

SONY

3-751-765-22 (1)

Microcassette™-corder

M-770V

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Sony Corporation © 1990 Printed in Japan

Owner's Record

The model number is located at the front and the serial number is located in the battery compartment. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. M-770V Serial No. _____

Features

- Compact size and easy operation
- TIR (Time Index Recording) function shows the date and time of recording in the display window during tape playback.
- VOR (Voice Operated Recording) system economizes on tapes, batteries and your time.
- 3-digit tape counter helps you to locate a desired portion on the tape.
- You can start recording directly from the playback mode. This ~~function is convenient to select a previously recorded portion.~~
- Automatic shut-off mechanism

What is TIR (Time Index Recording) function?

The current date and time of your recording is automatically memorized on the tape during recording.

When you play back the tape, the recorded date and time appear on the display window. You can easily identify the tape on which a conference or a lecture is recorded referring to your diary or memory.

What is VOR (Voice Operated Recording) system?

With this system, recording starts only when sound is picked up and stops automatically when sound is no longer detected.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna

Relocate the equipment with respect to the receiver

Move the equipment away from the receiver

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Precautions

On power sources

- **Operate the unit only on 3V DC.**

For battery operation, use **two size AA (R6) batteries.**

For AC operation, use the AC power adaptor recommended for this unit.

Do not use any other type.

- When the internal batteries are not to be used, remove them to avoid damage caused by battery leakage and corrosion.

On location

- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.
- Since a strong magnet is used for the speaker, keep personal credit cards using magnetic coding or spring-wound watches away from the unit to prevent possible damage from the magnet.

