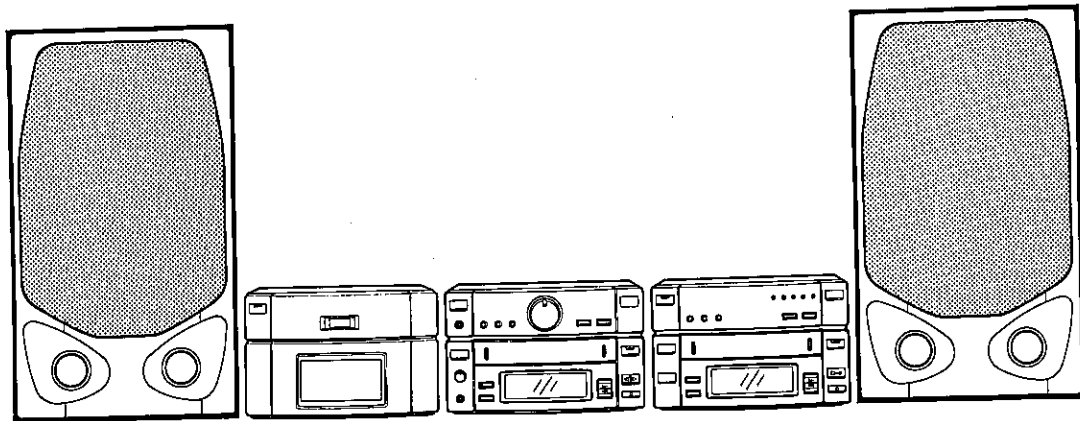
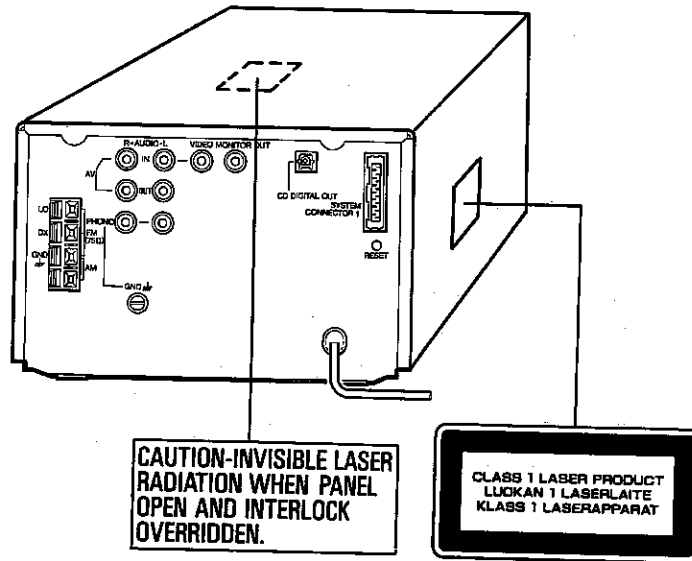


DC S66

SUPER MINI COMPONENT SYSTEM





CAUTION - USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED IN THE OPERATING INSTRUCTIONS MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

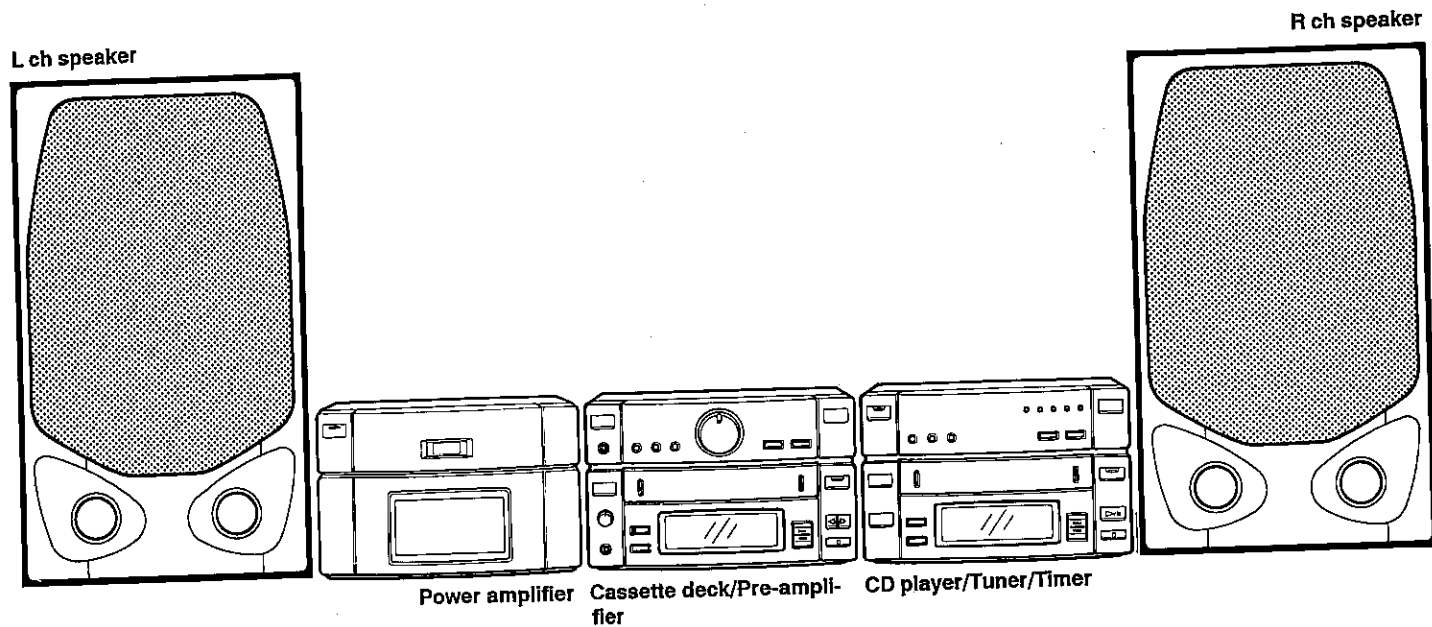
THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED PERSONNEL.

PRECAUTIONS

- If water should enter the unit, electrical shock or malfunction may result. Always use it in a place where there is low humidity and little dust.
- Do not use where there are extremes of temperature (below 5°C or exceeding 35°C) or where direct sunlight may strike it.
- Because of the CD player's extremely low noise and wide dynamic range, there might be a tendency to set the volume on the amplifier unnecessarily high. Doing so may produce an excessively large output from the amplifier which could damage your speakers.
- Sudden changes in the ambient temperature may cause condensation to form on the optical lens inside the unit. If this happens, take out the disc, leave the unit with the disc tray extended for about 1 hour, and then proceed to operate.
- The system's speakers use powerful magnets. Do not place timepieces, credit cards, cassette tapes or video tapes, etc. near the speakers.

ARRANGEMENT (Fig. 1)

Example 1



Example 2

CAUTION

If the power amplifier is insufficiently ventilated, it may heat up with the danger of causing burns if accidentally touched. Absolutely avoid stacking other objects on top of the power amplifier. When stacking objects, be sure to place the power amplifier on the very top.

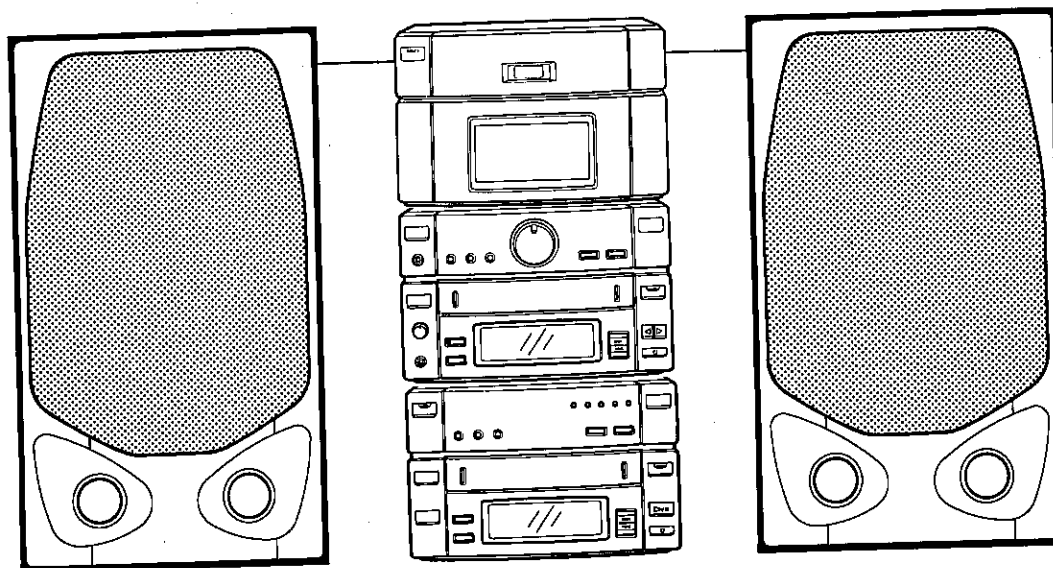
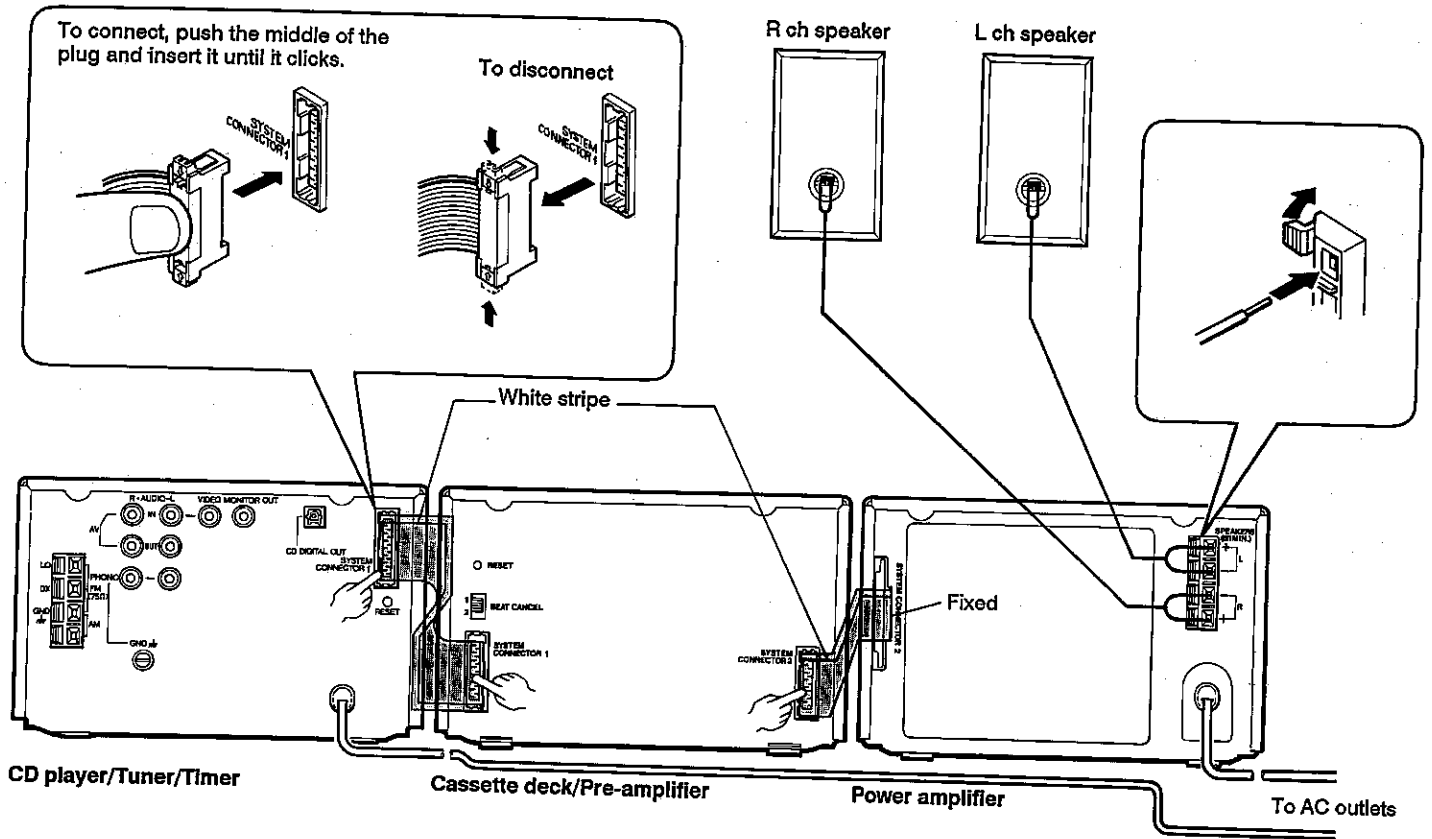


