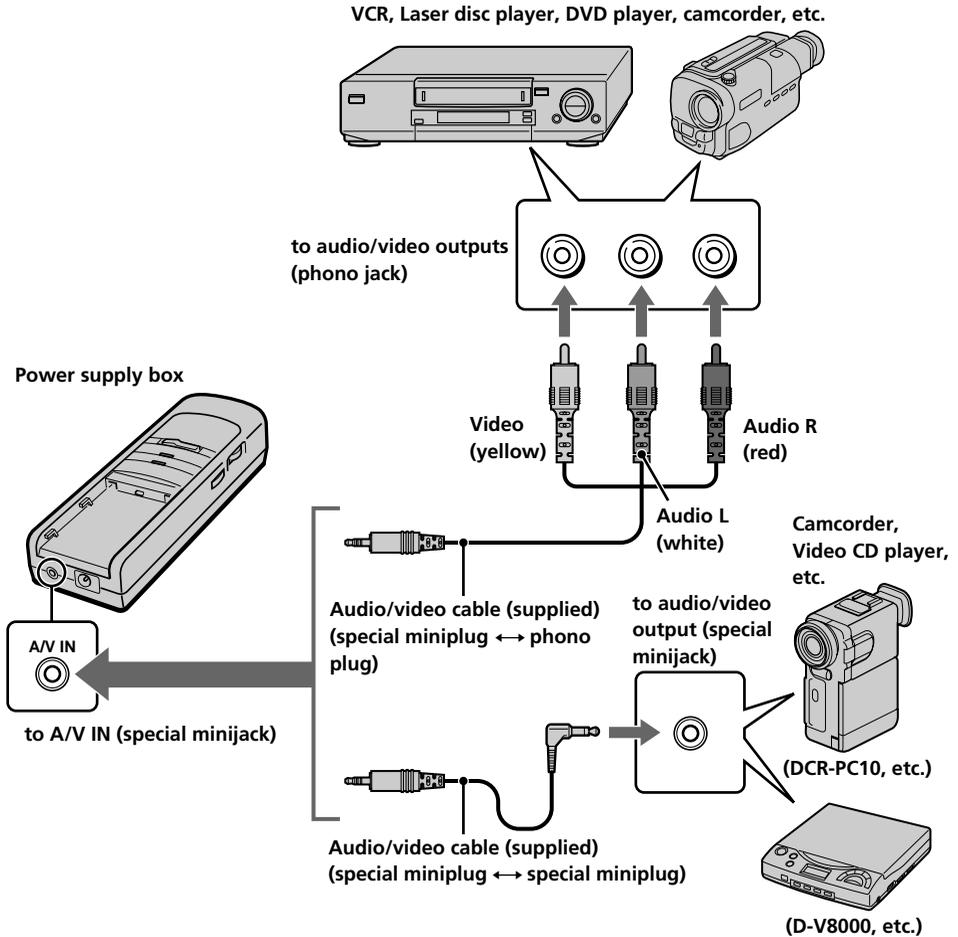
Power supply box



Connecting the Glasstron

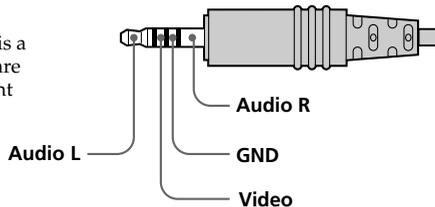
Connecting the video equipment

Connect a VCR, Laser disc player, DVD player, or camcorder to the power supply box as shown below.



About the audio/video input jack

The audio/video input jack of the Glasstron is a special minijack, and the signal connections are aligned as shown on the right. This alignment may differ depending on the equipment.

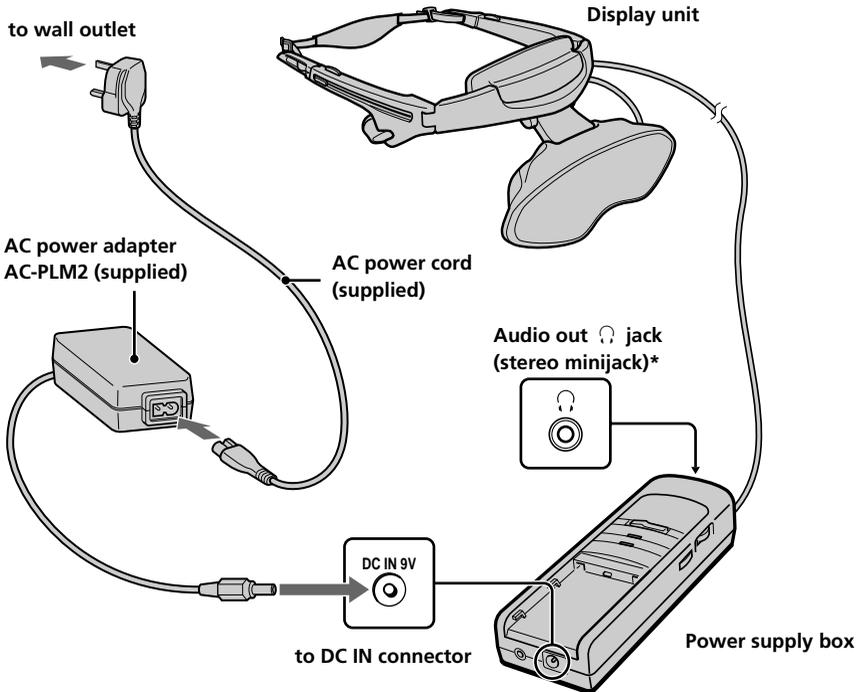


Notes

- Even if you use the supplied audio/video cable, the audio and video signals may not be carried to the Glasstron depending on the video source. In this case, contact your Sony dealer or local authorized Sony service facility.
- When you connect the Glasstron to the audio output jacks (phono jacks) of your video equipment, connect the Glasstron to both the right and left audio output jacks. If you connect the Glasstron to just one audio output jack, you will hear sound from only one of the stereo earphones.

