

COMPACT CD SYSTEM

# MS-5

## **INSTRUCTION MANUAL**

KENWOOD CORPORATION

		Read the pages marked A carefully to ensure safe operation.
△ Before applying po	ower	•
A Safety precautions	R	_
ZIMPORTANT SAFE	EGUARDS	o
before operation		
Antenna connections.		6
Connections		7
Controls and Indicators	S	•
oberation of tettiole ci	ontrol unit .	10
cioterning to sound		11
Time adjustinent		. 12
Audio adjustment		12
neception of radio pro-	adcast	10
Operation of CID braver	r	
rigyback operation of t	casseme nec	7.k 10
necording operation or	n cassette di	erk an
necording of CD blavb	ack (Edit für	notione) or
recording of CD plays:	ack (CCRS).	22
Changing the character	r of the sour	Πď 33
operation of titlet		
Specifications		
-		

#### 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 MS-5 Serial Number \_\_\_



B60-0995-28 (K, T, E) MC 93/12 11 10 9 8 7 6 5 4 3 2

### Before applying power

#### For the U.S.A. and Canda

#### Important!

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

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THE AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

#### 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 guide-lines 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.

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

CLASS 1 LASER PRODUCT

The label is attached to the back 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.

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

#### 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:

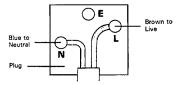
Blue ...... Neutral Brown ..... Live

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



#### Notes:

- If a 13-amp plug is used, this must be fitted with a 5-amp fuse
- If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

#### 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 consigned (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.

### Safety precautions

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





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 "DANCEROUS 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.

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

- Power sources The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
- 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 unit.

Never pull or stretch



- Grounding or polarization The precautions should be taken so that the grounding or polarization means of this unit is not defeated.
- **4. Ventilation** The unit 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 unit. Place the unit at least 10 cm away from the walls.

Do not use the unit on a bed, sofa, rug or similar surface that may block the ventilation openings.

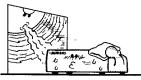


5. Water and moisture — The unit should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

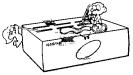


6. Temperature — The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

7. Heat — The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (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 object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.



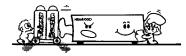
 Enclosure removal — Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



10. Magnetic fields — Keep the unit away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.



11. Cleaning — Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.

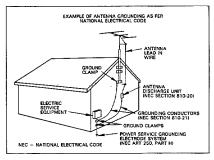


- **12. Nonuse periods** The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.
- 13. Abnormal smell If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service center.
  POWER OFF!



- **14. Damage requiring service** The unit should be serviced by qualified service personnel when:
  - **A.** The power-supply cord or the plug has been damaged; or
  - **B.** Objects have fallen, or liquid has been spilled into the unit; or
  - C. The unit has been exposed to rain; or
  - **D.** The unit does not appear to operate normally or exhibits a marked change in performance; or
  - **E.** The unit has been dropped, or the enclosure damaged.
- 15. Servicing The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
- 16. Outdoor antenna grounding If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/ NFPA No. 70—1984, 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 con-

ductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.



17. Power lines — An outdoor antenna should be located away from power lines.

#### 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 labels on, or inside the product relating to laser product safety.

KENWOOD CORPORATION SHIONOGI SHIBUYA BUILDING 17-5, 2-CHOME, SHIBUYA, SHIBUYA-KU, TOKYO, JAPAN

KENWOOD CORP. CERTIFIES THIS EQUIPMENT CONFORMS TO DHHS REGULATIONS NO. 21 CFR 1040.10, CHAPTER I, SUBCHAPTER J.

Location: Back Panel

#### Notes:

- 1. Item 3 is not required except for grounded of polarized equipment.
- 2. Item 16 and 17 are not required except for units provided with antenna terminals.
- 3. Item 16 complies with UL in the U.S.A.

#### WARNING NOTICE:

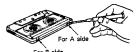
IN MOST CASES IT IS AN INFRINGEMENT OF COPYRIGHT TO MAKE COPIES OF TAPES OR DISCS WITHOUT THE PERMISSION OF THE COPYRIGHT OWNERS. ANYONE WISHING TO COPY COMMERCIALLY AVAILABLE TAPES OR DISCS SHOULD CONTACT THE MECHANICAL COPYRIGHT PROTECTION SOCIETY LIMITED OR THE PERFORMING RIGHTS SOCIETY LIMITED.

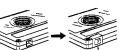
### **Before operation**

#### ■ 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.





To re-record Cover with adhesive tape.

#### • 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: -

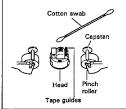
1. 120-minute cassette tape:

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



### Cleaning the heads and peripheral com-

For maintaining the best condition of the deck and for longer service life, always keep the head (recording/playback/erase), capstan and pinch roller clean. To clean them, perform the following:

- 1. Open the cassette holder.
- 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.

### ■ Disc handling precautions



#### Handling

Hold compact discs so that you do not touch the playing surface.