On operation

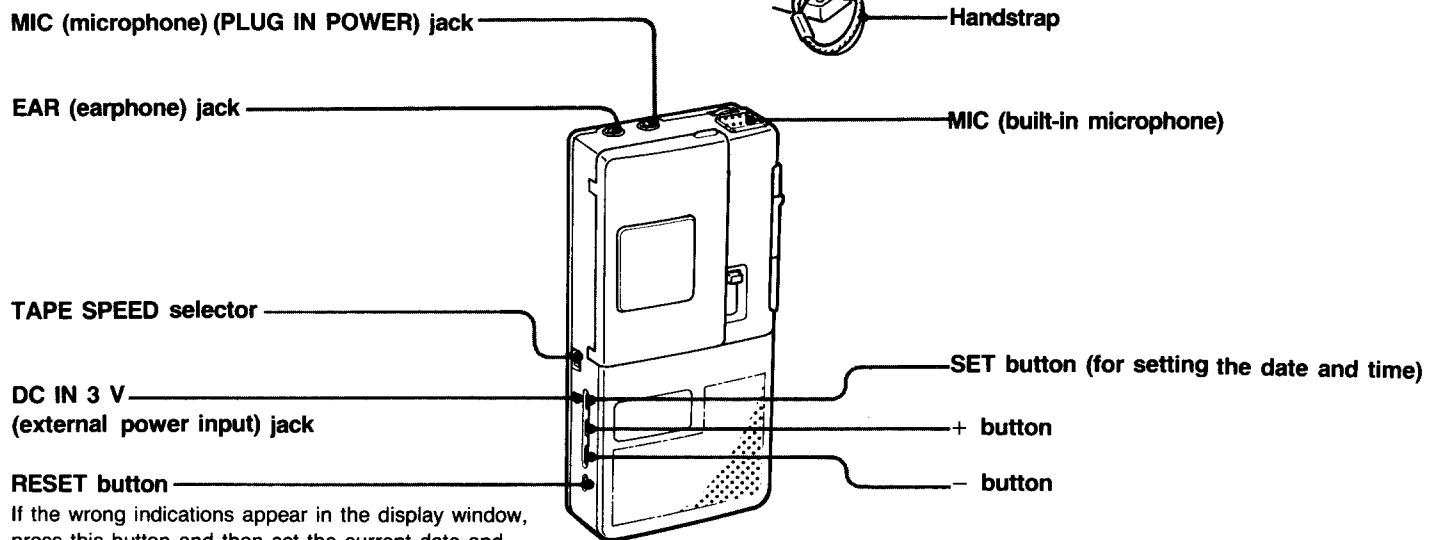
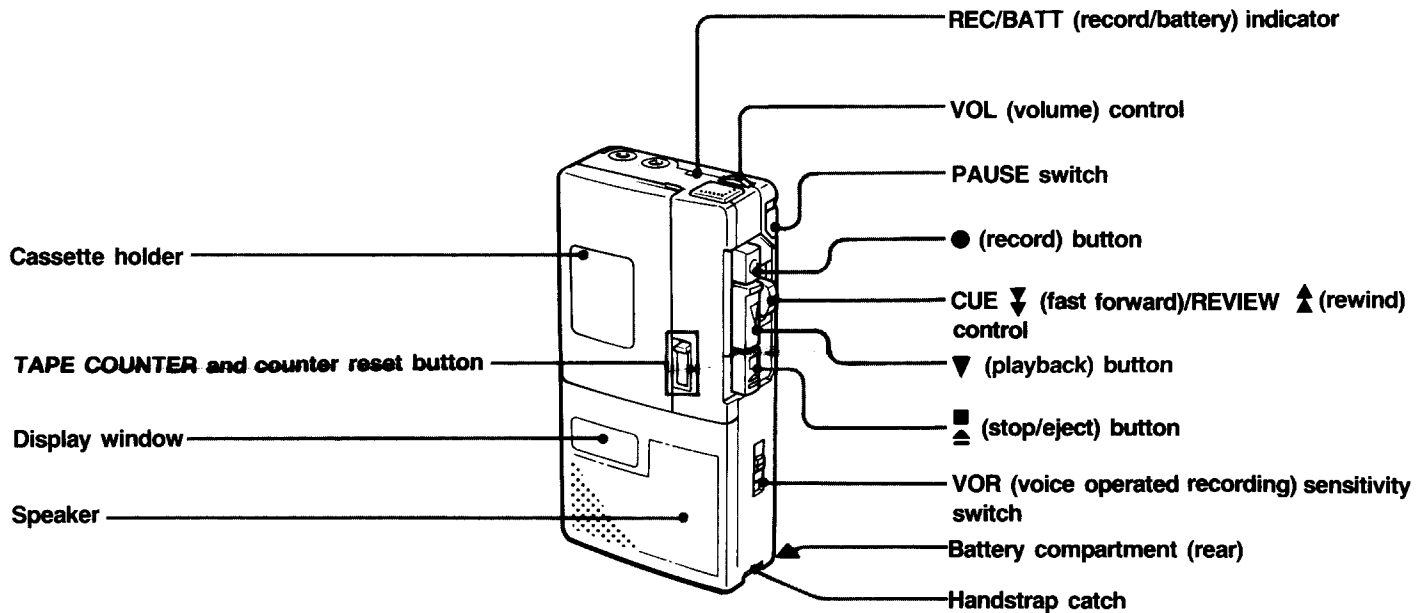
- If the unit has not been used for a long time, set it in the playback mode to warm it up for a few minutes before inserting a cassette.
- Should any solid object or liquid fall into the unit, remove the batteries or disconnect the AC power adaptor, and have the unit checked by qualified personnel before operating it any further.
- **Use only the (MICROCASSETTE)TM with this unit.**
- Two tape speeds can be selected for recording with the TAPE SPEED selector: 2.4 cm or 1.2 cm.

Match the playback speed to the recording speed.

Select the 2.4cm tape speed for recording, if you play back the recorded tape with another unit. Otherwise, the sound quality may be changed.

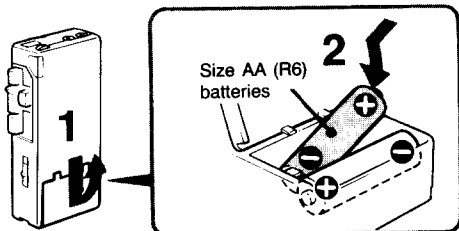
If you have any question or problem concerning your unit that is not covered in this manual, please consult the nearest Sony dealer.

Parts Identification



If the wrong indications appear in the display window, press this button and then set the current date and time again.

Battery Installation



When to replace the batteries

When the batteries become weak, the REC/BATT indicator will glow faintly and sound will become distorted or unstable. In this case, replace both batteries with new ones.