Connecting the power source

Connect the AC power adapter AC-PLM2 (supplied) to a wall outlet. Do not connect the power source until all other connections are complete.



* You can connect an optional headphone set. When using an optional headphone set, the sound from the Glasstron earphones is muted.

Wearing the Glasstron

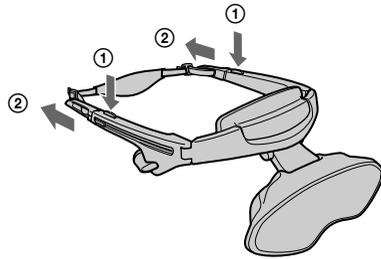
WARNING

- Failure to properly fit the product (see “Proper Fit,” page 7) each time may result in eye fatigue, eye damage, or loss of visual functions and may result in accident or injury.
- This product should not be used by children age 15 or younger.
The eyes of children are still developing and may be adversely affected by use of this product, and it may cause eye fatigue, eye damage, or loss of visual functions.
In addition, this product may not be adjusted to fit a child’s head.

If you normally wear glasses while watching TV, you can use the Glasstron while wearing glasses.

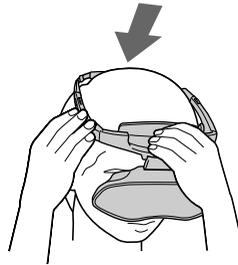
1 Loosen the back strap.

- ① Press and hold the strap release buttons,
- ② Then, loosen the back strap in the direction of the arrows.



2 Put on the Glasstron.

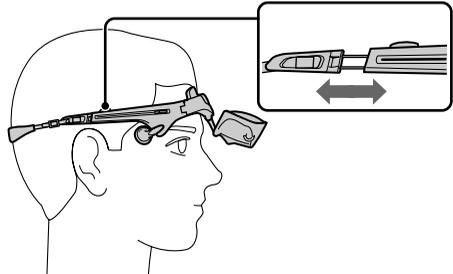
Hold the front pad against your forehead and place the rear strap so it is fixed firmly around the back of your head.



3 Adjust the strap.

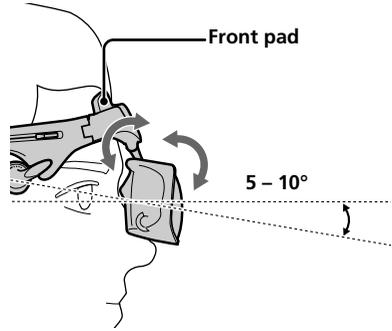
Adjust the strap after putting on the Glasstron.

Make sure the strap is snug but comfortable.



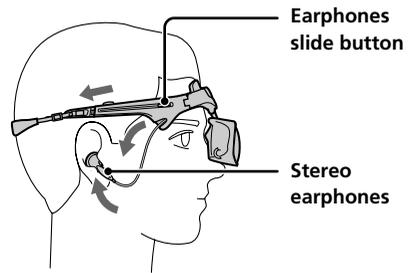
4 Adjust the angle of the display unit.

While holding the front pad against your forehead, adjust the angle of the display unit using the two hinges. Move the display unit close to your eyes at a slight downward angle. If you wear glasses, move the display unit as close to the lenses as possible.



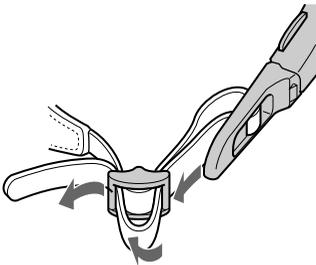
5 Adjust the stereo earphones.

Pull the earphones out. To adjust the slack, reel in the earphone cord by pressing the slide button in the direction of the arrow.



Adjusting the back strap

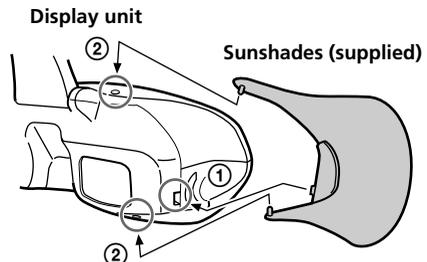
If the strap does not fit properly in step 3, adjust the strap by changing the belt length.



Attaching the sunshades

You can attach the supplied sunshades if you like. The sunshades prevent the LCD screen from reflecting light that may interfere with the picture.

Attach the sunshades on the right and left sides of the display unit by inserting the tabs on the sunshades into the holes on the display unit in the order illustrated below.



