KENWOOD

UD COMPONENT SYSTEM / COMPACT HI-FI SYSTEM

UD-501
UD-551M

INSTRUCTION MANUAL

KENWOOD CORPORATION

> This manual contains instructions for two models.
> Model availability and features (functions) may differ
> depending on the country and sales area.

COMPACT disc DIGITAL AUDIO

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.

We appreciate your patronage and take pride in the long tradition of quality components that our company represents.

So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model_____ Serial Number_____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

The marking of products using lasers (Except for some areas.)

**CLASS 1
LASER PRODUCT**

The label is attached to the rear panel and says that the component uses laser beams that have been classified as Class 1. It means that the unit is utilizing laser beams that are of a weaker class. There is no danger of hazardous radiation outside the unit.

WARNING NOTICE:

IN MOST CASES IT IS AN INFRINGEMENT OF COPYRIGHT TO MAKE COPIES OF TAPES OR DISCS WITHOUT THE PERMISSION OF THE COPYRIGHT OWNERS. ANYONE WISHING TO COPY COMMERCIALLY AVAILABLE TAPES OR DISCS SHOULD CONTACT THE MECHANICAL COPYRIGHT PROTECTION SOCIETY LIMITED OR THE PERFORMING RIGHTS SOCIETY LIMITED.

When your unit needs to be repaired, bring the entire set (Speakers excluded) to your dealer.
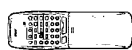
Accessories

- AM loop antenna.................1
- AC plug adaptor 1
  (Except for some areas)
- Loop antenna stand 1
- Antenna adaptor
  (75Ω / 300Ω) 1
  (For U.K. and Europe)
- FM indoor antenna 1
- Speaker cords 2
- Parallel cord 1
- Remote control unit 1

For the unit with a European AC plug in areas other than Europe.
- Batteries(R03 / AAA) 2

Speaker cords are packed with the speakers. All other accessories are packed with the poweramplifier unit.

- Magazine 1
  (UD-551M only)
  This accessory is packed with the CD player.

Contents

Caution : Read the pages marked ⚠ carefully to ensure safe operation.

Before applying power

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on 240 V AC only.

Units shipped to Europe are designed for operation on 230 V AC only.

For other countries

Important!

Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

This unit operates on 110-120 or 220-240 volts AC. The AC voltage selector switch Type A or Type B on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch

Type A

AC 110- ◄ ► AC 220 -
120 V ~   240 V ~

Type B

AC 110-
120 V ~   AC 220 V ~   AC 230 - 240 V ~

Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Note:
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

For the United Kingdom

Important!

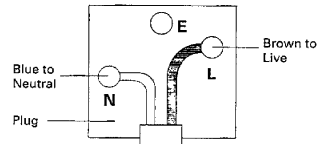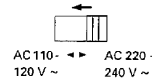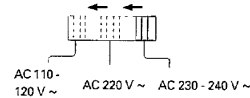Units shipped to the U.K. are designed for operation on 240 volts AC only.

The mains plug must be removed from the wall socket prior to any internal examination.

The wires in this mains lead are coloured in accordance with the following code:
Blue .... Neutral
Brown .... Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour	Plug terminal marking
Blue	N or Black
Brown	L or Red

Blue to Neutral
Brown to Live
Plug

Notes:
1. If a 13-amp plug is used, this must be fitted with a 13-amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

Safety precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
⚡	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
!	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

IMPORTANT SAFEGUARDS

⚠ Caution: Read this page carefully to ensure safe operation.

Please read all of the safety and operating instructions before operating this appliance. Adhere to all warnings on the appliance and in the instruction manual. Follow all the safety and operating instructions. These safety and operating instructions should be retained for future reference.

1. **Power sources** – The appliance should be connected to a power supply only of the type described in the instruction manual or as marked on the appliance. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For appliances intended to operate from battery power, or other sources, refer to the instruction manual.

2. **Power-cord protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

Never pull or stretch the cord.

3. **CAUTION – Polarization** – This appliance may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety future. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

4. **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the appliance and to protect it from overheating, and these openings must not be blocked or covered. The appliance should be situated so that its location or position does not interfere with its proper ventilation.
To maintain good ventilation, do not put records or a table-cloth on the appliance. Place the appliance at least 10 cm away from the walls.
Do not use the appliance on a bed, sofa, rug or similar surface that may block the ventilation openings. This appliance should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
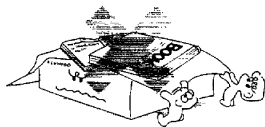

5. **Water and moisture** – The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

6. **Temperature** – The appliance may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

7. **Heat** – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

8. **Electric shock** – Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal objects, such as a hair pin or a needle, comes into contact with the inside of this appliance, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this appliance.
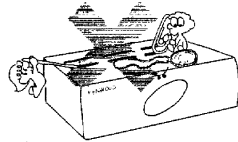
9. **Enclosure removal** – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.
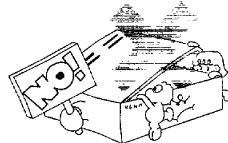
10. **Magnetic fields** – Keep the appliance away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.

11. **Cleaning** – Unplug this appliance from the wall outlet before cleaning. Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.

12. **Accessories** – Do not place this appliance on an unstable cart, stand, tripod, bracket, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the appliance. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

13. Lightning – For added protection for this appliance during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the appliance due to lightning and power-line surges.

14. Abnormal smell – If an abnormal smell or smoke is detected, immediately turn the power OFF and unplug the appliance from the wall outlet. Contact your dealer or nearest service center.
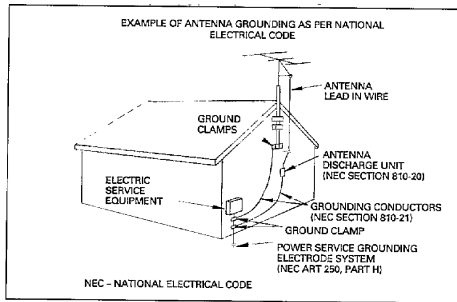
POWER OFF!

15. Damage requiring service – The appliance should be serviced by qualified service personnel when:
A. The power-supply cord or the plug has been damaged.
B. Objects have fallen, or liquid has been spilled into the appliance.
C. The appliance has been exposed to rain or water.
D. The appliance does not appear to operate normally by following the instruction manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to its normal operation.
E. The appliance has been dropped, or the enclosure damaged.
**F.** The appliance exhibits a marked change in performance.

16. Servicing – The user should not attempt to service the appliance beyond that described in the instruction manual. All other servicing should be referred to qualified service personnel.

17. Outdoor antenna grounding – If an outside antenna is connected to the appliance, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Article 810 of the National Electrical Code   ANSI/NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL
ELECTRICAL CODE

ANTENNA
LEAD IN WIRE

GROUND
CLAMPS

ANTENNA
DISCHARGE UNIT
(NEC SECTION 810-20)

ELECTRIC
SERVICE
EQUIPMENT

GROUNDING CONDUCTORS
(NEC SECTION 810-21)

GROUND CLAMP

POWER SERVICE GROUNDING
ELECTRODE SYSTEM
(NEC ART 250, PART H)

NEC – NATIONAL ELECTRICAL CODE

18. Power lines – An outside antenna system should not be located in the vicinity of overheated power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

19. AC outlets – Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical appliances, such as an iron or toaster, to it to prevent fire or electric shock.
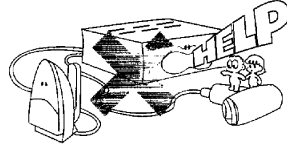
20. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

21. Attachment – Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.

22. Replacement parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety check – Upon completion of any service or repairs to this appliance, ask the service technician to perform safety checks to determine that the appliance is in proper operating condition.

Notes:
1. Item 3 is not required except for grounded or polarized equipment.
2. Item 17 and 18 are not required except for units provided with antenna terminals.
3. Item 17 complies with UL in the U.S.A.

For the U.S.A.

CAUTION:
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

In compliance with Federal Regulations, following are reproductions of lables on, or inside the product relating to laser product safety.

KENWOOD CORPORATION
2967-3, ISHIKAWA-CHO,
HACHIOJI-SHI,
TOKYO, JAPAN

KENWOOD CORP. CERTIFIES THIS EQUIPMENT CONFORMS TO DHHS REGULATIONS NO. 21 CFR 1040. 10, CHAPTER I, SUBCHAPTER J.
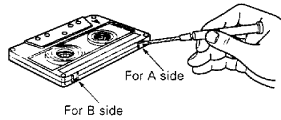
Location: Back Panel

Before operation

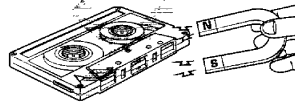
Notes on cassette tape

Safety tab (accidental erasure prevention tab)
After an important recording has been finished, break the safety tab, to prevent the recorded contents from being erased or recorded on accidentally.
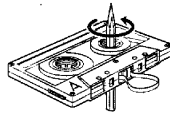
For A side
For B side

To re-record   Apply tape only to the position where the tab has been removed.

To store cassette tapes
Do not store the tapes in a place which is subject to direct sunlight, or near equipment that generates heat. Keep the cassette tapes away from any magnetic field.

When there is slack in the tape
In such a case, insert a pencil into the reel hole and wind the reel hub to remove the slack.

Notes:

1. 120-minute cassette tape
   Since a 120-minute cassette tape is very thin, the tape could adhere to the pinch roller or be easily cut. It is recommended that these tapes not be used with this unit to prevent possible damage.

2. Endless tapes
   Do not use an endless tape, as this could damage the mechanism of the unit.

Cleaning the head section

Cotton Swab
Capstan
Head
Pinch roller
Tape guides
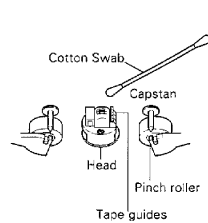
Cleaning the heads and peripheral components
For maintaining the best condition of the deck and for longer service life, always keep the heads (recording / playback / erase), capstan and pinch roller clean. To clean them, perform the following:
1. Open the cassette holder.
2. Using a cotton swab dipped in alcohol, clean the head (recording / playback / erase), capstan and pinch roller carefully.

Demagnetizing the head
When the recording / playback head is magnetized, the sound quality will be deteriorated. In such a case, demagnetize the head using a commercially available demagnetizer (head eraser).

Note:
There are precisely aligned parts around the heads, including the tape guides.
When cleaning, pay special attention so as not to apply shock to them.

Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced.
If condensation occurs, correct operation may not be possible, or the unit may not function correctly.
This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

Be especially careful in the following conditions:
- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.
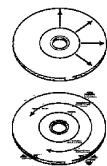
Disc handing precautions
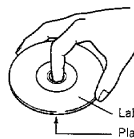
Handling
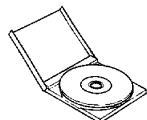Hold compact discs so that you do not touch the playing surface.

Label side
Playing side
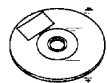
Do not attach paper or tape to either the playing side or the label side of compact discs.

Cleaning
If fingerprints or foreign matter become attached to the disc, lightly wipe the disc with a soft cotton cloth (or similar) from the center of the disc outwards in a radial manner.

Storage
When a disc is not to be played for a long period of time, remove it from the CD player and store it in its case.

Caution on disc used

Never play cracked or warped disc.
During playback, the disc rotates at high speed in the player.
Therefore, to avoid danger, never use a cracked or deformed disc or a disc repaired with tape or adhesive agent.

FM DE-EMPHASIS / CHANNEL SPACE switch (Except for some areas)

The FM DE-EMPHASIS / CHANNEL SPACE switch on the rear panel is set to the correct setting that prevails in the area to which the unit is shipped. However, if the FM DE-EMPHASIS / CHANNEL SPACE setting is not matched to the area where the unit is to be used; for instance, when you move from area 1 to area 2 or vice versa, desired reception of AM / FM broadcasts is not expected. In this case, change the FM DE-EMPHASIS / CHANNEL SPACE setting in accordance with the area corresponding to the table. The FM DE-EMPHASIS is switched over at the same time.

- When changing the setting of the FM DE-EMPHASIS / CHANNEL SPACE switch, first disconnect the power cord, then reset the channel space switch, connect the power cord again, and turn the -power on.

Area	CHANNEL SPACE freq.	FM DE-EMPHASIS
1. U.S.A., Canada, and South American countries	FM: 100kHz AM: 10kHz	75µs
2. Other countries	FM: 50kHz AM: 9kHz	50µs

DE-EMPHASIS
CHANNEL SPACE
◁ ▷

50µs   75µs
FM 50kHz   FM 100kHz
AM 9kHz   AM 10kHz
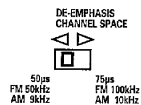
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol � are trademarks of Dolby Laboratories Licensing Corporation.

Memory backup function

Stored contents cleared immediately when power plug in unplugged from power outlet	Clock of preamplifier / tuner unit
Stored connects cleared in at least 3 days after power plug is unplugged from power outlet	Preset stations of preamplifier / tuner unit Graphic equalizer patterns (user-created patterns)

Note related to transportation and movement (CD player)

Before transporting or moving this unit, carry out the following operations.
① **Turn the power ON but do not load a disc.**
② **Wait a few seconds and verify that the display shown appears.**

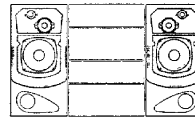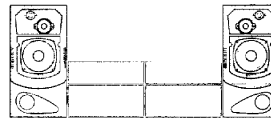**UD-501 display**   **UD-551M display**
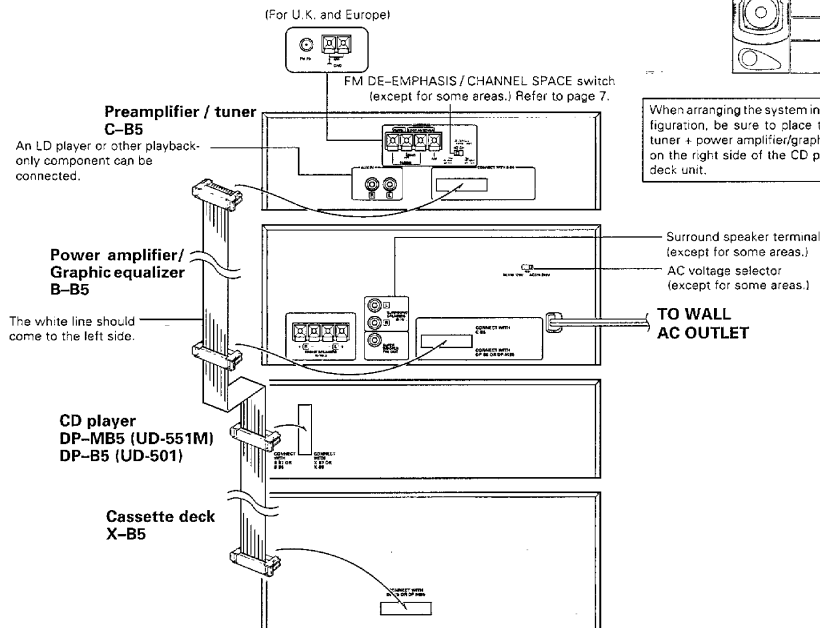Without magazine, press the ▶▌▌ key.

no d I SC   0 00

③ **Turn the power OFF.**

System connections

● When stacking components, follow the indicated order in the connections diagram.
● When connecting the related system components, refer also to the instruction manuals of the related components.

(For U.K. and Europe)

FM DE-EMPHASIS / CHANNEL SPACE switch
(except for some areas.) Refer to page 7.

Preamplifier / tuner
C–B5
An LD player or other playback-
only component can be
connected.

When arranging the system in a horizontal con-
figuration, be sure to place the preamplifier/
tuner + power amplifier/graphic equalizer unit
on the right side of the CD player + cassette
deck unit.

Surround speaker terminal
(except for some areas.)

Power amplifier/
Graphic equalizer
B–B5

AC voltage selector
(except for some areas.)

The white line should
come to the left side.

TO WALL
AC OUTLET

CD player
DP–MB5 (UD-551M)
DP–B5 (UD-501)

Cassette deck
X–B5

■ Connection of parallel cord

● Hold the connector of the parallel cord in parallel with the socket on the
rear panel, and insert securely until it clicks.
● When unplugging the parallel cord, push and hold the two ends of the
connector and pull the connector straight from the rear panel socket.
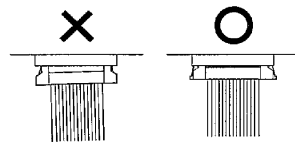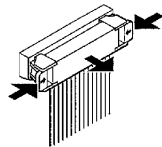
Notes:
1. Connect all cords firmly. If connections are loose, there could be loss of sound or noise produced.
2. When plugging and unplugging connection cords, be sure to first remove the power cord from the AC outlet. Plugging / unplugging
   connection cords without removal of the power cord can cause malfunctions or damage to the unit.

Connection method to each antenna terminal
① Push lever.   ② Insert cord.   ③ Return lever.

■ AM loop antenna connection

The supplied antenna is for indoor use. Place it as far as possible from the main system, TV set, speaker cords and power cord, and set it to a direction which provides the best reception.

Antenna stand   (For U.K. and Europe)   (Except for U.K. and Europe)
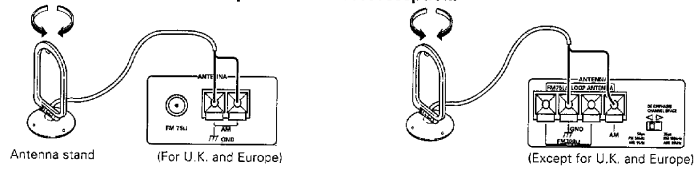
■ AM outdoor antenna connection

If the reception is poor when the AM loop antenna is used, distribute a vinyl-coated wire of more than 6 meters outdoors, without disconnecting the loop antenna.
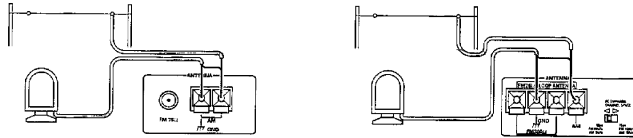
■ FM indoor antenna connection

The supplied antenna is for indoor use. For stable reception, remove the indoor antenna after installing an outdoor antenna as soon as possible.
① Find the position that
   provides best reception.
② Fix two ends.
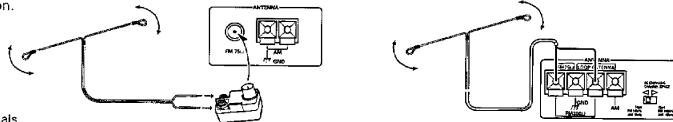
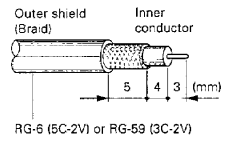Connect to the screw terminals.

■ FM outdoor antenna connection

It is recommended to install an exclusive FM outdoor antenna to capture FM broadcast with high sound quality.
Use a coaxial cable for the connection between the outdoor antenna and FM ANTENNA terminal on the rear panel.
For the connection between the coaxial cable and FM ANTENNA terminal, please refer to the illustration.
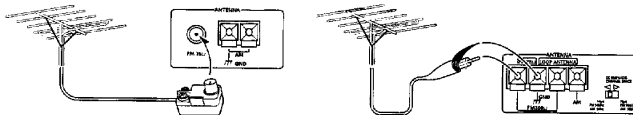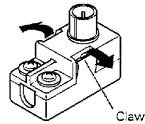
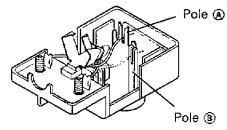## ■ 75 Ω coaxial cable connection (Europe and U.K. only)

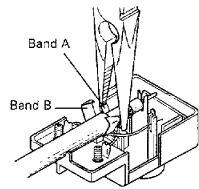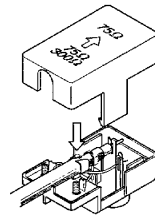| ① Arrange the coaxial cable as illustrated.	② Open the antenna adaptor. Open the claws with the fingers to release the lock and pull out the cover.	③ Remove the inner conductor from the groove of pole ⓐ and insert it in the groove of pole ⓑ.
Outer shield (Braid) Inner conductor 5 | 4 | 3 (mm) RG-6 (5C-2V) or RG-59 (3C-2V)	Claw	Pole ⓐ Pole ⓑ ● When using a 300Ω feeder cable, insert its cores into the groove of pole A.
④ Insert into the slit on the clip. Fasten the bands A and B, using a pair of pliers.	⑤ Close the cover.	⑥ Connect the adaptor to the antenna terminal.
Band A Band B		
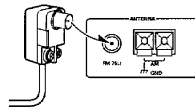
■ Connection of front speakers

On the speaker:

① While pressing lever ② Insert cord.
(holding it)

③ Release lever.

On the power amplifier/graphic equalizer:

① Push lever. ② Insert cord.

③ Return lever.

Speaker terminal

Black

Black — Red   Red

R — — L +
FRONT SPEAKERS
(6-16Ω)

- Never short-circuit the + and – speaker cords.
- If the left and right speakers are connected inversely or if the speaker cords are connected with reversed polarity, the sound becomes unnatural with ambiguous acoustic image positioning. Be sure to connect the speakers and speaker cords correctly.
- If you plan to connect commercially-available speakers, be sure to use speakers having the following maximum input power and impedance.

6 Ω or more, 50 W or more

■ Connection of surround (rear) and center speakers (optional) (Except for U.S.A., Canada, U.K. and Europe)

Surround (rear) speakers
*CM-5ES, CM-7ES or
*OMNI-7

Right   Left

SURROUND
SPEAKERS
(8-16Ω)

SUPER
WOOFER
PRE OUT

- Be sure to connect both surround speakers. If only one surround speaker is connected, surround cannot be heard.
* This option may not be available in some areas.

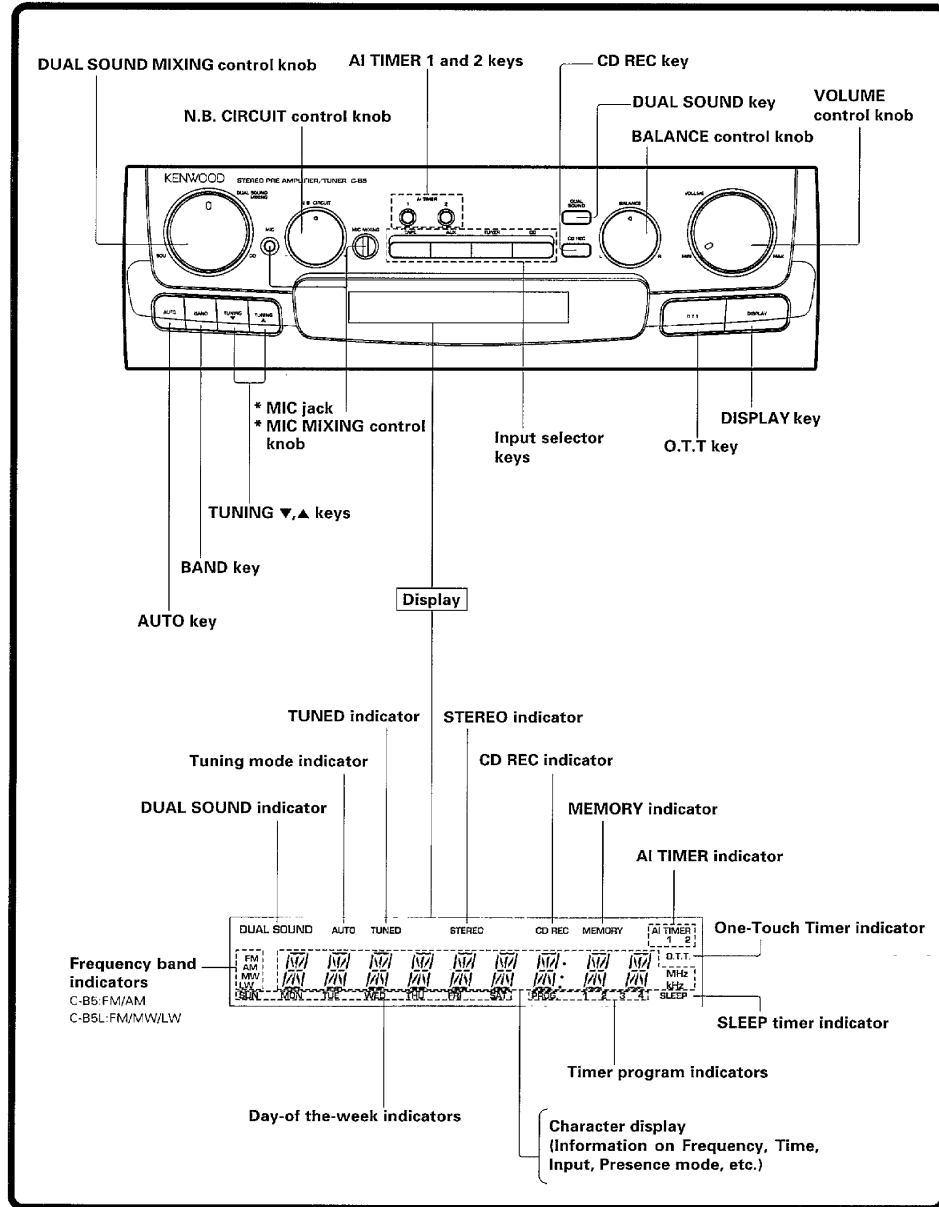## ■ Connection of super woofer (optional)