Fig. 1

CONNECTIONS (Fig. 2)



Note:

Do not connect both mains leads to AC outlets until all connections have been made.

The system is not disconnected from the mains unless both mains leads are unplugged from the AC outlets.

Speakers

When connecting the speakers, make sure that (+) and (-) polarities are matched properly. Otherwise, the sound may appear to be lacking in the bass range and in stability.

Connect the speaker wire with the stripe to the red terminal (+) and the other wire to the black terminal (-).

Aerials (Fig. 3)

FM aerial

The FM indoor aerial is sufficient to receive most local FM broadcasts and should be connected to the "DX" FM terminal. Extend the aerial wire as straight as possible and, while listening to the sound from the system, secure it in a position which yields minimal distortion and noise.

In fringe areas or where reception is distorted or noisy, an FM outdoor aerial (not supplied) should be connected instead of the indoor aerial. The terminals will accept 75-ohm coaxial cable. Consult your dealer.

The aerial lead is normally connected to the "DX" terminal. However, when the broadcasting stations are too close and their signals are too strong, the sound may become distorted or intermittent, and noise may be heard. In cases like this, connect the lead to the "LO" terminal.

AM loop aerial

Assemble the loop aerial as shown in Fig. 4. Unwind the aerial wires (about 3 turns), then connect them to the AM terminals. Place the loop aerial in a position which yields the best AM reception, or attach it to a wall or other surface as shown in Fig. 5.

Note:

To minimize noise, the speaker, flat connection and any other leads should not come close to the indoor or outdoor aerial wire and loop aerial. Do not place the aerial leads close to the system.

Microphone

For microphone mixing (karaoke) operation, connect a microphone (400 - 600 ohms impedance, not supplied) to the MIC socket.

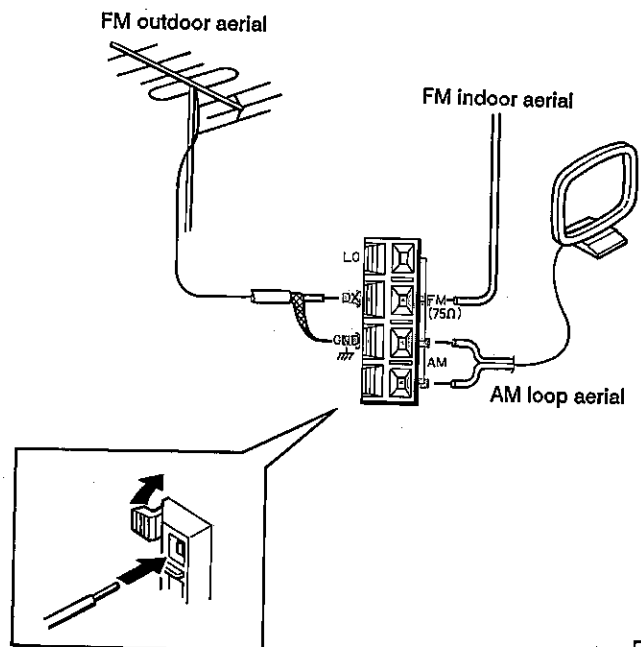


Fig. 3

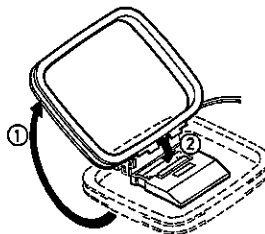


Fig. 4

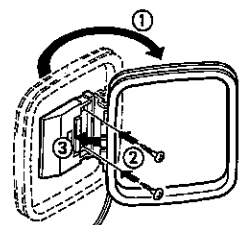


Fig. 5

Headphones

Connect stereo headphones (8 ohms to 10 kohms, not supplied) to the PHONES socket for monitoring or for private listening. The speakers are automatically disconnected when headphones are connected.

Connections for AV (Audio/Video) equipment

Before connecting AV equipment, please refer to the instruction manual provided your equipment.

Turntable (Fig. 6a)

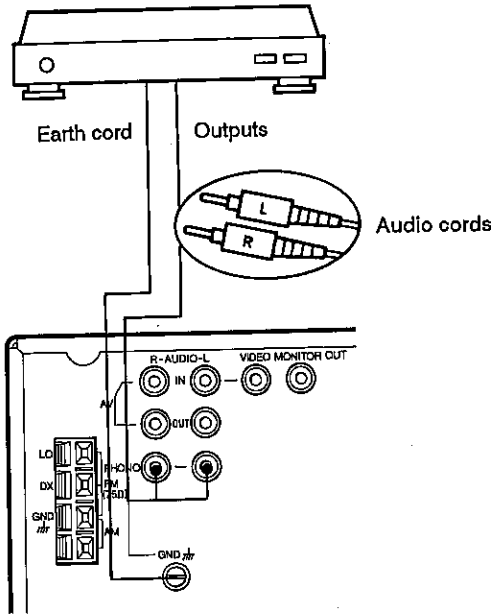


Fig. 6a

Video disc player/BS tuner/VCR (Fig. 6b)

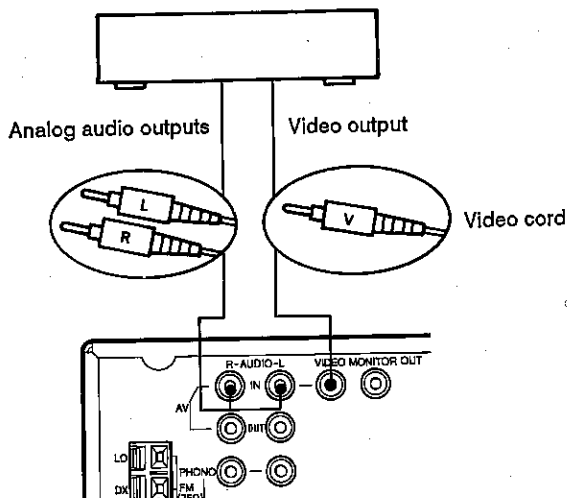


Fig. 6b

DAT/Cassette deck (Fig. 6c)

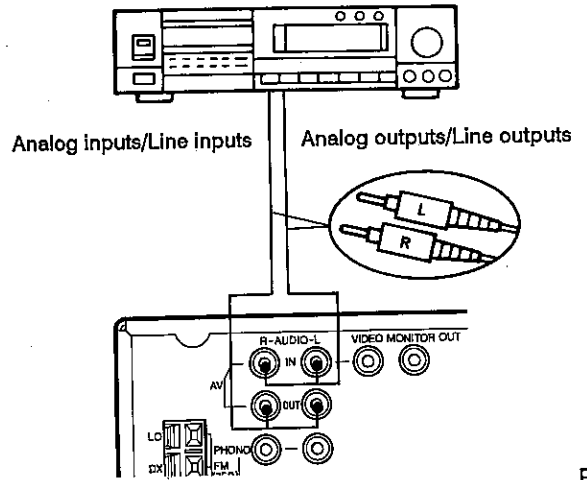


Fig. 6c

Note:
Microphone and taped signals are not reproduced from the AV OUT sockets.

TV (Fig. 6d)

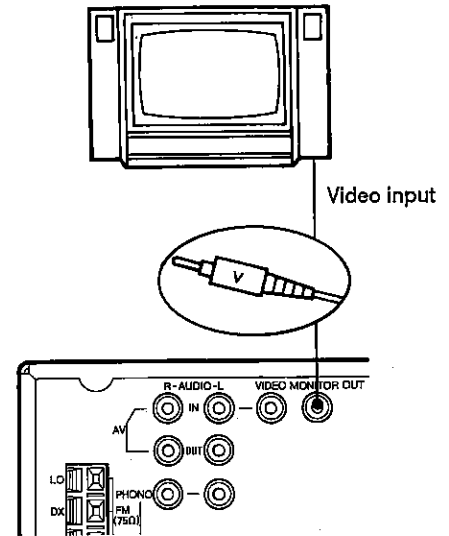


Fig. 6d

The MONITOR OUT socket can be used to connect a TV for monitoring the output of an AV component.

Digital amplifier/DAT (Fig. 6e)

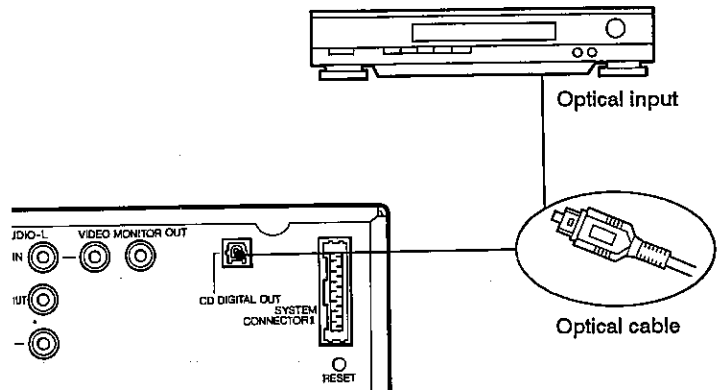


Fig. 6e

The CD DIGITAL OUT socket (optical) can be connected directly to the AV component which has an optical Input socket. Before connecting, remove the cap on this socket.