Turning on the Glasstron

After you complete all of the connections and put on the Glasstron properly, turn on the Glasstron and follow the procedures below.

- ① Checking the display unit position → This page
- ② Checking the screen position alignment → Pages 18 through 20
- ③ Setting a password → Page 21

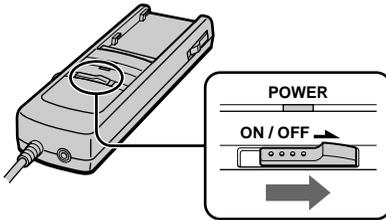
If you do not want to use a password, you have to set the Glasstron to operate without using a password in "Setting the password."

Checking the display unit position

Every time you turn on the Glasstron, the adjustment screen appears to help you adjust the display unit properly. Adjust the display unit following the procedure below.

1 Turn on the Glasstron using the POWER switch.

The POWER lamp lights up.

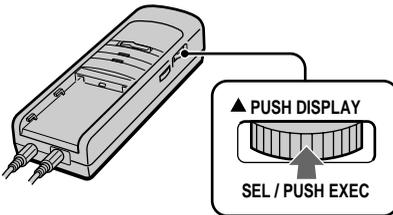


Screen

WARNING
FOR YOUR SAFETY AND TO PREVENT EYE OR OTHER INJURY, READ AND FOLLOW ALL INSTRUCTIONS IN THE USER'S MANUAL.

•CHECK

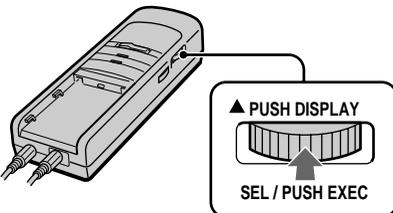
2 Read the WARNING and press the jog dial.



WARNING
FOR YOUR SAFETY AND TO PREVENT EYE OR OTHER INJURY, READ AND FOLLOW ALL INSTRUCTIONS IN THE USER'S MANUAL.

•CHECK

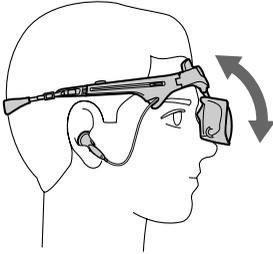
3 Read the next WARNING and press the jog dial.



WARNING
THIS PRODUCT SHOULD NOT BE USED BY CHILDREN AGE 15 OR YOUNGER. SEE THE USER'S MANUAL FOR DETAILS.

•CHECK

- 4** Adjust the display unit so that you can see an asterisk (*) in each of the four corners as shown below.



Correct



Incorrect



Incorrect



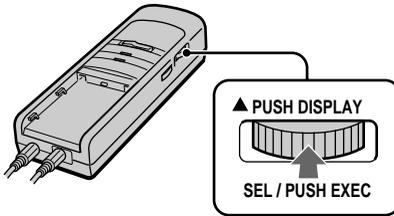
Incorrect



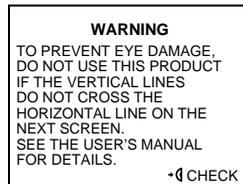
Incorrect



- 5** After you complete the display unit adjustment, press the jog dial.



- 6** Read the next **WARNING**, then go to "Checking the screen position alignment."



continued

Turning on the Glasstron (continued)

Checking the screen position alignment

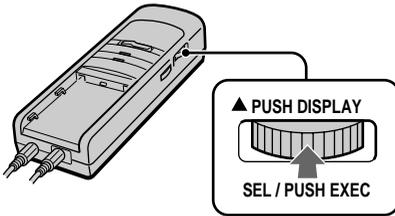
WARNING

Each time this product is used, adjustment screens will appear, requiring the viewer to properly fit the product. Proper fit means that an asterisk (*) will appear in each corner of the display. To prevent eye damage, do not use this product if the vertical lines do not cross the horizontal line on the next screen.

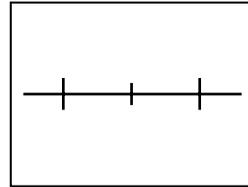
The Glasstron includes two small (left and right) LCDs. You are watching a combined picture created from these two screens. Although the screen position is properly aligned at the factory, it may become misaligned if the Glasstron is deformed or damaged. Check the screen position alignment every time you turn on the Glasstron. If you cannot have correct screen alignment, stop using the Glasstron immediately.

1

Press the SEL/PUSH EXEC jog dial.

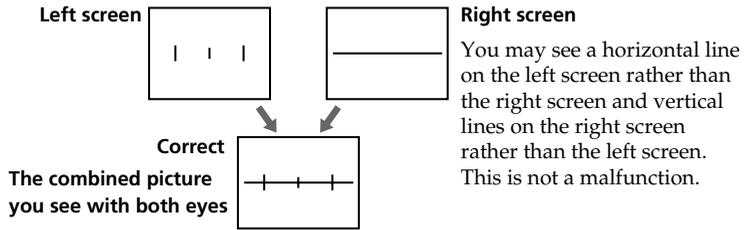


Screen

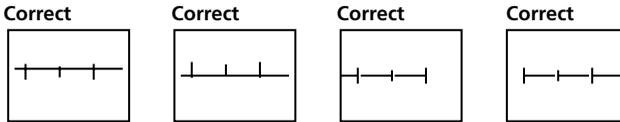


2

If the screens are aligned, press the jog dial.