### 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.





## Do not attach paper or tape to either the playing side or the label side of compact

#### 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.

#### 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.

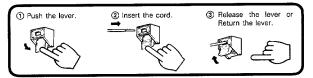
This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

Be especially careful in the following conditions:

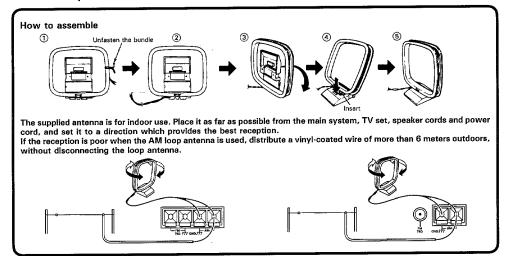
- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

### **Antenna connections**

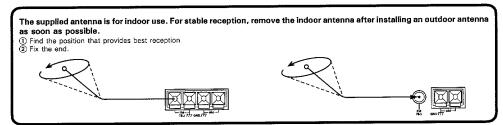
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#### ■ AM loop antenna connection



#### **■ FM indoor antenna connection**

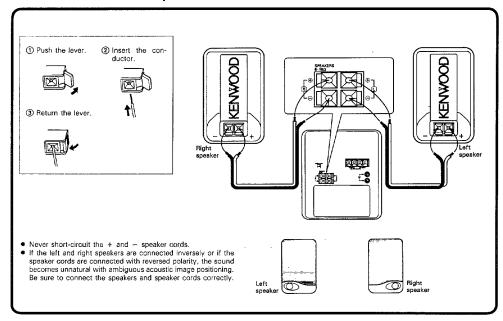


#### **■** FM outdoor antenna connection

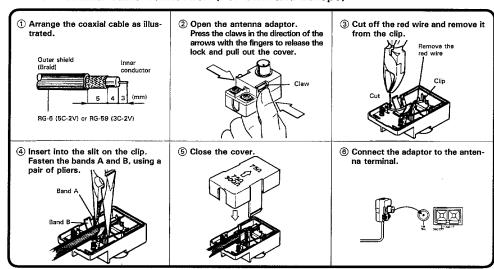
It is recommended to install an exclusive FM outdoor antenna to capture FM broadcasts with high sound quality. Use a coaxial cable for the connection between the outdoor antenna and FM ANTENNA terminal on the rear panel. For the connection between the coaxial cable and FM ANTENNA terminal, please refer to page 7.

### **Connections**

### **■** Connection of front speakers



#### $\blacksquare$ 75 $\Omega$ coaxial cable connection (For U.K. and Europe)

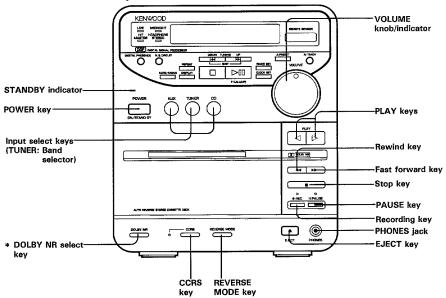


Note

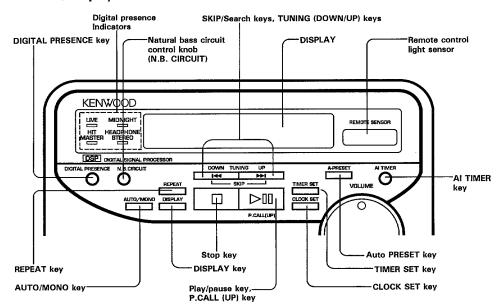
To connect the 300 Ω feeder, attach the ring shown in the figure. If the ring is not attached, the sensitivity decreases.

### **Controls and indicators**

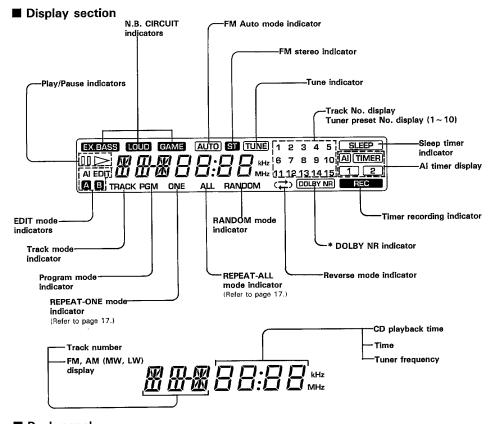
### ■ Cassette deck/Amplifier section



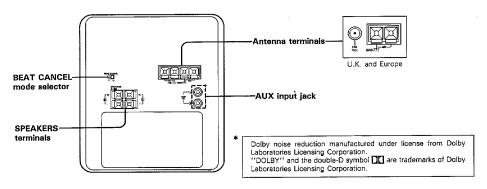
### ■ Tuner/CD player section



#### Controls and indicators



### ■ Back panel

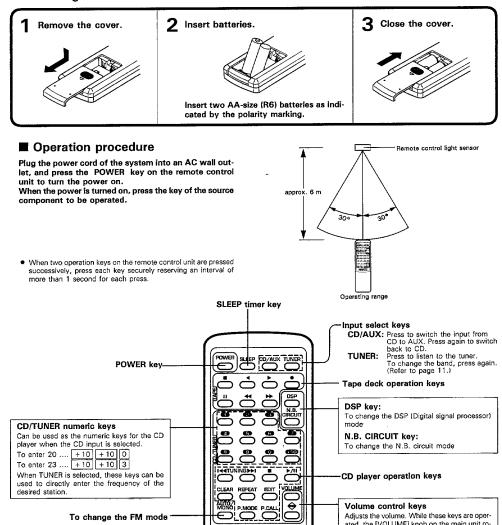


MS-5 (En) 9

### **Operation of remote control unit**

#### ■ Loading batteries

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- 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.