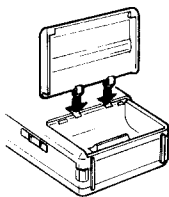
Note

When replacing the batteries, replace them within one hour. The memories of the current date and time will be erased about one hour after the batteries are removed. If the wrong indications appear in the display window after replacing the batteries, press the RESET button and then set the current date and time again.

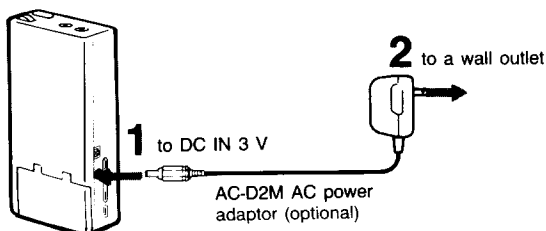
For battery life, see "Specifications".

Note on the battery compartment lid

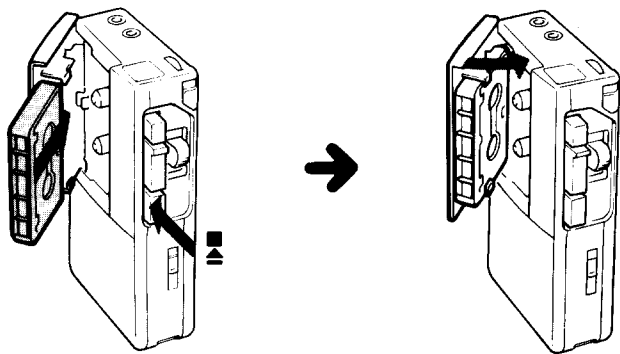
If the battery compartment lid is detached by an accidental drop, excessive force etc., attach it as illustrated.



House Current Operation



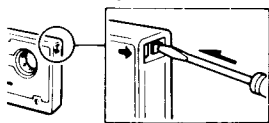
Cassette Insertion



Notes on Microcassette

To protect cassettes from accidental erasure

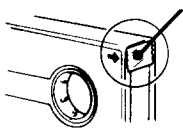
Break out and remove the tab.



To reuse a cassette

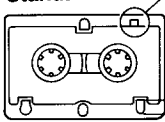
Cover the slot with plastic tape.

Plastic tape



This unit uses only standard Microcassettes. Non standard cassettes cannot be used because their "L" dimension (see illustration) is different.

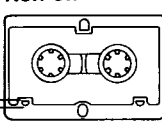
Standard



Only standard Microcassettes have a small indentation on side A.


Approx. 5 mm

Non standard



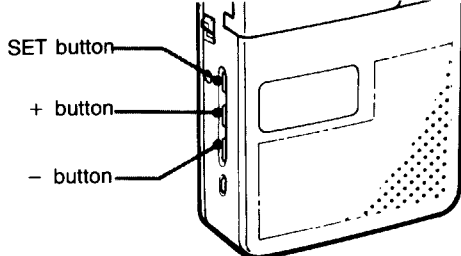
Approx. 2.5 mm

How to Set the Date/Time

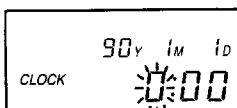
First, stop the tape with the  button.

You cannot set the clock during tape playback or recording.

Example: To set the time/date to 1:05 p.m. (i.e. 13:05), December 27, 1990.

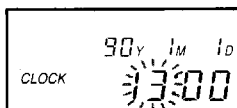


- 1** Keep the SET button pressed more than three seconds to make the hour digit blink.

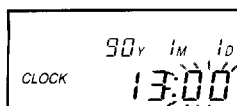


The clock indication of the initial mode is the 24-hour system. (Choose the 12- or 24-hour indication in step 5.)

- 2** Set the hour by pressing the + or - button. When the + or - button is kept pressed, the digits advance rapidly.

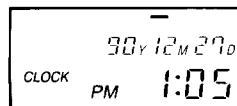
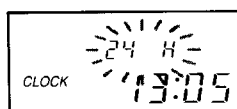


- 3** Press the SET button to make the minute digits blink.



- 4** Set the minute, month, day and year in the same way. First adjust the blinking item with + or - button, and then press the SET button. (The day of the week is automatically set when the year, month and the day are registered.)