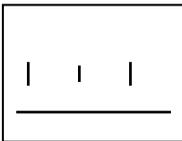


If the image you see matches one of the pictures below, you have correct screen alignment.



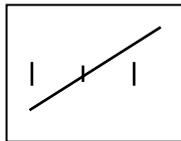
If the image you see matches one of the pictures below, stop using the Glasstron immediately. Use of the Glasstron under such conditions may cause eye fatigue or eye damage.

Incorrect



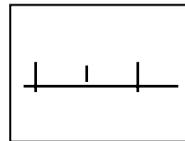
When no vertical lines cross the horizontal line.

Incorrect



When the horizontal line appears as a diagonal line.

Incorrect



When the center vertical line does not cross the horizontal line.

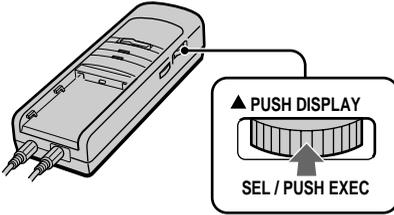
If you cannot see a proper arrangement of these lines even after resting your eyes for a few hours, the Glasstron may not be operating correctly. Contact your Sony dealer or local authorized Sony service facility.

continued

Turning on the Glasstron (continued)

3

Read the **WARNING** and press the jog dial.



WARNING
MISUSE OR OVERUSE OF THE PRODUCT MAY RESULT IN EYE FATIGUE OR EYE DAMAGE. STOP USING IF YOU FEEL TIRED OR EXPERIENCE HEADACHES OR DISCOMFORT. SEE THE USER'S MANUAL FOR DETAILS. -< CHECK

The password "YES or NO" screen appears.

DO YOU WISH TO SET A THREE NUMBER PASSWORD?

▶ YES
NO

SEE THE USER'S MANUAL FOR DETAILS.

!< SEL -< EXEC


Go to "Setting the password" on page 21.

Setting the password

WARNING

This product should not be used by children age 15 or younger. The eyes of children are still developing and may be adversely affected by use of this product. To prevent such use, this product has been equipped with a safety password protection system. Please use a secure password if children age 15 or younger may have access to this product.

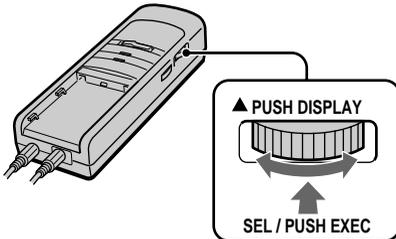
Once you set a password, you have to input the password every time you use the Glasstron. Do not forget your password. If you like, you can set the Glasstron to operate without a password.

Before you start...

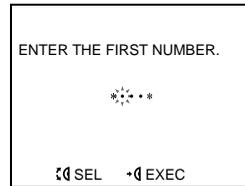
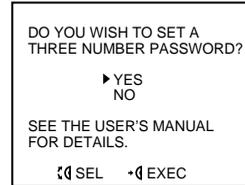
Follow the procedure in "Turning on the Glasstron" (pages 16 through 20). The password "YES or NO" screen appears on the screen.

1 Select whether to set a password or not using the SEL/PUSH EXEC jog dial.

If you need to set a password, select YES. If not, select NO by turning the jog dial. Then press the jog dial. If you do not need to set a password, go to step 4 in "Using the Glasstron" (page 24).

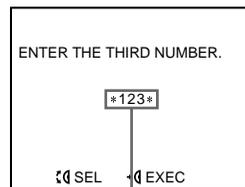
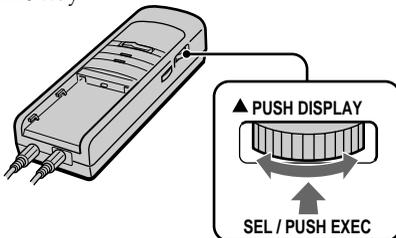


Screen



2 Enter a three digit password number, one by one, by using the jog dial.

Turn the jog dial to enter the first number, then press the jog dial. Enter the second and third numbers in the same way.



Entered password

continued

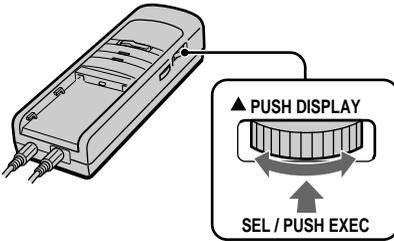
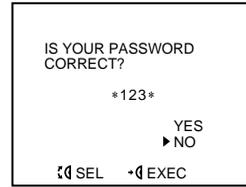
Setting the password (continued)

3 Verify a password using the jog dial.

If the password is correct, select YES by turning the jog dial. If not, select NO. Then press the jog dial.

If you select NO, return to step 1.

If you select YES, go to step 4 in "Using the Glasstron" (page 24).

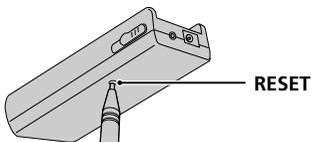


Changing the password

When the power is on, press RESET with a pointed object such as a ballpoint pen.