CONTROLS

Power amplifier (Fig. 7a)

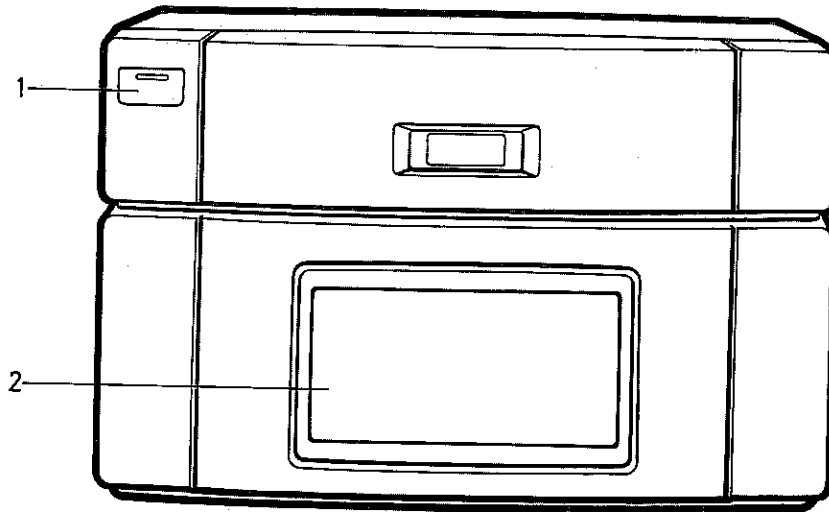


Fig. 7a

1. Power indicator (POWER)

2. Output power level indicators (OUTPUT POWER LEVEL)

Cassette deck/Pre-amplifier (Fig. 7b)

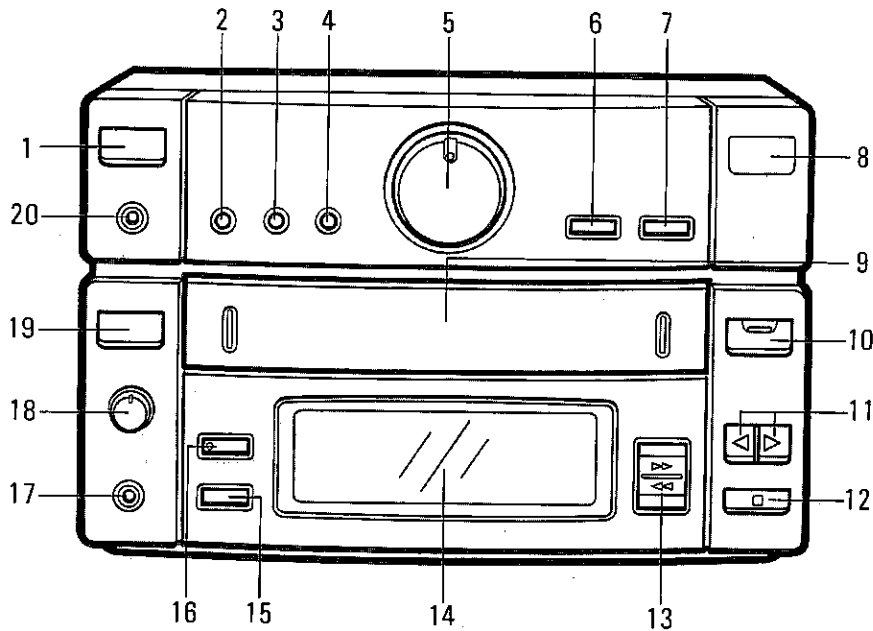


Fig. 7b

1. Display switch (DISPLAY)
2. Sound style select switch (SOUND STYLE)
3. Original sound style switch (ORIGINAL)
4. Frequency/Memory switch (FREQ/MEMO)
5. Volume control and indicator (VOLUME)
6. Bass expander switch/indicator (BASSXPANDER)
7. Surround switch/indicator (SURROUND)
8. Remote sensor (IR SENSOR)
9. Cassette tray
10. Cassette tray open/close switch/indicator (OPEN/CLOSE)
11. Play switches/indicators (◀ PLAY ▶)

12. Stop switch (■ STOP)
13. AMSS/Graphic equalizer/Fast wind switch (▶▶ UP AMSS/GRAPHIC EQ DOWN ◀◀)
14. Display
15. Direction mode switch (DIRECTION)
16. Record/Record pause switch/indicator (REC/REC PAUSE)
17. Microphone socket (MIC)
18. Microphone volume control (MIC VOL)
19. Dolby noise reduction switch (DOLBY NR)
20. Headphones socket (PHONES)

CD player/Tuner/Timer (Fig. 7c)

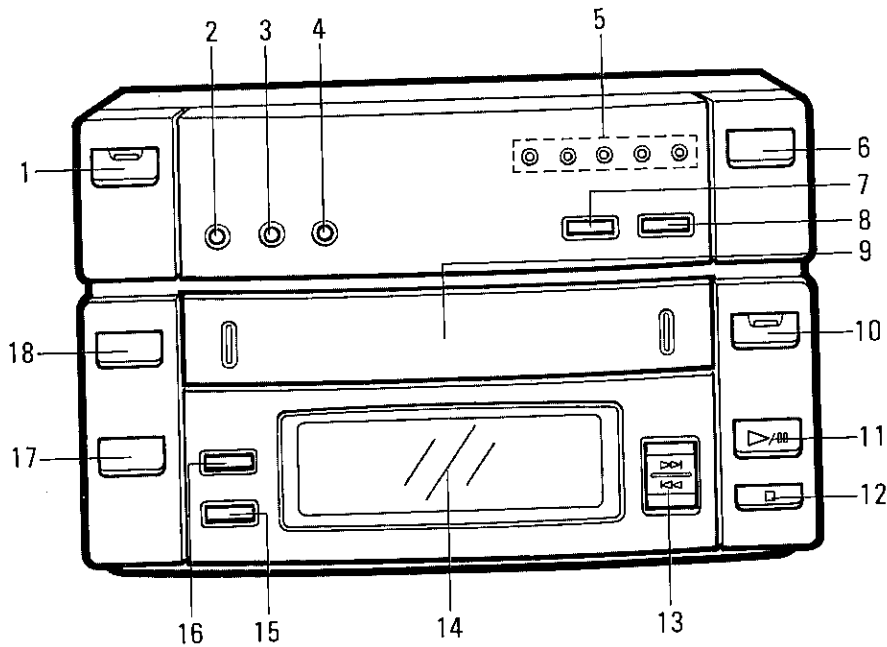


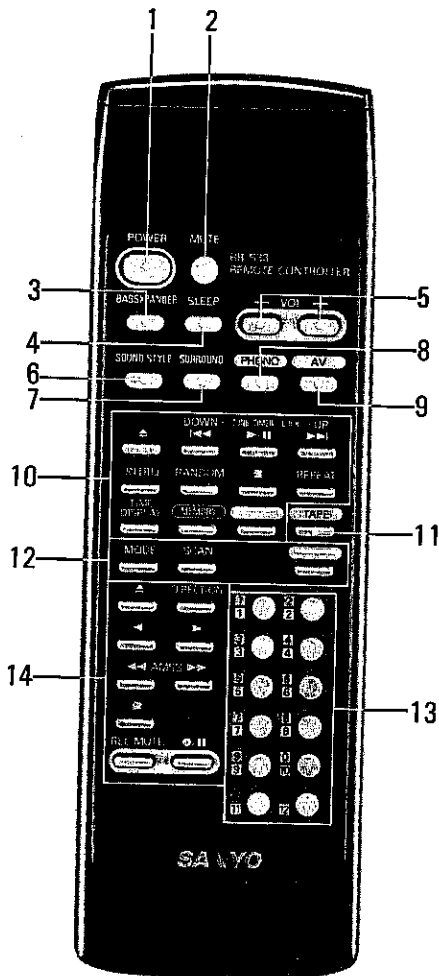
Fig. 7c

1. Power switch/Standby indicator (POWER/STANDBY)
2. Clock switch (CLOCK)
3. ON/OFF timer switch (TIMER)
4. Wake-up timer switch (WAKE UP)
5. Function indicators (CD/TAPE/TUNER/PHONO/AV)
6. Function switch (FUNCTION)
7. Set/Clear switch (SET/CLEAR)
8. Memory switch (MEMORY)
9. Disc tray
10. Disc tray open/close switch/indicator (OPEN/CLOSE)

11. Play/Pause switch (▶/⏸ PLAY/PAUSE)
12. Stop switch (■ STOP)
13. Skip/Search, Tune/Timer/Clock up/down switch
(▶▶ UP SKIP/SEARCH, TUNE/TIMER/CLOCKDOWN
◀◀)
14. Display
15. Edit switch (EDIT)
16. Time/Fade-out switch (TIME/FADE)
17. Computer recording switch (COMPUTER REC)
18. Band select switch (BAND)

REMOTE CONTROL

Controls (Fig. 7d)



12. Tuner controls
 MODE: Tuning/FM mode switch
 SCAN: Preset station scan switch
 TUNER/BAND: Tuner function/Band select switch
13. Number switches
 1 - 9, 0, +10: For CD player
 1 - 12: For tuner
14. Deck controls
 ▲ : Cassette tray open/close switch
 DIRECTION: Direction mode switch
 ◀ ▶ : Play switches
 ◀◀ ▶▶ : AMSS/Fast wind switches
 ■ : Stop switch
 REC MUTE: Record muting switch
 ●/|| : Record/Record pause switch

Number switches (1 - 9, 0, +10 and 1 - 12)

All these switches are used to select both CD tracks and preset radio stations.

If the function is "CD", the switches select CD track numbers.

If the function is "TUNER", the switches select preset radio stations.

With any other function, the switches will not function.

Inserting batteries (See Fig. 8)

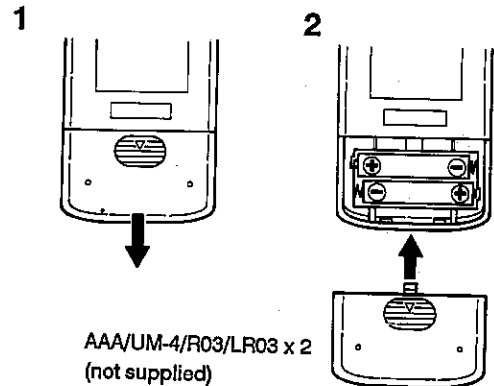


Fig. 8

Note:

Always remove batteries if the remote control is not to be used for a month or more. Batteries left in the unit may leak and cause damage.