SUPER
WOOFER
PRE OUT
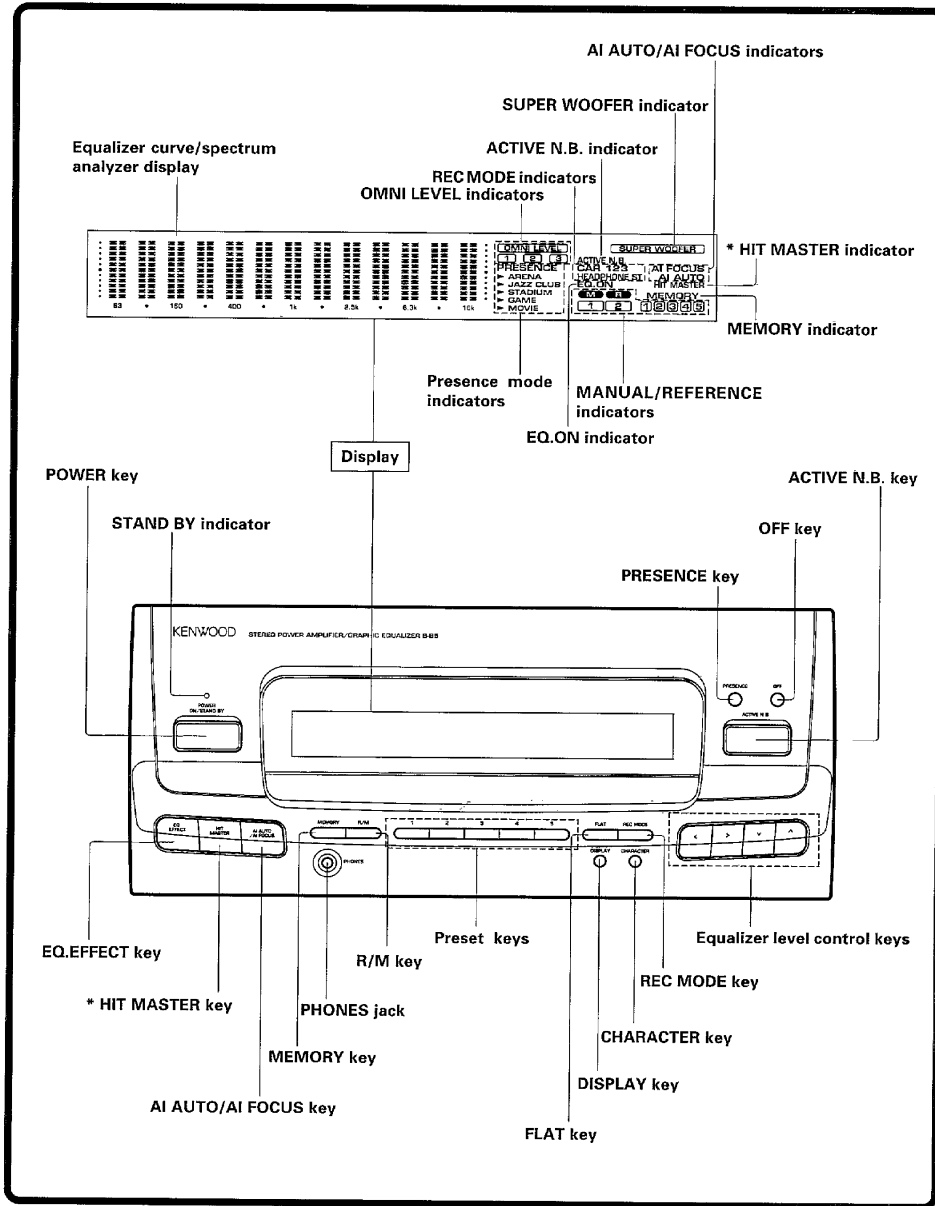
SW-700

TO WALL
AC OUTLET

Controls and indicators

■ Preamplifier / Tuner Unit

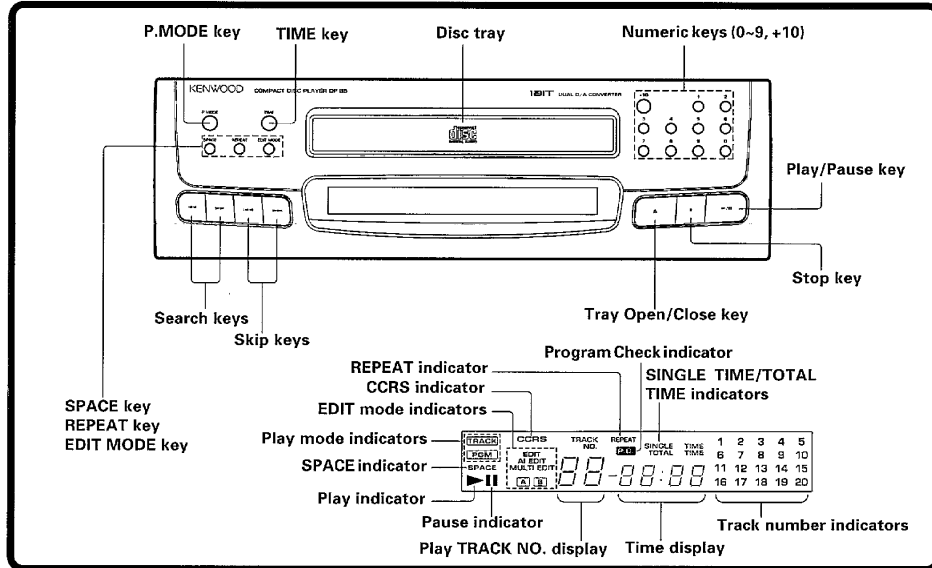(* : Except for U.S.A., Canada, U.K. and Europe)

DUAL SOUND MIXING control knob   AI TIMER 1 and 2 keys   CD REC key

N.B. CIRCUIT control knob   DUAL SOUND key   VOLUME control knob

BALANCE control knob

KENWOOD STEREO PRE AMPLIFIER/TUNER C-B5

* MIC jack
* MIC MIXING control knob

Input selector keys

DISPLAY key

O.T.T key

TUNING ▼,▲ keys

BAND key

AUTO key

Display

TUNED indicator   STEREO indicator

Tuning mode indicator   CD REC indicator

DUAL SOUND indicator   MEMORY indicator

AI TIMER indicator

DUAL SOUND   AUTO   TUNED   STEREO   CD REC   MEMORY   AI TIMER 1 2   One-Touch Timer indicator

Frequency band indicators
C-B5:FM/AM
C-B5L:FM/MW/LW

O.T.T.
MHz
kHz
SLEEP

SLEEP timer indicator

Timer program indicators

Day-of the-week indicators

Character display
(Information on Frequency, Time, Input, Presence mode, etc.)

■ Power amplifier/graphic equalizer unit   (* : Except for U.S.A., Canada, U.K. and Europe)

AI AUTO/AI FOCUS indicators

SUPER WOOFER indicator

ACTIVE N.B. indicator

REC MODE indicators

OMNI LEVEL indicators

Equalizer curve/spectrum
analyzer display

* HIT MASTER indicator

MEMORY indicator

Presence mode
indicators

MANUAL/REFERENCE
indicators

EQ.ON indicator

Display

POWER key

ACTIVE N.B. key

STAND BY indicator

OFF key

PRESENCE key

Preset keys

Equalizer level control keys

EQ.EFFECT key

R/M key

REC MODE key

* HIT MASTER key

PHONES jack

CHARACTER key

MEMORY key

DISPLAY key

AI AUTO/AI FOCUS key

FLAT key

■ CD Player Unit
UD-501: DP-B5

P.MODE key TIME key Disc tray Numeric keys (0~9, +10)

Play/Pause key

Stop key

Search keys

Skip keys

Tray Open/Close key

SPACE key
REPEAT key
EDIT MODE key

REPEAT indicator
CCRS indicator
EDIT mode indicators
Play mode indicators
SPACE indicator
Play indicator

Program Check indicator
SINGLE TIME/TOTAL
TIME indicators

Pause indicator
Play TRACK NO. display   Time display

Track number indicators

UD-551M: DP-MB5

REPEAT key
RANDOM key

Disc selector   M.EJECT key
keys (1~6, P)

P.OPEN/
CLOSE key

Play/Pause key

Search keys   Plus 1 tray   Stop key   DOOR key

Skip keys   EDIT mode indicators
EDIT MODE key   RANDOM indicator
SPACE key   PGM indicator
TIME key   SPACE indicator
Disc No. indicators
CCRS indicator
Play indicator

Play DISC NO. display
REPEAT indicator
Program Check indicator
SINGLE TIME/TOTAL
TIME indicators

Pause indicator   Play TRACK NO.
display   Time display

Track number indicators

■ Cassette Deck Unit

Deck A cassette holder

Deck B cassette holder

KENWOOD STEREO DOUBLE AUTO REVERSE CASSETTE DECK X-85

A AUTO TAPE SELECTOR   Auto Reverse   Auto Reverse   AUTO TAPE SELECTOR B

Deck A eject key

Deck B eject key

Deck A operation keys
◀, ▶ Play keys
■ Stop key
▶▶ Fast forward key
◀◀ Fast reverse key

DIRECTION key/ indicators

DOLBY NR key/ indicators

Deck B operation keys
◀, ▶ Play keys
■ Stop key
▶▶ Fast forward key
◀◀ Fast reverse key

DUBB (HIGH, NORM) keys/indicators

X.FADE key/indicator

AUTO BIAS key/indicator

CRLS key/indicator

CCRS (HIGH, NORM) keys/indicators

Pause key/ indicator

Record key/ indicator

| CCRS HIGH | CCRS NORM | AUTO BIAS | X.FADE | DUBB HIGH | DUBB NORM | CRLS | ‖ | ● |

Controls and indicators

■ Speaker Unit

Super tweeter
(Super high frequency)

Tweeter
(High frequency)

Woofer
(Low frequency)

(Figure shows the Right
channel speaker.)

Operation of remote control unit

■ Loading batteries

1 Remove the cover.

2 Insert batteries.

Insert two AAA-size (R03) batteries as indicated by the polarity marking.

3 Close the cover.
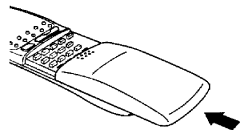
For convenience in description, the illustrations of the remote control unit shown on subsequent pages do not show the remote control unit cover.

■ Operation procedure

Plug the power cord of the system into an AC wall outlet, and press the POWER key on the remote control unit to turn the power on.
When the power is turned on, press the key of the source component to be operated.

- When two operation keys on the remote control unit are pressed successively, press each key securely reserving an interval of more than 1 second for each press.

Remote control light sensor

approx. 6 m

Approx. 30° Approx. 30°

Model: RC-MB5
Infrared control system

Operating range
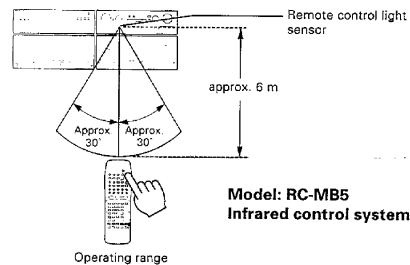
Notes:
1. The supplied batteries are intended for use in operation checks. Therefore, their lives may be shorter than ordinary batteries.
2. When the remote-controllable distance gets shorter than before, replace both batteries with new ones.
3. Malfunction may occur if direct sunlight or the light of a high-frequency lighting fluorescent lamp enters the remote control light sensor. In such a case, change the system installation position to prevent the malfunction.

■ Key Names and Functions

INPUT key
Selects the source component
to be reproduced.

OFF key
Cancels presence mode.

PRESENCE key
Turns on and selects the presence mode.

SLEEP timer key

A/B switch
Keys in the hatched sections ⸬⸬ can be
used in two ways according to the setting
of this switch.

POWER key

Tuner operation keys
BAND key, P.CALL key.

Cassette deck operation keys
To control deck A, set the A/B switch to A.
(The ● and Ⅱ keys are not effective with
this position.)
To control deck B, set the A/B switch to B.

CD player operation keys
I◄◄ and ►►I keys, ■ key, ►/Ⅱ key.

Numeric/day-of-the-week keys
When the CD input is selected, these keys
function as the numeric keys of the CD player.
When the TUNER input is selected, these keys
function as the numeric keys of the tuner.
These keys function as the day-of-the-week
keys when making timer operation reservation.

DUAL SOUND key
Used to play in environmental sound mode.

VOLUME CONTROL keys
These keys adjust the volume. Operating
these keys rotates the VOLUME control knob
on the main unit. During the rotation, the indi-
cator on the knob blinks at a high rate.

MUTE key
Press to interrupt sound temporarily.

CD player operation keys
P.OPEN/CLOSE key, DISC SELECTOR
key(1 to 6,P), P.MODE key, EDIT MODE
key, REPEAT key, RANDOM key, CHECK
key, CLEAR key

Graphic equalizer operation keys
△ ▽ ◁▷ keys, EQ. DISPLAY key,
EQ.EFFECT key, M.CALL key, AI AUTO/
FOCUS key, ACTIVE N. B. key

Timer operation keys
PROGRAM key, ADJUST key, EXE. key,
ENTER key, CLEAR key, C. CHECK key, DI-
RECT key

Super woofer operation keys
S.W.POWER key, S.W.EFFECT key,
S.W.VOL key

Model Name: RC–MB5
Infrared control system

* With the UD-501, the 1 to 6, P and P.OPEN/CLOSE keys are not effective.

Listening to sound

For details, also refer to corresponding pages for each components operation.
For the adjustment of the time displayed on the pre-amplifier / tuner, please read the next page.
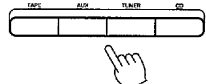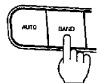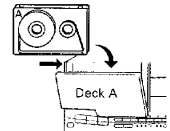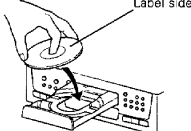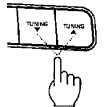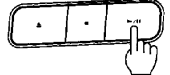
Press the POWER key of the power amplifier / graphic equalizer.

DP-B5

DP-MB5

1 **Select the source.**
Press the input selector key ① to select the desired input.

To listen to a radio broadcast	To listen to a tape	To listen to a CD
2 **Select the broadcast band.** Select a broadcasting band by pressing the BAND key ②.	**Insert a tape in Deck A.** Deck A	**Place a CD on the tray.** Label side
3 **Select a station.** Press the TUNING ▼, ▲ key ③.	**Play the tape.** Press the play key ④.	**Play the CD.** Press the ▶/II key ⑤.

4 **Adjust the volume.**

● Turn the VOLUME control knob ⑥ for an optimum volume.

Note:
If sound is not output, check the connections described from page 8 again.

Audio adjustment

Time adjustment

The preamplifier / tuner incorporates the clock function. Adjust the clock to the exact time, especially when the program timer function is to be used.

INPUT key   ADJUST key
    Numeric keys   ENTER key
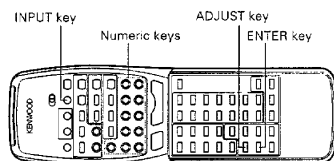
| Remote control unit only |

1 Press the ADJUST key.

ADJUST

$INPUT \ \ YEAR$
↓
$YEAR \ \ 1993$

2 Input the year using the numeric keys, and press the ENTER key.

To input 1993:   press [1], [9], [9], [3]. → ENTER

$YEAR \ -1993$
↓
$INPUT \ \ DATE$

- If you commit a mistake in the input of numeric keys, press the CLEAR key, and re-start the input from the beginning.

3 Input the month then the day, and press the ENTER key.

To input March 7:   press [0], [3], [0], [7].

To input December 30 :   press [1], [2], [3], [0]. → ENTER

$DATE \ \ 0101$

$DATE \ -1230$

$INPUT \ \ TIME$

- If you commit a mistake in the input of numeric keys, press the CLEAR key, and re-start the input from the beginning.

4 Input the time of the day.

To input 9:05AM: press [0], [9], [0], [5].   Use the 24-hour system.
To input 4:50PM: press [1], [6], [5], [0].

$TIME \ \ 0900$

$TIME \ -1650$

- If you commit a mistake in the input of numeric keys, press the CLEAR key, and re-start the input from the beginning.

5 Press the ENTER key.

ENTER

$TIME \ \ 1650$
↓
END

- For correct time adjustment, it is recommended to press the ENTER key at the same time as a time announcement.

Clock starts to work.

Note:
The time display blinks after a power failure or when the power cord was unplugged from the power outlet. In this case, adjust the time again.

Audio adjustment

Press the POWER key of the power amplifier / graphic equalizer.

- The POWER key on the power amplifier / graphic equalizer can switch on / off the powers of main system.

Stand by indicator

POWER

Remote control unit
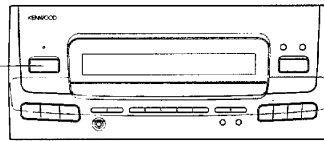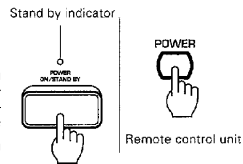
■ Adjusting the volume
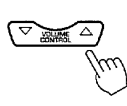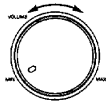
Remote control unit

- When the volume is adjusted from the remote control unit, the point indicator on the VOLUME control knob blinks and rotates together with the control knob.

To mute sound temporarily

Remote control unit only

Blinks.
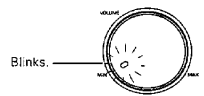
- Pressing the key again resumes the previous volume.

■ Selecting the input source

Main unit
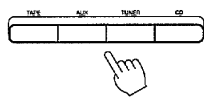
Remote control unit

INPUT

Press repeatedly

The input source changes in the following sequence.

CD → TAPE → TUNER ← AUX ←
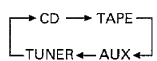
■ Adjusting the left and right volume balance

To decrease right speaker volume

To decrease left speaker volume

■ Manual Compensation of bass sound

N.B. CIRCUIT: Natural Bass Circuit

- Usually set the switch to the center position.
- Adjust to obtain a more natural bass sound.

STAND BY mode of POWER switch

When the power cord of this system is plugged into an AC outlet, the preamplifier / tuner display and power amplifier/ graphic equalizer stand by indicator light up regardless of the ON / OFF setting of the POWER switch. This indicates that a small amount of current is being supplied to the unit to back up the memory contents. This mode is referred to as the Stand By mode. While the display is lit, the power of the system can be switched ON / OFF from the remote control unit.

Automatic play operation function associated with input selector key of preamplifier / tuner

The selected input source starts playing automatically when the input source by simply pressing the input selector key (TAPE, TUNER, CD) is selected. It also allows to select a correct input selector key on the amplifier by simply starting playback on the desired input source component.

The same operation is also possible with the input selector keys on the remote control unit.

The input source selected at the moment the power is switched ON is the last source (TUNER, CD, etc.) selected before switching the power OFF.

* The easy operation function does not function in the environmental sound reproduction (with which different sounds are output through the main and omni-top speakers).

INPUT key   VOLUME
POWER key CONTROL key   S.W.EFFECT key

MUTE key   ACTIVE N.B. key

Input selector keys   VOLUME control knob
N. B. CIRCUIT knob   BALANCE control knob

PHONES jack   ACTIVE N.B. key
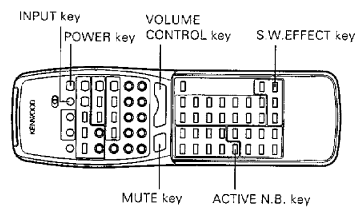
■ Automatic compensation of bass sound

Display:

ANB 1 ⟶ ANB 2 ⟶ ANB 3

Goes off (OFF) ◀
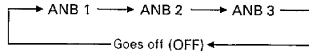
Each press switches the modes in order.

ACTIVE N.B.: Active Natural Bass Circuit.

- The bass compensation mode is switched over every time the key is pressed. Select the desired mode.
- When the ACTIVE N.B. key is ON, even if the display is showing the spectrum analyzer display, it changes to the graphic equalizer display whenever the equalizer pattern changes.
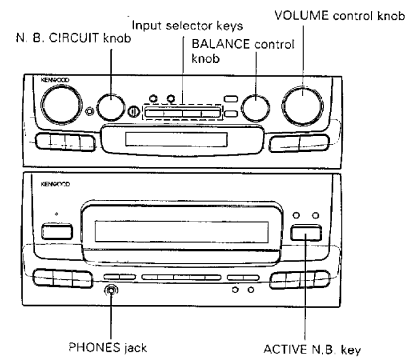
ACTIVE N.B. circuit

This circuit selects the optimum amount of bass according to the content of music being played. The circuit functions in the following three modes.

① ANB 1: Bass varies automatically every 1.6 second.
② ANB 2: Bass varies automatically every 8 seconds.
③ ANB 3: Bass varies automatically every 16 second.

ANB 1 is suitable for tunes in which the bass varies at short intervals. Select ANB 2 or ANB 3 as the variation interval lengthens. The above description serves only as reference. Please play sound in various modes and select the one the that suits your taste best.

■ Listening through headphones

1 Insert the headphone plug into the headphones jack.
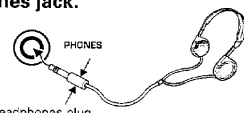
PHONES

Use the headphones plug whose diameter is less than 11 mm.

- Sound from all speakers is turned off.

2 Adjust the volume.
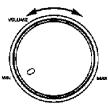
Remote control unit

- Be sure to minimize the volume before unplugging the headphone plug.

■ Operation of super woofer key

The connection of super woofer, described on page 11, must be completed before proceeding to the following. **Remote control unit only**

1 Press the S.W. EFFECT key.

S.W. EFFECT

- The power amplifier/graphic equalizer's "SUPER WOOFER" indicator lights.

2 Adjust the super woofer volume.

Adjust the volume control on the remote control unit or the super woofer.

- Once the super woofer volume is set, it is varied with respect to the master volume by varying the VOLUME control.

Presence effect

Mode Features and Characteristics

Environmental sound mode

This function allows to reproduce two different sources, such as CD and Tape. By overlapping the environmental sounds on the music, the listener can be in an atmosphere just like listening the music in that environment.

Presence modes

Five presence modes (ARENA, JAZZ CLUB, STADIUM, GAME, MOVIE) are provided. Select desired presence mode according to the source to be played to get appropriate presence.

AI LINK equalizer effect
When a sound field is selected, equalizer curves are automatically created according to the seven kinds of presence sound fields to enhance them.

Input selector keys

DUAL SOUND key
OFF key

DUAL SOUND MIXING control knob
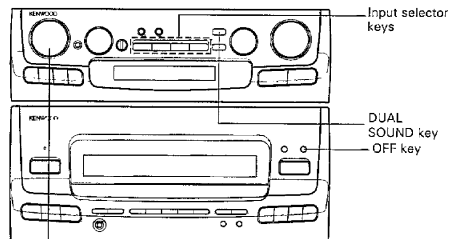
■ Playing environmental sound

1 Switch the PRESENCE to OFF.

OFF

The PRESENCE indicator goes off.
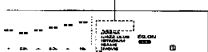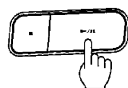
2 Switch the DUAL SOUND ON.

Select the environmental sound volume.
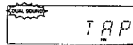
DUAL SOUND

Lights up

T A P
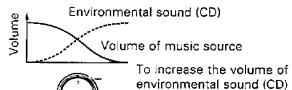
3 Play a main source.

① Select the input source.

② Play the selected source.

4 Play an environmental sound (CD).

5 Adjust the volume balance.

Adjust the desired volume balance between the main source and environmental sound (CD) with the DUAL SOUND MIXING control knob of the main unit.

Environmental sound (CD)

Volume

Volume of music source

To increase the volume of environmental sound (CD)
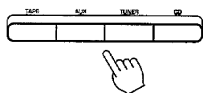
To increase the volume of main source

To return to normal playback

DUAL SOUND

Goes off.

T A P
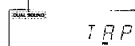
Press so that the "DUAL SOUND" indicator goes OFF.

The presence effect reproduces the atmosphere of presence that surrounds the audience in concert halls and theaters.

PRESENCE key   OFF key
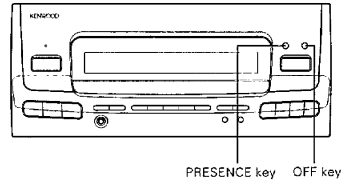
■ Playback with presence effect

1 Play music.

2 Select the presence mode.
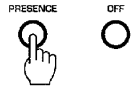
PRESENCE   OFF

Each press changes the modes as follows.

ARENA ⟶ JAZZ CLUB ⟶ STADIUM

MOVIE ⟵ GAME ⟵
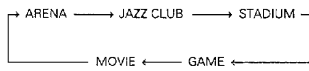
3 Adjust the volume.

■ To cancel presence mode

PRESENCE   OFF

● Be sure to turn the presence mode OFF when the presence effect is not required.

■ Recording with presence effect

1 Select the presence mode.
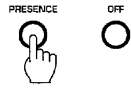
PRESENCE   OFF

Each press changes the modes.

2 Play music and record it.

● Set the recording level using the CRLS and CCRS.

Types and results of presence modes

ARENA	Reproduces the sound field of a hall with many high-frequency reflections and long reverberation period.
JAZZ CLUB	Reproduces a jazz house where the sound of cymbals echoes.
STADIUM	Reproduces the ambience of reflections proper to sport stadiums by simulating the sound of PA speakers.
GAME	Enhances the effects sound of video games to reproduce powerful sound with an atmosphere of presence.
MOVIE	Reproduces the reverberations and atmosphere of presence proper to movie theaters.

DUAL SOUND MIXING control knob   Input selector keys

DUAL
SOUND key

PRESENCE
key
OFF key
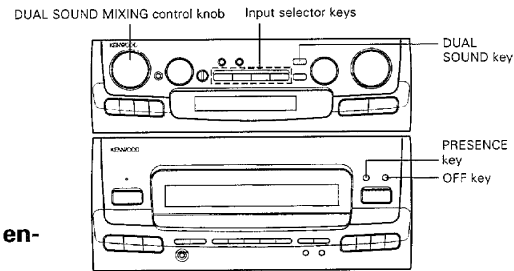
■ Combination of presence and environmental sound

1 Select the sound field.

PRESENCE

Each press switches the input as follows.