- If you have already read the WARNING messages (pages 16 through 20) (for example, while watching a video picture), the display will return to step 1 in "Setting the password" (page 21).
- If you have not yet finished reading the WARNING messages (for example, you have forgotten your password), the display will return to step 3 in "Turning on the Glasstron" (page 16).

If you need to set a password after having set the Glasstron to operate without a password, follow the same procedure above.



Note

Pressing the RESET button does not affect picture or sound adjustments.

Using the Glasstron

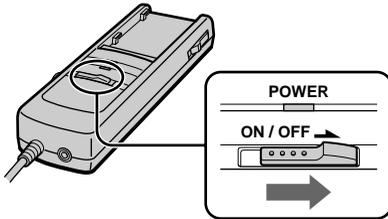
You need to set a password the first time you use the Glasstron or after you reset the Glasstron. Set the password following the procedure in “Setting the password” (pages 21 and 22).

Before you start...

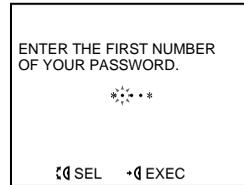
Be sure to follow the procedures in “Connecting the Glasstron” (page 12) and “Wearing the Glasstron” (page 14).

1 Turn on the Glasstron using the POWER switch.

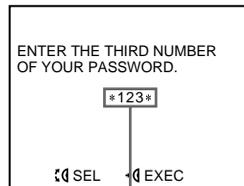
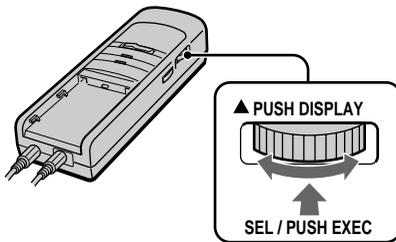
If you have set the Glasstron to operate without a password, go to step 3.



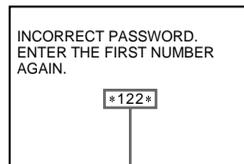
Screen



2 Turn the SEL/PUSH EXEC jog dial to enter the first number of your password, then press the jog dial. Enter the second and third numbers in the same way.



Entered password



Wrong password



If you enter a wrong password, the message shown on the right appears. Enter the correct password.

If you have entered a wrong password more than five times, after about ten seconds, the Glasstron turns off automatically.

Using the Glasstron (continued)

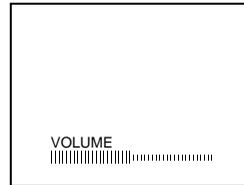
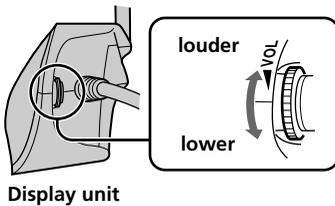
3 Follow the instructions on the screen.

- ① Warning message → Follow steps 2 through 6 in “Checking the display unit position” (pages 16 and 17).
 - After carefully reading the warnings and checking the display unit position, press the jog dial.
- ② Screen alignment page → Follow steps 1 through 3 in “Checking the screen position alignment” (pages 18 through 20).
 - Read the warning carefully, and press the jog dial.
 - Make sure the left and right screens are aligned, and press the jog dial.

4 Start playback on the video equipment connected to the Glasstron.

5 Adjust the volume by turning the VOL control.

When you set AVLS in the MENU to on, you cannot turn up the volume beyond the defined limit (see page 29).



After you finish using the Glasstron

Take off the Glasstron, and turn off the power.

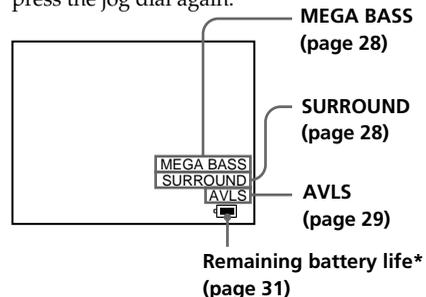
Note on the LCDs

The LCD screen is made with high-precision technology. However, black points or bright points of light (red, blue, or green) may appear constantly on the LCD screen. This is not malfunction. (Effective dots: more than 99.99%)

Checking the display indication

Press the jog dial while the picture is displayed. The display indication appears on the screen for five minutes.

To turn off the indication immediately, press the jog dial again.

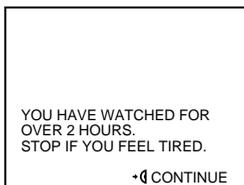


* When using the AC power adapter, the “” mark appears on the screen.

Screen warnings against overuse of the Glasstron

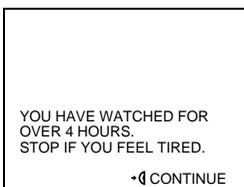
To prevent eye fatigue or eye damage, after you use the Glasstron for a fixed length of time, the following caution appears on the screen.

After about 2 hours and 15 minutes of use



Stop using the Glasstron if you feel tired or you experience headaches or discomfort. If you want to continue using the Glasstron, press the jog dial.

After about 4 hours and 15 minutes of use

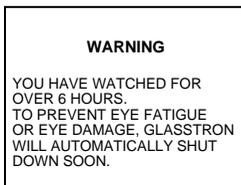


Stop using the Glasstron if you feel tired or you experience headaches or discomfort. If you want to continue using the Glasstron, press the jog dial.