Remote control range (See Fig. 9)

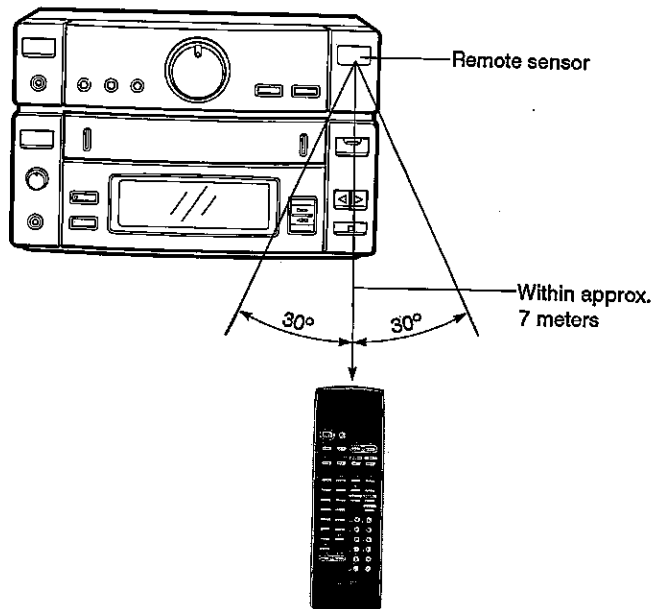


Fig. 9

1. Power switch (POWER)
2. Audio muting switch (MUTE)
3. Bass expander switch (BASSXPANDER)
4. Sleep timer switch (SLEEP)
5. Volume controls (- VOL +)
6. Sound style select switch (SOUND STYLE)
7. Surround switch (SURROUND)
8. Phono function switch (PHONO)
9. AV function switch (AV)
10. CD player controls
 ▲ : Disc tray open/close switch
 DOWN/◀◀ ▶▶/UP: Skip/Search switches
 (These switches can also be used as Tune/Timer/
 Clock up/down switches.)
 ▶/|| : Play/Pause switch
 INTRO: Intros can switch
 RANDOM: Random play switch
 ■ : Stop switch
 REPEAT: Repeat play switch
 TIME DISPLAY: Time display switch
 MEMORY: Memory switch
 (This switch can also be used as a Tuner/Timer/
 Clock memory switch.)
 CD: CD function switch
11. Tape function switch (TAPE)

ADJUSTING THE CLOCK

The clock display blinks when the mains leads are connected to the AC outlets for the first time.

Example: To set "7:30 PM",

1. Press the CLOCK switch for 1 or more seconds.

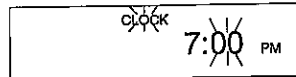


The "CLOCK" and hours displays blink.

2. Press the UP or DOWN TUNE/TIMER/CLOCK switch to set the "hours."



3. Press the MEMORY switch.

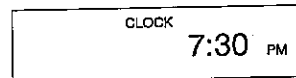


The minutes display blinks.

4. Press the UP or DOWN switch to set the "minutes."



5. Press the MEMORY switch. The clock starts.



- The time can be set accurately by pressing the MEMORY switch when a time signal is heard.
- These operations can be done, even if the power is off.
- The clock operation and memory are backed up even with a power failure lasting 30 seconds or less. When a power failure lasts for more than 30 seconds, the memory contents will be retained for a few days, but the clock display will blink. Reset the time when the display blinks because of a power failure. Reset the timer ON/OFF times as well.

BEFORE OPERATION

Turning the power on and off

1. Turn down the VOLUME control so that the sound will not suddenly be delivered at a high level.
 2. Press the POWER switch. The displays light and the STANDBY indicator goes out. To turn off the power, press the POWER switch again. The clock display remains lit and the STANDBY indicator lights.
- When the mains leads are connected to the AC outlets, the STANDBY indicator lights and the unit will respond to commands from the remote control.

Selecting the function

Press the FUNCTION switch to light the desired function indicator. The function is automatically selected when CD play or tape playback is started, or when the BAND switch on the main unit, SCAN or TUNER/BAND switch on the remote control have been operated.

- When the function selection is changed, the graphic display appears and scrolls for a few seconds on the display as follows:

Cd: CD	TAPE: TAPE
Tuner: TUNER	PHono: PHONO
AV: AV	
- When the function selection is changed, CD play, tape playback or recording is automatically stopped.
- When "CD" or "TUNER" is selected, the clock display disappears. To display the clock, press the CLOCK switch for less than 1 second. Press the switch again to return the original display.

Adjusting the volume

Turn the VOLUME control or press the "+" or "-" VOL control on the remote control.

To reduce the volume temporarily (muting)

Press the MUTE switch on the remote control ("MuTE" appears and scrolls for a few seconds on the display). The VOLUME Indicator and "MUTE" blink.

The muting function will be retained for a few days, even if the unit is turned off or the mains leads are disconnected. The volume is restored to its previous level by pressing the same switch again.

Surround sound system

Press the SURROUND switch. A "Wide" effect is created.

- The surround effect cannot be activated while you are listening to monaural sound.

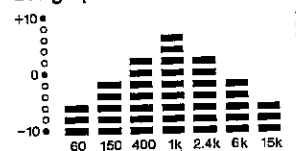
Bass expander system

Press the BASSXPANDER switch to enhance the bass sound.

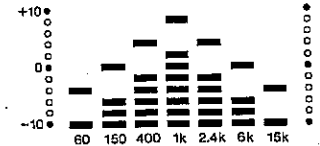
Spectrum analyzer

Indicates the input level of each sound range in the following 5 display modes (Fig. 10).

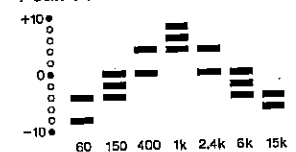
Bar-graph mode



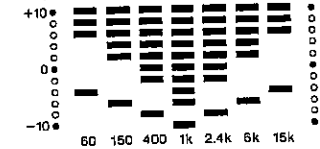
Peak hold mode



Peak dots mode



Shower mode



Square mode

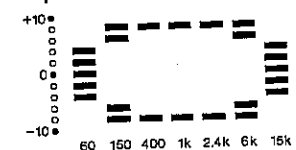
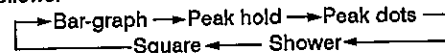


Fig. 10

Each time the DISPLAY switch is pressed, the display mode changes as follows:



- If the DISPLAY switch is pressed for 1.5 or more seconds, the display enters the demonstration mode. "DEMO" appears and scrolls, then the sound style displays, etc. will sequentially appear. To cancel this mode, press the switch again in one touch.

Output power level indicators

Show the power level being handled by each channel.

WHAT TO DO IF ...

If the operation of the unit or display is not normal or when all the memory contents are to be cleared, disconnect the appropriate mains lead from the AC outlet and press the appropriate RESET button (rear of each unit) for 20 seconds or more (Fig. 11).

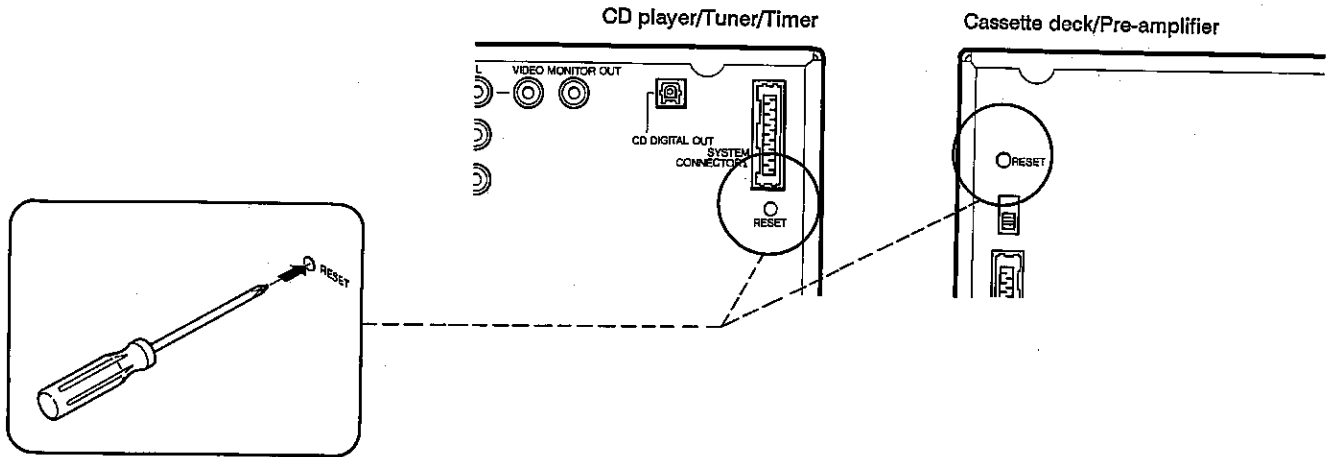
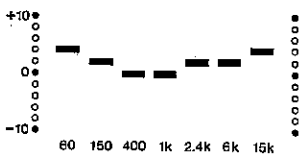


Fig. 11

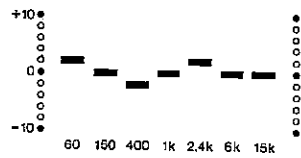
ADJUSTING THE SOUND QUALITY (SOUND STYLE)

The graphic equalizer has been programmed with the sound styles matching the following eight types of music (Fig. 12) and up to 3 user preset sound styles can be programmed to suit your own requirements.

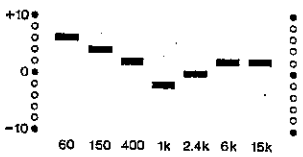
POP: Pops, etc.



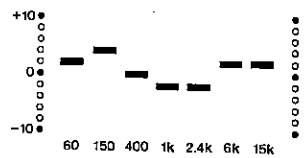
JAZZ: Jazz, etc.



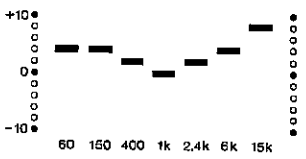
ROCK: Rock music, etc.



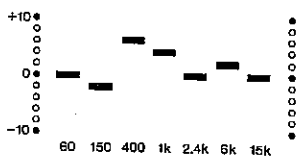
CLASSIC: Classical music, etc.



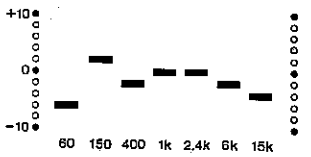
DISCO: Disco music, etc.



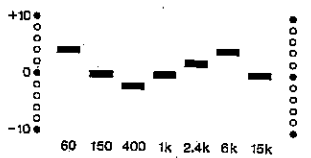
VOCAL: Vocal, etc.



BGM: Back ground music, etc.



KARAOKE: For karaoke



PRESET **M** A, **M** B and **M** C: For user preset

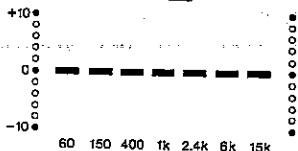
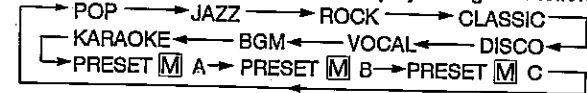


Fig. 12

Select the sound style matching the music to be listened to by pressing the SOUND STYLE switch.

Each time the switch is pressed, the display changes as follows:



- When the switch is pressed, the display changes from the spectrum analyzer to the graphic equalizer.
- After 5 seconds, the spectrum analyzer display reappears.