┌→ARENA →JAZZ CLUB →STADIUM ┐
└── MOVIE ←── GAME ←──┘
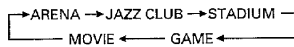
• For the contents of the sound fields, refer to page 25.

2 Switch the DUAL SOUND ON.

DUAL
SOUND   Lights up

T A P E
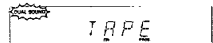
3 Play an environmental sound (CD).
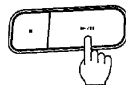
4 Play a main source.

① Select the input source.

TAPE   AUX   TUNER   CD
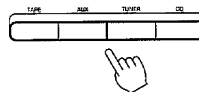
② Play the selected input source.

5 Adjust the volume balance.

Adjust the desired volume balance between the main source and environmental sound (CD) with the DUAL SOUND MIXING control knob of the main unit.

Environmental sound (CD)

Volume of music source

To increase the volume of environmental sound (CD)

To increase the
volume of main source
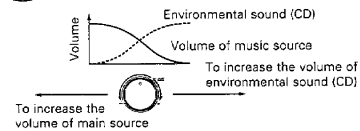
To end the presence play

① To cancel the presence mode
.........Press the OFF key.
② To cancel the environmental sound
.........Press the DUAL SOUND key so that the "DUAL SOUND" indicator goes off.

Reception of radio broadcast

Numeric keys

ENTER key

TUNING keys   Input selector keys

AUTO key
BAND key
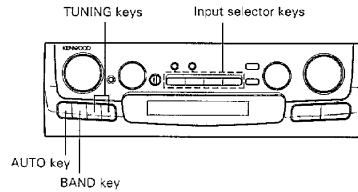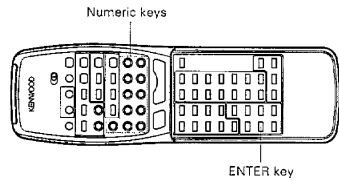
■ Receiving broadcast stations and storing them in memory (preset operation)

1 Select the TUNER input.

- Display the frequency.
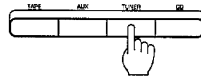
2 Select the broadcast band.

- The frequency is displayed for a few seconds when a key associated with tuning is pressed.

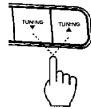The bands are switched as follows every time the BAND key is pressed.

→ FM → AM(MW → LW) ─┐
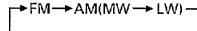
3 Select the tuning mode.

- Normally, select the auto mode (with AUTO lighted).
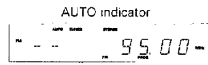
AUTO indicator

Press the key to select the auto (AUTO lit) or manual (not lit) mode.

4 Tune the desired station.

To decrease frequency   To increase frequency

- The TUNED indicator lights up when a station is received.
- Use manual tuning mode when the radio wave is weak and noisy. At this time, the stereo FM broadcast is received in monaural mode.

Auto tuning mode	Manual tuning mode
Press once. (Tuning stops automatically when a station is received.)	Press repeatedly, or press and hold, until the desired station is received.

5 Store the station in preset memory. |Remote Control unit only|

① Press the ENTER key.

ENTER

- Proceed to step ② before "MEMORY" stops lighting.

② Press the desired numeric key.

"MEMORY" lights up for approx. 5 sec.
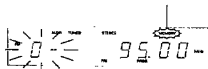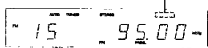
Examples of input
To select preset No. 15: +10 5
To select preset No. 20: +10 +10 0

- When a station has previously been preset under the numeric key pressed, the newly preset station replaces the previous station.
- When preset is to be continued, repeat steps 2 to 5.
- Up to 20 broadcast stations can be preset regardless of the broadcasting bands.

"MEMORY" goes off.

■ Receiving a preset station

Remote Control unit only

Select the desired station.

① Select the TUNER input.

② Press the numeric key.

● The frequency of the station received will be displayed.

■ Listening to all preset stations in sequence (PRESET CALL)

Remote Control unit only

① Select the TUNER input.

② Press the P.CALL key.

● Every time Ⓐ(UP) is pressed, the preset stations are received in order of 1 ▸ 2... 19 ▸ 20 ▸ 1.....
Every time Ⓥ (DOWN) is pressed, the preset stations are received in order of 20 ▸ 19... 2 ▸ 1 ▸ 20.....
● When a key is held depressed, the preset stations are received in sequence at 0.5-second intervals.The station being received when the key is released will continue to be received.

DISPLAY key

Each press of the DISPLAY key changes the display content of the preamplifier/tuner.

┌─① **Input source display:** Displays the input source being selected.
│   When the tuner function is selected, the received frequency is displayed.
├─② **Clock display** ─┐ When an operation associated with
└─③ **Date display** ─┘ tuning is performed, the display changes to the frequency display for a few seconds.

When pressed while the power is OFF, the DISPLAY key changes the display content between the date display and clock display.

■ Direct tuning of radio stations

If you know the frequency of the desired station, it can be received directly by inputting the frequency using the numeric keys.

Remote Control unit only

1 Select the TUNER input.

INPUT

Each press switches the input as follows.
┌─▸ CD ──▸ TAPE ─┐
└─TUNER ◂─AUX ◂─┘
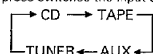
2 Select the broadcast band.   TUNER

One of FM or AM (MW / LW).

Set the A / B switch to the "A" side.

3 Press the DIRECT key.   DIRECT

4 Input the frequency of the desired station by pressing the numeric keys.

Example of input

Desired station	Order of pressing numeric keys	
FM 90 MHz	⑨ , ⓪ , ⓪	(100 kHz space)
	⑨ , ⓪ , ⓪ , ⓪	(50 kHz space)
FM 102.5 MHz	① , ⓪ , ② , ⑤	(100 kHz space)
	① , ⓪ , ② , ⑤ , ⓪	(50 kHz space)
AM (MW) 810 kHz	⑧ , ①	(10 kHz space)
	⑧ , ① , ⓪	(9 kHz space)
AM (MW)1260 kHz	① , ② , ⑥	(10 kHz space)
	① , ② , ⑥ , ⓪	(9 kHz space)

● If you commit a mistake in the input of numeric keys, press the CLEAR key, and re-start the input from the beginning.
● The display blinks if you mistakenly enter the wrong frequency. Re-enter the correct frequency.

Operation of graphic equalizer

This system features a sophisticated graphic equalizer which allows fine adjustment of frequency bands. It is possible to compensate for the acoustics of the listening room as well as to enjoy music with optimum sound thanks to the AI (Artificial Intelligence) features as described below.

1. AI-AUTO (for normal CD playback only)
Checks the contents recorded on a CD automatically, and sets the optimum equalizer pattern according to the CD.

2. AI-FOCUS (for CD playback in presence modes only)
With this function, the recorded contents of CD is checked with respect to the selected presence mode, and equalizer curve are set automatically to create a live atmosphere of presence.

3. REC MODE (Curves for use in recording)
A "CAR" curve is provided for recording tapes to be played on a car stereo, and a "HEADPHONE ST" curve is provided for recording tapes to be played on a headphone stereo.

4. REFERENCE / MANUAL modes
REFERENCE : Ten exemplary patterns have been preset at the factory.
MANUAL :   Five preset patterns have been factory-preset for this mode. In this mode, it is also possible to preset (assign) equalizer patterns created by the user in place of the factory presets.

5. AI-LINK
When a presence mode is selected or canceled, the optimum equalizer curve is set automatically to enhance the presence effect.

6. CHARACTER
In the spectrum analyzer display mode, the level of the music being played and changes of frequency distribution with four different patterns are displayed.

SPE.ANA	1: NORMAL	Normal spectrum analyzer display
	2: SHOWER	Reversed normal spectrum analyzer display with the normal peak hold levels display
	3: HORIZONTAL	Displays right and left levels with the frequency band in vertical axis and level in horizontal axis.
	4: SEE-THROUGH	Displays peak hold levels only.

HIT MASTER key
(Except for U.S.A., Canada, U.K. and Europe)

Refer to "Simple karaoke singing entertainment" on page 72.

AI: Artificial Intelligence.
The AI is capable of adjusting the tone automatically according to the source and music categories.

Operation of graphic equalizer

CHARACTER key
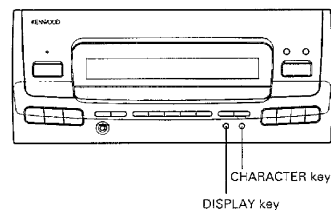
DISPLAY key

Contents of display

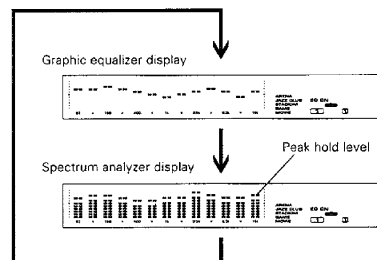The display mode changes every time the DISPLAY key is pressed.

DISPLAY

Graphic equalizer display
Shows how each frequency range is compensated.
The graphic equalizer display also appears for about 5 seconds, even while the unit is in the spectrum analyzer display mode, when one of the following operations is performed.
1. Switching power ON.
2. An operation key associated with an equalizer operation is pressed.

Spectrum analyzer display
Displays the frequency distribution of the source being played to allow understanding at a glance.
The peak value of the varying level of each frequency range is held and displayed for about 0.5 seconds.

Graphic equalizer display

Peak hold level

Spectrum analyzer display

Character display
Press the CHARACTER key in the spectrum analyzer display.

CHARACTER

The display mode changes every time the CHARACTER key is pressed.

SEE-THROUGH
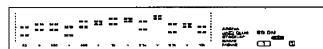
NORMAL
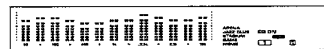
HORIZONTAL

SHOWER

Peak hold level
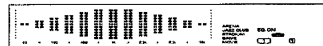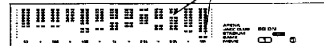
AI AUTO/AI FOCUS key
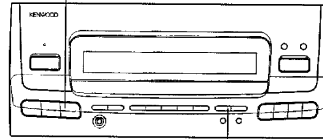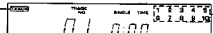
FLAT key

■ Operation of AI AUTO (for normal CD playback only)
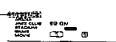
When the AI key is pressed before listening to the CD with the presence mode OFF, the optimum equalizer curve for the disc will be selected automatically.

1 Place a disc in the CD player.

TRACK lights up.

Track Nos. in disc are indicated.

- With the UD-551M system, select the desired disc.

Verify that the presence indicators are extinguished.

Goes off.

2 Press the AI AUTO/AI FOCUS key.
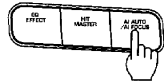
During sampling of CD

AI AUTO blinks.

↓

Completes sampling in approx. 30 seconds and stops.

EQ. ON and AI AUTO light up.

- Wait for about 30 seconds until EQ.ON and AI AUTO light up.

The playback starts automatically.

Note:
During the AI AUTO setting process, keys other than the [AI AUTO/AI FOCUS] key do not function.

To cancel AI AUTO

During AI AUTO setting

After AI AUTO setting

- The equalizer curve becomes flat.
- If it is canceled during AI AUTO setting operation, the last pattern selected before is displayed.

AI AUTO/AI FOCUS key

PRESENCE key
OFF key

■ Operation of AI FOCUS (for CD presence modes only)

When listening to a CD with a presence mode acti-
vated, the optimum equalizer curve for the disc and
presence sound field will be set automatically.
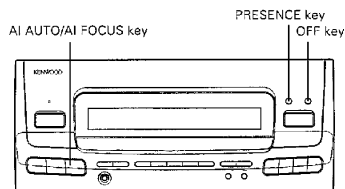
1 Place a disc in the CD player.

"TRACK" lights. ——
Check indicators.

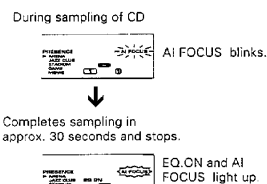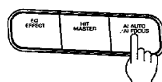The available track numbers
appear on the display.

$01 \quad 0:00$

- With the UD-551M system, select the desired disc.

2 Select the desired presence sound field.

PRESENCE

Each press switches the input as follows.

Presence mode

┌→ARENA →JAZZ CLUB →STADIUM ┐
└— MOVIE ←— GAME ←—┘
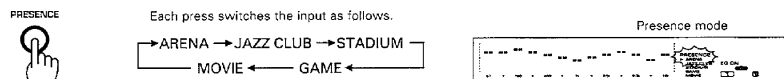
- For details regarding presence mode, see page 25.

3 Press the AI AUTO/AI FOCUS key.

During sampling of CD

AI FOCUS blinks.

↓

Completes sampling in
approx. 30 seconds and stops.

EQ.ON and AI
FOCUS light up.

- Wait for about 30 seconds until AI FOCUS lights up.
- If the presence mode is changed after the AI FOCUS setting has been made, the optimum equalizer curve for the new presence mode will be set automatically.

The playback starts automatically.

Note:
During the AI FOCUS setting process, keys other than the AI AUTO/AI FOCUS key do not function.

To cancel AI FOCUS

Cancel the presence mode.   Cancel the equalizer curve set by AI FOCUS.

OFF

FLAT

During AI FOCUS   After AI FOCUS
setting   setting

- If it is canceled during AI FOCUS setting operation, the last pattern selected before is displayed.
- If it is canceled after AI FOCUS setting operation, the curve becomes flat.
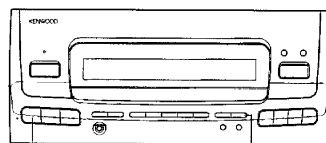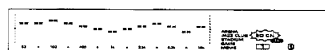
EQ. EFFECT key   REC MODE key

■ How to use the REC MODE key

Use the following function when recording tapes to be played on a car stereo or headphone stereo.

1 Play a music source.

2 Set to the equalizer mode.

Lights up

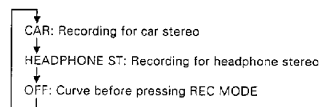**3** Select a desired curve.

Use the AI AUTO curve or select a desired curve from patterns R1-1 to 5, R2-1 to 5 and M1 to M5.
Also refer to page 36.

4 Select a REC MODE.

REC MODE

Each press switches the modes.

CAR: Recording for car stereo
HEADPHONE ST: Recording for headphone stereo
OFF: Curve before pressing REC MODE

- The combination synthesizing the current equalizer curve being selected and the recording curve for car stereo or headphone stereo is applied to the music.
- Select OFF (indicator extinguished) when the unit is used as an ordinary equalizer or for general recording for other tapes than those played on a car stereo or a headphone stereo.

5 Start recording.

Refer to page 55.

To cancel the REC MODE

Press the key to select OFF (indicator extinguished).

REC MODE

- The display shows the curve before synthesis again.

Operation of graphic equalizer

Preset keys

M.CALL key

EQ.EFFECT key   R/M key   FLAT key
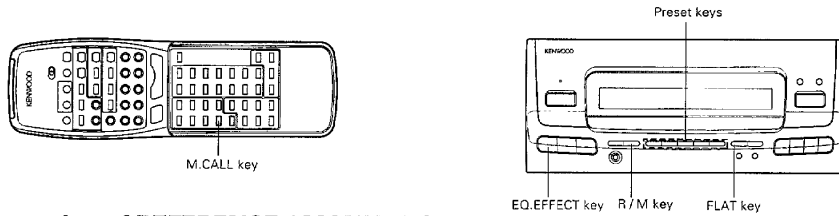
■ Operation of REFERENCE / MANUAL feature

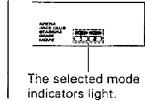This feature allows to recall one of fifteen preset equalizer patterns in a simple manner.

1 Play a music source.

2 Press the EQ.EFFECT key.

Lights up
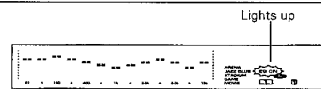
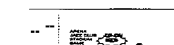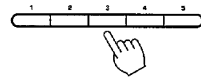**3** Select an equalizer pattern.

① Set to MANUAL, REFERENCE 1 or 2.

R/M

The selected mode indicators light.

→ MANUAL → REFERENCE 1 → REFERENCE 2 →

Each press changes the modes.

② Press the key for the desired pattern.
(Refer to the equalizer pattern list on page 36.)

→

Example when "1" is selected in the MANUAL mode.

Remote-controlled selection is also possible.

M.CALL

→ R1-1 → R1-2 → R1-3 → R1-4 → R1-5 →
→ R2-5 ← R2-4 ← R2-3 ← R2-2 ← R2-1 ←
→ M1 → M2 → M3 → M4 → M5 →
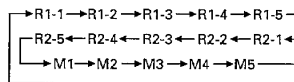
Patterns are switched every time the M. CALL key is pressed.
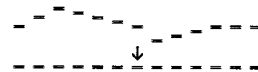
Example when "1" is selected in the REFERENCE 1 mode.
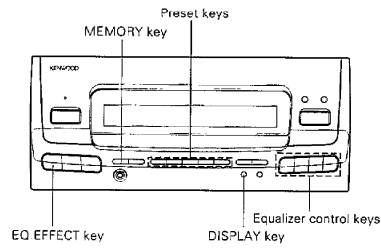

To cancel the equalizer effect
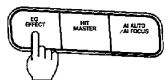
● The pattern being displayed remains the same.
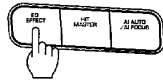
How to use the FLAT key

FLAT

● Pressing the FLAT key makes the displayed curve flat.

Preset keys
MEMORY key
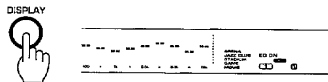Equalizer control keys
EQ.EFFECT key
DISPLAY key

■ How to store desired pattern (M1 ~ M5)

1 Creation of equalizer patterns.
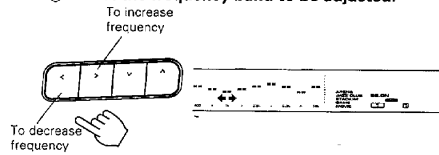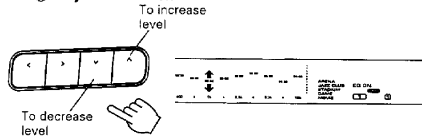
① Play a music source and press the EQ.EFFECT key.

② Select the graphic equalizer display.
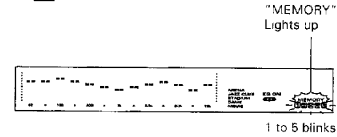
③ Select the frequency band to be adjusted.

To increase frecuency

To decrease frequency
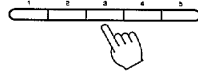
④ Adjust its level.

To increase level

To decrease level

⑤ For each frequency band to be adjusted, repeat steps ③ and ④ above.

2 Create a desired equalizer pattern.

① Press the MEMORY key.

"MEMORY" Lights up

1 to 5 blinks

② Press one of the preset keys.

Press while [MEMORY] is lighted up.

● Pattern is preset under the number of the numeric key pressed.
● Up to five patterns can be preset in the same manner.
● If you press a preset key which contains a previously stored pattern, the previous pattern is replaced by the new pattern.

To return to the initial pattern (factory-preset patterns M1 to M5) by clearing the user-preset pattern.

Press the preset key where the pattern to be cleared is preset for more than 5 seconds.
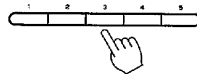
■ Equalizer pattern list

15 kinds of preset equalizer patterns can be recalled easily. Select the optimum pattern.

Preset (R1-1 to 5) equalizer patterns REFERENCE 1 "Basic"

R1-1	(Popular, Fusion) Makes the fusion music or the vocal of pop music distinct while providing optimum compensation for the low and high frequencies.
R1-2	(Rock) Makes the vocal of rock music distinct while providing optimum compensation for the low and high frequencies.
R1-3	(Jazz) Makes the midrange frequencies in jazz music, including the vocal, piano and sax distinct, while providing optimum compensation for the low and high frequencies.
R1-4	(Classic) Provides a proper, polished classical music by compensating the low, midrange and high frequencies.
R1-5	(Movie) Makes the dialogues distinct while providing optimum compensation for the low and high frequencies.

Preset (R2-1 to 5) equalizer patterns REFERENCE 2 "Scale"

R2-1	(Popular, Fusion) Reproduces crisp sound with distinct vocal and enhanced low and high frequencies.
R2-2	(Rock) Reproduces powerful sound with distinct vocal and enhanced low and high frequencies of the bass, guitar and drums.
R2-3	(Jazz) Makes the vocal, piano and sax more distinct while providing powerful, full bass and drum sound by enhancing the low and high frequencies.
R2-4	(Classic) Reproduces dynamic sound with a full scale through heavy low, powerful midrange and unrestrained high frequencies.
R2-5	(Movie) Makes the dialogues distinct while enhancing the low and high frequencies for a powerful sound with full atmosphere of presence.

Preset (M1 to M5) equalizer patterns MANUAL "Clear"

User-set curves can be stored in this mode.

M1	(Popular, Fusion) Makes the fusion music or the vocal of pop music distinct while making the the low and high frequencies clear by enhancing them.
M2	(Rock) Makes the vocal of rock music distinct and enhanced the low and high frequencies.
M3	(Jazz) Makes the jazz vocal and drums distinct, while making the the low and high frequencies clear by enhancing them.
M4	(Classic) Attenuates the low frequencies and enhanced the midrange and high frequencies to provide wind instruments and vocals with unrestrained sound.
M5	(Movie) Makes the dialogues distinct by attenuating the low and high frequencies.

■ Functions of graphic equalizer

Original, or ideal, speaker sound

Actual sound reaching the listener
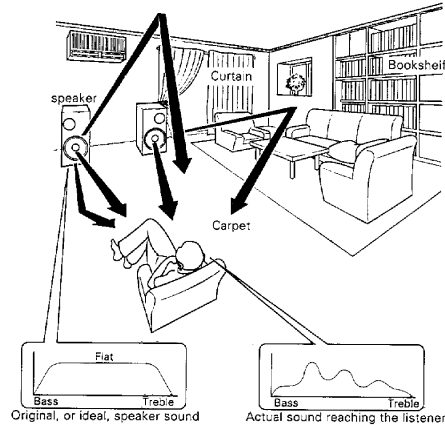
Compensation for the audio characteristics of the listening room

The listening room may contain several objects. Some of them reflect sound and some absorb sound, thus the sound reaching your ears is considerably affected by these objects.
In such cases, the graphic equalizer can be used to adjust the frequency response of the room for a flat response from low to high frequencies.

- Low frequencies are absorbed by beds, chairs, etc.
- High frequencies are absorbed by curtains, screens, etc.
- The room structure can cause the low frequencies to be unclear, or the sound level to increase or decrease depending on the frequency.

Adjustment of sound to your individual taste

When the reproduced sound contains several musical instruments and voices, the graphic equalizer allows you to enhance or attenuate the sound of specific instruments or voices.

Sound equalization

Super bass range (63 Hz)
When this control is moved up, the bass instrument (double bass, bass drums, or pipe organ, etc.) sound is increased.
When the super bass sound is boomy, move this control down.

Bass range (160 Hz)
Usually, the listening room resonance frequency is in this range.
To eliminate bass resonance, move this control down.

Mid-bass range (400 Hz)
This range is the basis of music. Whether the sound is rich or not, depends on this range. When the playback sound is not so good, move this control up.

Mid range (1 kHz)
When this control is moved up or down, the baritone or soprano voice is emphasized / de-emphasized. This range is related to the "presence" of music.

Mid-high range (2.5 kHz)
This range is related to stimulous and metallic sound. When this range is well compensated, vivid sound can be obtained.

High range (6.3 kHz)
This frequency range is related to the hardness of the sound. When this control is moved up, strings or brass instruments, such as flutes or piccolos, are emphasized. When the control is moved down, the sound will be more soothing.

Super high range (16 kHz)
This frequency range is related to the details of the music. When this control is moved up, super high frequency instruments, such as triangles or cymbals, are emphasized, resulting in wide sound and echoes.
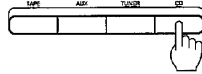
Playing CDs (UD-501)

These pages describe the operations of only UD-501.
For operations of UD-551M (CD changer), refer to
pages 43 to 50.

TIME key

Open / close key — Play / pause key
Stop key
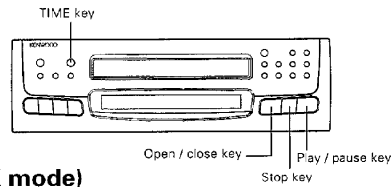
■ Playing a CD from the beginning (TRACK mode)
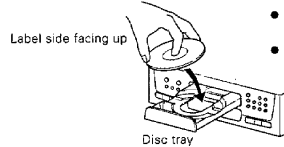
1 Select the CD input.

2 Load a CD.
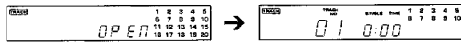① Open the disc tray.   ② Place a disc on the tray.   ③ Close the tray.

Label side facing up

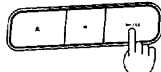- Hold the disc taking care not touch the side to be played.
- Be sure to place only one CD at a time.

Disc tray

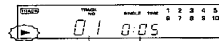[TRACK] indicator lights up   →   The track Nos. recorded on the CD are display.

```
OPEN                    01  0:00
```

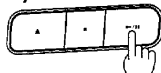- If the TRACK indicator is not lighted, press the [P.MODE] key to light it up.

3 Start playback.

```
01  0:05
```

Track NO. being played   Elapsed time from the beginning of track being played

- In a few seconds, playback starts from track No. 1.