To change the FM mode

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.

KENWOOD

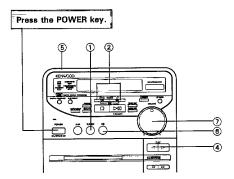
Volume control keys

Adjusts the volume. While these keys are oper-

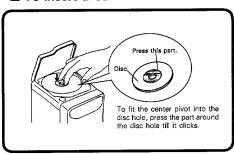
ated, the [VOLUME] knob on the main unit ro-

tates and the indicator on it blinks at high

-----



### ■ To insert a CD



	To listen to a radio broadcast	To listen to a tape	To listen to a CD
1	Select the tuner input. Select a broadcasting band by	Insert a tape in Deck.	Open the lid ⑤. Place a CD on the tray.
	pressing the [TUNER] key ①.  TUNER	Deck	Label side
2	Select a station. Press the [TUNING/SKIP] key ②.	Play the tape. Press the [PLAY] key ④.	Play the CD. Press the [CD] key ⑥.
	DOWN YUNING UP	PLAY D	When the display is in the CD mode, press the [▷ Ⅲ] key.
3	Adjust the volume.	Turn the [VOLU	JME] ⑦ for an optimum volume.

#### Using the [TUNER] key

Press the [TUNER] key once to receive the station you last listened to. To change the band, press the [TUNER] key again. Each press changes the band in the sequence shown at the right.



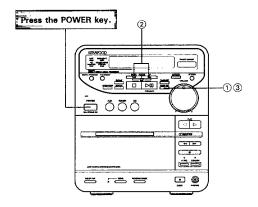


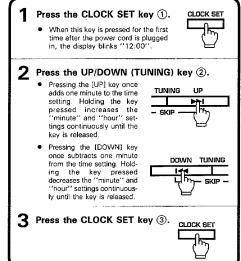
Note:
If sound is not output, check the connections described from page 6 again.

### Time adjustment

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The receiver incorporates the clock function. Adjust the clock to the exact time, especially when the timer function is to be used.





 If another key is pressed during time setting, the setting time is cancelled.

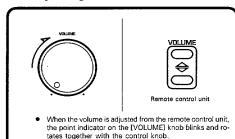
### Audio adjustment



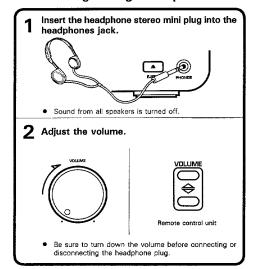




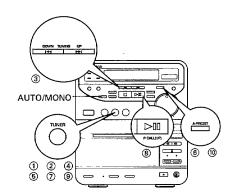
### ■ Adjusting the volume



#### ■ Listening through headphones



### **Reception of radio broadcast**



### Auto preset

Main unit only

- 1 Select the tuner source.
  - Press the [TUNER] key 4.
- 2 Select the broadcast band.
  - To change the band, press the [TUNER] key (5).
- 3 Press the A-PRESET key 6.
  - The auto preset function automatically tunes in and presets up to ten stations in the currently selected band, then stops automatically.
  - Radio wave interference may cause the unit to preset a frequency for which no station exists. If this occurs, use the manual presetting procedure described on the following page.

#### **BEAT CANCEL switch**

A high-pitched beat sound is sometimes heard when making recordings from AM broadcasts. When this occurs, the beat sound can be canceled by setting this switch to "1" or "2".



#### ■ Receiving broadcast stations

- 1 Select the tuner source.
  - Press the [TUNER] key ①.
- 2 Select the broadcast band.
  - To change the band, press the [TUNER] key ②.
    Each press of the [TUNER] key changes the band setting.
- **3** Tune the desired station ③.

Press the [TUNING] [UP] or [DOWN] key for one second or more.

To decrease frequency

To increase frequency

- Tuning stops when a station is received.
- For weak stations that are difficult to tune in with the auto tuning function, lightly press and release the [TUNING] [UP] or [DOWN] button to change the frequency one step at a time. Continue pressing and releasing in this manner until you reach the desired frequency.
- The TUNER indicator lights up when a station is received.
- Use monaural tuning mode when the radio wave is weak and noisy. (Press the [AUTO/MONO] key.) At this time, the stereo FM broadcast is received in

## ■ To change the preset stations by auto preset key

Main unit only

- 1 Select the tuner source.
  - Press the [TUNER] key ⑦.
- 2 Press the P. CALL key ®.

Repeatedly press the [P.CALL] key until the preset number you want to change appears in the display.

- $\boldsymbol{3}$  To select a different band, press the TUNER key  $\boldsymbol{\textcircled{9}}.$ 
  - The present number disappears from the display when a different band is selected, but the number is still memorized internally.
- 4. Press the A-PRESET Key 10.
  - Stations are automatically preset from the preset number specified with the [P.CALL] key to preset No. 10.
  - Radio wave interference may cause the unit to preset a frequency for which no station exists. If this occurs, use the manual presetting procedure described on the following page.