User preset sound style programming

1. Press the SOUND STYLE switch to select the position (PRESET **M** A, **M** B or **M** C) to be memorized.
2. Press the FREQ/MEMO switch to specify a frequency. The blinking indicator shifts each time the switch is pressed (Fig. 13).

→ Blinking

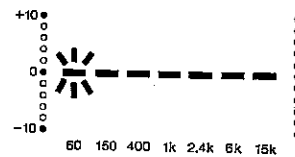


Fig. 13

3. Press the UP or DOWN GRAPHIC EQ switch to set the desired level.
4. Repeat steps 2 - 3 to set the other frequency levels.
5. Press the SOUND STYLE switch or allow 5 seconds to elapse.
6. Repeat steps 1 - 5 to memorize the remaining preset positions.

- If the next step is not taken within 5 seconds during steps 1 - 4, the display returns to the spectrum analyzer. Press the FREQ/MEMO switch to continue.
- If the memory contents are lost due to a power failure or other condition, programme the sound styles again.

Manual equalizer settings

Specify a frequency with the FREQ/MEMO switch, then set the desired level with the UP or DOWN switch.

- This operation is possible while using any sound style and this setting is memorized instead of the previously programmed levels.
- To reset the sound style to the original programmed levels, select the sound style to be reset by pressing the SOUND STYLE switch, then press the ORIGINAL switch.

CD PLAY

Use compact discs bearing the symbol shown in Fig. 14. In addition to conventional 12 cm CDs, this system can be used to play 8 cm CDs without an adapter.



Fig. 14

1. Select "CD" function by pressing the FUNCTION switch, or press the CD switch on the remote control. "NO DISC" appears on the display.
2. Press the OPEN/CLOSE switch. The disc tray slides out and "OPEN" appears on the display.
3. Place the disc with the label facing up on the disc tray (Fig. 15).

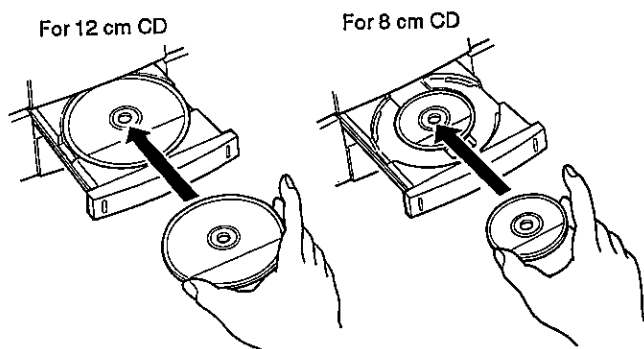
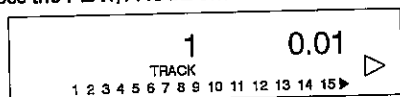


Fig. 15

4. Press the OPEN/CLOSE switch again to close the disc tray. The OPEN/CLOSE indicator lights, and the total number of tracks, total play time and whole number of tracks on the disc are displayed.
 - If the disc contains 16 or more tracks, "▶" appears on the right of the "15" indication.
5. Press the PLAY/PAUSE switch.



- "▶" appears, and play starts from the first track. The track number and elapsed play time for the current track are displayed.
- If you press the PLAY/PAUSE switch while the tray is still open, it will close, and play will begin automatically.
6. Press the STOP switch to end disc play. The total number of tracks and total play time are displayed. When the last track has been played, the player automatically stops.
 - When the OPEN/CLOSE switch is pressed during play, play will stop and the disc tray will slide out.

Notes on handling compact discs

- Do not expose the disc to direct sunlight, high humidity or high temperatures for extended periods of time.
- Discs should be returned to their cases after use.
- Do not apply paper or write anything on the disc surface.
- Handle the disc by its edge. Do not touch the playing surface (glossy side).
- Fingerprints and dust should be carefully wiped off the playing surface of the disc with a soft cloth. Wipe in a straight motion from the centre to the outside of the disc.
- Never use chemicals such as record cleaning sprays, antistatic sprays or fluids, benzine or thinner to clean compact discs.

Temporarily stopping play

Press the PLAY/PAUSE switch. "▶" blinks on the display. To resume play, press the switch again.

Direct track selection

By using the remote control, play can be started immediately from the desired track.

While a disc is playing, it is possible to switch immediately to a particular track.

Select "CD" first.

Examples:

To start from track 3 on the disc, press the 3 switch.

To start from track 10, press +10, then 0.

To start from track 25, press +10 twice, then 5.

Skip play

To skip to track 6 while track 3 is playing, press the ►► SKIP/SEARCH switch repeatedly until "6" appears in TRACK on the display.

To skip back to track 3 while track 6 is playing, press the ◄◄ SKIP/SEARCH switch repeatedly until "3" appears.

Search (forward/reverse)

If the ►► or ◄◄ SKIP/SEARCH switch is pressed during play, the player will search at high speed in the forward or reverse direction while the switch is being pressed. When the switch is released, normal play will continue.

Introscan

Press the INTRO switch on the remote control to play the first 10 seconds of each track. "INTRO" appears on the display.

- Press the INTRO switch again to return to normal play.
- If the INTRO switch is pressed during normal play, introscan will start with the next track on the disc.

Random play

Press the RANDOM switch on the remote control to begin random play. The player will automatically select and play tracks on the disc at random. "RANDOM" appears on the display.

- If the RANDOM switch is pressed during random play, the player will select the next random track.

Random Introscan play

Press the RANDOM switch, then the INTRO switch, to play the first 10 seconds of each track at random.

Repeat play

Press the REPEAT switch on the remote control during play. The player will play all the tracks, all the programmed tracks, all the Introscan play tracks or all the random play tracks repeatedly. "REPEAT" appears on the display.

To cancel repeat play, press the REPEAT switch again. "REPEAT" disappears.

Time display selection

Press the TIME DISPLAY switch on the remote control repeatedly during play. The display changes in the following sequence:

- Remaining time for the current track
- Remaining time for the entire disc (During programmed play, remaining time for all programmed tracks)
- Elapsed time for the current track

The display returns to "elapsed time" after 10 seconds.

- If the track number exceeds 24, the remaining time for the current track cannot be displayed.
- In the stop mode, the total play time on the disc is displayed.

PROGRAMMED PLAY

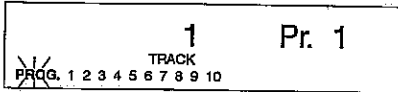
Up to 24 selections on a disc can be programmed for play in any order.

- To begin the programming procedure, select "CD" function first.
- The tracks are programmed in the stop mode.
- The same track can be programmed more than once.

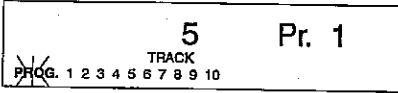
Example:

To programme tracks 5, 2, 6 and 10 (using the remote control)

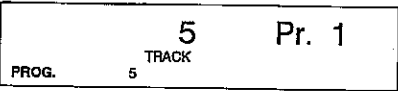
1. Press the MEMORY switch.



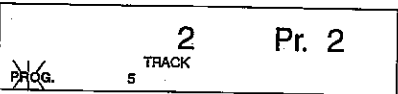
2. Select track 5 by pressing the 5 switch.



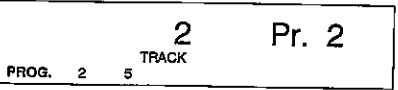
3. Press the MEMORY switch.



4. Select track 2 by pressing the 2 switch.

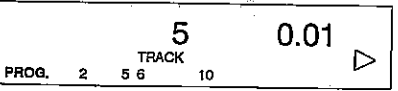


5. Press the MEMORY switch.



6. The remaining tracks are programmed in the same way.

7. Press the ►/|| switch to start play.



When all programmed selections have played, the player stops automatically. The total programmed time appears.

- If the total programmed time exceeds 99 minutes 59 seconds, "NO dISP" appears.
- The programme contents are retained in memory.

- When the TIME DISPLAY switch is pressed while "Pr" is lit, the total time of the programmed tracks is displayed. If the total time exceeds 99 minutes 59 seconds, or if a track number higher than 24 has been programmed, "NO dISP" or blank is displayed. When the TIME DISPLAY switch is pressed, "Pr" returns.
- The tracks can also be selected using the ►► and ◀◀ switches.
- When programming using the controls on the main unit, use the SKIP/SEARCH switch to assign the tracks.
- Any attempt to programme more than 24 selections will result in "FULL" being displayed and discontinuation of the programming.

The programme is cleared in the following cases:

- When the STOP switch is pressed in the stop mode
- When the EDIT switch is pressed in the stop mode
- When the OPEN/CLOSE switch is pressed
- When the mains leads have been disconnected

Checking the programme

Each time the MEMORY switch is pressed in the stop mode, the programmed details sequentially appear on the display.

Changing a programme

To add a new selection to a programme:

1. In the stop mode, press the MEMORY switch repeatedly until " - - - - " is displayed.
2. Select a track number as explained above.

To change a selection:

1. In the stop mode, press the MEMORY switch repeatedly until the selection to be replaced is displayed.
2. Select a track number as explained above.

Note:

Programmed details cannot be partially deleted or inserted.

Operations during programmed play

- Press the ►► or ◀◀ SKIP/SEARCH switch to skip programmed tracks.
- The 1-9, 0 and +10 switches on the remote control do not function during programmed play.

LISTENING TO TAPES

1. Select "TAPE" function.
2. Press the OPEN/CLOSE switch.
The cassette tray slides out.
3. Place the cassette on the cassette tray (Fig. 16).

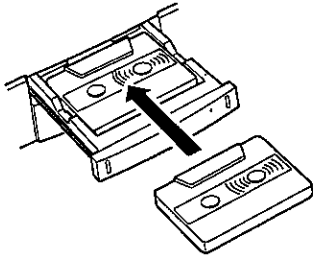


Fig. 16

4. Press the OPEN/CLOSE switch again to close the cassette tray. The OPEN/CLOSE indicator lights.
5. Set the DOLBY NR switch to correspond with the type of tape to be played.
When playing a tape which has been recorded using the Dolby NR B or C system, press the switch to display "DOLBY NR B" or "DOLBY NR C". ("B" or "C" appears for 1 second on the display).
When playing a tape which has not been recorded using the Dolby NR system, press the switch to turn off "DOLBY NR B" or "DOLBY NR C" ("OFF" appears and scrolls for a few seconds).
6. Press the ► or ◀ PLAY switch to begin playback. ("►" or "◀" appears for 1 second.) The ► or ◀ indicator lights.
 - : For forward play
 - ◀ : For reverse play
 - If you press the ► or ◀ PLAY switch while the tray is still open, it will close, and playback will begin automatically.
7. Press the STOP switch to stop playback at any time. ("■" appears for 1 second.)
When the end of the tape has been reached, automatic stop or reverse will be activated.
 - When the OPEN/CLOSE switch is pressed during playback, playback will stop and the cassette tray will slide out.

Types of usable tapes

The type of tape used is automatically identified by the system since the deck employs an auto tape selection system. The following types of tape can be used with this system.