To pause CD play
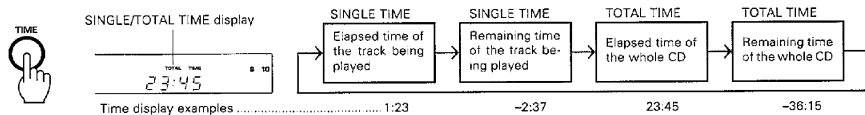
To resume playback, press the [▶/II] key again.
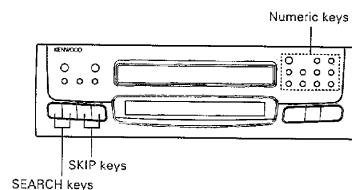
To stop CD play
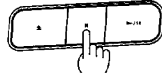
TIME key

Press the [TIME] key when you want to check the elapsed time and remaining time of the track being played. Every time the [TIME] key is pressed, the displayed time changes as shown below.
The time information display may not appear when playing a CD containing 44 or more tracks.
In such a case, the display (remaining SINGLE TIME) will show "--:--".

SINGLE/TOTAL TIME display

```
23:45
```

	SINGLE TIME	SINGLE TIME	TOTAL TIME	TOTAL TIME
	Elapsed time of the track being played	Remaining time of the track being played	Elapsed time of the whole CD	Remaining time of the whole CD
Time display examples	1:23	-2:37	23:45	-36:15

Numeric keys

SKIP keys

SEARCH keys

■ Listening from the desired track

Select with the skip key.

Press one of the skip keys according to which direction to skip.
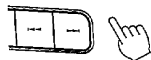
- The tunes are skipped in the direction of the key and the play starts at the beginning of the selected tune.
- When the ◄◄ key is pressed once during play, the track starts again from the beginning.
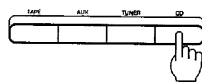
Select with the search key.

Press the forward or reverse search key according to the direction to search.
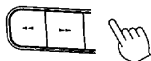
- The fast forward or reverse speed increases as the key is held depressed.
- The track will start to play from where you release the key.
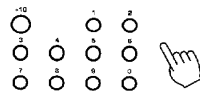
Select with the numeric key.

1 Select the CD input.

2 Ensure that the CD player is in the TRACK mode.

- If the |PGM| indicators is lit, press the |P. MODE| key.

3 Select the desired track.

Examples of input
Track No. 23: |+10| |+10| |3|
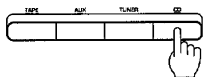Track No. 40: |+10| |+10| |+10| |+10| |0|

- Play starts from the selected tune and after.

Notes:
1. If a track No. which is not present on the CD is selected while the tray is open, the last track on the CD will be played.
2. Such a selection is not accepted after the tray has been closed or playback has started.

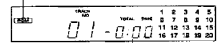## ■ Playing desired tracks in desired order (PGM mode)

1 Select the CD input.

2 Enter the PGM mode.
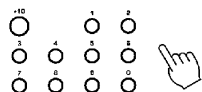
Press the P. MODE key.

P.MODE   PGM indicator lights up.

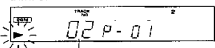The SINGLE TIME display changes to the TOTAL TIME display.

3 Program desired tracks in desired order.
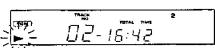
Example
To program track Nos. 2, 5 and 25: [2] [5] [+10] [+10] [5]

Blinks.

The number of the selected track in the program (P-No.) is displayed for a few seconds.

Track No. ↓

The total time of the selected track will be displayed.

- Up to 20 tunes can be programmed. When the 21 or more tunes are selected, FULL is displayed.
- If you made a mistake, press the CLEAR key and select the correct track.
- Tracks can also be programmed by reading the disc label while the disc tray is open.
- If a tune number larger than 43 (44 and subsequent) is selected, the remaining time of the whole CD disc will not be displayed.
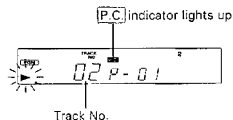
4 Start playback.
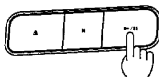
- Tracks are played in the order they are programmed (P-No.).
- If one of the skip keys (▶▶ or ◀◀) is pressed during programmed playback, the track being played is skipped in the forward or reverse direction.

To check the programmed order
|Remote control unit only|

CHECK   P.C. indicator lights up.

Track No.
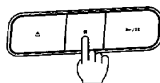
- Every time the |CHECK|key is pressed, the track No. and the order it was programmed (P-No.) are displayed in the order of programming.
- The previous display will resume in a few seconds.

To resume normal playback

P.MODE

- The playback in the order of the track Nos. on CD will start after the track being played.
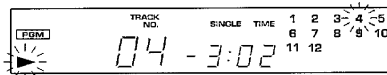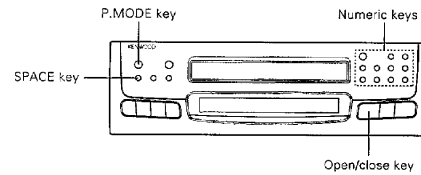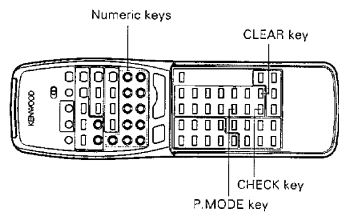
To stop programmed playback

To check the time of each track on the disc.

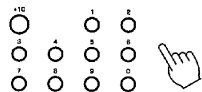In the program mode, when the disc is stopped, the time of each track on the disc can be checked by pressing the skip keys ▶▶ , ◀◀ .

- The previous display will resume in a few seconds.

Numeric keys

CLEAR key

CHECK key

P.MODE key

P.MODE key

Numeric keys

SPACE key

Open/close key

■ To add a track to the program

Press the key(s) for the track No. to be added.

- The selected track is added to the current end of the program.

■ To change a track in the program

Remote control unit only

1 Press the CHECK key.

CHECK

P.C. lights up.

05 P-02

Press repeatedly unit the program No. to be changed is displayed.

2 Press the key(s) to input the track No. to replace the previous one.

Press while the P.C. indicator is lighted.

- The track being played cannot be changed.

■ To clear tracks from the program

Clearing from the last track

Remote control unit only

CHECK   CLEAR

- Every time the key is pressed, tracks are cleared from the last track in order.

Clearing the whole of program

Press either key.

P.MODE

Auto-Space function

During playback in the program mode, when the SPACE key is pressed, a space of about 4 seconds is reserved automatically between the programmed tracks. This function is provided to facilitate the DPSS function of the cassette deck. However, such a space could also be reserved in case the sound of two tracks are continued for example with some classic music and live recordings.

SPACE

- The total time is displayed including the time of the space.
- To cancel Auto-Space function, press the SPACE key again.

■ Repeated playback

P.MODE key
REPEAT key   Numeric keys

Play/pause key

Repeated playback of programmed tracks.

1 Select the CD input.
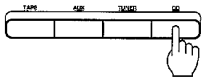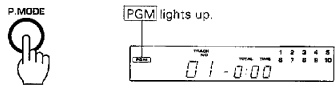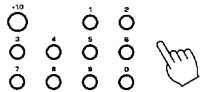
2 Enter the PGM mode.

P.MODE   PGM lights up.

3 Select the desired track(s).

- All of the selected tracks will be played repeatedly.
- If only one track is selected, that track will be played repeatedly.

4 Press the REPEAT key.

REPEAT   REPEAT lights up.

5 Start playback.

Repeated playback of the whole CD.

1 Select the CD input.

2 Enter the TRACK mode.

P.MODE   TRACK lights up.

3 Press the REPEAT key.

REPEAT   REPEAT lights up.
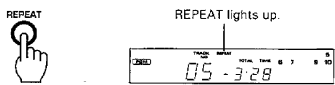
4 Start playback.
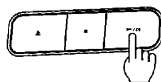
To resume normal playback

Press the REPEAT key again.   REPEAT goes off.

REPEAT

- The playback will be resumed under the CD player mode set before the repeat.
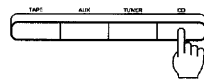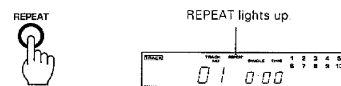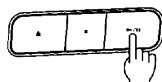
Playing CDs (UD-551M)

CD operations for only UD-551M (CD changer) are given on pages 43 to 50. For operations of UD-501, refer to pages 38 to 42.

■ Loading a disc into the magazine

1 Pull out the disc tray.

① While pressing in on the lock button.

Magazine

Press

Lock button
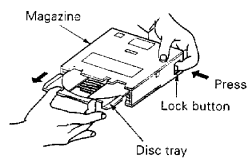
Disc tray

② Pull out the disc tray.

Grooves
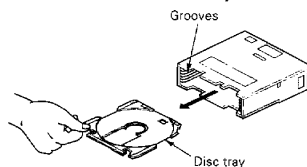
Disc tray

2 Place a disc on the disc tray.

Label side

CD
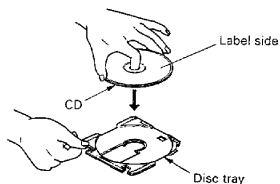
Disc tray

● Commercially-available CD single (8 cm) disc adapters cannot be used in this system. To play CD single (8 cm) discs, use the optional CDM-608 CD single magazine.

3 Insert the disc tray into the magazine.
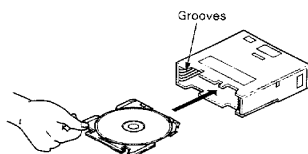
Grooves

Align the tray with the corresponding left and right grooves and insert horizontally into the magazine.

Magazine   Magazine
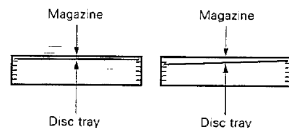
Disc tray   Disc tray

● Be sure to place each disc on a disc tray before inserting into the magazine.
● Even when loading fewer than six discs, make sure there are six disc trays inserted in the magazine during use.
● Always hold the magazine level when carrying.

Power amplifier / graphic equalizer

Be sure to turn on the power amplifier / graphic equalizer before performing the following operations.

P.OPEN/CLOSE key

Plus 1 tray   DOOR key
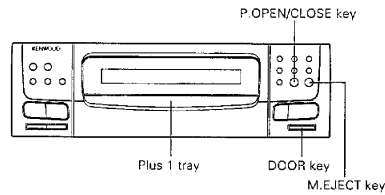
M.EJECT key

■ Loading a magazine

1 Open the door.

2 Insert the magazine.

①
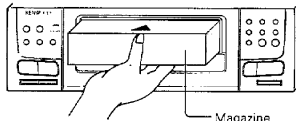
② ——— Magazine
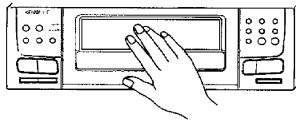
Press in until it locks in place with a click.

3 Close the door.

■ Removing a magazine

1 Open the door.

- By pressing the M.EJECT key, the door can also be opened and the magazine ejected.

2 Remove the magazine.

① **Press the M.EJECT key.**

M.EJECT
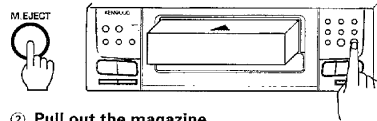
② **Pull out the magazine.**
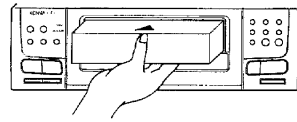
Hold the magazine in the center.

3 Close the door.

■ Loading a disc in the plus-1 tray

① **Open the plus-1 tray.**

P.OPEN/CLOSE

- The door opens and the plus-1 tray comes out.

② **Place a disc on the tray.**

Label side

Plus-1 tray

③ **Close the plus-1 tray.**

P.OPEN/CLOSE
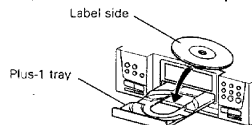
- The plus-1 tray retracts into the unit and the door closes.

Note:
Place the disc properly on the tray, along the groove provided on it. (Do not place obliquely, for this may cause malfunction.)

M.EJECT
key

Disc selector keys

DOOR key
STOP key
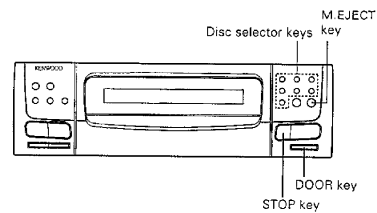
■ Playing a CD from the beginning

1 Select the CD input.

TAPE   AUX   TUNER   CD

2 Place a disc in the magazine or on the plus-1 tray.

Refer to pages 43, 44 for disc loading.

DISC NO	TRACK NO	SINGLE TIME	1 2 3 4 5
			6 7 8 9 10
	P 0 1	0·0 0	11 12 13 14 15
			16 17 18 19 20
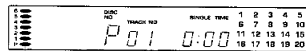
All disc indicators light regardless of how many
discs are in the magazine.

3 Start playback.

Select the desired disc.

○ ○ ○
1 2 3
○ ○ ○
4 5 6
○
P

DISC NO	TRACK NO	SINGLE TIME	1 2 3 4 5
			6 7 8
▶	6 0 1	2:48	
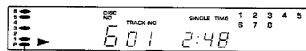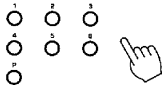
If there is no disc in the selected disc tray, the
corresponding indicator goes out.

- Playback starts from the selected disc. If more than two discs are loaded, the discs are played in order of their disc numbers.
- If the play [▶/II] key is pressed without selecting a disc, the discs will be played automatically in the following order:
  P ▸ 1 ▸ 2 ▸ 3 ▸ 4 ▸ 5 ▸ 6. (P: Plus-1 tray)
- To play a single disc only, remove the magazine and place a disc only in the plus-1 tray.

To pause playback
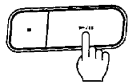
To resume playback, press the [▶/II] key again.

To stop playback
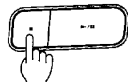
- AI AUTO/AI FOCUS is cancelled by pressing this key.

Time key
INPUT keys   Disc selector keys   Skip keys   Disc selector keys

Skip keys

Search keys
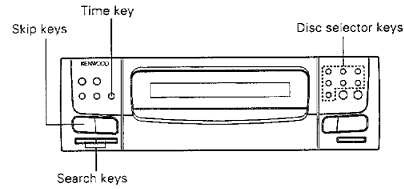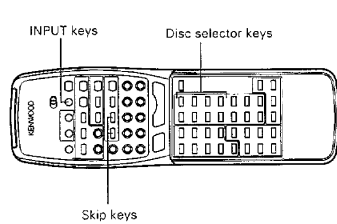
■ Listening from the desired track

1 Select the CD input.
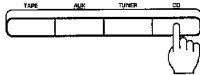
TAPE   AUX   TUNER   CD

2 Make sure the PGM indicator is extinguished.

If the PGM indicator is lighted, press the P.MODE key. (Remote control unit only)

3 Select the desired disc.
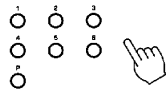
4 Select the desired track.

Continue pressing until the desired track No. appears.
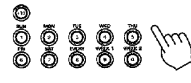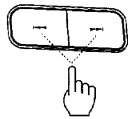
Numeric keys of remote control unit

Example: To select track number 11, press the +10 key once and then the 1 key once.
To select track number 20, press the +10 key twice and then the 0 key once.

● Play starts from the selected tune and after.

To skip tracks
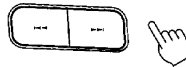
● The tunes are skipped in the direction of the key and the play starts at the beginning of the selected tune.
● When the ◄◄ key is pressed once during play, the track starts again from the beginning.

To fast forward and backward

● The track will start to play from where you release the key.

TIME key

Press the TIME key when you want to check the elapsed time and remaining time of the track being played. Every time the TIME key is pressed, the displayed time changes as shown below.
The time information display may not appear when playing a CD containing 21 or more tracks.
In such a case, the display (remaining SINGLE TIME) will show "--:--".

(In PGM mode, only the SINGLE TIME displays can be selected.)

TIME	SINGLE/TOTAL TIME display	SINGLE TIME	SINGLE TIME	TOTAL TIME	TOTAL TIME
	TOTAL TIME 9 10 23:45	Elapsed time of the track being played	Remaining time of the track being played	Elapsed time of the whole CD	Remaining time of the whole CD
	Time display examples 1:23		−2:37	23:45	−36:15
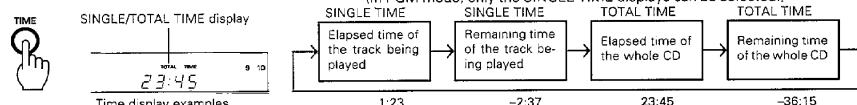
● "TOTAL TIME" is not displayed in the PGM and RANDOM modes.

The program mode allows you to play desired tracks in the order you want to hear them. A maximum of 32 selections can be entered in memory.

Numeric keys
Play / pause key | Disc selector keys
Stop key | CHECK key

INPUT key
P. MODE key
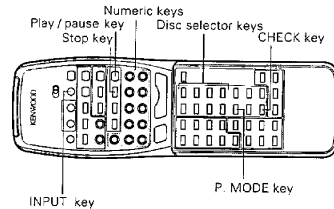
■ Playing desired tracks in desired order (PGM mode) | Remote control unit only
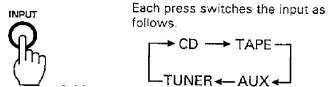
1 Select the CD input.

INPUT

Each press switches the input as follows.

CD → TAPE
TUNER ← AUX

2 Enter the PGM mode.

Press the P. MODE key.

P.MODE   PGM indicator lights up.
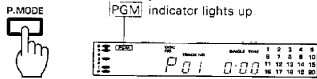
3 Program desired tracks in desired order.

Example
To select track no. 5 on disc 4:
① Select the disc.
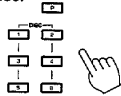
- If more than eight seconds elapse before proceeding to step ②, all tracks on the selected disc will be programmed. (1-DISC program)
- Even the disc No which is not in the player can be programmed, but when the disc is in play mode, the program is canceled.

② Select the track.

- Repeat steps ① and ② to program up to 32 tracks. When 32 tracks have been programmed, "FULL" appears on the display.

If you make a mistake during entry

Press the CLEAR key and re-enter the correct number.

4 Start playback.

- Tracks are played in the order they are programmed (P-No.).
- If one of the skip keys (▶▶ or ◀◀) is pressed during programmed playback, the track being played is skipped in the forward or reverse direction.

To check the programmed order

CHECK

- Every time the CHECK key is pressed, the track No. and the order it was programmed (P-No.) are displayed in the order of programming.
- The previous display will resume in a few seconds.

To resume normal playback

P.MODE

- The playback in the order of the track Nos. on CD will start after the track being played.

To stop programmed playback
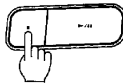
Main unit   Remote control unit

■ To add a track to the program
Remote control unit only

Press the key(s) for the track No. to be added.

① Select the disc.
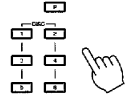
② Select the track number.

- When the disc No. and track No. to be added are selected, they are added at the end of the program.

■ To change a track in the program
Remote control unit only

1 **Press the CHECK key.**

CHECK

P.C. indicator lights up.
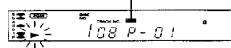
Press until the P-No. to be changed is displayed.

2 **Select the track No. to replace the previous one.**

① Select the disc.
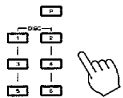
② Select the track number.
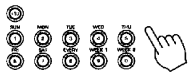
Press while the P.C. indicator is lighted.

- The track being played cannot be changed.

■ To clear tracks from the program

Clearing from the last track

CLEAR

- Every time the key is pressed, tracks are cleared from the last track in order.
- The currently playing track cannot be deleted.

Clearing the whole of program

Press either key.

P.MODE   P.OPEN/CLOSE   M.EJECT

Remote control unit   Main unit

or

Auto-Space function

During playback in the program mode, when the SPACE key is pressed, a space of about 4 seconds is reserved automatically between the programmed tracks. This function is provided to facilitate the DPSS function of the cassette deck. However, such a space could also be reserved in case the sound of two tracks are continued, for example with some classic music and live recordings.

Lights up
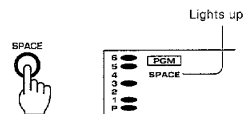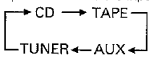
SPACE   PGM
                     SPACE

- To cancel Auto-Space function, press the SPACE key again.
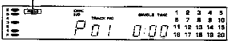
■ Repeated playback

Repeated playback of programmed tracks.
Remote control unit only

1 Select the CD input.

Each press switches the input as follows.

CD → TAPE
↑   ↓
TUNER ← AUX

INPUT
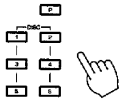
2 Enter the PGM mode.

P.MODE   PGM lights up.

3 Select the desired track(s).

① Select the desired disc.
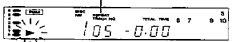
- If more than eight seconds elapse before proceeding to step ②, all tracks on the selected disc will be programmed. (1-DISC program)
- Even the disc No which is not in the player can be programmed, but when the disc is in play mode, the program is canceled.

② Select the desired tracks.

- All of the selected tracks will be played repeatedly.
- If only one track is selected, that track will be played repeatedly.

4 Press the REPEAT key.

REPEAT   REPEAT lights up.

5 Start playback.

Repeated playback of the whole CD.

1 Select the CD input.

Each press switches the input as follows.

CD → TAPE
↑   ↓
TUNER ← AUX
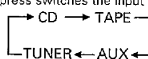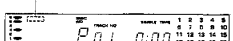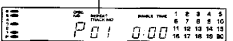
INPUT

2 Extinguish the PGM indicator.

P.MODE   PGM goes off

3 Press the REPEAT key.

REPEAT   REPEAT lights up

4 Start playback.

Repeated playback on Plus-1 tray alone

① Enter the PGM mode.   P.MODE

② Select the Plus-1 tray.

- Wait for 8 seconds or more.

③ Press the REPEAT key.   REPEAT

④ Start playback.

- All tracks on the disc on the Plus-1 tray will be played repeatedly.

To resume normal playback
Press the REPEAT key again.

REPEAT   REPEAT goes off

- The playback will be resumed under the CD player mode set before the repeat.

This function allows for random selection of the tracks each time and continuous playing in any order. It lets you enjoy hours of tireless track listening.

■ Playing tracks in a random order

1 Select the CD input.

Each press switches the input as follows.

```
┌─► CD ──► TAPE ─┐
└─TUNER ◄─ AUX ◄─┘
```
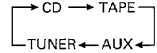
2 Make sure the PGM indicator is extinguished.

● If the PGM indicator is lit, press the P.MODE key to extinguish the PGM indicator.
(Remote control unit only)

3 Select the desired random mode.

To randomly play a single disc	To randomly play all discs
① Select the disc.	RANDOM
② RANDOM	
Select RANDOM ONE.	Select RANDOM ALL.
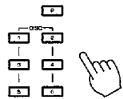
Each press changes the random mode as shown below.

```
┌─►RANDOM ONE ──► RANDOM ALL ──► RANDOM OFF ─┐
                                  (goes off)
```
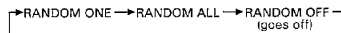
● Tracks are selected and played at random from a single disc.

● Tunes are selected and played at random from all of the discs.

Display when track 7 of disc 3 is selected first

    3 07   0:59

● When one tune ends, the next tune is randomly selected and played.

Display when track 3 of disc 5 is selected next

    5 03   0:25

RANDOM key

Disc selector keys

Skip keys   Stop key

INPUT key   Play/pause key   Disc selector keys
            Stop
            key

            P.MODE key

Skip keys
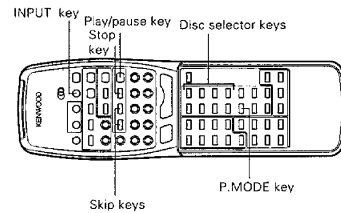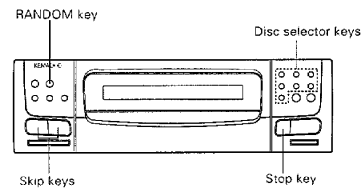
To select another track during random play
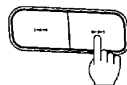
● When the ◄◄ key is pressed once during random play, the track starts again from the beginning.

To cancel random play

or

Select RANDOM OFF.

RANDOM

Each press changes the random mode as shown below.

```
┌─►RANDOM ONE ──►RANDOM ALL─┐
└──────RANDOM OFF ◄─────────┘
          (goes off)
```
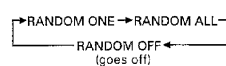
● Normal play starts.   ● Playback stops.

Note:
The same track will not play twice over continuously, however, it may happen that the same track is repeated later in play.

Playback operation of cassette decks

Deck A eject key | DIRECTION key | Deck B operation
Deck A operation keys | DOLBY NR key | keys
Deck B eject key
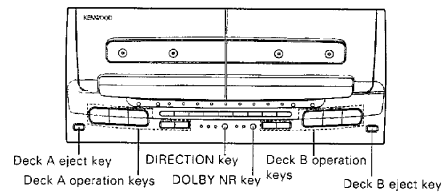
■ To playback a tape

1 Select the TAPE input.

2 Insert a cassette tape.

Close securely
by pressing upper outside.

Press the Eject key.
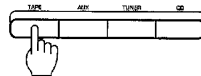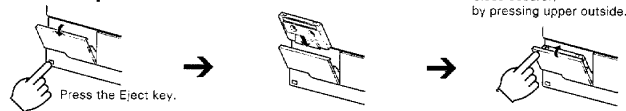
- Since this unit is not designed for use with metal tapes, playback of metal tapes cannot be carried out.
- The type of tape, Normal, or Chrome is detected and set automatically.
- Be sure to remove tape slack before insertion.

3 Determine the playback conditions.

① Select the playback mode.