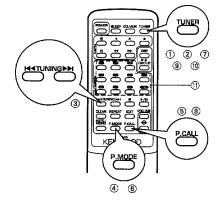
### ■ Manual Preset (To change a preset station)

Remote control only

- 1 Select the tuner source.
  - Press the [TUNER] key ①.
- Select the broadcast band.
  - To change the band, press the [TUNER] key ②.
    Each press of the [TUNER] key changes the band setting.
- 3 Tune the desired station 3.
- 4. Press the P. MODE key 4.
- 5 Press the P. CALL key 5.
  - · Repeatedly press the [P. CALL] key until the preset number you want to change appears in the display.
- 6 Press the P. MODE key 6.
  - Totally 10 station of FM\_and AM (MW and LW) stations can be store.

### ■ Receiving a preset station

- 1 Select the Tuner source.
  - Press the [TUNER] key ⑦.
- 2 Select the desired station.
  - Press the [P.CALL] key 3.
  - Every time [P.CALL] key is pressed, the preset stations are received in order of 1 → 2 ... 9 → 10 → 1 ...



### ■ Direct tuning of radio stations

Remote control only

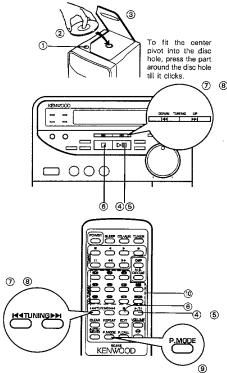
If you know the frequency of the desired station, it can be received directly by inputting the frequency using the numeric keys.

- Select the Tuner source.
  - · Press the [TUNER] key (9).
- 2 Select the broadcast band.
  - To change the band, press the [TUNER] key 1.
- 3 Input the frequency of the desired station by pressing the numeric leave. pressing the numeric keys 11.

#### Example of input

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

### **Operation of CD player**



■ Selection using the numeric keys
Remote control only

- Ensure that the CD player is in the TRACK mode.
  - If the PGM indicators is lighted, press the [P.MODE] key (3).
- 2 Select the desired track (10).



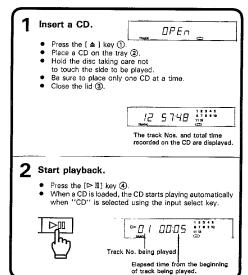
Examples of input

Track No. 23 : +10 +10 3

Track No. 40 : + 10 + 10 + 10 0

 The selected track and also the tracks located after it will be played back.

## ■ Playing a CD from the beginning (TRACK mode)



### ■ To pause CD play

Press the [▷ 🗓 ] key ⑤.

- To resume playback, press the [>M] key again.
- To stop CD play

Press the [ ] key 6.

### ■ Starting play from a desired track

Press the [◄◄] key or [►►I] key ⑦.

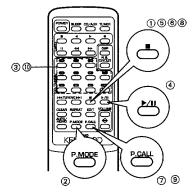
- Tracks are skipped in the direction of the pressed key, and playback resumes from the selected track.
- When the [I◄◄] key is pressed once during play, the track starts again from the beginning.

### ■ To fast-forwarding or fast-reversing

Press the  $[\vdash \blacktriangleleft]$  key or  $[\blacktriangleright \blacktriangleright]$  key according to the direction to move 8.

- The disc is fast-forwarded or fast-reversed while the corresponding side of the key is held pressed.
- Playback resumes from the position where the key is

#### Operation of CD player



### ■ To check the programmed order

- 1 Stop playback 6.
- 2 Press the P.CALL key ⑦.

~09\_P-01 \_ •

- Every time the 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 change a track in the program

- 1 Stop playback ®.
- 2 Press the P.CALL key (9).
  - Every time the key is pressed, the track No. and the order it was programmed are displayed in the order of programming.
- 3 Press the keys for the track No. to replace the previous one ⑩.



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

Remote control only

- 1 Stop playback ①.
- 2 Enter the PGM mode.

  Press the [P.MODE] key ②.
- 3 Program desired tracks in desired order ③.

Example

To program track Nos. 9, 5 and 25: Press numeric keys 9, 5, +10, +10 and 5 in this order.

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

≻<u>09</u> 0403 ॢ •

The total time of the selected track will be displayed

- Up to 20 tunes can be selected. 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.
- If a track with a track number of 21 or greater is programmed, the total time will not be displayed.
   --:- display)
- If the total program time exceeds 100 minutes, the digit for the "hundred" position will not be displayed.
- 4. Start playback.

Press the [►/II] key ④.

~0<u>9</u>\_00:01

- Tracks are played in the order they are programmed (P-No.).
- Pressing one of the skip keys ([►►], [I◄◄]) during playback skips tracks in the corresponding direction.

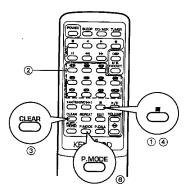
### ■ To stop program play

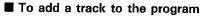
Press the [■] key ⑤

• To erase the program, press the [■] again.

#### Operation of CD player

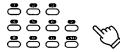






Remote control only

- Stop playback ①.
- Press the key(s) for the track No. to be added ②.



#### ■ To clear tracks from the program

#### Clearing from the last track

Press the [CLEAR] key ③.

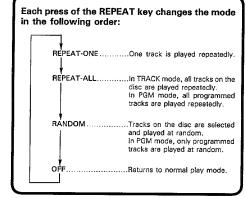
Every time the key is pressed, tracks are cleared from the last track in order.

#### Clearing the whole of program

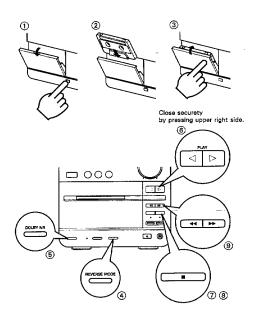
- With the unit in stop mode, press the [STOP] key again (4).
- Press the [▲] key to open the lid ⑤.
   OR
- Press the P.MODE key (6).