- 5** Choose the 12- or 24-hour indication by pressing the + or - button. (A blinking "12H" and "24H" alternately appears with each press of the + or - button.) Then press the SET button. The date and time have been set completely. The clock will now start.



To change the date/time

Keep the SET button pressed for more than three seconds. (The hour digits start blinking.) Press the SET button several times to make the digits blink which you want to change. After changing the number, press the SET button several times until the clock begins to operate.

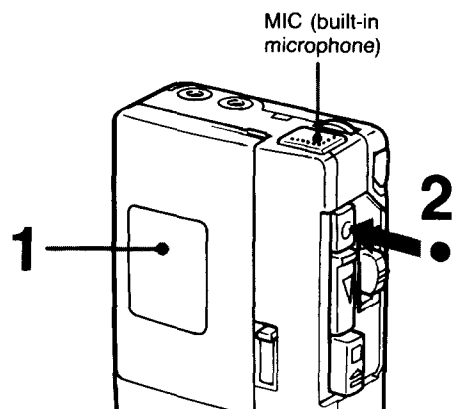
12-hour indication

AM 12:00 = Midnight
PM 12:00 = Noon

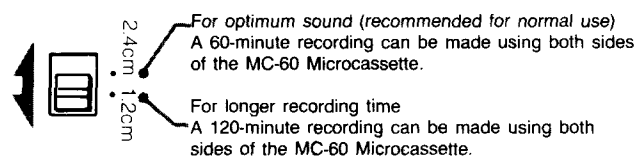
24-hour indication

0:00 = Midnight
12:00 = Noon

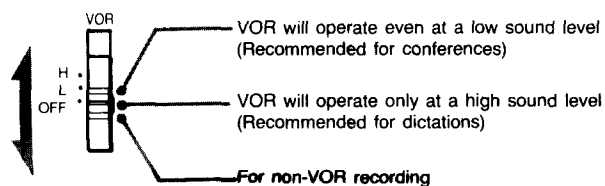
Recording with the Built-in Microphone



To select the desired tape speed



Recording only when sound is picked up (VOR system)



Recording with the TIR (Time Index Recording) function

Simply depress the ● button. The ▼ button is depressed automatically and recording starts.

The date and time of the recording is automatically memorized on the tape when recording is continued for 10 seconds or more.

Notes

- The TIR function activates only when recording has been done for more than 10 seconds.
- The TIR (Time Index Recording) function may not work correctly when a very old cassette is used. In such case, replace the cassette with a new one.

Quick review function

Simply push up the CUE ▼ /REVIEW ▲ control towards REVIEW ▲ while recording.

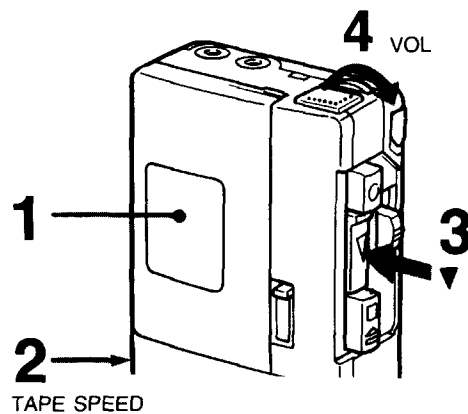
When the control is released, playback begins for review of the recorded material.

Recorded time display will remain on the window for approx. 20 seconds after the CUE ▼ /REVIEW ▲ control is used.

To listen to the recorded sound

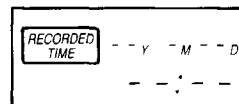
You can listen to the sound being recorded through the earphone (optional). (You can adjust the monitor volume with the VOL control.)

Playback



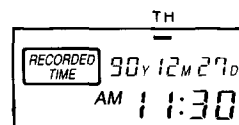
The same tape speed as that used for recording.

Depress the ▼ button. Playback starts.



The date and time of recording (RECORDED TIME) will appear on the display window after several seconds. However, the time after which the display comes on may vary according to the recording condition.

If you stop the tape by pressing the ■ / ▲ button, the display will go back to the current time indication after approx. 5 seconds:



To rapidly advance the tape, slide the CUE ▼ /REVIEW ▲ control to CUE ▼.

To rewind the tape, slide the CUE ▼ /REVIEW ▲ control to REVIEW ▲.

When the earphone is plugged in

The speaker is automatically disconnected.