DIRECTION
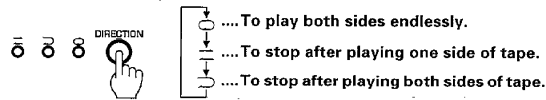
- ⇄ ....To play both sides endlessly.
- ⊏ ....To stop after playing one side of tape.
- ⊃ ....To stop after playing both sides of tape.

②Select the Dolby NR mode.
- Select according to the tape to be played.
  Each press changes the type
  in the following order.
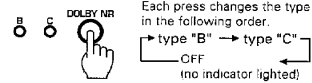
  DOLBY NR

  ┌► type "B" ─► type "C" ┐
  └── OFF ◄────────┘
  (no indicator lighted)

4 Start playback.

or
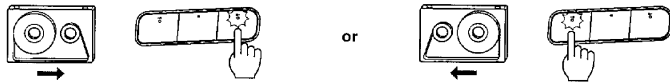
To stop playback

- Do not press the Eject key until the tape has stopped completely.

Dolby noise reduction system

The Dolby noise reduction system was developed to reduce the tape hiss noise generated during playback.
The optimum effect of the Dolby NR system is obtained when the same type NR system is used for both recording and playback. If a different type NR system is used, playback is not performed correctly. Make sure that the same type noise reduction system is used for both recording and playback.

Dolby B NR
The most popular noise reduction system used in home audio components. Usually, Dolby NR system corresponds to B NR.

Dolby C NR
Dolby C NR offers improved noise reduction performance over that of the Dolby B NR. It features a superior noise reduction effect. Use Dolby C NR to record or playback with this unit.
It is recommended that tapes recorded with the Dolby NR system be marked "B" or "C", so that they can easily be distinguished.
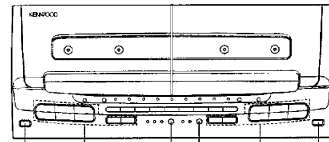
Deck A eject key | DIRECTION key | Deck B operation

Deck A operation keys | DOLBY NR key | keys | Deck B eject key

■ To wind the tape at high speed

1 Stop playback.
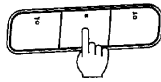
2 Press the ◄◄ key or ►► key.

◄◄: Fast tape
winding in the
◄direction

►►: Fast tape
winding in the
►direction

To stop fast tape winding
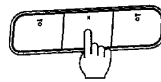
Tape transport direction indicators

The direction in which tape is transported during playback or re-cording is indicated by the lighting of one of the indicators ◄ and ►.
The direction selected when the tape was stopped the last time
is maintained even after the power is turned off. When the tape
is started automatically by the automatic play operation, etc.,
the transport starts with the direction shown by the direction
indicator. If you want to change the transport direction for the
next time the power is turned on, press the play key of the op-posite direction before turning power off.

Indicators

■ Relay playback

This function plays back the tapes in both decks A
and B continuously and repeatedly.

1 Select the TAPE input.

2 Insert tapes.

Deck A | Deck B
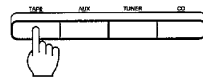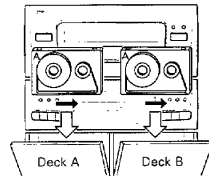
● Tapes are played in the directions indicated by their re-spective indicators.

3 Select the playback mode.
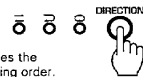
Each press changes the
type in the following order.

⊃....Relay playback of both sides of tapes in decks A
and B is repeated.
⊏....Relay playback of only one side of tapes in decks
A and B is repeated.

● Relay playback cannot be performed if the DIRECTION
select switch is set to "⊂⊃".

4 Start playback.
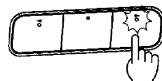
● The playback starts with the deck the play key of which
is pressed.

DPSS operation

The DPSS (Direct Program Search System) enables the following convenient operations according to the instructions of the operation keys (these operation are, however, not available on both decks simultaneously). The DPSS functions are based on the detection of non-recorded spaces of 4 seconds or more between tunes.

1. Skip play : By specifying a tune located several tunes beyond (or behind) the tune being played, skips tunes between the current tune and the selected tune, and starts playback from the beginning of the selected tune. Up to 16 tunes can be skipped in Skip Search.

2. Single-tune repeat playback : One single tune is played back repeatedly up to 16 times.

3. Rewind & Play : Rewinds the tape to the beginning and starts playback from there.

4. Dash & Play : If a non-recorded space of more than 10 seconds is detected during playback, that space will be skipped by fast forward tape winding.
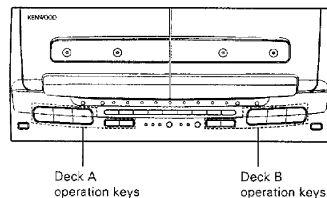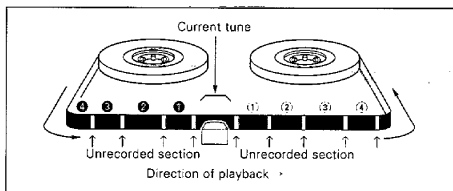
■ Skip play operation

The example below shows the case in which the direction indicated by the tape transport direction indicator is ►. If the direction indicated by the tape direction indicator is ◄, always press the keys for the opposite directions to those shown in the illustrations below.

To play a tune located immediately after the tune being played.

Press once during the playback.   Lights up

To play the tune being played from the beginning.

Press once during the playback.

To play a tune located 4 tunes beyond.

Press 4 times during the playback.

To play the tune located 4 tunes behind.

Press 5 times during the playback.
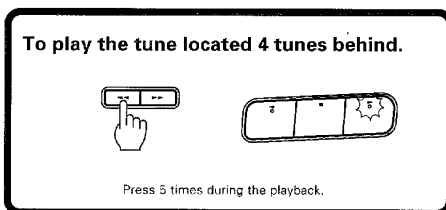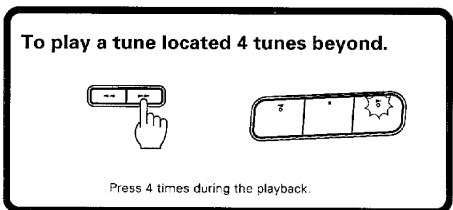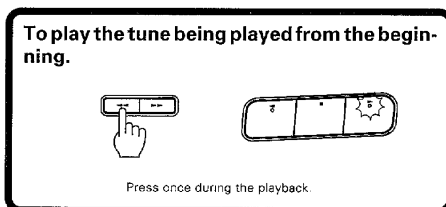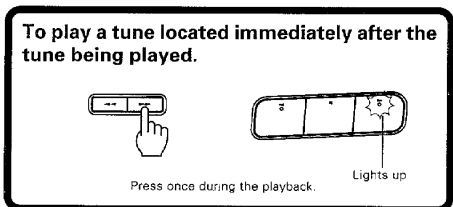
The DPSS will not function properly with the following types of tapes.

- Tapes containing spaces of 4 seconds or more, such as conversations and speeches.
- Tape containing extremely low levels or non-recorded spaces in the middle of tunes, such as classical music.
- Tapes containing recording of large noise between tunes.
- Tapes containing spaces of less than 4 seconds between tunes.
- Tapes recorded with low recording level.
- Tapes recorded using Cross-fade recording.
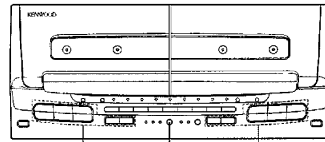
Deck A operation keys   Deck B operation keys
DIRECTION key

■ Rewind & Play operation

This operation is not available from the remote control unit.

| Main unit only |

Direction of tape direction indicator: ►

Lights up

Press simultaneously.

Direction of tape direction indicator: ◄

Press simultaneously.

■ Single-tune repeat playback operation

1 Play the tune to be repeated.

2 Press the play key of the same direction as the current tape transport direction.

When direction of tape direction indicator is: ►
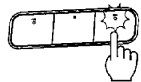
● Normal playback resumes after repeating the same tune for 16 times.

■ Dash & Play operation

The Dash & Play skips long non-recorded spaces automatically as the tape is played.
This operation is not available from the remote control unit.

| Main unit only |

1 Select the TAPE input.
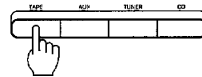
2 Determine the playback mode (conditions).

DIRECTION

Each press changes the type
in the following order.

......Two sides are repeated 8 times, after which
      playback stops.
......One side is repeated 8 times, after which play-
      back stops.
......Two sides are repeated only once, after which
      playback stops.

● In case the DIRECTION is set to "⊃" and tapes are
inserted in both of the decks, when a deck finishes
Dash & Play, the other deck starts Dash & Play for 16
times, after which it stops.

3 Press the ◄◄ and ►► keys simultaneously.

To cancel the playback above in the middle.

● Playback is stopped.

Recording operation on cassette deck (Deck B only)

AUTO BIAS key   CRLS key

DIRECTION key | Deck B operation
DOLBY NR key keys
Deck B eject key
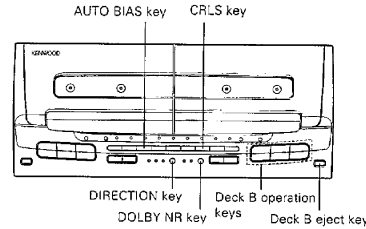
■ Ordinary recording

Since this unit is not designed for use with metal tapes, recording on metal tapes cannot be carried out.

1 Set up the cassette deck.
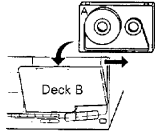
① Insert a tape in deck B.

② Set the tape transport direction.

Deck B

③ Select one-side or two-side recording.

DIRECTION
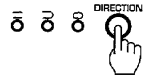
Each press changes the type in the following order.

⊃ :Two-side recording
二 :One-side recording

④ Select the Dolby NR mode.

Each press changes the type in the following order.

DOLBY NR
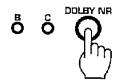
OFF (no indicator lighted)
↓
type "B"
↓
type "C"

● When the microphone is not to be used, be sure to set the MIC MIXING control fully counterclockwise.

2 Select the source to be recorded.

TAPE   AUX   TUNER   CD
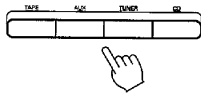
Select a music source other than TAPE.

To apply the equalizer effect

Refer to page 34.

● When recording tapes for playing in a car stereo or headphone stereo, select CAR or HEADPHONE ST. (See page 33.)

3 Activate the auto-bias setting.

— Blinks.
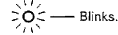
AUTO BIAS

● The optimum bias is set in about 45 seconds. after which the deck enters the stop mode.
● To cancel the auto-bias adjustment operation in the middle, press the Stop key.
● Recording is possible even when the auto-bias setting is omitted.

4 Set the recording level.
① Play a music source.
② Press the CRLS key.

—Lights up.

CRLS → CRLS
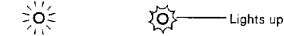
Level adjustment completes in about 20 seconds. Wait until the indicator lights steadily.

● The deck enters the record-pause mode.
● If you press the Record key while the indicator is blinking, the recorded sound may distort.
● When the CRLS key is pressed while the indicator is blinking, the level adjustment is terminated at that moment and the deck enters the record-pause mode.
● The recording level setting is suspended if the sound of source is not input within about 5 second after the CRLS key has been pressed.

5 Start recording.
① Play the music source from the beginning.
② Press the ■ key.   Press once.
● Recording will start.
● The deck enters the stop mode automatically when the tape has been recorded till the end.
● When the DUAL SOUND MIXING control knob is moved during recording in the DUAL SOUND ON mode, the recorded volume (or the volume balance) is varied.

Auto-bias function

The tapes categorized as "normal"or"chrome" tape vary widely in the characteristics from popular to high-class types. Therefore, this system is equipped with the auto-bias adjustment function for exclusive use with normal or chrome tapes so that optimum recording can always be obtained with any types of normal or chrome tapes. It is recommended to use the auto-bias function when using a normal or chrome tape.

● During auto-bias adjustment, the keys are defeated except for the ►►|, |◄◄ and ■ keys of Deck A and ■ key of Deck B.
● If the amount of remaining tape is small, the auto-bias adjustment may be canceled in the middle and tape stopped at that position.
● The auto-bias level is canceled when the EJECT key of Deck B is pressed.

■ To pause recording temporarily

● The indicator lights up.

To resume recording

■ To stop recording

1

2 Stop playing the source component.
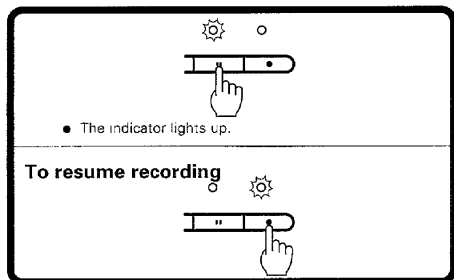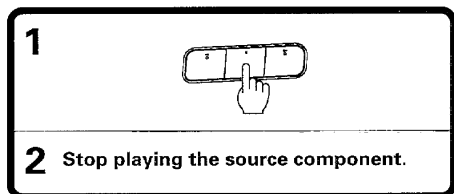
■ To re-start recording after mistake

The following procedure is useful when you want to cancel recording in progress and restart it.
A non-recorded space of about 4 seconds or more should be reserved before the position where recording was started.

1 Stop recording and rewind tape.

During recording in
the ► direction:

During recording in
the ◄ direction:

● The recording is aborted, the tape is rewound to the beginning or the tune being recorded, and the deck enters the stop mode after leaving a non-recorded space of about 2 seconds from the end of the previous tune.

2 Re-start recording.
① Press the ■ key twice.

● A non-recorded space of about 4 seconds is reserved on tape, then the tape transport stops.

② Press the ■ key once.

● Recording starts.

CRLS

CRLS (Computer-controlled Recording Level System):
This function sets the optimum recording level automatically based on the sampling of the levels of a musical source for about 20 seconds.

● Even when you do not press the CRLS key .... Recording is performed with the basic recording level. The basic recording level common for all input select keys has been set at the factory.

● The level is stored in memory once it has been set ...... The level determined by the CRLS key for each input source (CD, AUX, TUNER) is stored in memory. From the next time, the same level is recalled for the same source and applied for recording even when the CRLS key is not pressed.

● To re-use the previous level
after having pressed the CRLS key .... Press the Stop key while the CRLS indicator is blinking to re-use the previously-set level.

● When the CRLS key is held depressed
for more than 3 seconds .... The indicator blinks at low speed the goes out. At this time, the CRLS level which has been stored for the input source being indicated returns to the basic recording level.

CRLS key

AUTO BIAS key

DIRECTION key
DOLBY NR key

Recording key
Pause key
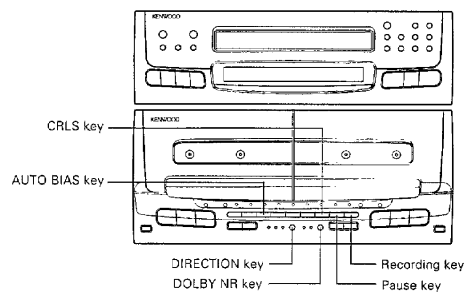
■ Synchro recording of CD

The cassette deck and the CD player can be started simultaneously.

1 Set up the cassette deck.

① Insert a tape in deck B.

② Set the tape transport direction.

③ Select one-side or two-side recording.

Deck B

ō ⃗ō ō   DIRECTION
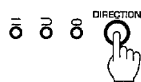
Each press changes the type in the following order.

⊃ :Two-side recording
= :One-side recording

④ Select the Dolby NR mode.

ᴮō ᶜō   DOLBY NR
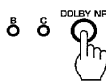
Each press changes the type in the following order.

OFF (no indicator lights)
↓
type "B"
↓
type "C"

• When the microphone is not to be used, be sure to set the MIC MIXING control knob fully counterclockwise.

2 Select the CD input.
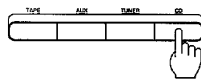
TAPE   AUX   TUNER   CD

3 Activate the auto-bias setting.

⋮◯⋮ ——— Blinks.

AUTO BIAS
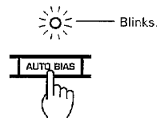
• The optimum bias is set in about 45 seconds, after which the desk enters the stop mode.

4 Adjust the recording level.

① Play a CD.
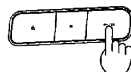
• With the UD-551M (DP-MB5) system, select the desired disc.

② Press the CRLS key.
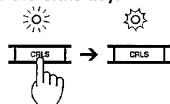
⋮◯⋮   ⟨◯⟩   Level adjustment completes in about 20 seconds.

CRLS → CRLS

Wait until the indicator lights steadily.

• The deck enters the record-pause mode.

③ To pause CD play.
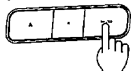
5 Start playing the CD.

① Select the desired tracks with the numeric key.
② Start playback.
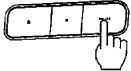
• Recording starts at the same time.
• When the CD player has completed playback, the cassette deck stops recording and enters the stop mode.
• When the DUAL SOUND MIXING control knob is moved during recording in the DUAL SOUND ON mode, the recorded volume (or the volume balance) is varied.

To pause recording
Press the [►/Ⅱ] key of the CD player.
To resume recording
Press the [►/Ⅱ] key of the CD player.
To stop recording
Press the [■] key of the CD player.
• When the [■] key on the cassette deck is pressed, the cassette deck enters the stop mode, but the playback of CD does not stop.

Recording operation on cassette deck (Deck B only)

Input selector keys
CD REC key

REC indicator

■ Operation of CD REC key

The CD REC key allows to listen to another music source while recording a CD.

1 Press the CD REC key of the preamplifier / tuner.

CD REC

2 Start recording the CD.

- Refer to "Synchro recording of CD" and "Recording of CD playback (CCRS)".

3 Select the music source to be listened to.

TAPE   AUX   TUNER   CD
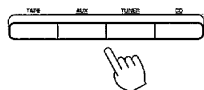
Select a music source other than TAPE.

To cancel CD REC operation

Press the key again.

CD REC

- This key is not accepted while the record indicator is lighting or blinking.
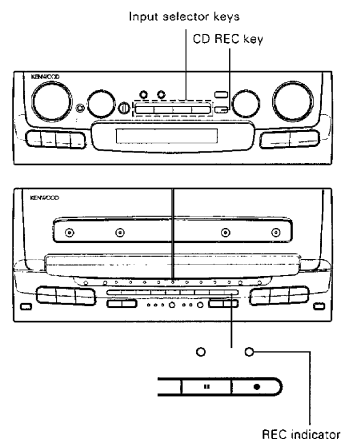
Notes:
1. When the CD REC key is set to ON, the CD sound cannot be recorded with the equalizer and presence effect.
2. After CD REC recording, be sure to press the CD REC key to turn CD REC OFF.

The CCRS (Computer-controlled CD Recording System) makes the following convenient recordings possible by setting the optimum recording level and recording bias for the specific CD to be recorded and starting recording automatically. (CCRS recording is available only with Deck B.)

Recording of TRACK mode playback : CCRS starts recording the CD tracks from the first track in order. When the end of one tape side is reached during recording, fade-out occurs there, and recording is continued on the other side of tape, which starts with fade-in.

Recording of PGM mode playback : CCRS starts recording the programmed CD tracks in the programmed order. When the end of one tape side is reached during recording, the track which should end in the middle is erased, and the recording on the other side of tape is started from the beginning of that track. (Programming back and forth between several discs is not possible.)
When programming tracks on two discs or more, perform the MULTI EDIT recording.

Normal EDIT recording : When the recording time of the tape is specified first, the order of the CD tracks are edited so that no track is interrupted at the end of each side of tape. The maximum number of tracks that can be edited is 20. [PRIORITY EDIT: By programming desired tunes beforehand, those tunes will be given priority during the editing selection process.]

AI EDIT recording : When the total playing time of a CD exceeds the recording time of tape, all tracks (up to 20 tracks) can still be accommodated in the tape by fading out the end of each track. [AI PRIOR-ITY EDIT : By programming desired tunes beforehand, those tunes will be given priority during the editing selection process and will not be fade-out during recording]

MULTI EDIT recording : Tracks on multiple CDs can be edited and accommodated in a single tape.

X.FADE (Cross-fade) recording : The beginning and end of each track is faded in / out to create a music tape without interruption between tunes.

CCRS double-speed recording : Records CD at twice the normal speed.

Also, refer to "Playing CDs".

CCRS (Computer-controlled CD Recording System)

When the CCRS key is pressed, the following operations occur automatically and recording of CD starts after them.
1. The CD is played and its peak level is sampled from the level used when the disc was recorded.
2. The optimum recording level for that disc is determined from the sampled peak level and the cassette deck is set accordingly.
3. The cassette deck sets automatically the optimum bias for the tape used in recording.
4. The recording preparations detailed above are completed in about 90[*3] seconds, after which actual recording starts.
5. When the recording is completed (when the CD player ends playback or when the tape has been recorded), both the cassette deck and CD player enter the stop mode.

- The set recording level and auto bias level are maintained while the CCRS and AUTO BIAS indicators are lighted.
- The recording level is canceled when the open / close key of the CD player is pressed, the auto bias level is canceled when the Eject key of Deck B is pressed, and both are canceled if the power is turned off.

Display during CCRS operation

Lighting ○   Blinking ☼   OFF ●

indicator	CCRS *1	AUTO BIAS *2	Pause	Recording
During recording level setting	☼ Quick blinking	●	○	○
During auto bias adjustment	☼	☼	●	○
	☼	☼	●	●
During recording	☼ Slow blinking	○	●	○
During record-pause	○	○	●	●

*1. To cancel CCRS setting : Press the open / close key of the CD player.
*2. To cancel auto bias setting : Press the Eject key of the cassette deck.
*3. The time varies according to the number of the tunes to be recorded.

Fade-in and fade-out
Fade-in refers to a gradual increase of volume from the minimum to normal level when starting to play music.
Inversely, fade-out refers to a gradual decrease of volume from the normal to minimum level at the end of music.

fade-in   fade-out

CCRS double-speed recording
CD and cassette deck are both played at twice the normal speed and recorded, making it possible to half the time required for recording.
Since the CD is played in double speed in this case, the recorded content cannot be enjoyable as music even though it can be monitored from the speakers.
In double-speed recording, tunes are recorded onto the tape without DOLBY NR effect. So playback the tape without DOLBY NR effect.
During CCRS double-speed recording, cancel the equalizer effect . (Refer to page.34).

■ Recording of CD playback in TRACK mode

Fade-out and fade-in occur at the end of tape where it is reversed.

1 Select CD with the input selector, and place a CD on the tray.

2 Perform "Ordinary recording" until step 2.
- Refer to page 55.

3 Check that the CD player is in the TRACK mode.
- If the PGM indicator is lit up, press the P.MODE key. (Remote control unit only.)

To apply an equalizer effect
- During double-speed recording, the equalizer effect must be canceled (refer to page 34).

4 Start recording.

Normal-speed recording

CCRS NORM → CCRS NORM

Quick blinking   Slow blinking

Double-speed recording

CCRS HIGH → CCRS HIGH

Quick blinking   Slow blinking
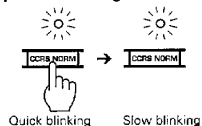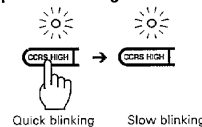
- The CCRS is activated so the recording will start in about 90 seconds.
- The tracks on the disc are recorded in the order of the track Nos.
- The operations as shown below occur at the end of tape where it is reversed.

→ Fade-out in the middle of C

A	B	C
F	E	D	C

Fade-out ← Fade-in the middle of C
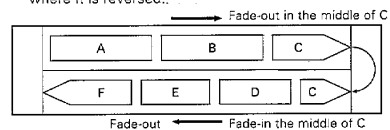
■ Recording of CD playback in PGM mode

Tracks are recorded so that they do not end in the middle at the end of tape.

1 Select CD with the input selector, and place a CD on the tray.

2 Perform "Ordinary recording" until step 2.
- Refer to page 55.

3 In the PGM mode, select the order of tracks to be played
- When programming tracks on two discs or more perform the MULTI EDIT recording described on page 63.

To apply an equalizer effect
- During double-speed recording, the equalizer effect must be canceled (refer to page 34).

4 Start recording.

Normal-speed recording

CCRS NORM → CCRS NORM

Quick blinking   Slow blinking

Double-speed recording

CCRS HIGH → CCRS HIGH

Quick blinking   Slow blinking
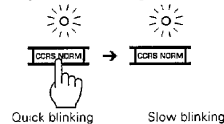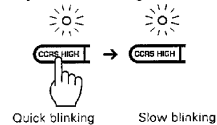
- The CCRS is activated so the recording will start in about 90 seconds.
- The tracks on the disc are recorded in the order of programmed order.
- The operations as shown below occur at the end of tape where it is reversed.

→ Erasure of C

A	B	C
F	E	D	C

Stop after erasure of F ← Recording of C from the beginning
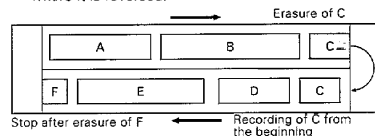
Notes:
1. When the CCRS key is pressed during CD playback, the playback is stopped and CCRS setting operation starts.
2. The CCRS recording makes it unnecessary to adjust the recording level manually.
3. The CCRS searches the peak level on a CD in a limited period of about 90 seconds. Therefore, it could happen that the optimum level cannot be adjusted, thought it is a very rare case.
4. If the length of a track on the CD is extremely long such as with a classical music, the CCRS cannot be used because the music cannot be fit in one side of tape.
5. When the DIRECTION of the cassette deck is "⊃" the tape end processing occurs only on the A side of tape.
6. When the tune being recorded at the end of the tape is to be faded out, the ending part of the previous tune may also be faded out if the space between the tunes is short.

CCRS HIGH key

CCRS NORM key

DOLBY NR key

DIRECTION key

■ Normal EDIT recording

This function allows to edit, base on the recording time of the tape specified, the order of the CD tracks so that no track is interrupted at the end of each side of tape.