Note

If you do not press the jog dial when the cautions above appear on the screen, the Glasstron turns off automatically in both cases.

After about 6 hours of use



The power turns off automatically.

Caution: Motion sickness from viewing programs.

Some viewers may experience motion sickness, headache or nausea from viewing movies or video programs, especially those with intense action and movement. If you feel any of these symptoms, stop using the product immediately. To avoid personal injury or injury to others, do not drive a car or motorcycle, nor do anything that requires concentration until the symptoms disappear.

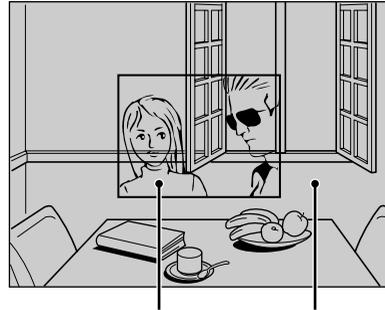
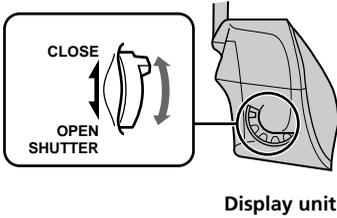
Caution: Motion sickness from external motion.

Do not use the product while subject to external motion — for example, as a passenger in a car. Use of this product under these conditions may cause motion sickness.

Viewing the surrounding environment (See-through)

While you are wearing the Glasstron, you can view the surrounding environment through the screen by opening the shutter in the display unit.

Turn the **SHUTTER** switch to **OPEN**.



The picture becomes transparent.

The area surrounding the picture also becomes transparent.

Adjusting the sound and picture

You can adjust the following items using the menu display.

BRIGHTNESS: Adjusts the picture brightness.

HUE: Adjusts the hue, if the picture looks too red or green.

COLOR: Adjusts the color intensity.

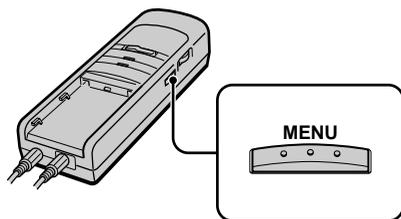
MEGA BASS: Creates a deep, powerful sound by emphasizing the bass sound.

SURROUND: Gives presence to the sound.

AVLS (Auto Volume Limiter System): Keeps down the maximum volume to protect your ear. You cannot turn up the volume beyond the defined limit even if you try to turn it up.

1 Press MENU.

The menu display appears on the screen.

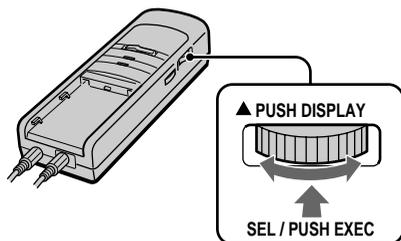


Screen



2 Turn the SEL/PUSH EXEC jog dial to select the desired item, then press the jog dial.

The setting screen of the selected item appears.



3 Adjust the setting using the jog dial.

For details on each item, see pages 28 and 29.

To set other items, repeat steps 2 and 3.

4 Press MENU.

The menu display goes off.

You can also turn off the menu display by selecting EXIT in the menu using the jog dial.

Adjusting the sound and picture (continued)

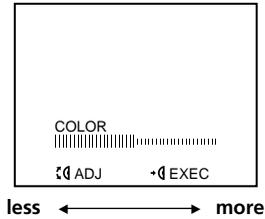
BRIGHTNESS

Turn the jog dial to adjust the brightness, then press the jog dial.



COLOR

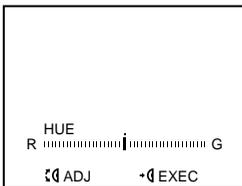
Turn the jog dial to adjust the color intensity, then press the jog dial.



HUE

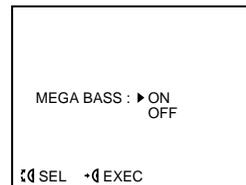
Turn the jog dial to adjust the hue, then press the jog dial.

- If the picture is too greenish, turn it to R (red).
- If the picture is too reddish, turn it to G (green).



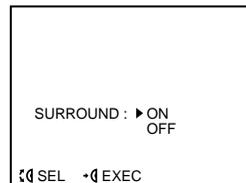
MEGA BASS

Turn the jog dial to set to ON, then press the jog dial.



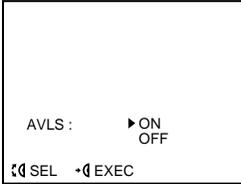
SURROUND

Turn the jog dial to set to ON, then press the jog dial.

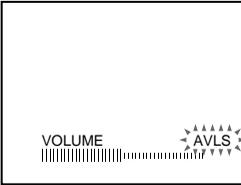


AVLS (Auto Volume Limiter System)

Turn the jog dial to set to ON, then press the jog dial.



If the volume bar indication reaches the center position when AVLS is on, the indication goes no further to the right and the AVLS indicator appears on the screen.



Note

If the audio input level is too high when AVLS is on, the sound may be distorted. In this case, turn the volume down using the VOL control on the display unit.