# ■ Repeat play (How to use the REPEAT key)





### Playback operation of cassette deck



#### ■ To playback a tape

- Insert a cassette tape.
  - Press the [EJECT] key ①.
  - Insert a cassette tape 2.
  - The type of tape, Normal, Chrome or Metal, is detected and set automatically. Be sure to remove tape slack be-
- Determine the playback conditions.
  - Press the [REVERSE MODE] key 4.
    - To play both sides endlessly.
    - ..... To stop after playing one side of tape.
  - · Select the Dolby NR mode. Press the [DOLBY NR] key (5). Select according to the tape to be played.
- 3 Start playback.
  - Press the [PLAY] key 6.
    - [>] .... Forward playback.
    - ..... Reverse playback.

### ■ To wind the tape at high speed

- Stop playback ®.
- **2** Press the [◄◄] key or [▶▶] key ⑨.
- [◄◄] : Fast tape winding [▶▶] : Fast tape winding in the - direction in the - derection

### ■ To stop the tape

Press the [■] key ⑦

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

#### Dolby noise reduction system

The Dolby noise reduction system was developed to reduce the tape hiss noise generated during play back.

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 Dolby B NR.

#### Tape direction indicators

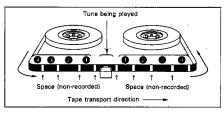
The direction in which tape is transported during playback or recording is indicated by the lighting of one of the indicators ◀ and ▶. The direction used before the last time the tape is stopped is held in memory even after the power is turned OFF, so the same direction is recalled the next time the power is turned ON. To change the tape direction, press the [PLAY] key of the opposite direction after having inserted the cassette. If the unit has been OFF (STAND-BY status) for a few days, the directions of deck become ➤ when power is turned ON.

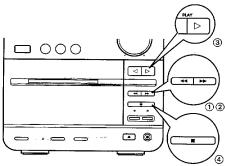


### **DPSS** operation

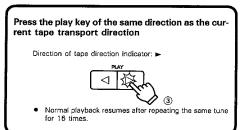
The DPSS stands for Direct Program Search System, which enables the following convenient operations. The DPSS functions are based on the detection of non-recorded spaces of 4 seconds or more between tunes.

- 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 desired tune and starts playback from the beginning of the selected tune. Up to 16 tunes can be skipped in Skip Search.
- 2. Single-tune repeated playback: One single tune is played back repeatedly up to 16 times.





### ■ Single-tune repeated playback operation



### ■ Skip play operation

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 the fourth tune located after the tune being played

Perss the [►►] key 4 times during the playback ①.





· To play the next tune, press once during the playback.

To play the fourth tune located before the tune being played

Press the [◄◄] key 5 times during the playback ②.





· To play the tune being played from the beginning again, press once during the playback.

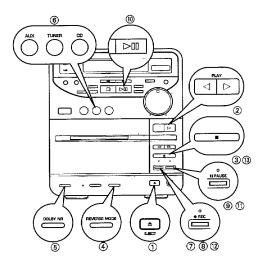
To cancel the playback above in the middle Press the [ ] key 4.

- · Playback stops.

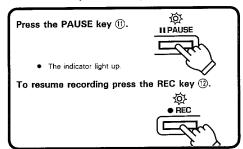
The DPSS will not function properly with the following types of tapes.

- Tapes containing spaces of 4 seconds or more, such as conversations and speeches.
- Tapes containing extremely low levels or non-recorded blanks in the middle of tunes, such as classical music.
- Tapes containing recording or 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.

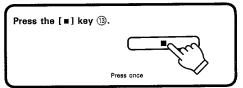
### Recording operation on cassette deck



### ■ To pause recording temporarily (Ordinary recording)



### ■ To stop recording (Ordinary recording)



#### ■ Ordinary recording

#### Set up the cassette deck.

- Insert a tape in deck ①.
- Set the tape transport direction. Press the [PLAY] key corresponding to the desired recording direction ②, then immediately press the [STOP] key ③.
- · Select one-side or two-side recording. Press the [REVERSE MODE] key ④.



: Two-side recording = : One-side recording

- Select the Dolby NR mode (5).
- Select the source to be recorded 6.

#### Start recording.

- Play the music source from the beginning.
- Press the [REC] key 7.

### ■ Synchro recording of CD playback

The cassette deck and the CD player can started simultaneously

### Set up the cassette deck.

- Insert a tape in deck.
- Set the tape transport direction.
- Select one-side or two-side recording.
- · Select the Dolby NR mode.

#### If "TAPE" is displayed, press the CD key to switch the source to CD, then press the CD player's stop key to put the CD player in stop mode.

Press the REC key and PAUSE key simultaneously ® 9.

### 4 Start playing the CD.

- · Select the desired tracks with the numeric key.
- Start playback 10.



- · Tape recording starts at the same time.
- When the CD player has completed playback, the cassette deck also stops recording and enters the stop mode.

#### To pause

Press the [▷II] key of the CD player.

A four-second blank space is created on the tape and the deck enters pause mode.

#### To resume recording

Press the [▷Ⅲ] key of the CD player.
The deck enters record-pause mode at the end of the tape.