Normal
CrO₂
Metal

Note:

- Metal and CrO₂ tapes without sensing holes cannot be used since they cannot be identified by the auto tape selector.
- Endless tapes cannot be used.
- Do not use C-120 tapes. They may jam in the mechanism.
- If a cassette that is different in shape and size from a standard cassette tape is used, the deck may not operate correctly.

Auto reverse

Tape can be played back in the following 3 ways using the DIRECTION switch. (When the direction mode is changed, "Z", "D" or "S" appears for 1 second.) The selected direction mode is shown on the display.

- Z :
For listening to one side of the tape only.
- D :
For listening to both sides of the tape in succession.
 - If playback has been started from the reverse side, only the reverse side will be played back.
- S :
For listening repeatedly to both sides of the tape.

Automatic Music Select System (AMSS)

Press the ►► or ◀◀ AMSS switch during playback. The deck will enter the fast wind mode to skip to the beginning of the desired selection, then return to the play mode. While the tape is winding, the ► or ◀ indicator blinks.

Any one selection of up to 9 selections in both forward and reverse directions can be searched.

During forward playback:

Press the ►► or ◀◀ switch once ("►►1" or "1►►" appears on the display), the start of the next selection or the selection currently playing is found.

Selection will be skipped as many times as the switch is pressed. The display will show how many selections to be skipped. Then the display will be changed to smaller numbers whenever the selection is skipped.

Example:

►5 → ►4 → ►3 → ...

During reverse playback:

Press the ►► or ◀◀ switch once ("◀◀1" or "1◀◀" appears), the start of the selection currently playing or the next selection is found.

Selection will be skipped as many times as the switch is pressed.

Note:

- When the tape has been wound to the end, the deck automatically stops.
- Unrecorded blanks lasting at least 4 seconds are required for proper AMSS operation.
- If the system is being used near a TV, the AMSS may not function properly due to the effect of the signals from the TV. If this is the case, either switch off the TV, or use the system at the distance from the TV.

Fast forward and rewind

1. Press the STOP switch to stop the tape at any time.
2. Press the ►►► or ◀◀◀ switch ("►►►" or "◀◀◀" appears for 1 second). The ► or ◀ indicator blinks.
When the tape has been wound to the end, the deck automatically stops.

Dolby NR system


The Dolby NR system is designed to reduce the amount of high-range tape hiss which is generated during tape playback. Briefly, it works as follows.

When a programme is recorded, the system boosts the level of the low-volume high-range parts where noise is more liable to be heard, and when the same programme is played back, it attenuates the level of only those parts where the level was boosted, restoring them to their original level. This process simultaneously serves to cut down the amount of noise heard.

More specifically, the Dolby NR B system effectively reduces the amount of tape noise in the high-frequency range and expands the dynamic range whereas the Dolby NR C system effectively decreases the amount of noise in the mid-range and above, and increases the degree of noise reduction over and above the Dolby NR B system.

Recordings made using the Dolby NR B system or Dolby NR C system should be played back using the same system.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

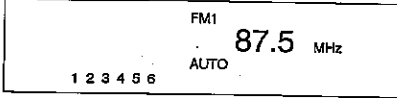
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

LISTENING TO THE RADIO

Memory operation

This unit enables 12 stations FM1, FM2 and AM bands to be preset in the memory.

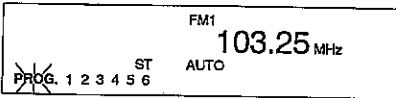
1. Select the band (FM1, FM2 or AM) by pressing the BAND switch.



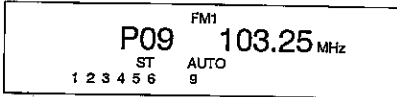
- The frequency and whole number of preset stations appear.
2. For automatic tuning, make sure that "AUTO" is displayed. If not, press the MODE switch on the remote control to display "AUTO".
 3. Press the UP or DOWN TUNE/TIMER/CLOCK switch to tune in a station.

The unit automatically stops at the next receivable station. Press the switch again to continue.

- When receiving a station with weak signals, press the MODE switch to turn off "AUTO" (Manual tuning). Then press the UP or DOWN switch repeatedly until the desired frequency is displayed. Each time the switch is pressed, the frequency changes in 0.05 MHz steps for FM and 9 kHz steps for AM.
4. Press the MEMORY switch. "PROG." blinks.



5. Press one of the 1 - 12 switches on the remote control while "PROG." is blinking (approx. 10 seconds).



- If "PROG." has been disappeared before proceeding with step 5, press the MEMORY switch to continue.
6. Repeat steps 1 - 5, to add more preset stations.

Clearing the memory

1. Select the band.
2. Select the preset number to be cleared by pressing one of the 1 - 12 switches.
3. Press the MEMORY switch, then press the SET/CLEAR switch. "--" appears for 2 seconds.

Note:

- If a new station is programmed into a band and preset number already containing a programmed station, the previously programmed station will be cleared.
- If the memory contents are lost due to a power failure or other condition, programme the stations again.

Listening to the radio

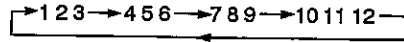
1. Select the band.

(Procedure 1)

2. Select the desired preset number by pressing one of the 1 - 12 switches on the remote control.
 - If a preset number which has not been programmed is selected, "--" appears for 2 seconds and the previous station is selected.

(Procedure 2)

2. Press the SCAN switch on the remote control. Each of the preset stations is selected for 5 seconds and the preset numbers display runs on the display.



When all of the preset stations in the selected band have been tuned in, the original reception mode returns.

When the desired station has been tuned in, press the SCAN switch again to keep the reception locked at that station.

- For receiving an FM stereo broadcast, make sure that "AUTO" is displayed. If not, press the MODE switch on the remote control to display "AUTO".
"ST" appears when an FM stereo broadcast is received.
- If the signals from an FM stereo station are weak and reception is poor, press the MODE switch to change to monaural reception. ("ST" is replaced by "MONO" in the display.)

LISTENING TO RECORDS OR AV SOURCES

1. Select "PHONO" or "AV".

2. Follow the instructions supplied with the turntable or audio/video equipment.

BEFORE RECORDING

Recording copyright material without permission of the copyright owners is usually an infringement. If you wish to re-record copyright material, permission from the copyright owner is necessary. SANYO does not approve of, and cannot be held responsible for, any unlawful use of this machine.

1. Load the cassette for recording.
2. Set the DOLBY NR switch to "DOLBY NR B", "DOLBY NR C" or off as desired.
3. Set the DIRECTION switch position.

⏮ :
For recording one side only.

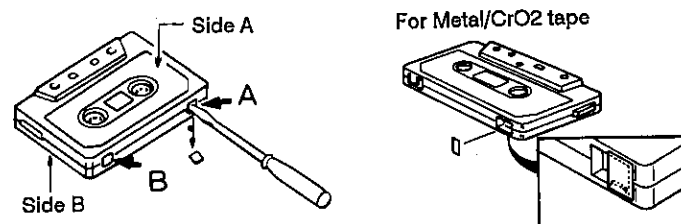
⏪ :
For recording both sides in succession.

- If recording has been started from the reverse side, only the reverse side will be recorded.
- If a tape with one of its tabs already broken out is used for recording, the tape will not be reversed automatically, and it will stop.
- If the REC/REC PAUSE or COMPUTER REC switch is pressed during ⏮ mode, the direction mode will set automatically to ⏪ mode.

Accidental erasure prevention tabs (for protecting valuable recordings)

Accidental erasure can be prevented by breaking out the tabs on the end of the cassette tape (where the tape is not exposed) using a screwdriver or similar implement (Fig. 17).

If a tab is broken out in error and you wish to re-record the tape, simply block the tab hole using adhesive tape and the tape can be used for recording again.



Break out tab A for side A.

Break out tab B for side B.

Fig. 17

Automatic record muting

Undesirable parts of a programme can be omitted while recording. Press the REC MUTE switch on the remote control once while recording. The REC/REC PAUSE indicator blinks and a 5-second unrecorded blank space is created, then the cassette deck enters the record pause mode. To resume recording, press the REC/REC PAUSE switch.

Note:

- The record muting function does not operate during CD computer recording.
- To create an unrecorded blank of any length, hold down the REC MUTE switch for the required time. The deck enters the record pause mode when the switch is released.

RECORDING COMPACT DISCS

COMPUTER RECORDING

With computer recording, a CD can be automatically recorded on a cassette by pressing one switch.

1. Load the CD to be recorded.
 2. Load a blank cassette.
 3. Select "CD".
 4. Press the COMPUTER REC switch ("◆" appears for 1 second on the display). The system automatically performs the following functions:
 - Deck:
 - The tape rewinds to the beginning.
 - Recording starts.
 - CD player:
 - The player searches for the first track to be recorded, then enters the pause mode.
 - CD play starts.
- The REC/REC PAUSE and ► indicators light, "COMPUTER REC" and "SIDE A" appear on the display as recording begins.

Note:

- Recording starts automatically after 8 seconds, so the recording will not be interrupted by the leader tape at the beginning of sides A and B.

- A 5-second blank space is automatically recorded at the end of each track.
- The highest track number which can be edited is 24. Track numbers 25 and above cannot be edited (except with backward skip edit).
- To stop computer recording at any time, press the STOP switch of the CD player or deck. The CD player and deck will stop. (The time edit, programme edit or fade-out edit mode is still operational.) To release the editing mode, press the STOP switch of the CD player.
- Select "Σ" mode during computer recording.
- To record material from a different position on the tape, continue recording manually.

Types of edit recording

The following edit recording operations can be performed during computer recording.

- A. Time edit recording
- B. Programme edit recording
- C. Fade-out edit recording
- D. Backward skip edit recording

Time edit recording

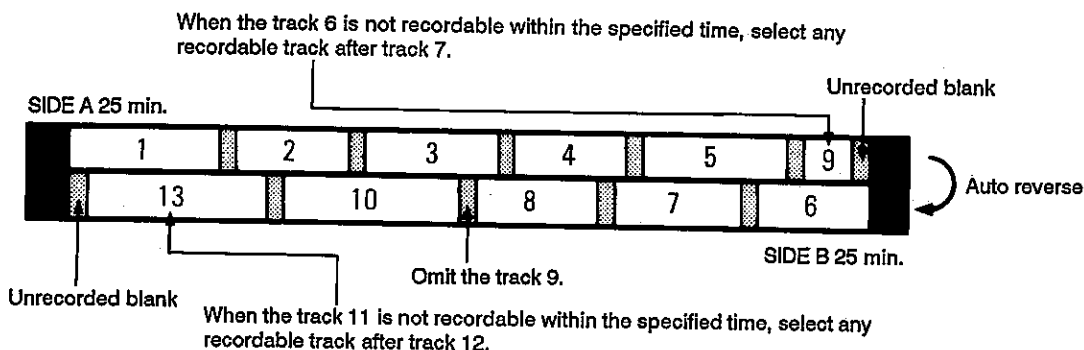


Fig. 18

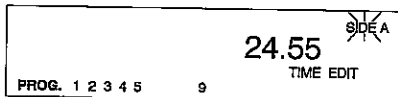
The tracks that will fit within a selected time period are automatically programmed for recording on sides A and B of the tape. (The tracks are edited so that the remaining time on the tape is reduced to a minimum).