To skip over or repeat a certain portion during playback

Keep the CUE ▼ /REVIEW ▲ control pushed down or up with the ▼ button depressed. When the control is released, playback begins.

To start recording directly from playback mode

During playback, simply depress the ● button and the recorder will immediately change to the recording mode.

(The display shows current date and time during recording. The mark ":" between the hour digits and the minute digits stop blinking during playback.)

To stop the tape

Press the ■ / ▲ button.

To stop the tape momentarily in the playback or recording mode

Slide the PAUSE switch in the direction of the arrow.

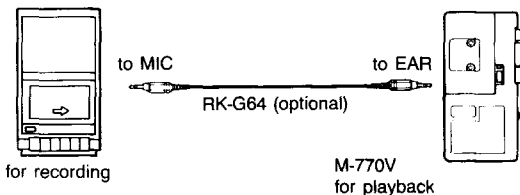
At the end of the tape

In recording or playback mode, tape stops at the end of the tape and the locked button will be released automatically (automatic shut-off mechanism).

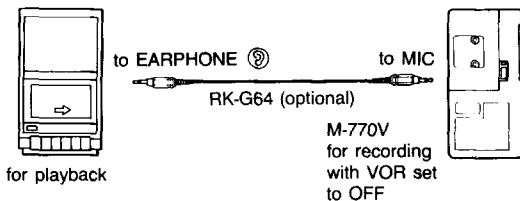
After advancing or rewinding the tape until its end, be sure to press the ■ / ▲ button to release the CUE ▼ /REVIEW ▲ control.

Recording/Playback with Connected Equipment

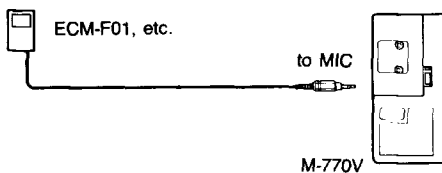
Dubbing onto another tape recorder



Recording from another tape recorder



Recording with an external microphone

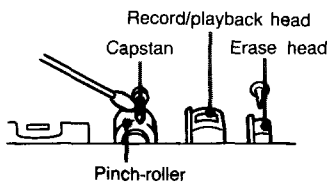


- The MIC (built-in microphone) is automatically deactivated when a cord is connected to the MIC jack.
- When connecting an electret condenser microphone with "Plug-in power" system, the power is supplied from the MIC (PLUG IN POWER) jack of the M-770V, and you do not have to insert a battery in the microphone.

Maintenance

Cleaning the heads

Clean the tape heads after every 10 hours of use to enjoy optimum sound. Moisten a cotton swab or a soft cloth with alcohol and wipe the parts shown in the illustration.



Cleaning the casing

Clean the casing with a soft cloth slightly moistened with water or a mild detergent solution. Do not use alcohol, benzine or thinner as they may mar the finish.

8

Specifications

Tape	(MICROCASSETTE) [™] (normal position type)
Recording system	2-track 1-channel monaural
Speaker	Approx. 2.8 cm (1 1/8 inches) dia.
Tape speed	2.4 cm/s (15/16 ips), 1.2 cm/s (15/32 ips)
Frequency response	250–4,000 Hz (at 2.4 cm position)
Input	Microphone jack (minijack) (PLUG IN POWER) sensitivity 0.2 mV for 3 kilohm or lower impedance microphone
Output	Earphone jack (minijack) for 8-300 ohm earphone
Power output	150 mW (at 10 % harmonic distortion)
Battery life (recording)	Sony SUM-3 (NS): Approx. 3.5 hours Sony AM3 (N): Approx. 10 hours
Power requirements	3 V DC, two size AA (R6) batteries DC IN 3V jack accepts: <ul style="list-style-type: none">• Sony AC-D2M AC power adaptor (optional) for use on 120 V AC, 60 Hz• Sony DCC-70 car battery cord (optional) for use with 12V car battery
Dimensions	Approx. 67.2 × 128.4 × 29.4 mm (w/h/d) (2 3/4 × 5 1/8 × 1 3/16 inches) incl. projecting parts and controls
Weight	Approx. 210 g (7.5 oz.) incl. batteries
Accessory supplied	Handstrap (1)

Design and specifications subject to change without notice.