#### To stop recording

Press the [ ] key of the CD player.

A four-second blank space is created on the tape and the deck enters stop mode.

When the [ m | key on the cassette deck is pressed, the cassette deck enters the stop mode, but the playback of CD does not stop.

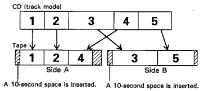
### **Recording of CD playback (Edit functions)**

#### **■** Edit function description

The edit function is used for editing tunes from a CD for recording onto a cassette tape. Three types of editing are possible with this unit, as described below.

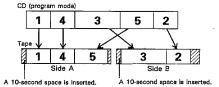
#### Normal edit:

When the recording time of the tape is entered, the unit automatically assigns tunes from the CD for recording on sides A and B of the tape. For the end of side A, the tune which best fits into the remaining time on that side is automatically selected. Editing is carried out for all tracks up to track number 20.



#### Program edit:

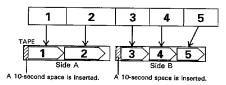
By programming tunes beforehend and selecting normal edit mode, editing is carried out using the programmed tunes. If a track with a track number of 21 or greater is programmed, that track will not be included in the editing process.



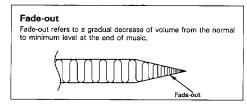
#### AI EDIT

This mode automatically makes sure that all tunes from a CD are recorded onto the tape. If the CD recording time is longer than the tape, the unit automatically fades out the end of each tune so that all tunes can be recorded.

 If the tape is extremely short, all tunes from the CD may not be recorded.



All tunes from the disc are fit onto the tape.



#### **■** EDIT recording

Remote control only

- 1 Set up the cassette deck ready for recording.
  - Refer to page 20.
- 2 Select the CD input.
- 3 Insert the disc in the CD tray.
  - When you wish to program tunes, carry out the programming before step 4. (PROGRAM EDIT MODE)
- 4 Select the EDIT mode with the EDIT mode key of the remote control unit.



The display changes every time the EDIT MODE key is pressed.

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

Input the two-way recording time of the tape.

Use the numeric keys of remote control.

C-30 tape: +10 +10 +10 0

C-46 tape: +10 +10 +10 +10 6

 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 continous lighting.



5 Set the unit to recording-pause mode.

Press the [REC] key, then immediately press the [II] (PAUSE) key.

- 6 Start playing the CD.
  - Press the [►/II] key.
  - When recording on side A is completed, the deck automatically forwards the tape to the end of side A, reverses the tape direction, inserts a 10-second space, then starts recording on side B.
- If there is no tune available which can fit in the specified tape recording length, "NO FILE" is displayed and the edit function is consoled.

### Recording of CD playback (CCRS)

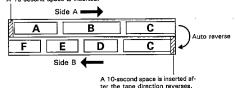
#### **■ CCRS** function description

The CCRS (Computer-controlled CD Recording System) makes the following convenient recordings possible by setting the optimum tape recording level for the specific CD to be recorded and starting recording automatically.

#### Recording of TRACK mode playback:

When the CCRS key is pressed, the CD is played and the optimum recording level is selected automatically. After the recording level is set, recording automatically starts from the first track of the CD. When recording reaches the end of side A of the tape, the tape automatically reverses and continues recording on side B.

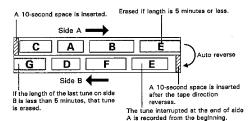
A 10-second space is inserted.



- If the tape direction reverses in the middle of a tune, recording on side B starts from a position 10 seconds before the point where the tune was interrupted.
- Recording continues until the tape stops at the end of side B.

#### Recording of Program (PGM) mode playback:

Recording starts with the first tune in the program and continues according to the programmed tune sequence. The end of each side of the tape is processed as shown below.

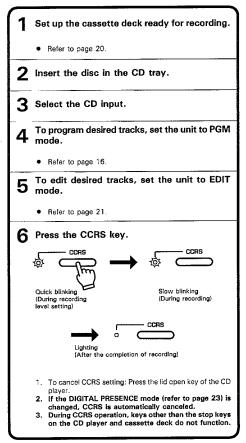


#### EDIT recording:

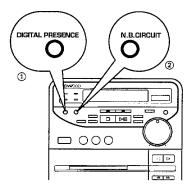
#### (Normal EDIT/Program EDIT/AI EDIT)

- If the actual length of the tape is longer than the recording time entered in EDIT mode, after recording of the tunes for side A is completed, the tape is forwarded to the end of side A and recording starts again at the beginning of side B.
- If the actual length of the tape is shorter than the recording time entered in EDIT mode, the tracks still remaining at the end of side A are left unrecorded, and recording at the beginning of side B starts with the first track edited for side B.

### **■ CCRS** Recording



### Changing the character of the sound



### **■ DIGITAL PRESENCE key**

CD position only

Using this unit's built-in DSP (digital signal processor), you can change the character of the CD sound according to the music type or desired atmosphere.

#### • [LIVE]:

Reproduces the energetic, spacious sound of a live concert.

#### • [MID NIGHT]:

Creates a soft atmosphere perfect for when you want to immerse yourself in music late at night.

#### • [HEAD PHONE]:

Reproduces a more natural sound when listening to music using headphones.

#### • [HIT MASTER]:

Minimizes the sound of the vocals and emphasizes the background music, allowing you to sing along with your favorite

Pressing the [CCRS] key automatically cancels the DIGITAL PRESENCE function.