Example:

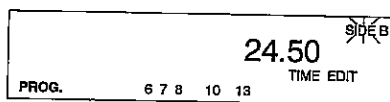
To record onto a 50-minute tape (Fig. 18)

1. Press the EDIT switch to select the recording tape length.
 - Each time the EDIT switch is pressed, the tape length display changes in the following sequence:
 - C-46 → C-54 → C-60 → C-74 → C-90
 - (Released) ← C-...
 - To set the desired tape length up to C-99, use the 1 - 9, 0 and +10 switches on the remote control.
- To set "C-50", press the +10 switch 5 times, then press the 0 switch. "C-50" appears on the display.
- The ►► and ◀◀ switches can also be used for the setting.

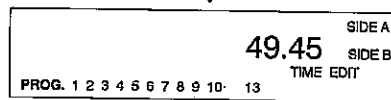
2. Press the TIME/FADE switch once.



The track numbers and play time for side A are displayed.

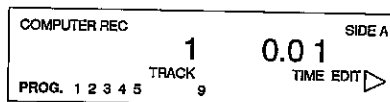


The track numbers and play time for side B are displayed.



The track numbers and total play time for both sides are displayed.

3. Press the COMPUTER REC switch.
 - The track numbers and play time for side A are displayed.
 - The track numbers and play time for side B are displayed.
 - Recording starts automatically from track 1.



- The edit mode remains operational when recording ends. To cancel the edit mode, press the STOP switch of the CD player.

Programme edit recording

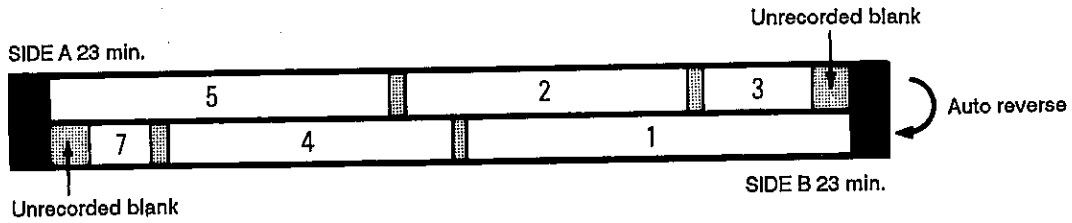


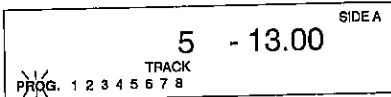
Fig. 19

The desired selections can be rearranged and recorded on the tape within a designated tape length.

Example:

To record onto a 46-minute tape (Fig. 19)

1. Press the EDIT switch until "C-46" appears.
2. Press the MEMORY switch.
3. Select the track to be recorded by using the 1 - 9, 0 and +10 switches on the remote control.



The remaining time on side A is shown on the time display.

4. Press the MEMORY switch.



5. Repeat steps 3 - 4 to programme the tracks to be recorded onto side A.

- If a track exceeding the remaining time on side A is selected, its play time blinks on the display. When the MEMORY switch is pressed, "SIDE A" disappears and "SIDE B" appears. The remaining time on side B appears on the time display. This and subsequent tracks are recorded on side B.
- 6. Repeat steps 3 - 4 to programme the tracks to be recorded onto side B.
- If a track exceeding the remaining time on side B is programmed, "Err" will appear in the display for 4 seconds.
- 7. Press the COMPUTER REC switch.
- The track numbers and play time for side A are displayed.
- The track numbers and play time for side B are displayed.
- Recording starts automatically from the first programmed track.



- The track numbers can also be set using the >>> and <<<< switches.

Fade-out edit recording

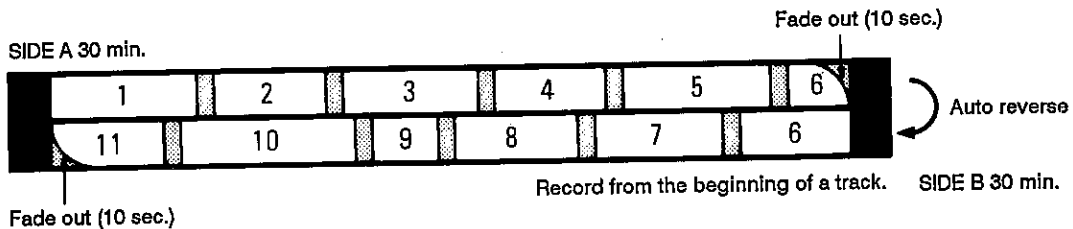


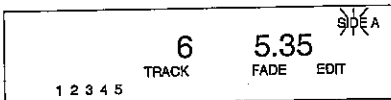
Fig. 20

The sound is automatically faded out at the end of sides A and B, according to the selected tape length. When the tape reverses from side A to B, recording continues from the beginning of the last track played.

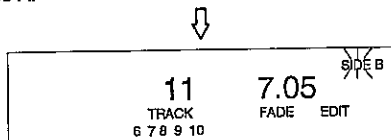
Example:

To record onto a 60-minute tape (Fig. 20)

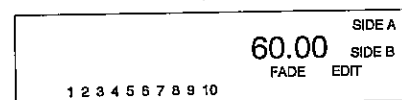
1. Press the EDIT switch until "C-60" appears.
2. Press the TIME/FADE switch twice.



This shows that 5 minutes 35 seconds of track 6 will be recorded on side A.



This shows that 7 minutes 5 seconds of track 11 will be recorded on side B.



The track numbers and total play time for both sides are displayed.

3. Press the COMPUTER REC switch.
- The tracks to be recorded onto side A are shown.
- The tracks to be recorded onto side B are shown.
- Recording starts from the beginning of track 1.



- "FADE" blinks during fade-out (10 seconds).
- The sound is also faded out when a track is interrupted at the end of side B.
- If "END" appears during step 2, it indicates that the disc will reach the end before the end of the tape. In this case, the last track on the disc will not be faded out.
- No recording is made on the last 15 seconds of the tape.

Backward skip edit recording

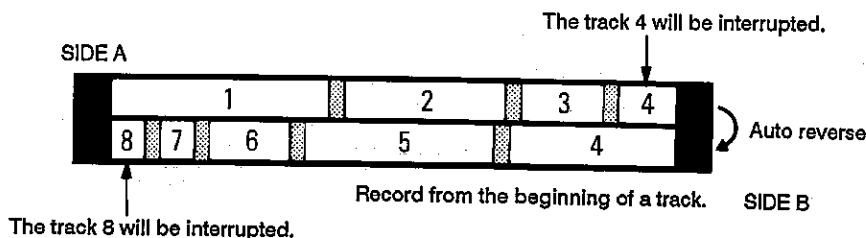


Fig. 21

This type of recording is the easiest to perform and the tape length setting is not required.

Example: (Fig. 21)

Press the COMPUTER REC switch. Recording starts on side A with track 1. When the tape automatically reverses, the display changes from "SIDE A" to "SIDE B" and recording continues from the beginning of the last track played.

MANUAL RECORDING

- For programmed recording, programme the material in advance (as described under "PROGRAMMED PLAY").
1. Press the REC/REC PAUSE switch of the deck. (The deck enters the record pause mode.)
 2. Press the PLAY/PAUSE switch of the CD player. CD recording starts.

- When the CD player is set to the stop or pause mode during recording, the deck pauses. When CD play is resumed, deck recording also resumes.
- This method produces a gap in recording when the tape reverses.
- If the TIME/FADE switch is pressed during recording, the sound begins to fade out from that point (about 10 seconds). The CD player pauses and the deck is placed in the record pause mode.

RECORDING FROM THE TUNER, PHONO OR AV INPUT

1. Tune in the radio station to be recorded, or play a record, video cassette or video disc.
2. Press the REC/REC PAUSE switch ("■ ■" appears for 1 second). The REC/REC PAUSE indicator lights and the ► or ◀ indicator blinks.
3. Press the REC/REC PAUSE switch again or press the ► or ◀ PLAY switch whose indicator is blinking. ("◆" appears for 1 second). The recording starts. The ► or ◀ indicator remains lit.
 - To record in the opposite direction to that indicated by the blinking indicator, press once the switch whose indicator is not blinking, check that the other indicator is now blinking, and press the same switch again.

4. Press the REC/REC PAUSE switch to temporarily stop recording. Press the switch again to continue.
5. Press the STOP switch to stop recording.

When beat interference is heard

A high-pitched noise called "beat" is sometimes heard during the recording of radio broadcasts.

In cases like this, set the BEAT CANCEL switch at the rear of the unit to the position (1 or 2) which will reduce the level of the beat noise.

MICROPHONE MIXING (KARAOKE)

Mixing play

To use the microphone mixing feature, connect a microphone to the MIC socket with the MIC VOL control turned down.

Set the sound style to KARAOKE if required.

The output of the microphone can be mixed with the sound from the CD player, cassette deck or radio, etc.

Adjust the microphone volume with the MIC VOL control.

Mixing recording

Perform "Mixing play", then set the deck to the recording mode.

- If "TAPE" is selected, only the microphone sound is recorded.

Note:

- If howling occurs, reduce the microphone volume or place the microphone away from the speakers.
- Turn down the MIC VOL control and disconnect the microphone after the microphone mixing operation has finished.

TIMER OPERATION

ON/OFF timer:

This enables radio programmes to be recorded unattended. CD play or tape playback can be started and stopped at the selected times.

WAKE UP timer:

This wakes you up to the sound of a CD, tape or radio.

SLEEP timer:

This allows you to fall asleep to the sound of a CD, tape or radio.

Note:

Make absolutely sure that the clock shows the correct time before setting the timer.

The TIMER, WAKE UP and SLEEP switches do not function while the clock display is blinking.

USING THE ON/OFF TIMER

Set the ON and OFF times, then select the source to be used (for tuner, select the band and a preset station). Operation will start with the selected source at the ON time and the power will be switched off at the OFF time. The timer settings are stored in the memory and retained even when the timer operation has been completed.

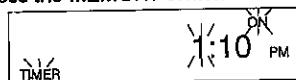
Each time the ON/OFF timer is to be used, set the unit to the timer operation standby mode.

1. Press the TIMER switch.

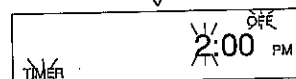
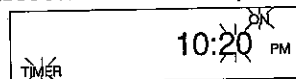


The previous timer ON time setting appears.

2. Press the MEMORY switch within 5 seconds.

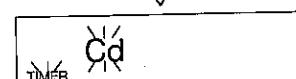
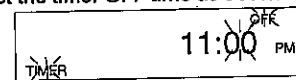


3. Set the timer ON time by pressing the UP or DOWN TUNE/TIMER/CLOCK switch, then press the MEMORY switch (as described under "ADJUSTING THE CLOCK").