Resetting the adjustment to the factory preset level

Turn the jog dial to select RESET in the menu, then press the jog dial.



Note

The settings are retained even when you turn off the power.

Using the optional battery pack

If you use a battery pack such as the NP-F550/F750/F950, you can use the Glasstron without connecting to a wall outlet.

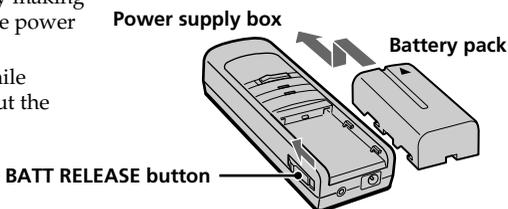
Charging the battery pack

Charge the battery pack before use. You can charge the battery pack using the power supply box. If you attach the battery pack as described below, the battery pack charges while you are not using the Glasstron.

1 Attach the battery pack to the power supply box.

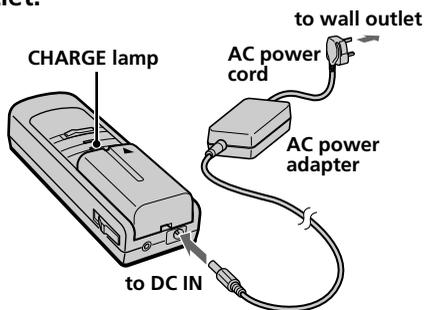
Install the battery pack properly making sure it is not crooked against the power supply box.

To remove the battery pack, while sliding BATT RELEASE, pull out the battery pack.



2 Connect the AC power adapter to the DC IN connector on the power supply box. Then, connect the AC power cord to the AC power adapter and to a wall outlet.

Charge the battery pack on a flat place without vibration. The CHARGE lamp lights up. When the battery pack is fully charged, the CHARGE lamp goes out. Battery life and charging time are shown in the table below.



	Battery life (fully charged battery)	Charging time
NP-F550	Approx. 2 hours 20 minutes	Approx. 8 hours
NP-F750	Approx. 4 hours 40 minutes	Approx. 16 hours
NP-F950	Approx. 6 hours	Approx. 24 hours

* The battery life and charging time may change depending on the conditions of use.

* You can also use a battery pack such as the NP-F530/F730/F930 (not supplied) with the Glasstron.

* You can use an "InfoLITHIUM™" battery pack with the Glasstron. When using such a battery pack, the estimated remaining battery life is displayed not with the time counter but with the indicator.

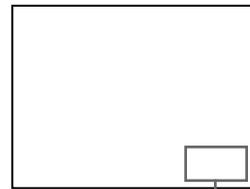
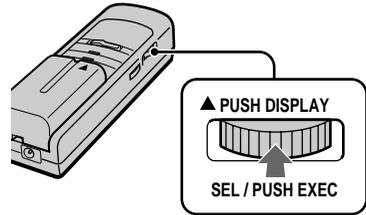
Notes

- If the POWER lamp flashes while using the battery pack, charge the battery pack.
- If the CHARGE lamp flashes, the power supply box or battery pack is malfunctioning. Contact your Sony dealer or local authorized Sony service facility.
- Battery life may be shorter in a cold environment. This is a typical battery characteristic.

“InfoLITHIUM” is a trademark of Sony Corporation.

Checking the remaining battery life

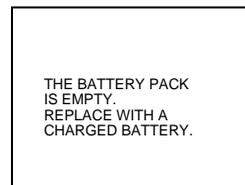
When no indication or caution appears on the screen, press the jog dial.



Remaining battery life



When the battery pack is weak, the following message appears on the screen. Replace the battery pack with a charged one.



When using the AC power adapter, the “” mark appears on the screen.

Precautions

Use

- Operate the product only with the supplied AC power adapter. If you use a different AC power adapter, it may cause a malfunction.



Unified polarity plug

- Should any liquid or solid object fall into the cabinet, unplug the product and have it checked by qualified personnel before operating it further.
- Always turn the product off when you do not use it.
Unplug the product from the wall outlet if you are not going to use it for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Do not overload wall outlets, extension cords, or convenience receptacles beyond their capacity, since this can result in fire or electric shock.
- Do not use attachments not recommended by the manufacturer, as they may cause hazards.
- Avoid using earphones at high volume. Hearing experts advise against continuous, loud, and extended play. If you experience a ringing in your ears, reduce volume or discontinue use.
- Do not touch the AC power adapter or power supply box with wet hands. If you fail to observe this, it may cause electric shock.
- Do not drop or give a mechanical shock to the product.

Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Avoid operating the product at temperatures below 5°C (41°F).
- Do not subject the product to high temperature or direct sunlight. If you do not observe the above instructions, the product may become deformed and the screens may become impossible to align. If you keep watching misaligned screens, you may develop eye fatigue. Follow the instructions in “Checking the screen position alignment” on page 18, to be sure the screens are aligned. If you find the screens misaligned, have the product repaired at your Sony dealer or local authorized Sony service facility.
- Do not place the product in locations where it is wet, humid, dusty, smoky, or steamy. Do not use this product near or around water. It may cause fire or electric shock. Especially, do not use the product in the bathroom.
- If the product is transported directly from a cold to a warm location, or if the room temperature has changed suddenly, the picture may be blurred or show poor color. This is because moisture has condensed on the mirror or lenses inside. If this happens, let the moisture evaporate before using the product.
- Do not place the product on an unstable cart, stand, table or shelf. The product may fall, causing serious injury to a child or an adult, and serious damage to the product.
- Do not allow anything to rest on or roll over the power cord, and do not place the product where the power cord is subject to wear or abuse.