#### ■ NB CIRCUIT key

This circuit lets you control the sound heard from the speakers for any source including CDs, tapes and tuner. With CDs, this function can be combined with the digital presence function for different sound variations.

#### • [EX BASS]:

Reproduces a rich bass sound.

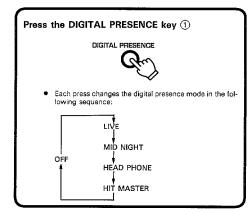
#### • [LOUD]

Emphasizes low and high frequencies for a more full and natural sound at low volume levels.

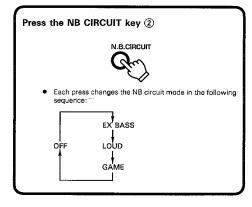
#### • [GAME]:

Emphasizes sound having a surround-type quality such as the audio output of game machines.

## ■ Using the DIGITAL PRESENCE function



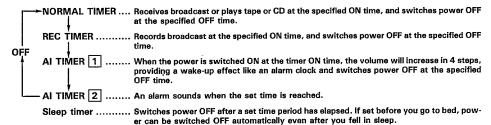
### ■ Using the NB CIRCUIT function

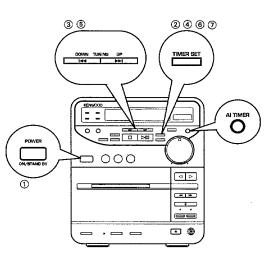


### **Operation of timer**

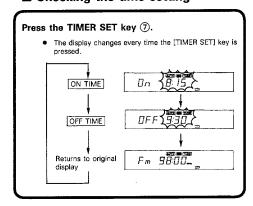
Be sure to adjust the present time before proceeding the following.

Timers other than Al TIMER 2 and the sleep timer will not function if the present time is not set. The timer of the system can be used for the following functions.

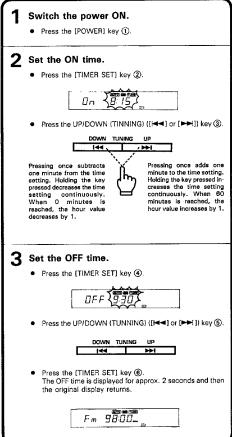




### ■ Checking the time setting



### ■ Set the ON and OFF times



24 MS-5 (En)

#### ■ NORMAL TIMER Playing

- 1 Press the power ON.
  - · Press the [POWER] key.
- 2 Set the ON and OFF times.
  - Refer to page 24.
- 3 Select the source.
  - To play a CD:
    - Place a CD in the tray. (Refer to page 15.)
  - To play a tape:
    - Set up the cassette deck. (Refer to page 18).
    - If there is a CD in the tray, remove it. (If a CD is set in the tray, the CD will be given priority for playback when the ON time is reached.)
  - To listen to a radio broadcast:
    - Tune in the desired radio station. (Refer to page 13.)
       If there is a CD in the tray or a tape in the deck, remove it. (If a CD or tape is left in the unit, the CD or tape will be given priority for playback when the ON time is reached.)
- 4 Set the NORMAL TIMER mode.
  - · Press the [AI TIMER] key once.
- 5 Switch the power OFF.
  - Press the [POWER] key.

### **■** Timer recording

Timer recording can be used only for recording radio broadcasts.

- 1 Switch the power ON.
  - Press the [POWER] key.
- 2 Set the ON and OFF times.
  - Refer to page 24.
- 3 Tune in the desired radio station.
  - Refer to page 13.
- 4. Set up the cassette deck for recording.
  - Refer to page 20.
- 5 Set the REC TIMER mode.
  - · Press the [A! TIMER] key twice.

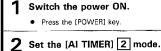
### ■ Al TIMER 1 Playing

1 Press the power ON.

-----

- Press the [POWER] key.
- 2 Set the ON and OFF times.
  - Refer to page 24.
- 3 Select the source.
  - To play a CD:
    - Place a CD in the tray. (Refer to page 15).
  - To play a tape:
    - Set up the cassette deck. (Refer to page 18).
    - If there is a CD in the tray, remove it. (If a CD is set in the tray, the CD will be given priority for playback when the ON time is reached.)
  - To listen to a radio broadcast:
    - Tune in the desired radio station. (Refer to page 13.)
    - If there is a CD in the tray or a tape in the deck, remove it. (If a CD or tape is left in the unit, the CD or tape will be given priority for playback when the ON time is reached.)
- 4 Set the Al TIMER 1 mode.
  - Press the [Al TIMER] key 3 times.
- 5 Switch the power OFF.
  - Press the [POWER] key.
- When the ON time is reached, the power turns on and the source starts playing.
- The sound volume increases gradually in 4 steps.

### ■ Operation of Al TIMER 2



- · Press the [AI TIMER] key 4 times.
- 3 Set the alarm timer.
  - Press the [◄◄] key or [►►!].

minute from the time setting. Holding the key pressed decreases the time setting continuously.

- · The timer setting can be set in one minute intervals up
- 4. Press the TIMER SET key.
  - The unit returns to normal playback mode.
  - An alarm sounds when the set time is reached. · When the lid is opened, the alarm does not sound.
  - . The alarm sounds continuously for 30 seconds. To stop the alarm sound in the middle, press any key.
  - If the power is turned off beforehand, Al TIMER 2 will not function.