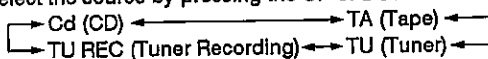
The previous timer OFF time setting appears.

4. Set the timer OFF time as described in step 3.



The previous source setting blinks.

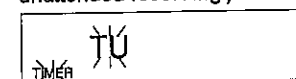
5. Select the source by pressing the UP or DOWN switch.



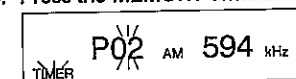
For radio reception (or for unattended recording)

The station used during timer operation must be preset.

- a. Perform step 5 above until "TU" blinks. (Select "TU REC" for unattended recording.)

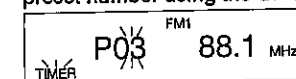


- b. Press the MEMORY switch.



The band, preset number and frequency of the previous timer operation are displayed.

- c. Select the band using the BAND switch, then indicate the desired preset number using the UP or DOWN switch.



6. Press the MEMORY switch.

The original display returns, then the timer operation standby mode is activated. "TIMER" (or "TIMER REC") remains lit.

7. Prepare the sources to be used.

8. Press the POWER switch to switch off the power.

- If the power is not switched off, the timer will not be activated at the set time and the timer mode will be released.

- To switch off the power during a timer controlled operation, press the POWER switch. The ON/OFF timer will then be released.

To check the timer settings

Press the TIMER switch repeatedly. The timer settings are displayed in the following order:

- ON time
- OFF time
- Source (If the tuner is being used as the source, the band, preset number and frequency are displayed.)
- Original display returns.

To change the settings, press the TIMER switch to select the setting to be changed, then press the MEMORY switch so that the display blinks. Change the setting as explained above.

To set the timer again using the same settings

1. Press the TIMER switch. The timer ON time is displayed.
2. Press the SET/CLEAR switch within 5 seconds.
 - Every time steps 1 and 2 are repeated, the mode alternates between timer standby and timer off modes.
3. Press the POWER switch to switch off the power.

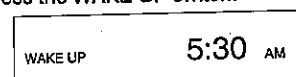
Note:

- If the SET/CLEAR switch is pressed while the timer is being set, the original display returns.
- The timer mode is released if a power failure occurs during timer controlled operation.
- The timer will not operate if a power failure lasts for more than 30 seconds during standby mode.

USING THE WAKE UP TIMER

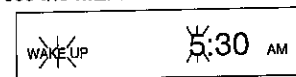
Set the wake-up time, source to be heard and volume level. At the set time, the set source will be heard. The sound will be gradually increased from a no-sound level to the volume setting (fade-in). The power will turn off after 60 minutes. The WAKE UP timer will function every day unless it is released.

1. Press the WAKE UP switch.

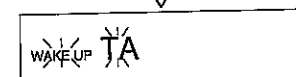
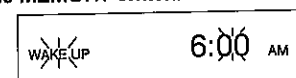


The previous wake-up time setting appears.

2. Press the MEMORY switch within 5 seconds.

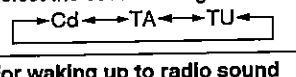


3. Set the wake-up time by pressing the UP or DOWN switch, then press the MEMORY switch.



The previous source setting blinks.

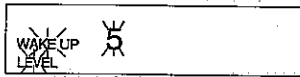
4. Select the source using the UP or DOWN switch.



For waking up to radio sound

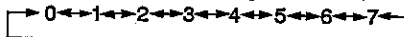
Perform step 4 above until "TU" blinks on the display. Then follow the steps "b" and "c" of "For radio reception" under "USING THE ON/OFF TIMER".

5. Press the MEMORY switch.



The previous volume level setting blinks.

6. Select the volume level using the UP or DOWN switch.



- To check the actual sound level, it is recommended that you actually make the level setting and then see if the sound is soft or loud enough. This can be checked by setting the timer 2 minutes later than the present time.
- The sound will not be faded in at the "0" level. In this case, the sound will be heard at the previous VOLUME control setting.
- Except setting the "0" level, the audio muting function will not operate at the set time even if it is on (The VOLUME indicator and "MUTE" are blinked).

7. Press the MEMORY switch.

The original display returns, then the wake-up standby mode is activated. "WAKE UP" remains lit.

8. Prepare the sources to be used.

9. Press the POWER switch to switch off the power.

- Press the POWER switch to switch off the power after the power is turned on at the wake-up time.
- Even after the WAKE UP timer operation has completed, "WAKE UP" remains lit and the standby mode continues.

To check the timer settings

Press the WAKE UP switch repeatedly. The timer settings are displayed in the following order:

- Wake-up time
- Source (If the tuner is being used as the source, the band, preset number and frequency are displayed.)
- Volume level
- Original display returns.

To change the settings, press the WAKE UP switch to select the setting to be changed, then press the MEMORY switch so that the display blinks. Change the setting as explained above.

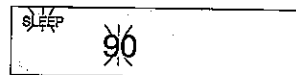
To release the WAKE UP timer

Press the WAKE UP switch, then press the SET/CLEAR switch. "WAKE UP" disappears.

USING THE SLEEP TIMER

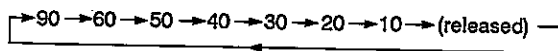
This timer automatically switches off the power after a preset time has elapsed. The volume will gradually be reduced (fade-out) during the 1-minute period before the unit turns off. There are 7 time periods available: 90, 60, 50, 40, 30, 20 and 10 minutes.

1. Press the SLEEP switch on the remote control.



The previous sleep time setting blinks.

2. Press the SLEEP switch within 5 seconds to select the desired sleep time.



- If the SET/CLEAR switch is pressed, the original display returns and the SLEEP timer setting mode is released.
3. Allow 5 seconds to elapse or press the MEMORY switch. The original display returns and the SLEEP timer starts. "SLEEP" remains lit.

To check the remaining sleep time

Press the SLEEP switch. The remaining time is displayed. After several seconds, the original display returns.

To release the SLEEP timer while in operation

Press the SLEEP switch, then press SET/CLEAR. The timer is also released if the power is switched off.

Timer priorities

- The ON/OFF timer settings are released if the actual time reaches the ON time setting during WAKE UP timer operation.
- During ON/OFF timer operation, the WAKE UP timer will not operate, but the WAKE UP timer setting is retained.
- The SLEEP timer has priority over the ON/OFF and WAKE UP timers. The power is switched off by the SLEEP timer. The ON/OFF timer setting is released, but the WAKE UP timer setting is retained.

MAINTENANCE

Cleaning the deck heads

To ensure playback and recording with good-quality sound, use a cleaning tape (available from your local audio dealer) to clean the head block of the deck after about every 10 hours of use.

Main unit

Use a soft cloth to remove dirt on the main unit.

If the dirt persists, dip a soft cloth into a diluted solution of neutral detergent, wring it out, wipe away the dirt, and then take up any moisture with a dry cloth.

Do not use benzine, thinners or alcohol since they will mar the finish of the surfaces.

REMOTE CONTROL OPERATION

Common section

Power ON/OFF

Adjust volume

Temporarily reduce volume

Select sound style

Listen to enhanced bass sound

Listen to surround sound

Function select

CD, TAPE or TUNER is automatically selected when CD play, tape playback or tuner function switches (except the MODE switch) are pressed.

Set/check sleep time

POWER

- or + VOL

MUTE

SOUND STYLE

BASSXPANDER

SURROUND

PHONO or AV

SLEEP

CD player section

Select CD

Open/close disc tray

Start play from track 1

Start play from desired track

Programmed play

Temporarily stop play

Skip play

Search

Introscan

Random play

Repeat play

Stop

Check remaining time

CD



CD → 1-9, 0, +10 switch

In CD mode MEMORY → 1-9, 0, +10 switch → MEMORY → /||

During play /||

During play >>> or <<< (press once)

During play >>> or <<< (press continuously)

INTRO

RANDOM

During play REPEAT



During play TIME DISPLAY

Tuner section

Select TUNER or select band

Station tuning

Station presetting

Select preset station

Select tuning/FM mode

TUNER/BAND

In TUNER mode UP or DOWN

After tune in a station MEMORY → 1-12 switch

In TUNER mode 1, 2, ... 12

or SCAN (press again when desired station is tuned in)

In TUNER mode MODE

Deck section

Select TAPE

Open/close cassette tray

Select direction mode

Forward/reverse play

Fast forward/rewind

AMSS

Stop

Start recording

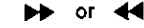
Temporarily stop recording

Record mute

TAPE



DIRECTION



During playback >>> or <<< AMSS



● /|| → ● /|| , > or <

During recording ● /||

During recording REC MUTE

Note:

For remote control operation, the supplied remote control must be used.

SPECIFICATIONS

Cassette deck/Pre-amplifier

Cassette deck

Track system:

4-track, 2-channel stereo

Frequency response:

Metal tapes: 40 Hz to 13.5 kHz

Chrome tapes: 40 Hz to 13.5 kHz

Normal tapes: 40 Hz to 12.5 kHz

Signal-to-noise ratio:

60/67 dB (with Dolby B/C NR ON)

Wow/flutter:

0.12% (WRMS)

Fast forward/rewind time:

Approx. 110 sec. (C-60)

Pre-amplifier

Graphic equalizer:

7 band electronic

Spectrum analyzer:

7 band

Dimensions:

180(W) x 115(H) x 262.5(D) mm

Weight:

2.5 kg

CD player/Tuner/Timer

CD player

Channels:

2-channel stereo

Sampling frequency:

44.1 kHz

Pick-up:

Optical 3-beam semiconductor laser

Frequency response:

20 Hz to 20 kHz

Wow/flutter:

Below measurable limits

Tuner

(FM)

Reception frequency:

87.5 to 108 MHz

Usable sensitivity:

1.8 μ V (mono)

(AM)

Reception frequency:

531 to 1701 kHz

Inputs/Outputs:

Audio input x 2

Audio output x 1

Video input x 1

Video output x 1

CD digital output x 1

Power requirements:

AC 230 - 240 V, 50 Hz

Power consumption:

15 W

Dimensions:

180(W) x 115(H) x 260(D) mm

Weight:

2.5 kg

Power amplifier

Output power:

70 W x 2 (at 6 ohms, 0.9% distortion)

Power requirements:

AC 230 - 240 V, 50 Hz

Power consumption:

165 W

Dimensions:

180(W) x 115(H) x 300.5(D) mm

Weight:

6.1 kg

Speaker systems

Overall frequency response:

40 Hz to 20 kHz

Type:

2 way bass reflex

Unit used:

Woofer: 16 cm cone type

Tweeter: 5 cm cone type

Maximum power-handling capacity:

150 W (peak)

Nominal impedance:

6 ohms

Dimensions:

200(W) x 345(H) x 233(D) mm

Weight:

4.5 kg (per speaker)

Specifications subject to change without notice.





SANYO Electric Co., Ltd.
OSAKA, JAPAN

Printed in Japan

(AU) 1AD6P10A27402

614-246-2898