1 Set up Deck B ready for recording.

① Insert the cassette tape.

② Check the tape transport direction.

③ Select the tape sides to be recorded.

ō ō ō DIRECTION   ⊃ :Select two-side recording.

Each press changes the type.

④ Select the Dolby NR mode.

ŏ ŏ DOLBY NR

Each press changes the type.

To apply an equalizer effect

● During double-speed recording, the equalizer effect must be canceled (refer to page 34).

2 Select the CD input.

3 Insert the disc in the CD player.

● When you wish to program tunes, carry out the programming before step 4.
● To use the auto space function (page 41), press the |SPACE| key.

4 Select the EDIT mode with the EDIT MODE key of the CD player.
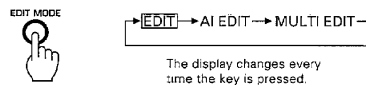
EDIT MODE   ┌→|EDIT|→AI EDIT→ MULTI EDIT┐

The display changes every time the key is pressed.

● Proceed to the next step within 8 seconds after setting EDIT. If 8 seconds have elapsed, select the EDIT mode again.

5 Input the two-way recording time of the tape.

Use the numeric keys of the CD player.
C-30 tape: +10 +10 +10 O
C-46 tape: +10 +10 +10 +10 6

● 46, 54, 60 or 90 can also be selected every time the |TIME| key is pressed. In this case, press the |EDIT MODE| key again to establish the input.
● Tracks are edited automatically to fit sides A and B, and the end of editing is indicated when the |EDIT|indicator changes from blinking to continuous lighting.
● If a program containing a few tracks has been programmed previously, these tracks can be recorded in priority.
● When the |EDIT MODE| key is pressed again while|EDIT| is lighted, "SHUFFLE" appears on the display and re-editing of tracks is performed.

6 Press the CCRS key.

Normal-speed recording

|CCRS NORM| → |CCRS NORM|

Quick blinking   Slow blinking

Double-speed recording

|CCRS HIGH| → |CCRS HIGH|

Quick blinking   Slow blinking
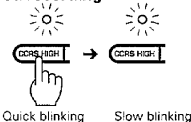
Recording occurs as shown below.

Priority given to programmed tracks

Track subjected to time adjustment
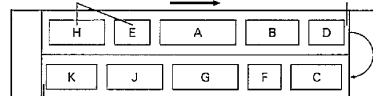
H	E	A	B	D
K	J	G	F	C

Track subjected to time adjustment

Tracks are recorded basically according to their numbers, but some tracks are replaced with tracks subjected to time adjustment.

● The CD player and cassette deck enter the stop mode automatically after the completion recording.

Notes:
1. Edit operation does not occur if a track No. 44 or more has been programmed.
2. Repeat playback is not available.
3. To cancel the auto-spacing, press the |P. MODE| key and re-start the procedure from step 4.

■ AI EDIT recording

When the total playing time of a CD exceeds the re-
cording time of tape, this function allows to accom-
modate all tracks (up to 20 tracks) in a tape by cutting
the end of each track by means of fade-out. It is also
possible to specify the important tracks that must not
be cut. (AI PRIORITY EDIT)
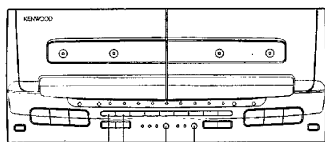
CCRS HIGH key —— —— DOLBY NR key
CCRS NORM key —— —— DIRECTION key

1 Set up Deck B ready for recording.
① Insert the cassette tape.

② Check the tape transport direction.

③ Select the tape sides to be recorded.

ō ō ō ◯ ⊃ :Select two-side recording.
        Each press changes the type.

④ Select the Dolby NR mode.

ŏ ŏ ◯ Each press changes the type.
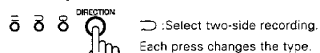
To apply an equalizer effect

● During double-speed recording, the equalizer effect
must be canceled (refer to page 34).

2 Select the CD input.

3 Insert the disc in the CD player.

4 Select the tracks which must not be cut in
recording.

① Press the P.MODE key.
● PGM lights up.
② Input the track Nos. using the numeric keys.
● Input several numbers in a desired order.
● For details, refer to "Playing desired tracks in desired or-
der" on page 40.

5 Select the AI EDIT mode with the EDIT
MODE key of the CD player.
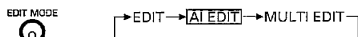
EDIT MODE
◯ ┌─EDIT──AI EDIT──MULTI EDIT─┐
    The display changes every time
    the key is pressed.

● Proceed to the next step within 8 seconds after setting
AI EDIT. If 8 seconds have elapsed, select the AI EDIT
mode again.

6 Input the two-way recording time of the
tape.

Use the numeric keys of the CD player.
C-30 tape: [∓10] [+10] [+10] [0]
C-46 tape: [∓10] [+10] [+10] [+10] [6]

● 46, 54, 60 or 90 can also be selected every time the
[TIME] key is pressed. In this case, press the EDIT MODE
key again to establish the input.
● Tracks are edited automatically to fit sides A and B, and
the end of editing is indicated when the AI EDIT indica-
tor changes from blinking to continuous lighting.

7 Press the CCRS key.

Normal-speed recording

CCRS NORM → CCRS NORM
Quick blinking   Slow blinking

Double-speed recording

CCRS HIGH → CCRS HIGH
Quick blinking   Slow blinking

Recording occurs as shown below.

┝← Programmed tracks →┥

| A | B | C | > D |
| H | < G | < F | < E |
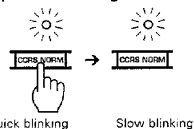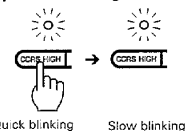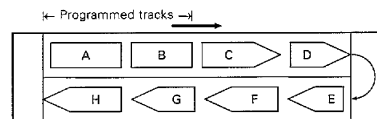
● First, the programmed tracks are recorded without any
cutting, the other tracks are recorded with the end of
every track cut by fade-out.
● If the tape has enough recording time, all tracks are
recorded until the end.
● The CD player and cassette deck enter the stop mode
automatically after the completion of recording.

Notes:
1. If an extremely-short tape recording time is set, automatic editing may not occur.
2. The SPACE key and REPEAT key functions are inoperative.
3. Edit operation does not occur if a track No. 44 or more has been programmed.
4. X. FADE recording is not possible.

■ MULTI EDIT (Multiple disc edit) recording

This function allows to edit desired tracks on multiple CDs, each of which containing no more than 20 tracks, and record them on a single tape while replacing discs.

1 Set up Deck B ready for recording.
① Insert the cassette tape.

② Check the tape transport direction.

③ Select the tape sides to be recorded.

⊃ :Select two-side recording.
Each press changes the type.

④ Select the Dolby NR mode.

Each press changes the type.
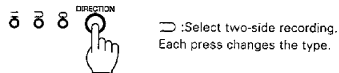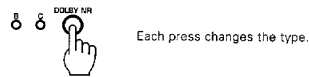
To apply an equalizer effect

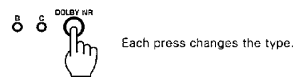● During double-speed recording, the equalizer effect must be canceled (refer to page 34).

2 Select the CD input.

3 Insert the disc in the CD player.

4 Select the MULTI EDIT mode with the EDIT MODE key of the CD player.

┌►EDIT ─►AI EDIT ─►MULTI EDIT┐

The display changes every time the key is pressed.
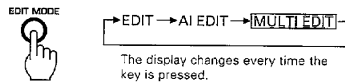
● Proceed to the next step within 8 seconds after setting MULTI EDIT. If 8 seconds have elapsed, select the MULTI EDIT mode again.

5 Input the two-way recording time of the tape.
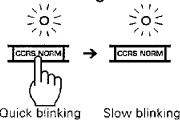Use the numeric keys of the CD player.
C-30 tape: +10 +10 +10 0
C-46 tape: +10 +10 +10 +10 6

● 46, 54, 60 or 90 can also be selected every time the TIME key is pressed. In this case, press the EDIT MODE key again to establish the input.
● MULTI EDIT changes from blinking to continuous lighting, indicating the program input stand-by, and the recordable time of side A is displayed.

6 Select the tracks to be recorded.

Using the numeric keys of the CD player, input the track Nos. in the order they are to be recorded.

● The TOTAL TIME display shows the remaining time on the tape side A or B.
● When "FULL" appears on the display, this indicates that tracks cannot be recorded any more.

7 Press the CCRS key.

Normal-speed recording

CCRS NORM → CCRS NORM

Quick blinking   Slow blinking

Double-speed recording

CCRS HIGH → CCRS HIGH

Quick blinking   Slow blinking
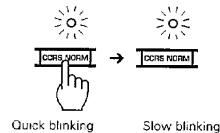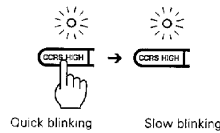
Recording occurs as shown below (example when three CDs are to be recorded).

|◄── First CD ──►| |◄── Second CD ──►|

| A | B | C | D |
| H | G | F | E |

|◄── Third CD ──►| |◄── Second CD ──|
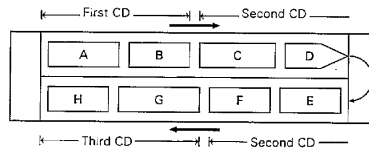
● When the first CD has been recorded, both the CD player and cassette deck enter the stop mode. The tray of the CD player opens automatically.

To record the second and third CDs, repeat steps 6 and 7 after changing the CDs and closing the tray of the CD player.

Notes:
1. In step 6, the display of the CD player shows FADE and the end of the selected tune which is longer that the preset time is faded out.
2. Track No. 44 or more cannot be input.
3. The SPACE key and REPEAT key functions are inoperative.

CLEAR key
P.MODE key

CHECK key

X.FADE key
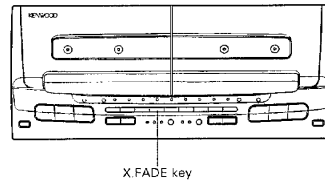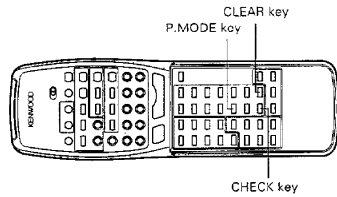
■ To check the edited contents

| Remote control unit only |

P.C. lights up.

CHECK

Track No.

- Every time the key is pressed, the track Nos. are displayed in the edited order.
- Only the track Nos. on the disc being present in the CD player are displayed in case of MULTI EDIT.

■ To clear the edited contents

| Remote control unit only |

Clearing individual tracks from the last track (MULTI EDIT only)

CLEAR

- Every time the key is pressed, the last track in the edited sequence of tracks is cleared.
- Only the track on the disc being present in the CD player can be cleared.

Clearing all edited contents

or

P.MODE

- Only the track on the disc being present in the CD player can be cleared in case of MULTI EDIT.

■ X.FADE recording of CD playback

| Not available with double-speed recording |

1 Select CD with the input selector, and place a CD on the tray.

2 Perform "Ordinary recording" until step 2.

- Refer to page 55.

3 Start recording.

X.FADE → X.FADE

Quick blinking   Slow blinking

- The CCRS is activated so the recording will start in about 90 seconds.
- The recording operation according to the mode of the CD player starts.

In case of TRACK or PGM mode

Recording interrupted in the middle of C

| A | B | C |
| E | D | C |

Stop in the middle of E   Recording of C from the beginning
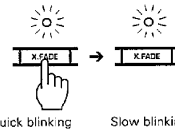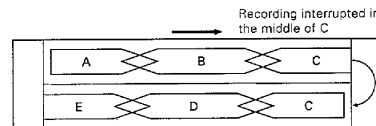
In case editing (Normal EDIT, MULTI EDIT) is executed before recording
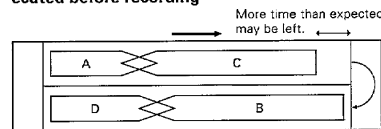
More time than expected may be left.

| A | C |
| D | B |

Note:
If a tune beginning and ending with fade-in and fade-out is recorded by X. FADE recording, spaces between recorded tunes may become very long.

The CCRS (Computer-controlled CD Recording System) makes the following convenient recordings possible by setting the optimum recording level and recording bias for the specific CD to be recorded and starting recording automatically. (CCRS recording is available only with Deck B.)

Recording of TRACK mode playback : CCRS starts recording the CD tracks from the first track in order. When the end of one tape side is reached during recording, fade-out occurs there, and recording is continued on the other side of tape, which starts with fade-in.

Recording of PGM mode playback : Up to 32 tracks from a single or several CDs can be edited and recorded on a tape. When the end of one tape side is reached during recording, the track which should end in the middle is erased, and the recording on the other side of tape is started from the beginning of that track.

Normal EDIT recording : When the recording time of the tape is specified first, the order of the CD tracks are edited so that no track is interrupted at the end of each side of tape. The maximum number of tracks that can be edited is 20.

AI EDIT recording : When the total playing time of a CD exceeds the recording time of tape, all tracks (up to 20 tracks) can still be accommodated in the tape by fading out the end of each track.

X.FADE (Cross-fade) recording : The beginning and end of each track is faded in / out to create a music tape without interruption between tunes.

CCRS double-speed recording : Records CD at twice the normal speed.

Also, refer to "Playing CDs".

CCRS (Computer-controlled CD Recording System)

When the CCRS key is pressed, the following operations occur automatically and recording of CD starts after them.
1. The CD is played and its peak level is sampled from the level used when the disc was recorded.
2. The optimum recording level for that disc is determined from the sampled peak level and the cassette deck is set accordingly.
3. The cassette deck sets automatically the optimum bias for the tape used in recording.
4. The recording preparations detailed above are completed in about 90[*3] seconds, after which actual recording starts.
5. When the recording is completed (when the CD player ends playback or when the tape has been recorded), both the cassette deck and CD player enter the stop mode.

- The set recording level and auto bias level are maintained while the CCRS and AUTO BIAS indicators are lighted.
- The recording level is canceled when the open / close key of the CD player is pressed, the auto bias level is canceled when the Eject key of Deck B is pressed, and both are canceled if the power is turned off.

Display during CCRS operation

Lighting ○   Blinking ☀   OFF ●

indicator	CCRS [*1]	AUTO BIAS [*2]	Pause	Recording
During recording level setting	☀ Quick blinking	●	○	○
During auto bias adjustment	☀	☀	●	○
	☀	☀	●	●
During recording	☀ Slow blinking	○	●	○
During record-pause	●	○	●	●

*1. To cancel CCRS setting : Press the open / close key of the CD player.
*2. To cancel auto bias setting : Press the Eject key of the cassette deck.
*3. The time varies according to the number of the tunes to be recorded.

Fade-in and fade-out

Fade-in refers to a gradual increase of volume from the minimum to normal level when starting to play music.
Inversely, fade-out refers to a gradual decrease of volume from the normal to minimum level at the end of music.

fade-in   fade-out

CCRS double-speed recording

CD and cassette deck are both played at twice the normal speed and recorded, making it possible to half the time required for recording.
Since the CD is played in double speed in this case, the recorded content cannot be enjoyable as music even though it can be monitored from the speakers.
In double-speed recording, tunes are recorded onto the tape without DOLBY NR effect. So playback the tape without DOLBY NR effect.
During CCRS double-speed recording, cancel the equalizer effect . (Refer to page.34).

CCRS HIGH key ——— ——— DOLBY NR key
CCRS NORM key ——— ——— DIRECTION key

■ Recording of TRACK mode play-back

A CD is played from the first track, and the sound is faded out at the end of a tape side then faded in at the beginning of the other side.
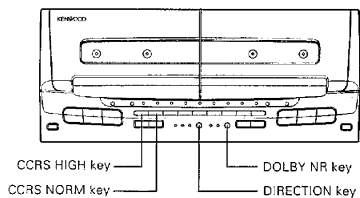
1 Set up the cassette deck.

① Insert a tape in deck B.

② Set the tape transport direction.

③ Select one-side or two-side recording.

ō ō ō DIRECTION ⊃ : Select two-side recording.

Each press changes the type.

④ Select the Dolby NR mode.

ō ō DOLBY NR

Each press changes the type.

● When the microphone is not to be used, be sure to set the MIC MIXING control knob fully counterclockwise.

To apply the equalizer effect

● During double-speed recording, the equalizer effect must be canceled (refer to page 34).

2 Select CD as the input source.

3 Load a disc in the CD player.

● Close the door and turn off the PGM indicator.
● If the PGM indicator is lighted, press the P.MODE key. (Remote control unit only)

4 Press the disc selector key of the disc to be recorded.

○ ○ ○
○ ○ ○
○

5 Start recording.

Normal-speed recording

In approx. 90 sec.

CCRS NORM → CCRS NORM

Quick blinking   Slow blinking

Double-speed recording

In approx. 90 sec.

CCRS HIGH → CCRS HIGH

Quick blinking   Slow blinking

● The CCRS is activated so the recording will start in about 90 seconds.
● The tracks on the disc are recorded in order of the track Nos.
● The operation as shown below occur at the end of tape where it is reversed.
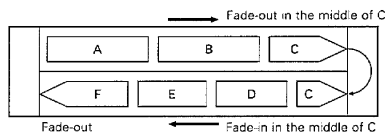
Fade-out in the middle of C

A	B	C
F	E	D	C

Fade-out ←——— Fade-in in the middle of C

Notes:
1. If the CCRS key is pressed in the middle of CD playback, the playback is interrupted and the CCRS setting operation starts.
2. As the CCRS searches the peak level on a disc in a short period of about 90 seconds, it may rarely happen that it commits mistake in the the optimum level setting.
3. The CCRS cannot be used with a CD containing a long track which cannot be accommodated in a single tape side, such as a classic music.
4. If the DIRECTION of the cassette deck is set to "⊃", the operation at the tape end occurs only on tape side A.
5. When a track encountering the end of tape is faded out, the last part of the previous track may also be faded if the distance between the beginning of the faded track and tape end is too short.

■ Recording of PGM mode playback

Up to 32 tracks from a single or several CDs can be recorded on a single tape.
Before proceeding to the following, place the discs to be recorded in the magazine and/or the Plus-1 tray.

1 Set up deck B.

① Insert a tape.

② Set the tape transport direction.

③ Select one-side or two-side recording.

⊃ : Select two-side recording.

④ Select the Dolby NR mode.

To apply the equalizer effect

● During double-speed recording, the equalizer effect must be canceled (refer to page 34).

---

2 Select CD as the input source.

---

3 Load discs in the CD player.

---

4 Select the tracks to be recorded.

(Refer to page 47.)

① Enter the PGM mode.

P.MODE

So that the PGM lights up.

(Remote control unit only)

② Select the disc.
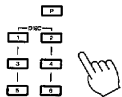
● Select the first track within 8 seconds after selecting the disc.

③ Select the track.

● If you made a mistake, press the CLEAR key and select the correct track.
● The SPACE and REPEAT keys are not effective.
● Up to 32 tracks can be programmed by repeating ① and ② above.
● When "FULL" is displayed, no more track can be programmed.
(Select tracks so that their total playing time does not exceed the recording time of the tape used.)

---

5 Start recording.
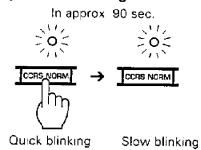
Normal-speed recording

In approx. 90 sec.

CCRS-NORM → CCRS NORM

Quick blinking   Slow blinking

Double-speed recording

In approx. 90 sec.

CCRS HIGH → CCRS HIGH

Quick blinking   Slow blinking
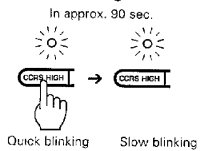
● The CCRS is activated so the recording will start in about 90 seconds.
● The tracks are recorded in the order they were programmed.
● When tracks on several discs are programmed, the same operations as the above occur every time the disc changes.

Recording occurs as shown below.

In case of recording from a single CD

B is erased.

| A | D | G | B |

| F | C | E | B |

Stops after erasing F.   B is recorded from the beginning.
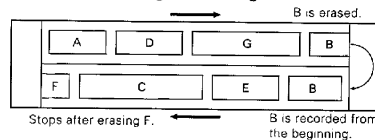
In case of recording from three CDs

Recording pauses for about 60 seconds every time the CD changes.

←First CD→ ←Second CD→

D is erased.

| A | B | C | D |

| G | F | E | D |

Stops after erasing G.   D is recorded from the beginning.

←Third CD→ ←Second CD→

Notes:
1. If the CCRS key is pressed in the middle of CD playback, the playback is interrupted and the CCRS setting operation starts.
2. As the CCRS searches the peak level on a disc in a short period of about 90 seconds, it may rarely happen that it commits mistake in the the optimum level setting.
3. The CCRS cannot be used with a CD containing a long track which cannot be accommodated in a single tape side, such as a classic music.
4. If the DIRECTION of the cassette deck is set to " ⊃ ", the operation at the tape end occurs only on tape side A.

CCRS HIGH key ——————— DOLBY NR key
CCRS NORM key ——————— DIRECTION key

■ Normal EDIT recording

This function allows to edit, base on the recording time of the tape specified, the order of the CD tracks so that no track is interrupted at the end of each side of tape.

1 Set up Deck B ready for recording.

① Insert the cassette tape.

② Check the tape transport direction.

③ Select the tape sides to be recorded.

⊃ :Select two-side recording.
Each press changes the type.

④ Select the Dolby NR mode.

Each press changes the type.

To apply an equalizer effect

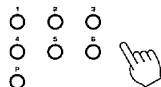- During double-speed recording, the equalizer effect must be canceled (refer to page 34).
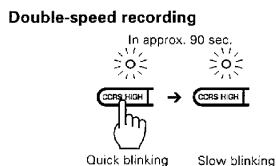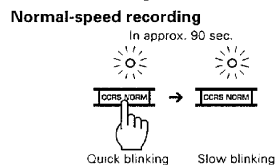
2 Select the CD input.

3 Insert the disc in the CD player.

① Close the door.
② Verify that the PGM indicator is extinguished. If even only one tune is programmed, editing cannot be carried out.

4 Select the EDIT mode with the EDIT MODE key of the CD player.
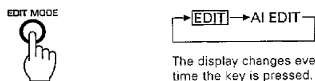
EDIT MODE

┌→ EDIT →AI EDIT ┐

The display changes every time the key is pressed.

- Proceed to the next step within 8 seconds after setting EDIT. If 8 seconds have elapsed, select the EDIT mode again.

5 Select the disc to be recorded.
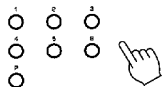
- 20 tracks can be programmed in the EDIT recording mode.

6 Input the two-way recording time of the tape.

Use the numeric keys of the CD player.
C-30 tape: [+10] [+10] [+10] [0]
C-46 tape: [+10] [+10] [+10] [+10] [6]

- 46, 54, 60 or 90 can also be selected every time the [TIME] key is pressed. In this case, press the [EDIT MODE] key again to establish the input.
- Tracks are edited automatically to fit sides A and B, and the end of editing is indicated when the [EDIT] indicator changes from blinking to continuous lighting.

7 Press the CCRS key.

Normal-speed recording

[CCRS NORM] → [CCRS NORM]

Quick blinking   Slow blinking

Double-speed recording

[CCRS HIGH] → [CCRS HIGH]

Quick blinking   Slow blinking
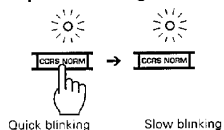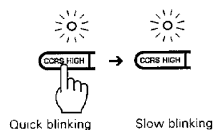
Recording occurs as shown below.

Track subjected to time adjustment

| H | E | A | B | D |

| K | J | G | F | C |

Track subjected to time adjustment

Tracks are recorded basically according to their numbers, but some tracks are replaced with tracks subjected to time adjustment.

- The CD player and cassette deck enter the stop mode automatically after the completion recording.

Note:
Repeat playback is not available.

CCRS HIGH key ———

CCRS NORM key ———

——— DOLBY NR key

——— DIRECTION key

■ AI EDIT recording

When the total playing time of a CD exceeds the recording time of tape, this function allows to accommodate all tracks (up to 20 tracks) in a tape by cutting the end of each track by means of fade-out.

1 **Set up Deck B ready for recording.**
① Insert the cassette tape.

② Check the tape transport direction.

③ Select the tape sides to be recorded.

DIRECTION

⊃ .Select two-side recording.
Each press changes the type.

④ Select the Dolby NR mode.

DOLBY NR

Each press changes the type.
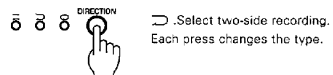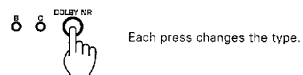
To apply an equalizer effect

● During double-speed recording, the equalizer effect must be canceled (refer to page 34).

2 **Select the CD input.**

3 **Insert the disc in the CD player.**

● Close the door and make sure the PGM indicator is extinguished.

4 **Select the AI EDIT mode with the EDIT MODE key of the CD player.**
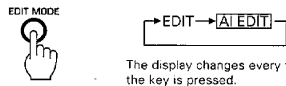
EDIT MODE

┌►EDIT─►AI EDIT┐

The display changes every time the key is pressed.

● Proceed to the next step within 8 seconds after setting AI EDIT. If 8 seconds have elapsed, select the AI EDIT mode again.

5 **Select the disc to be recorded.**

6 **Input the two-way recording time of the tape.**

Use the numeric keys of the CD player.
C-30 tape: +10 +10 +10 0
C-46 tape: +10 +10 +10 +10 6

● 46, 54, 60 or 90 can also be selected every time the TIME key is pressed. In this case, press the EDIT MODE key again to establish the input
● Tracks are edited automatically to fit sides A and B, and the end of editing is indicated when the AI EDIT indicator changes from blinking to continuous lighting.