Optional accessories

Microcassette MC-30, MC-60, 3MC-60

Earphone ME-L82

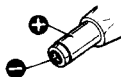
Connecting cord RK-G64 (miniplug to miniplug with attenuator)

Electret condenser microphone ECM-F01, etc.

AC power adaptor AC-D2M

Car battery cord DCC-70

Note: Use only the recommended AC power adaptor or car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



Troubleshooting Guide

Should any problem persist after you have made these checks, consult your nearest Sony service facility.

Trouble	Cause and/or remedy
Cassette cannot be inserted.	<ul style="list-style-type: none"> • Cassette is inserted improperly. See "Cassette Insertion". • The ▼ button is depressed.
The ● button cannot be depressed.	<ul style="list-style-type: none"> • No cassette is in the cassette holder • The cassette inserted has had the tabs removed. See "Cassette Insertion".
The ● or ▼ button cannot be locked.	<ul style="list-style-type: none"> • The tape is completely rewound towards the arrow direction on the cassette holder. • After the automatic shut-off, the PAUSE switch is on. Slide the PAUSE switch in the opposite direction of the arrow.
The ● or ▼ button is locked, but playback/recording does not start.	<ul style="list-style-type: none"> • Slide the PAUSE switch in the opposite direction of the arrow. • Incorrect polarity of batteries • Weak batteries
No sound from the speaker	<ul style="list-style-type: none"> • An earphone is plugged in. • The VOL control is turned down completely.
Weak or distorted sound, sound drop-outs, or excessive noise	<ul style="list-style-type: none"> • Weak batteries. See "Battery Installation". • Dirty heads. See "Maintenance".
No indication appears.	
The wrong indications appear in the display window, and no buttons function to set or change the indications.	<ul style="list-style-type: none"> • Press the RESET button. (The indication will be cleared. See "How to Set the Date/Time".)
The date and time of recording do not appear during playback.	<ul style="list-style-type: none"> • The recording time may be less than 10 seconds. For the TIR function, it is necessary to record continuously for 10 seconds or more.
The date and time of recording do not appear within several seconds.	<ul style="list-style-type: none"> • Damaged tape. Use proper tapes.
Sound drop-outs, loss of high frequencies, or excessive noise	<ul style="list-style-type: none"> • Dirty heads. See "Maintenance".
Tape speed is excessively fast or slow while playing back.	<ul style="list-style-type: none"> • Improper setting of the TAPE SPEED selector
Recording cannot be made or is unsatisfactory.	<ul style="list-style-type: none"> • Weak batteries • Dirty record/playback head. See "Maintenance". • Improper setting of the VOR switch. Set it to "H" or "OFF".
Unsatisfactory erasing	<ul style="list-style-type: none"> • Dirty erase head. See "Maintenance".

SONY®AUDIO TAPE RECORDER
COMPACT DISC COMPACT PLAYER

LIMITED WARRANTY

SONY CORPORATION OF AMERICA ("SONY") warrants this product against defects in material or workmanship, as follows:

1. For a period of 90 days from the date of purchase, SONY will pay the labor charges of your SONY authorized service facility to repair the defective product. After this 90-day period, you must pay for all labor charges.
2. In addition, SONY will supply, at no charge, new or rebuilt replacements for defective parts for a period of 1 year from the original date of purchase.

Labor and Parts

To obtain warranty service during the initial 90-day period, you must take the product, or deliver the product prepaid, to a SONY authorized service facility.

Parts Only

During the remainder of the warranty period, any defective part will be replaced if it is taken, or delivered prepaid, to a SONY service center. Labor for removal and installation is available from your SONY authorized service facility or SONY service center, at your expense.

This warranty does not cover cosmetic damage, and damage due to acts of God, accident, misuse, abuse or negligence to the product, including the antenna. This warranty is valid only in the United States of America.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the warranty period must be presented to obtain warranty service.

This warranty is valid only if the serial number appears on the product.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. SONY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. In addition, if you enter into a service contract with the Sony Partnership SM within 90 days of the date of sale, the limitation on how long an implied warranty lasts does not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For your convenience, Sony Corporation of America has established the Customer Information Center to supply you with product or service information.