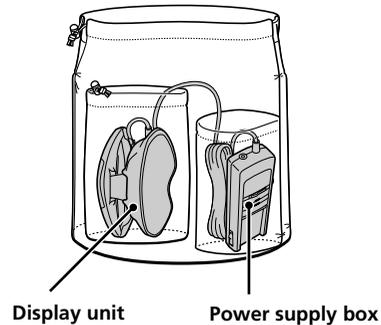
Others

- Unplug the product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power cord or plug is damaged or frayed.
 - If liquid has been spilled into the product.
 - If the product has been exposed to rain or water.
 - If the product has been subject to excessive shock by being dropped, or the cabinet has been damaged.
 - If the product does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - When the product exhibits a distinct change in performance — this indicates a need for service.
- Do not disassemble or remodel the product. It may cause fire or electric shock. Have the product checked and repaired at your Sony dealer or local authorized Sony service facility.
- Do not attempt to service the product yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.
Unauthorized substitutions may result in fire, electric shock, or other hazards.

- Upon completion of any service or repairs to the product, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the product is in safe operating condition, and to so certify.
- Unplug the product from the wall outlet before cleaning. Clean the product with a dry, soft cloth, or a soft cloth slightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzine.

Note on carrying

Use the supplied carrying cases whenever you carry the Glasstron. Put the display unit into the smaller case and the power supply box into the inside pocket of the larger one.



Troubleshooting

If you have any questions or problems not listed below, contact your Sony dealer or local authorized Sony service facility.

Symptom	Cause	Remedy
The playback picture does not appear.	Connections are incorrect.	Connect the equipment correctly (pages 12 and 13).
The picture is dark or dim.	You are not wearing the Glasstron correctly.	Put on the Glasstron correctly (pages 14 and 15).
	—	Adjust the brightness in the menu screen (page 27).
	The inside window (where the picture is displayed) is dirty.	Clean the display unit with a soft, dry cloth (page 33).
The picture suddenly disappears.	A warning was displayed for more than two minutes. (The Glasstron turned off automatically.)	—
	You continued using the Glasstron for six hours. (The Glasstron turns off automatically after six hours to prevent eye fatigue.)	—
	The battery pack is dead.	Charge the battery pack (pages 30 and 31).
The picture has no sound.	—	Adjust the volume with the VOL control (page 24).
The sound is noisy.	—	—
The volume does not become louder.	The AVLS function is on.	Set AVLS in the menu to OFF (page 27).
Sound from stereo earphones is muted.	The optional headphones are connected (page 13).	Disconnect the optional headphones.
The battery pack discharges quickly.	The battery pack is not charged enough. The battery pack is completely dead.	Charge the battery pack fully or use a new one (page 30).
The battery pack is not charged.	The battery pack is not installed properly.	Install the battery pack properly (page 30).
	The battery pack is completely dead.	Replace the battery pack with a new one (page 30).
The black, red, and green dots do not disappear.	The LCD is made with high-precision technology. However, black points or bright points of light (red, blue, or green) may appear constantly on the LCD screen. This is not malfunction. (Effective dots: more than 99.99%)	—
The picture color is different.	The color intensity and hue are not adjusted.	Adjust the color intensity and hue in the menu screen (page 27).
The POWER switch does not function.	—	Disconnect the AC power cord from the wall outlet. After three minutes, reconnect the AC power cord.

Specifications

Power supply

AC power adapter: AC-PLM2
100-240 V AC, 50/60 Hz, 16 W
Output voltage 9 V, 1.3 A

Battery pack: NP-F550/NP-F750/NP-F950 (not supplied)

Power consumption

3.8 W (max.)

Operating temperature

5°C to 35°C (41°F to 95°F)

Storage temperature

-10°C to 60°C (14°F to 140°F)

Dimensions

Display unit:

Approx. 165 × 56 × 110 mm
(Approx. 6¹/₂ × 2¹/₄ × 4³/₈ inches)
(w/h/d)

Power supply box:

Approx. 53 × 30 × 149 mm
(Approx. 2¹/₈ × 1³/₁₆ × 5⁷/₈ inches)
(w/h/d)
not including projecting parts and controls

Mass

Display unit: Approx. 150 g (5.3 oz)
Power supply box: Approx. 110 g (3.9 oz)

Video signal

NTSC color, EIA standards

Audio/video input

Special minijack
1 Vp-p, 75 ohms, unbalanced, sync negative

Audio output

Stereo minijack

Supplied accessories

AC power adapter AC-PLM2 (1)
Audio/video cable (special miniplug ↔ phono plug) (3 m) (1)
Audio/video cable (special miniplug ↔ special miniplug) (0.5 m) (1)
Sunshades (1 pair)
Carrying cases (2)
AC power cord (1)
Operating instructions manual (1)

Design and specifications are subject to change without notice.

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