7 **Press the CCRS key.**

Normal-speed recording

CCRS NORM → CCRS NORM

Quick blinking   Slow blinking

Double-speed recording

CCRS HIGH → CCRS HIGH

Quick blinking   Slow blinking

Recording occurs as shown below.

A > B > C > D

H < G < F < E

● If the tape has enough recording time, all tracks are recorded until the end.
● The CD player and cassette deck enter the stop mode automatically after the completion of recording.

Notes:
1. If an extremely-short tape recording time is set, automatic editing may not occur.
2. The SPACE key and REPEAT key functions are inoperative.
3. X. FADE recording is not possible.
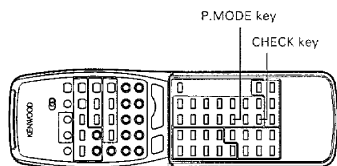
P.MODE key

CHECK key

X.FADE key

■ To check the edited contents

Remote control unit only

P.C. lights up.

CHECK

Track No.

Disc No.

- Every time the key is pressed, the track Nos. are displayed in the edited order.

■ To clear the edited contents

Remote control unit only

Clearing all edited contents

or

P.MODE

M.EJECT

Remote control unit

Main unit

- Tunes from only the currently selected disc are deleted. While playing a disc in plus-1 tray, press the P. OPEN / CLOSE key.
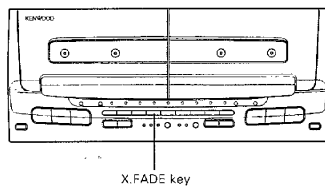
■ X.FADE recording of CD playback

Not available with double-speed recording

1 Select CD with the input selector, and place a CD on the tray.

- Press the disc selector key to select the disc to be recorded and check the playback sound.

2 Perform "Ordinary recording" until step 2.
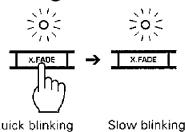
- Refer to page 55.

3 Start recording.

X.FADE → X.FADE

Quick blinking   Slow blinking

- The CCRS is activated so the recording will start in about 90 seconds.
- The recording operation according to the mode of the CD player starts.

In case of TRACK or PGM mode

Recording interrupted in the middle of C

| A | | B | | C |

| E | | D | | C |

Stop in the middle of E   Recording of C from the beginning
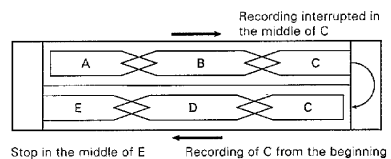
In case Normal EDIT is executed before recording
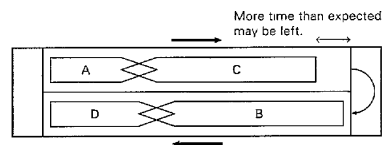
More time than expected may be left.

| A | | C |

| D | | B |

Note:
If a tune beginning and ending with fade-in and fade-out is recorded by X. FADE recording, spaces between recorded tunes may become very long.

Tape dubbing

The dubbing refers to the copy of the recorded contents of a tape to another tape (tape in Deck A → tape in Deck B).

Normal-speed dubbing: Copy at normal tape speed.
High-speed dubbing: Copy at double the normal speed.

1 Insert tapes in the cassette decks.

Tape to be played
Tape to be recorded onto

Deck A   Deck B
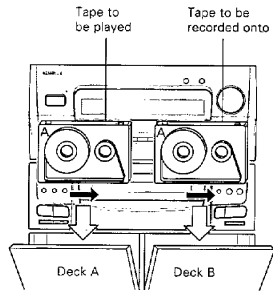
2 Set the same tape transport direction for both tapes.

- Refer to page 59.

Deck A   Deck B

3 Select one-way or two-way dubbing mode.

DIRECTION
⊃: For two-way dubbing
⊂: For one-way dubbing
Each press changes the type.
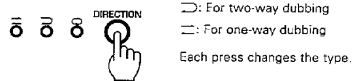
4 Press the AUTO BIAS key.

- The optimum bias is set in about 45 seconds, after which the cassette decks enter the stop mode.

5 Start dubbing.

For normal-speed dubbing   For double-speed dubbing

DUBB HIGH | DUBB NORM   DUBB HIGH | DUBB NORM

DUBB HIGH key
DUBB NORM key

KENWOOD

DIRECTION key   Stop key
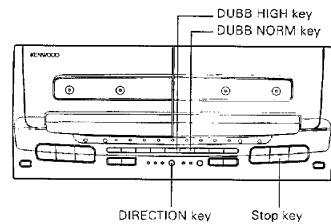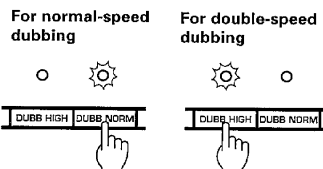
To stop dubbing

Press the Stop key of Deck B
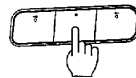
- Both Decks A and B enter the stop mode.

To pause dubbing

Normal-speed dubbing: Press the NORM key.

High-speed dubbing: Press the HIGH key.

- Only deck B enters the record- pause mode after leaving a non-recorded space of about 4 seconds in case of normal-speed dubbing, or about 6 seconds in case of high-speed dubbing.
- To skip tunes you do not want to dub on another tape during dubbing, press the ►► key of Deck A.
- To resume dubbing after pause, press the same DUBBING key as above ([NORM] or [HIGH]) again.

Notes:
1. The recording level cannot be adjusted for dubbing.
2. The [DOLBY NR] key does not function during dubbing.
   * The tape recorded by dubbing features the same NR system as the original tape in Deck A.
3. Noise from TV may interfere with dubbed sound if high-speed dubbing is executed near a TV set. To prevent this, install the system farther from the TV set.
4. If the original tape was recorded at a high level, the sound quality may be degraded ,if high-speed dubbing is used. In such a case, use normal-speed dubbing.

HIT MASTER:

This key allow to reduce the vocal level of songs played on CD, etc., so that you can sing along with only the accompaniment just like in "Karaoke" singing. This feature is convenient when you want to master a latest song the "Karaoke" backing of which is not available.

■ Microphone mixing

1 **Turn the MIC MIXING control knob fully counterclockwise.**

MIC MIXING

2 **Insert the microphone plug into the MIC jack.**

MIC

3 **Adjust the volume balance between the microphone and source.**

MIC MIXING

To decrease microphone volume

To increase microphone volume

■ Singing "Karaoke"

1 Play the music source.

2 Press the HIT MASTER key.

HIT MASTER

• Only the vocal part level is reduced from the music source. However, note that this effect cannot be obtained with certain types of sources.

3 Sing along with the music.

• The overall volume is adjusted with the VOLUME control.

Notes:
1. When the microphone is not to be used, be sure to set the MIC MIXING control knob fully counterclockwise.
2. The mixture of microphone sound and tape playback sound can not be recorded.

MIC MIXING control knob
MIC jack   CD REC key
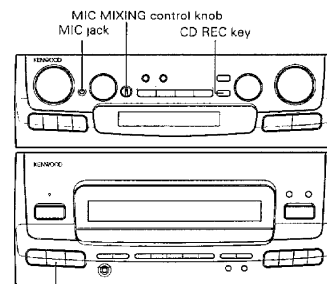
HIT MASTER key

■ Recording "Karaoke"

1 Connect a microphone.

2 Ensure that the CD REC is OFF.

CD REC

3 Press the HIT MASTER key.

HIT MASTER

4 Perform the "Ordinary recording " procedure until step 4.

• Refer to page 55.

5 Start recording.

① Play a music source.

② Press the record key.

③ Sing along with the music.

• A "Karaoke" accompaniment tape can also be created by recording music with the MIC MIXING control knob set fully counterclockwise.

6 Stop recording.

Operation of timer

Be sure to adjust the present time before proceeding the following.

The timer of the system can be used for the following functions.

Program timer : Receives broadcast, records broadcast or plays tape or CD at the specified ON time, and switches power OFF at the specified OFF time.
Up to four timer programs can be set. The AI TIMER functions can be added to the program timer function.

AI TIMER 1 : When the power is switched ON at the timer ON time, the volume will increase in three steps, providing a wake-up effect like an alarm clock.

AI TIMER 2 : When the power is switched ON at the timer ON time, two tracks of a CD are played first, then the input is switched automatically to the tuner.

Sleep timer : Switches power OFF after a set time period has elapsed. If set before you go to bed, power can be switched OFF automatically even after you fall asleep.

One-touch timer : Switches power ON after a specified time period, set in the unit of 30 minutes up to 12 hours, from the moment it is activated. The AI TIMER functions can be added to the one-touch timer function.

Calendar check : When the year, month and day are input in this order, the day of the week of that date is displayed by means of an indicator.

- For the timer setting procedures, read description on the next page and after.
- The contents of time programs can be modified as required.
- Even when a timer program has been input, the timer will not be activated unless its execution has been activated.
- Turn the AI TIMER functions OFF when they are not required; otherwise, they will be added to all of the programs executed on that day.
- Once set, the contents of a program cannot be cleared at once. The previous contents can only be cleared when they are replaced by modification.
- The programs must be set so that their time ranges do not overlap.

BAND key   PROGRAM key   EXE. key

SLEEP key   Numeric keys   ENTER key
- Select the program No.
- Select the day(s) of the week.
- Input the ON time.
- Input the OFF time.
- Select the preset radio station.
- Select the program to be executed.
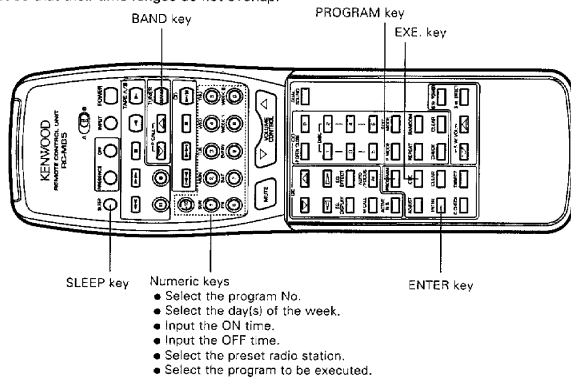
Types of days of the weeks which can be selected by numeric keys

1. To execute a program only once on the specified day of the week after its execution has been activated.   Numeric keys

Sunday	◉	○	○	○
Monday	○	◉	○	○
Tuesday	○	○	◉	○
Wednesday	○	○	○	◉
Thursday	○	○	○	○ ◉
Friday	◉	○	○	○
Saturday	○	◉	○	○

- If it is required to activate the timer in the same time period of the next week, activate the execution again.

2. To execute a program repeatedly on every week after its execution has been activated.   Numeric keys

Every day from Monday to Sunday   ○ ○ ◉ ○ ○

Every day from Monday to Saturday   ○ ○ ○ ◉ ○

Every day from Monday to Friday   ○ ○ ○ ○ ◉

- If timer operation is not required, cancel the program execution.

UD-501/UD-551M (En) **73**

Be sure to adjust the present time before proceeding the following.

■ Timer reception of radio broadcast | Remote control unit only |

1 Switch the power ON.

Press the [POWER] key of the power amplifier/ graphic equalizer.

2 Select the program setting mode.

PROGRAM

SELECT PROGRAM

P N 0

• The program No. indicators (1 to 4) blink.

3 Select the program No. to be used.

ENTER

Select from 1 to 4.

Press within 8 seconds.

• The selected program No. indicator blinks.

4 Specify the day(s) of the week with the numeric keys.

SELECT DAY

ENTER

DAY

5 Input the ON time with the numeric keys.

6:30 AM: [0] [6] [3] [0]

INPUT ON TIME

ENTER

ON =06:30

6 Input the OFF time with the numeric keys.

7:00 AM: [0] [7] [0] [0]

INPUT OFF TIME

ENTER

OFF =07:00

7 Select the PLAY mode.

TUNER

ENTER

SELECT MODE

MODE=PLAY

The timer modes are switched between PLAY and REC every time the [BAND] key is pressed.

8 Select the TUNER source.

TUNER

BAND → ENTER

SELECT SOURCE

=TUNER=

→ TUNER → CD → TAPE →
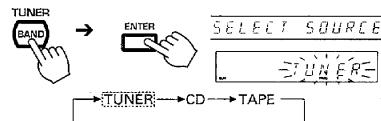
The sources are switched every time the [BAND] key is pressed.

• "LAST" is selected when, for instance, DBS tuner or LD player is being recorded.

9 Select the preset key under which the station to be received has been preset.

SELECT PRESET

↓

ENTER

1 9.2.50

END
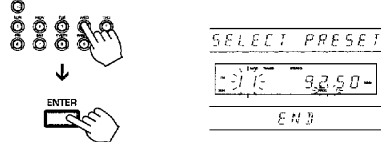
• The station must be preset previously.

10 Activate the execution of the program.
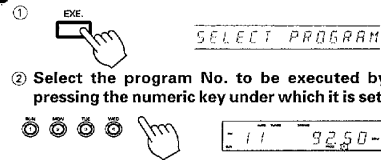
① EXE.

SELECT PROGRAM

② Select the program No. to be executed by pressing the numeric key under which it is set.

1 9.2.50

• The selected program No. indicator lights up.

11 Adjust the volume and tone.

12 Switch the power OFF.

Press the [POWER] key of the power amplifier/ graphic equalizer.

To continue the reception of radio station which as been started to be received by timer ON:

① Press the CLEAR key before the OFF time comes.
② Press the numeric key for the program No. being executed.

• When the program No. indicator goes off, it means that the program will be received continuously.

To change the program

During the setting operation	After setting is completed
CLEAR	Repeat the programming procedure from step 2.

Notes:
1. When a program has previously been set in the program No. selected in step 3, the newly-set program replaces the previous program.
2. Do not operate the [CLEAR] key or [POWER] key while the timer program execution has been activated; otherwise malfunction will occur.
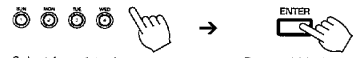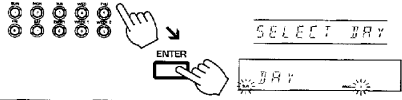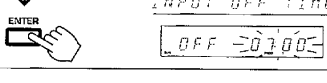
■ Timer playback of CD [Remote control unit only]

1 Switch the power ON.

Press the POWER key of the power amplifier/graphic equalizer.

2 Select the program setting mode.

PROGRAM

SELECT PROGRAM

P N O

• The program No. indicators (1 to 4) blink.

3 Select the program No. to be used.

ENTER

Select from 1 to 4.
Press within 8 seconds.
• The selected program No. indicator blinks.

4 Specify the day(s) of the week with the numeric keys.

ENTER

SELECT DAY

DAY

5 Input the ON time with the numeric keys.

6:30 AM: [0] [6] [3] [0]

↓

ENTER

INPUT ON TIME

ON 06:30

6 Input the OFF time with the numeric keys.

7:00 AM: [0] [7] [0] [0]

↓

ENTER

INPUT OFF TIME

OFF 07:00

7 Select the PLAY mode.

TUNER
BAND → ENTER

SELECT MODE

MODE=PLAY

The timer modes are switched between PLAY and REC every time the BAND key is pressed.

8 Select the CD source.

TUNER
BAND → ENTER

SELECT SOURCE

CD

CD

TUNER → CD → TAPE

The sources are switched every time the BAND key is pressed.

9 Place a disc in the CD player.

• With the UD-551M, place the disc on the Plus 1 tray and close the door.
• It is not possible to preset a CD playback programs.

10 Activate the execution of the program.

① EXE.

SELECT PROGRAM

② Select the program No. to be executed by pressing the numeric key under which it is set.

1 92 50

• The selected program No. indicator lights up.

11 Adjust the volume and tone.

12 Switch the power OFF.

Press the POWER key of the power amplifier/graphic equalizer.

Notes:
1. When a program has previously been set in the program No. selected in step 3, the newly-set program replaces the previous program.
2. Do not operate the CLEAR key or POWER key while the timer program execution has been activated; otherwise malfunction will occur.

To change the program

During the setting operation	After setting is completed
CLEAR	Repeat the programming procedure from step 2.

Operation of timer

■ Timer playback of tape [Remote control unit only]

1. Switch the power ON.

Press the [POWER] key of the power amplifier/graphic equalizer.

2 Select the program setting mode.

PROGRAM

SELECT PROGRAM

PNG

● The program No. indicators (1 to 4) blink.

3 Select the program No. to be used.

ENTER

Select from 1 to 4.   Press within 8 seconds.
● The selected program No. indicator blinks.

4 Specify the day(s) of the week with the numeric keys.

SELECT DAY

ENTER

DAY

5 Input the ON time with the numeric keys.

6:30 AM: [0] [6] [3] [0]
↓
ENTER

INPUT ON TIME

ON 06:30

6 Input the OFF time with the numeric keys.

7:00 AM: [0] [7] [0] [0]
↓
ENTER

INPUT OFF TIME

OFF 07:00

7 Select the PLAY mode.

TUNER
BAND → ENTER

SELECT MODE
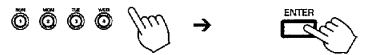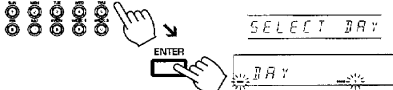
MODE=PLAY

The timer modes are switched between PLAY and REC every time the [BAND] key is pressed.

8 Select the TAPE source.

TUNER
BAND → ENTER

SELECT SOURCE

TAPE

END

→ TUNER → CD → TAPE
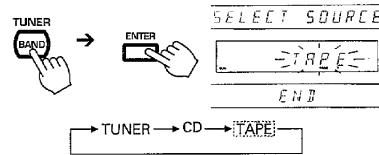
The sources are switched every time the [BAND] key is pressed.

9 Insert a tape and determine the playback condition.

Select the side(s) to be played and the Dolby NR mode.

Each press changes the type.

DIRECTION   DOLBY NR
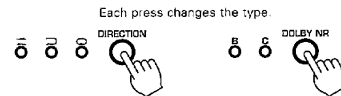
● Timer playback is possible with either Deck A or Deck B. However, if tapes are placed in decks, playback will begin from Deck B.

10 Activate the execution of the program.

① EXE.

SELECT PROGRAM

② Select the program No. to be executed by pressing the numeric key under which it is set.

11 9250

● The selected program No. indicator lights up.

11 Adjust the volume and tone.

12 Switch the power OFF.

Press the [POWER] key of the power amplifier/graphic equalizer.

To change the program

During the setting operation	After setting is completed
CLEAR	Repeat the programming procedure from step 2.

Notes:
1. When a program has previously been set in the program No. selected in step 3, the newly-set program replaces the previous program.
2. Do not operate the [CLEAR] key or [POWER] key while the timer program execution has been activated; otherwise malfunction will occur.

■ Timer recording of radio broadcast | Remote control unit only |

1 Switch the power ON and receive a station to be recorded.
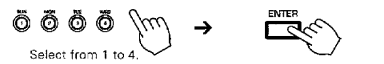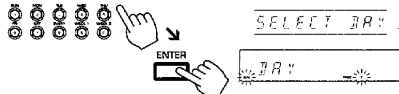
2 Select the program setting mode.

PROGRAM

`SELECT PROGRAM`

`PNO`

• The program No. indicators (1 to 4) blink.

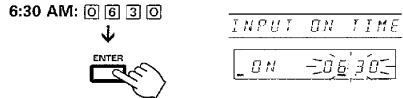**3** Select the program No. to be used.

ENTER

Select from 1 to 4.   Press within 8 seconds.
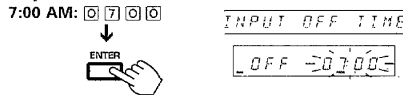• The selected program No. indicator blinks.

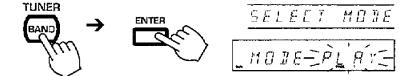**4** Specify the day(s) of the week with the numeric keys.

ENTER

`SELECT DAY`

`DAY`

5 Input the ON time with the numeric keys.
0:00 AM: [0] [0] [0] [0]

ENTER

`INPUT ON TIME`

`ON =00:00=`

6 Input the OFF time with the numeric keys.
0:30 AM: [0] [0] [3] [0]

ENTER

`INPUT OFF TIME`

`OFF =00:30=`

7 Select the REC mode.
TUNER

BAND → ENTER

`SELECT MODE`

`MODE =REC=`
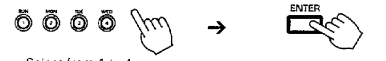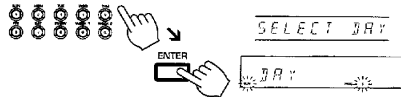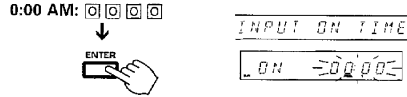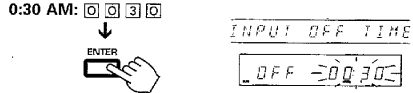
The timer modes are switched between PLAY and REC every time the [BAND] key is pressed.

8 Select the preset key under which the station to be received has been preset.

ENTER

`SELECT PRESET`

`92.50`

`END`
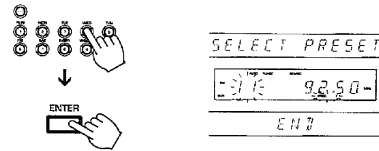
• The station must be preset previously.

9 Set up the cassette deck ready for recording.

① Insert a tape in Deck B.
② Set the tape transport direction.
③ Select the side(s) to be recorded onto.
④ Select the Dolby NR mode.
⑤ Set the main input to TUNER.
⑥ Press the CRLS key.

• The auto-bias adjustment cannot be used.

10 Activate the execution of the program.

① EXE.

`SELECT PROGRAM`

② Select the program No. to be executed by pressing the numeric key under which it is set.

`92.50`

• The selected program No. indicator lights up.

11 Switch the power OFF.
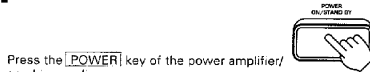
○ POWER ON/STAND BY

Press the [POWER] key of the power amplifier/graphic equalizer.

Notes:
1. When a program has previously been set in the program No. selected in step 3, the newly-set program replaces the previous program.
2. When the power is turned ON by the timer, the volume level is automatically set to the lowest level.
3. Do not operate the [CLEAR] key or [POWER] key while the timer program execution has been activated; otherwise malfunction will occur.

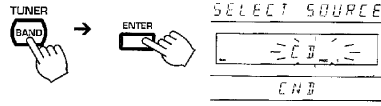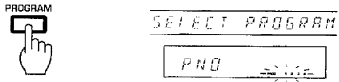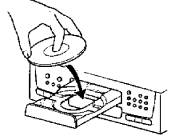**To change the program**

During the setting operation	After setting is completed
CLEAR	Repeat the programming procedure from step 2.

Operation of timer

Be sure to adjust the present time before proceeding the following.

■ To check timer program contents

Remote control unit only

1 Press the PROGRAM key.

PROGRAM

SELECT PROGRAM

2 Press the numeric key corresponding to the program to be checked.

P N O

- If no program is selected while the program No. indicators are blinking, the previous display condition resumes.
- When a program is selected, its contents will be displayed for about 3 seconds, and the previous display resumes after it.

■ To cancel timer program execution

Remote control unit only

1 Press the CLEAR key.

CLEAR

SELECT PROGRAM

2 Press the numeric key corresponding to the program the execution of which is to be cleared.

Program No.

P N O
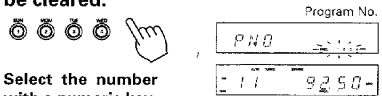
Select the number with a numeric key.

- 1 1   9 2 5 0 -

- The program contents are not cleared even when its execution is canceled.

Re-activation of timer execution after canceling it

Since the program itself is retained in memory, check its contents and perform the operation from the step "Activate the execution of the program" as follows.

① Press EXE. key.
② Select the program No. to be executed by pressing the numeric key under which it is set.
③ Adjust the volume and tone in case of timer reception of broadcast or timer playback of CD or tape.
④ Switch the power OFF.

■ Operation of one-touch timer

Press the O.T.T. key allows to switch power ON after a specified time period, set in the unit of 30 minutes, from the moment it is activated.

Remote control unit only

1 Set the timer ON time.

Press the O.T.T. key.

O N   0 6 3 0   ——— O.T.T. lights up.

The ON time of the timer is displayed.

The displayed time is incremented by 30 minutes every time the key is pressed.
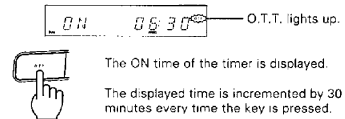
- When the key is pressed once, a time that can be divided by 30 minutes and within 30 minutes from the present time is displayed as the ON time. (Example: When pressed at 7:40, "8:00" will be displayed.)
- The ON time is incremented in 30-minute steps, for example from 0:00 to 0:30, 1:00, 1:30, and so on.
- The ON time can be set up to 12 hours later.
- The one-touch timer can be set even when the power is OFF.

2 Select a program source and adjust the volume.

Select CD, TUNER or TAPE.

3 Switch the power OFF.

Press the POWER key of the remote control unit.

POWER

- The ON time can be checked by pressing the O.T.T. key once.
- When the power is switched ON, the sleep timer will automatically be set to 60 minutes.
- When the power is switched ON, the selected source (CD, TAPE, TUNER) will be played.

To cancel one-touch timer activated

Switch the power ON,
or
Press the O.T.T. key until the O.T.T. indicator goes off.

Notes:
1. If disc is not present while the CD input is selected or cassette tape is not present while the TAPE input is selected, the last broadcasting station received will be received again.
2. If the ADJUST key is pressed to set the clock, the one-touch timer is released.