# **DISPLAY** key

#### - 90 → 80 → 70 → ..... → 20 → 10 → canceled DOWN TUNING UP Pressing once subtracts one Pressing once adds one minute to the time setting. Holding the key pressed in-Each press decreases the period by 10 minutes. · If no operation is performed within 10 seconds, the unit creases the time setting conreturns to the ordinary display. · When the set time elapses, the power turns off automat-

To cancel sleep timer

Press the [SLEEP] key until the sleep timer is canceled,

Switch the power OFF.

■ Operation of Sleep timer. Remote control only

Specify the period after which the power is

· Press the [SLEEP] key of the remote control unit.

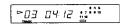
Switch the power ON.

· Press the [POWER] key.

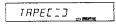
to be switched OFF.

### ■ The display normally shows the currently playing source.

(Example) When playing a CD:



When playing a tape:



When listening to a radio broadcast:



### ■ When the DISPLAY key is pressed...

- · Pressing once changes the display from the source display to the current time display.
- · Pressing again returns to the source display

(Example) When listening to a radio broadcast:



### 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.

#### Amplifier, speakers section

Symptom	Cause	Remedy
Sound is not output.	The speaker cords are disconnected.  The volume is set to the minimum position. The headphone plug is left insterted in the PHONES jack.	Connect them properly referring to "System connections". Adjust the volume to a proper level. Remove the plug.
Sound is not output from one of the speakers.	The speaker cord is disconnected.	<ul> <li>Connect it properly referring to "System connections".</li> </ul>

#### Tuner section

Symptom	Cause	Remedy
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.

#### Cassette decks section

Symptom	Cause	Remedy
Sounds is not produced when the Play key is pressed.	The head is dirty. Tape is irregularly would and hard to take up. A non-recorded tape is being played.	Clean the head referring to "Cleaning the head section". Replace the tape. Play a recorded tape.
DPSS malfunctions.	<ul> <li>The tape is not suitable for DPSS opera- tion, for example the spaces between tunes are too short.</li> </ul>	Read ''DPSS operation''.
Sound is hoarse, or high frequencies are not audible.	The head is dirty.  The tape is stretched or wrinkled.	Clean the head referring to "Cleaning the head section". Replace the tape.
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 input selector is selected on the amplifier. 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 input select key of the source to be recorded. Change the tape transport direction of Deck or insert the tape inversely.
Noise level is high.	The head is magnetized.	Demagnetize the head referring to "Cleaning the head section".
Sound is vibrating.	<ul> <li>The capstans or pinch rollers are dirty.</li> <li>Tape is irregularly wound.</li> </ul>	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.

#### CD player section

Symptom	Cause	Remedy
Disc has been placed but it cannot be played.	The disc is placed upside down.  The disc is very dirty.  The disc is scratched or damaged.  Dew is condensed on the optics lenses.	Place the disc properly, with the labeled side up. Clean the disc then play it again. Replace the disc. Remove condensed dew by referring to "Beware of condensation".
Sound skips.	The disc is dirty. The disc is scratched or damaged. Vibrations are applied to the CD player.	Clean the disc then play it again. Replace the disc. Install the system in a place which is not subject to vibrations.

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**

#### Center unit

#### Amplifier section

Rated power output For U.S.A. and Canada

10 watts per channel minimum RMS, both Channels driven, at  $6\Omega$  from 100 Hz to 20,000 Hz with no more than 5% total harmonic distortion

For U.K. and Europe Frequency response...... 60 Hz ~ 20 kHz

#### Tuner section

FM Tuning frequency range ... 87.5 MHz ~ 108 MHz
AM Tuning frequency range ... 530 kHz ~ 1,700 kHz
(For U.S.A. and Canada)
MW Tuning frequency range .. 531 kHz ~ 1,602 kHz
(For U.K. and Europe)
LW Tuning frequency range ...... 153 kHz ~ 279 kHz
(For U.K. and Europe)

#### CD player section

Laser	Semiconductor laser
Frequency response	
Signal to noise ratio	More than 90 dE
Wow & flutter	

#### Cassette deck section

Type
Fast winding time Approx. 120 seconds (C-60 tape)
Frequency response
Normal 50 Hz ~ 14 kHz ± 3 dB
CrO <sub>2</sub> tape 50 Hz~15 kHz±3 dB
Metal tape 50 Hz~15 kHz±3 dB
Signal to noise ratio
DOLBY NR ON 58 dB (Metal tape)
Wow & flutter 0.15% (W.R.M.S.)

#### General

Power comsumption		35 W
Dimensions		
	H: 2	02 mm (7-15/16")
	D:	225 mm (8-7/8")
Weight (Net)		3.6 kg (7.9 lb)

#### **Speakers**

Enclosure	
Speaker configuration	
Impedance	6 Ω
Maximum input level	15 W
Output sound pressure	88 dB/W 1m
Frequency Gsponse	
Dimensions V	V: 126 mm (4-15/16")
ŀ	I: 202 mm (7-15/16")
	): 198 mm (7-13/16")
Weight (Net)	

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

## Accessories · AM loop antenna. FM indoor antenna Antenna adaptor...... Speaker cords...... (Except for some areas)

#### For the U.S.A. **FCC WARNING**

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- licrosase the separation between the equipment and receiver.
   Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
   Consult the dealer or an experienced radio/TV technician for help.