SONY CUSTOMER INFORMATION CENTER
201-930-SONY (7669)

or write to:

Sony Customer Information Center
Sony Drive, Mail Drop # M-1
Park Ridge, NJ 07656

SONY CORPORATION OF AMERICA
Sony Drive, Park Ridge, New Jersey 07656

Sony Service Centers**Arizona**

Phoenix
2240 North Scottsdale Road
Tempe, AZ 85281
(602) 949-7669

California

Burbank (Los Angeles area)
4100 Riverside Drive, Suite A
Burbank, CA 91505
(818) 842-7669

Costa Mesa (Orange County area)
2729 Bristol Street South
Costa Mesa, CA 92626
(714) 549-4833

San Bruno (San Francisco area)
751 Camino Plaza
San Bruno, CA 94066
(415) 871-2810

San Diego
8975 Complex Drive
San Diego, CA 92123
(619) 279-2724

San Jose
1359 Old Oakland Road
San Jose, CA 95112
(408) 280-7669

Colorado

Denver
Havana Place Center
10740 East Iff Avenue
Aurora, CO 80014
(303) 755-7669

Florida

Fort Lauderdale
2850 North 28th Terrace
Hollywood, FL 33020
(305) 920-5600

Georgia

Atlanta
120 Interstate North Parkway East
Suite 410
Atlanta, GA 30339
(404) 953-5871

Hawaii

Honolulu
950 Mapunapuna Street
Honolulu, HI 96819
(808) 834-6622

Illinois

Niles (Chicago N.W.)
7540 North Caldwell Avenue
Niles, IL 60648
(312) 647-2400

Westmont (Chicago S.W.)
6036 38 South Cass Avenue
Westmont, IL 60559
(312) 968-0049

Kansas

Kansas City
1712 West 95th Street
Overland Park
KS 66214
(913) 888-2622

Maryland (Washington D.C.)

Washington D.C.
1358 Holton Lane
Langley Park, MD 20783
(301) 439-3500/01

Massachusetts

Boston
390 University Avenue
128 Westwood Industrial Center
Westwood, MA 02090
(617) 329-5130

Michigan

Detroit
43304 Eleven Mile Road
Novi, MI 48050
(313) 344-4044

Minnesota

Minneapolis
4300 W. 36 1/2 Street
St. Louis Park, MN 55416
(612) 920-8000

Missouri

St. Louis
12482-D Natural Bridge Road
Bridgeton, MO 63044
(314) 291-2201

New Jersey

Mahwah (N.Y. Metropolitan Area)
386 Route 17 South
Mahwah, NJ 07430
(201) 529-1655

Ohio

Cleveland
6370 Yrk Road
Parma Heights, OH 44130
(216) 845-7669

Pennsylvania

Philadelphia
651 Park Avenue
King of Prussia, PA 19406
(215) 768-8850

Pittsburgh

Wexford Plaza
10610 Perry Highway (Rt. 19N)
Wexford, PA 15090
(412) 935-8466

Texas

Dallas
401 Preston Valley Shopping Center
Dallas, TX 75230
(214) 661-3537

Houston
5747 Richmond Way
Houston, TX 77057
(713) 783-8761

Washington

Seattle
835 Fidalgo
Seattle, WA 98108
(206) 762-6500

Sony District Service Offices**Western Zone**

Western District
Sony Service Company
2729 Bristol Street South
Costa Mesa, CA 92626
(714) 549-4836

Northwestern District
Sony Service Company
1359 Old Oakland Road
San Jose, CA 95112
(408) 280-7675

Southwestern District
Sony Service Company
3201 Premier Dr., Suite 100
Irving, TX 75063
(214) 550-5270

Central Zone

Mid-West District
Sony Service Company
7540 North Caldwell Avenue
Niles, IL 60648
(312) 647-2424

East Central District
Sony Service Company
26200 Town Center Drive,
Suite 300 Novi, MI 48050
(313) 347-2251

Eastern Zone

Eastern District
Sony Service Company
386 Route 17 South
Mahwah, NJ 07430
(201) 529-1616

Mid Atlantic District
Sony Service Company
651 Park Avenue
King of Prussia, PA 19406
(215) 768-8845

Southeastern District
Sony Service Company
120 Interstate North Parkway East
Suite 410
Atlanta, GA 30339
(404) 953-5868

11