After setting the timer, one of the following operations can be added by pressing the AI TIMER keys. The AI TIMER 1 and AI TIMER 2 do not function in the timer recording mode.

AI TIMER 1 key
AI TIMER 2 key

O.T.T. key
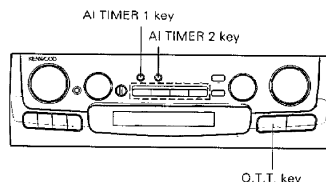
■ Operation of AI TIMER 1

With this function, when the power is switched ON by the program timer, the volume increases in three steps.

Main unit only

1 Complete the program timer setting.

Switch the power of the power amplifier/graphic equalizer OFF.

2 Press the AI TIMER 1 key.

AI TIMER

The AI TIMER 1 indicator lights up.

Select the maximum volume.
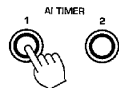
VOL 1 → VOL 2 → VOL 3 → OFF
(Small) (Intermediated) (Maximum)

● The maximum volume setting varies every time the key is pressed. When the key is released, the indicator goes out and the maximum volume setting set at that moment is stored in memory.

To cancel the execution of AI TIMER 1

Press the AI TIMER 1 key to select OFF.
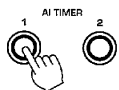
AI TIMER

● The AI TIMER 1 indicator goes off.

Reference for volume selection

VOL3
VOL2
VOL1

30 sec | 30 sec
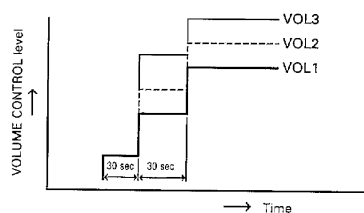
→ Time

● The VOLUME control rotates as the volume changes.
● The graphic equalizer curve also varies accordingly.

■ Operation of AI TIMER 2

With this function, when the power is switched ON by the program timer, two tracks on the CD are played first, then the broadcast from the tuner is received automatically. This function is given the highest priority over other program timer functions.

Main unit only

1 Place a disc in the CD player.

● With the UD-551M, place the disc on the Plus 1 tray and close the door.

2 Perform operations of "Timer reception of radio broadcast".

● Refer to page 83.

3 Press the AI TIMER 2 key.

AI TIMER

The AI TIMER 2 indicator lights up.
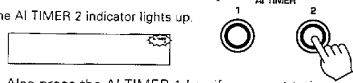
● Also press the AI TIMER 1 key if you want to increase the volume in three steps.

To cancel AI TIMER 2

Press the key again.
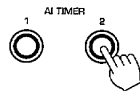
AI TIMER

● The AI TIMER 2 indicator goes off.

Notes:
1. When the operation keys of the power amplifier/graphic equalizer or the VOLUME CONTROL key on the remote control unit is pressed while the AI TIMER 1 function is carried out, the volume is fixed at the level being set.
2. If the TUNER or TAPE input is selected during the CD playback of AI TIMER 2, the CD playback stops there and the AI TIMER 2 function is canceled.
3. If the operation keys of the CD player is pressed during the CD playback of AI TIMER 2, the CD playback stops there and the AI TIMER 2 function is canceled.
4. If the CD has not been inserted, reception of radio broadcast starts at the moment AI TIMER 2 is activated.
5. Even when the program timer operation has completed, the AI TIMER 1 and 2 indicators do not go off. Be sure to turn off the indicators when the AI TIMER 1 and / or 2 is not required any more.

POWER key

SLEEP key

Numeric keys

C CHECK key

ENTER key
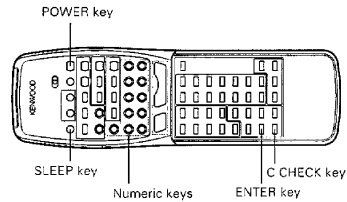
■ Operation of sleep timer

The sleep timer allows to turn the system power off after the specified period has elapsed. This function may be most convenient when you like to fall asleep while listening to music.
The period can be set up to 90 minutes in 10-minute steps.
The sleep timer is applied in priority over other timer programs.

Remote control unit only

1 Switch the power ON.

POWER

Press the POWER key of the remote control unit.

2 Specify the period after which the power is to be switched OFF.

Press the SLEEP key.

SLEEP

_ 5 L E E P _ 9 0

SLEEP lights up.

┌→90 →80 →70 →• ----- →20 →10 →Canceled┐
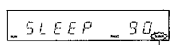
● Each press decreases the period by 10 minutes.

To cancel sleep timer

Press the SLEEP key until the sleep timer is canceled,
or
Switch the power OFF.

SLEEP

■ Operation of calendar check

The calendar check allows to display the day of the week of the specified date input by the user in the order of year, month and day. This function covers the range from January 1, 1900 to December 31, 2099.

Remote control unit only

1 Press the C.CHECK key.

C.CHECK

I N P U I Y E A R

2 Input the year with the numeric keys.

Year 1993: [1] [9] [9] [3]

↓

ENTER

Y E A R - I 9 9 3 -

I N P U I D A T E

3 Input the month then the day with the numeric keys.

March 30: [0] [3] [3] [0]

↓

ENTER

D A T E - 0 3 3 0 -

I 9 9 3 3. 3 0

Day of the week.

● The day-of-the-week indicator of the date input above lights up. The previous display resumes in a few seconds.

Be sure to adjust the present time before proceeding

In case of difficulty

What appears to be a malfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Remote control unit

Symptom	Cause	Remedy
Remote control operation is not possible.	• Batteries are exhausted. • The parallel cord is not connected properly. • The remote control unit is too far away from the main system, controlling angle is too large, or there is an obstacle in between. • The source component to be operated does not contain the tape(s) or CD. • An attempt is made to play a tape which is being recorded in the cassette deck.	• Replace with new batteries. • Connect properly referring to "System connections". • Operate the remote control unit within the controllable range. • Place the tape(s) or CD in the source component to be played. • Wait until the recording is completed.

Preamplifier / tuner unit, power amplifier / graphic equalizer unit, speakers

Symptom	Cause	Remedy
Sound is not output.	• The speaker cords are disconnected. • The volume is set to minimum position. • The MUTE key of the remote control unit is set to ON and the point indicator is blinking. • The parallel cord is not connected properly. • The headphones plug is left inserted in the PHONES jack. • The DUAL SOUND MIXING control knob is turned to the right.	• Connect properly referring to "System connections". • Adjust the volume to a proper level. • Press the MUTE key to OFF. • Connect properly referring to "System connections". • Remove the plug. • Turn the DUAL SOUND MIXING control knob to proper position.
The stand by indicator blinks and no sound is heard.	• Speaker cords are short-circuited.	• Turn the power off, eliminate the short-circuiting, then turn on the power again.
Sound is not output from one of the speakers.	• The speaker cord is disconnected. • The BALANCE control is set to an extreme position.	• Connect properly referring to "System connection". • Adjust the Left / Right balance.
Environmental sound is not reproduced.	• The DUAL SOUND MIXING control knob is turned to the left. • The DUAL SOUND is set to OFF.	• Turn the DUAL SOUND MIXING control knob to proper position. • Press the DUAL SOUND key to ON.
Sound is not output from the Surround rear speaker, or their sound is very small.	• The rear-speaker cords and / or center speaker cord are disconnected. • The Surround play mode has not been engaged.	• Connect properly referring to "System connections" • Set the presence mode.
The clock display is blinking without changing from a certain time.	• There was a power failure. • The power cord was unplugged.	• Set the current time again. • Set the current time again.
The timer does not work.	• The current time is not set, or there was a power failure. • The timer ON time and OFF time have not been set. • The timer execution has not been specified.	• Set the current time referring to "Time adjustment". • Set the timer ON time and OFF time. • Specify execution by pressing the EXE key.
Radio stations cannot be received.	• No antenna is connected. • The broadcast band is not set properly. • The frequency of the desired station is not tuned.	• Connect an antenna. • Set the broadcast band properly. • Tune the frequency of the desired station.

In case of difficulty

Symptom	Cause	Remedy
A station which was preset cannot be received by pressing the corresponding numeric key.	• The preset station belongs to a frequency that cannot be received. • The preset memory was cleared because the power cord had been unplugged for a long period of time.	• Preset a station with a receivable frequency. • Preset the station again.
Interference.	• Noise due to ignition noise of an automobile. • Noise due to an influence from an electric appliance. • Noise due to a nearby TV set.	• Install the outdoor antenna apart from the road. • Turn off the power of the appliance. • Install the system more apart from the TV set.

Cassette decks

Symptom	Cause	Remedy
Sounds is not produced when the Play key is pressed.	• The parallel cord is not connected properly. • The head is dirty. • Tape is irregularly wound and hard to take up. • A non-recorded tape is being played.	• Connect properly referring to "System connections". • Clean the head referring to "Cleaning the head section". • Replace the tape. • Play a recorded tape.
The deck does not work when an operation key is pressed.	• The cassette holder is not closed completely. • The operation key was pressed immediately after closing the cassette holder. • The operation key was pressed within less than 3 seconds after the power was turned on. • Tape is not inserted. • Tape is irregularly wound and hard to take up. • Tape has been fully wound to reel.	• Close the cassette holder completely. • Press the desired operation key in a few seconds after closing the cassette holder. • Press the desired operation key in more than 3 seconds after turning the power on. • Insert a tape. • Replace the tape. • Change the tape transport direction or insert the tape inversely.
DPSS malfunctions.	• The tape is not suitable for DPSS operation, for example the spaces between tunes are too short.	• Read "DPSS operation".
CCRS does not work.	• A recordable tape is not inserted in Deck B. • A disc is not placed in the CD player. • The disc is dirty.	• Insert a recordable tape in Deck B and press the [CCRS] key. • Place a disc in the CD player and press the [CCRS] key. • Clean the disc, place it in the CD player, and press the [CCRS] key.
The dubbing on Deck A and Deck B ends at different timing.	• This is due to the difference in tape length or to the characteristics of the cassette deck mechanisms.	• A small time difference is not regarded as a failure.
The cassette holder does not open when the Eject key is pressed.	• The key is pressed during recording or playback. • Micro processor malfunctions due to external interference.	• Press in the Stop mode. • Disconnect the power plug and connect it again.
Sound is hoarse, or high frequencies are not audible.	• The head is dirty. • The tape is stretched or winkled.	• Clean the head referring to "Cleaning the head section". • Replace the tape.
Sound is distorted.	• The recording level has not been set by the [CRLS] key. • A tape recorded with distorted sound is being played.	• Adjust the recording level referring to "Recording operation on cassette deck". • Replace the tape.

Symptom	Cause	Remedy
Recording is not initiated when the Recording key is pressed.	• The protection tab on the cassette has been broken. • The cassette holder is not closed completely. • The TAPE is selected on the preamplifier / tuner. • Tape has been fully wound to a reel.	• Use a cassette with unbroken tab or close the hole. • Close the cassette holder completely. • Press the main input of the source to be recorded. • Change the tape transport direction of Deck B or insert the tape inversely.
Noise level is high.	• The head is magnetized. • External noise is induced. • A tape recorded with Dolby NR ON is being played with Dolby NR OFF.	• Demagnetize the head referring to "Cleaning the head section". • Install the system apart from other electrical appliances and TV set. • The [DOLBY NR] key to B or C.
Sound is vibrating.	• The capstans or pinch rollers are dirty. • Tape is irregularly wound.	• Clean the head referring to "Cleaning the head section". • Wind the tape regularly by fast forwarding, rewinding or playing it fully from one reel to another.
Volume of the recorded track changed.	• MIC MIXING control knob is moved during recording.	• Fully turn the MIC MIXING control knob to the left.

CD player

Symptom	Cause	Remedy
Disc is loaded, player does not play.	• Disc is loaded upside down. • Disc is loose. • Disc is dirty. • Disc is cracked. • Condensation occured on the optical lens unit.	• Load the disc again with its label side up. • Insert the disc properly. • Wipe off the dust on the surface of the disc referring to "Disc handling precautions". • Replace the disc with a new one. • Remove condensed dew by referring to "Beware of condensation".
No sound.	• Disc is not loaded. • Play mode is not entered (The play / pause indicator is not lit.) • Disc is too dirty. • Disc is cracked. • The parallel cord is not connected properly.	• Load a disc. • Press the [▶▎▎] key. • Wipe off the dust on the disc surface referring to "Disc handling precautions". • Replace the disc with a new one. • Connect properly referring to "System connection".
Music is interrupted. (Sound is skipped.)	• Disc is too dirty. • Disc is cracked. • Oscillation is applied to this unit.	• Wipe off the dust on the disc surface referring to "Disc handling precautions". • Replace the disc with a new one. • Try selecting a place where no strong vibrations occur by changing the installation place, etc.

Notes:
1. With some tapes, a squeaky noise is produced when the tape is stopped automatically. This is due to the tape protection function, and not a malfunction.
2. Do not use 120-minute tapes, for the tape is too thin and gets easily tangled.
3. This system is microprocessor-controlled, so malfunction may occur due to external noise or interference noise. In such a case, unplug the power cord, plug it and turn power on again.
4. Do not use contact cleaners because it could cause a malfunction. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

Specifications (For U.K. and Europe)

Pre Amplifier / Tuner unit (C-B5L)

FM Tuner section
Tuning frequency range .... 87.5 MHz ~ 108 MHz
Sensitivity (DIN at 75 Ω)
    MONO .... 1.0μV / 11.2 dBf
Signal to noise ratio
    (DIN weighted at 1 kHz, 65.2 dBf input)
    MONO .... 65 dB
    STEREO .... 58 dB
Selectivity (DIN ± 300 kHz) .... 64 dB
Stereo separation (DIN at 1 kHz) .... 40 dB
Frequency response... 30 Hz ~ 15 kHz + 0.5 dB, – 3 dB

MW Tuner section
Tuning frequency range .... 531 kHz ~ 1,602 kHz
Usable sensitivity .... 12 μV / (500 μV / m)
Signal to noise ratio .... 46 dB

LW Tuner section
Tuning frequency range .... 153 kHz ~ 279 kHz
Usable sensitivity .... 22 μV
Signal to noise ratio .... 45 dB

Pre Amplifier section
Input sensitivity / Impedance
    AUX .... 200 mV / 47 kΩ
N.B. circuit .... + 12 dB (max.)
                                    (60 Hz)

[General]

Dimensions.............................. W: 270 mm (10-5 / 8")
                                  H: 85 mm (3-3 / 8")
                                  D: 279 mm (11")
Weight (net) .... 2.0 kg (4.4 lb)

Power Amplifier / Graphic equalizer unit (B-B5)

Power amplifier section
Rated power output

    (IEC / NF)
    .... 30 W + 30 W
                    (63 Hz ~ 12.5 kHz, 0.7 % THD, 6 Ω)
    (DIN)
    .... 32 W + 32 W (1 kHz, 6 Ω)
Total harmonic distortion
    .... 0.7 % (40 Hz ~ 20 kHz, 30 W, 6 Ω)
Frequency response
    .... 20 Hz ~ 70 kHz, + 0 dB, – 1.0 dB
Signal to noise ratio
    .... 105 dB (IHF'66)
Input sensitivity / Impedance
    ....200 mV / 47 kΩ
Output level / Impedance
    SUPER WOOFER PRE OUT .... 2.0 V / 600 Ω

Graphic equalizer section
Individual channel .... 63 Hz, 160 Hz, 400 Hz,
                         1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Equalizer characteristic variable range
    .... ± 10 dB
[General]
Power consumption .... 110 W
Dimensions .... W: 270 mm (10-5 / 8")
                                    H: 120 mm (4-3 / 4")
                                    D:319 mm (12-9 / 16")
Weight (net) .... 5.8 kg (12.8 lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Strömbrytarens POWER beredskapsläge
Indikatorn STAND BY tänds efter nätkabelns anslutning till ett vägguttag, oavsett strömbrytarens POWER til/frånslag. Detta anger att en liten mängd ström leds till komponenten som stöd för minnesinnehållet.
Detta läge kallas för beredskapsläget. Strömbrytaren på fjärrkontrollen kan användas för att slå på och av strömmen as länge indikatorn STAND BY lyser.

Afbrydertastens (POWER) STAND BY funktion
Når apparatets strømledning er tilsluttet en stikkontakt, lyser STAND BY indikatoren, uanset om der er tændt ved afbryderen på apparatet eller ej. Det angiver, at apparatet bliver forsynet med en ganske lille mængde strøm til opret-holdelse af hukommelsens indhold.
Denne funktion kaldes STAND BY. Når STAND BY indikatoren er tændt, kan strømmen til apparatet slås til og fra med fjernsty-ringsenheden.

Virtanäppäimen (POWER) valmiustila (STAND BY)
Kun laitteen verkkojohto on liitetty pistorasiaan, valmiustilan merkkivalo syttyy riippumatta virtanäppäimen (POWER) asennosta (ON / OFF). Merkkivalo osoittaa, että laitteessa on hieman virtaa muistin sisältöjen ylläpitoa varten. Tätä tilaa kutsutaan valmiustilaksi. Kun valmiustilan merkkivalo (STAND BY) palaa, laitteen virta voidaan kytkeä ja katkaista kaukosäätimellä.

PÅ/AV-knappens Stand-by funksjon
Når strømledningen til dette anlegget er satt i en vekselstrømskontakt, vil STAND-BY indikatorlampen lyse enten PÅ/AV-knappen er på-eller avslått. Dette betyr at en viss mengde strøm tilføres anlegget slik at innholdet i minnet ikke går tapt.
Denne funksjonen kalles Stand-by. Når indikatorlampen for STAND-BY er tent, kan strømmen slås PÅ / AV fra fjernkontrollen.

Specifications (For U.S.A. and Canada)

Pre Amplifier / Tuner unit (C-B5)

FM Tuner section
Tuning frequency range.............. 87.5 MHz ~ 108 MHz
Sensitivity (IHF) .... 13.2 dBf (1.2 µV at 75 Ω)
Signal to noise ratio at 1 kHz
    MONO .... 75 dB (65 dBf input)
    STEREO .... 68 dB (65 dBf input)
Selectivity (IHF ± 400 kHz) .... 50 dB
Stereo separation (IHF at 1 kHz) .... 40 dB
Frequency response... 30 Hz ~ 15 kHz + 0.5 dB, – 3 dB

AM Tuner section
Tuning frequency range .... 530 kHz ~ 1,700 kHz
Usable sensitivity .... 12 µV / (500 µV / m)
Signal to noise ratio .... 48 dB

Pre Amplifier section
Input sensitivity / Impedance
    AUX .... 200 mV / 47 kΩ
N.B. circuit .... + 12dB (max.)
                               (60 Hz)

[General]

Dimensions.............................. W: 270 mm (10-5 / 8")
                               H: 85 mm (3-3 / 8")
                               D: 279 mm (11")
Weight (net) .... 2.0 kg (4.4 lb)

Power Amplifier / Graphic equalizer unit (B-B5)

Power amplifier section
Rated power output

> 28 watts per channel minimum RMS, both chan-
> nels driven, at 6 Ω from 40 Hz to 20 kHz with no
> more than 0.4 % total harmonic distortion.

Total harmonic distortion
    .... 0.4 % (40 Hz ~ 20 kHz, 28 W, 6 Ω)
Frequency response
    .... 20 Hz ~ 70 kHz, + 0 dB, – 1.0 dB
Signal to noise ratio
    .... 105 dB (IHF'66)
Input sensitivity / Impedance
    ....200 mV / 47 kΩ
Output level / Impedance
    SUPER WOOFER PRE OUT .... 2.0 V / 600 Ω

Graphic equalizer section
Individual channel..................... 63 Hz, 160 Hz, 400 Hz,
                       1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Equalizer characteristic variable range
    .... ± 10 dB

[General]
Power consumption 110W
Dimensions................................ W: 270 mm (10-5 / 8")
                               H: 120 mm (4-3 / 4")
                               D: 319 mm (12-9/16")
Weight (net) .... 5.8 kg (12.8 lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Specifications (For other countries)

Pre Amplifier / Tuner unit (C-B5)

FM Tuner section
Tuning frequency range.............. 87.5 MHz ~ 108 MHz
Sensitivity (IHF) .... 13.2 dBf (1.2 μV at 75 Ω)
Signal to noise ratio at 1 kHz
    MONO .... 75 dB (65 dBf input)
    STEREO .... 68 dB (65 dBf input)
Selectivity (IHF ± 400 kHz) .... 50 dB
Stereo separation (IHF at 1 kHz) .... 40 dB
Frequency response... 30 Hz ~ 15 kHz + 0.5 dB, – 3 dB

AM Tuner section
Tuning frequency range
    9 kHz step .... 531 kHz ~ 1,602 kHz
    10 kHz step .... 530 kHz ~ 1,610 kHz
Usable sensitivity .... 12 μV / (500 μV / m)
Signal to noise ratio .... 48 dB

Pre Amplifier section
Input sensitivity / Impedance
    AUX .... 200 mV / 47 kΩ
    MIC .... 1.2 mV / 10 kΩ
N.B. circuit .... + 12 dB (max.)
                                   (60 Hz)

[General]
Dimensions.............................. W: 270 mm (10-5 / 8")
                             H: 85 mm (3-3 / 8")
                             D: 279mm (11")
Weight (net) .... 2.0 kg (4.4 lb)

Power Amplifier / Graphic equalizer unit (B-B5)

Power amplifier section
Rated power output

    FRONT .... 30 W + 30 W (EIAJ, 6 Ω)
    REAR..................................... 8 W + 8 W (EIAJ, 8 Ω)

Total harmonic distortion
                  .... 0.09 % (1kHz,1/2 Rated power, 6 Ω)
Frequency response
                 .... 20 Hz ~ 70 kHz, + 0 dB, – 1.0 dB
Signal to noise ratio
                 .... 105 dB (IHF'66)
Input sensitivity / Impedance
                 ....200 mV / 47 kΩ
Output level / Impedance
    SUPER WOOFER PRE OUT .... 2.0 V / 600 Ω

Graphic equalizer section
Individual channel.................... 63 Hz, 160 Hz, 400 Hz,
                              1 kHz, 2.5 kHz, 6.3 kHz, 16 kHz
Equalizer characteristic variable range
                 .... ± 10 dB

[General]
Power consumption... 110 W
Dimensions .... W: 270 mm (10-5 / 8")
                             H: 120 mm (4-3 / 4")
                             D: 319 mm (12-9 / 16")
Weight (net) .... 5.8 kg (12.8 lb)

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For the U.S.A.

Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Specifications

Cassette deck unit (X-B5)

Track .... 4-track, 2-channel stereo
Recording system .... AC bias system
(Frequency: 105 kHz)
Heads
    A deck   Playback head 1
    B deck   Playback / recording head 1
               Erasing head 1
Motors
    A deck 1
    B deck 1
Fast winding time .... Approx. 110 seconds
(C-60 tape)
Frequency response
    Normal tape .... 35 Hz to 17,000 Hz, ± 3 dB
    CrO2 tape .... 35 Hz to 18,000 Hz, ± 3 dB
Signal to noise ratio
    Dolby C NR ON .... 72 dB
    Dolby B NR ON .... 66 dB
    Dolby NR OFF .... 58 dB
Harmonic distortion .... Less than 3.0 %
(315 Hz, 3rd H.D., 250 nWb / m, CrO2 tape)
Wow and flutter .... 0.09 % (W.R.M.S.)
± 0.19 % (DIN)
[General]
Dimensions .... W: 270 mm (10-5 / 8")
                                    H: 120 mm (4-3 / 4")
                                      D: 258 mm (10-3 / 16")
Weight (net) .... 2.7 kg (6.0 lb)

CD player unit (DP-B5)

Laser .... Semiconductor laser
Playing rotation .... 200 rpm ~ 500 rpm (CLV)
Frequency response ...... 20 Hz ~ 20 kHz, + 0 dB, – 1.5 dB
Signal to noise ratio .... More than 93 dB
Total harmonic distortion
.... Less than 0.01 % (at 1 kHz)
Channel separation .... More than 85 dB (at 1 kHz)
Wow & Flutter .... Unmeasurable Limit

[General]
Dimensions .... W: 270 mm (10-5 / 8")
                                      H: 85 mm (3-3 / 8")
                                      D: 264 mm (10-3 / 8")
Weight (net) .... 2.0 kg (4.4 lb)

CD player unit (DP-MB5)

Laser .... Semiconductor laser
Playing rotation .... 200 rpm ~ 500 rpm (CLV)
Frequency response ...... 20 Hz ~ 20 kHz, + 0 dB, – 1.5 dB
Signal to noise ratio .... More than 93 dB
Total harmonic distortion
.... Less than 0.01 % (at 1 kHz)
Channel separation .... More than 85 dB (at 1 kHz)
Wow & Flutter .... Unmeasurable Limit
Digital output
    Optical .... – 15 dbm ~ – 21 dBm
(Wave length 660 nm)
[General]
Dimensions .... W: 270 mm (10-5 / 8")
                                      H: 85 mm (3-3 / 8")
                                      D: 311 mm (12-1 / 4")
Weight (net) .... 3.2 kg (7.0 lb)

Speakers (LS-B5)

Enclosure .... Bass-reflex type
Speaker configuration .... 3-Way system
    Woofer .... 120 mm, cone type
    Tweeter .... 50 mm, cone type
    Super tweeter .... 30 mm, dome type
Impedance .... 6 Ω
Maximum input level .... 50 W
Frequency response .... 47 Hz ~ 20,000 Hz
[General]
Dimensions .... W: 205 mm (8-1 / 16")
                                      H: 410 mm (16-1 / 8")
                                      D: 235 mm (9-3 / 16")
Weight (net) .... 4.7 kg (10.4 lb) (1 piece)

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