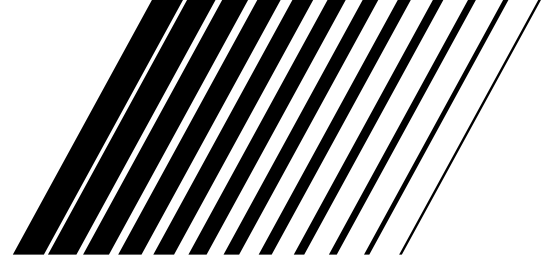


JVC

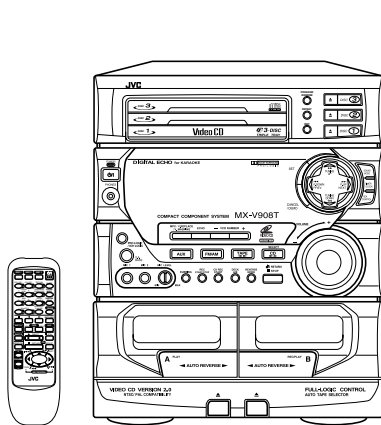


COMPACT COMPONENT SYSTEM 小型組和系統

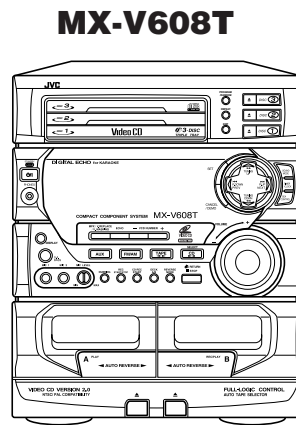
CA-V908T/MX-V608T/MX-V688T

Consists of CA-V608T and SP-V608
由CA-V608T及SP-V608組成

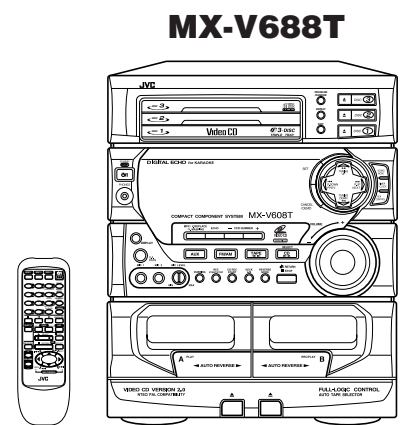
Consists of CA-V688T and SP-V688
由CA-V688T及SP-V688組成



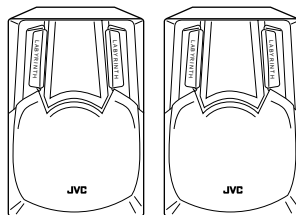
CA-V908T



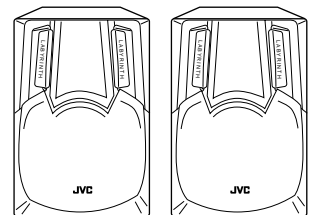
CA-V608T



CA-V688T



SP-V608



SP-V688



PlayBack
Control



INSTRUCTIONS 使用說明書

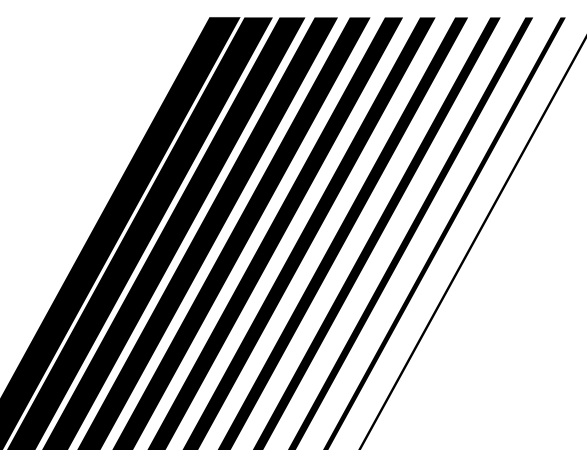
For Customer Use:

Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

GVT0007-001A
[U, UT, US, UB]



Warnings, Cautions and Others
Avisos, precauciones y otras notas
Advertências, precauções e outras notas
警告，注意及其他須知事項
تحذيرات، تنبيهات وأشياء أخرى

IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT.

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue :	Neutral
Brown :	Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

Caution — ⏻/⏻ switch!

Disconnect the mains plug to shut the power off completely. The ⏻/⏻ switch in any position does not disconnect the mains line. The power can be remote controlled.

Precaución — Interruptor ⏻/⏻!

Desconectar el cable de alimentación para desactivar la alimentación totalmente. Cualquier que sea la posición de ajuste del interruptor ⏻/⏻, la alimentación no es cortada completamente. La alimentación puede ser controlada remotamente.

Precaução — Interruptor ⏻/⏻!

Desconectar o cabo de alimentação para desligar a alimentação por completo. Qualquer que seja a posição de ajuste do interruptor ⏻/⏻, a alimentação não é completamente cortada. A alimentação pode ser controlada remotamente.

注意—⏻/⏻ 開關！

無論⏻/⏻ 開關在任何位置，電源線的電源還是沒有被切斷，若要將電源完全關閉，應把電源插頭拔離插座。電源開關可用遙控器控制。

تحذير - ⏻/⏻ الطاقة

انزع قابس الطاقة الكهربائية من اجل فصل الطاقة الكهربائية عن الجهاز كلياً. لا يفصل مفتاح الطاقة الكهربائية عندما يكون باي وضع ⏻/⏻ الطاقة الكهربائية عن الجهاز. يمكن التحكم عن بعد بالطاقة الكهربائية.

CAUTION

To reduce the risk of electrical shocks, fire, etc.:

1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

PRECAUCIÓN

Para reducir riesgos de choques eléctricos, incendio, etc.:

1. No extraiga los tornillos, los cubiertas ni la caja.
2. No exponga este aparato a la lluvia o a la humedad.

PRECAUÇÃO

Para reduzir riscos de choques elétricos, incêndio, etc.:

1. Não remova parafusos e tampas ou desmonte a caixa.
2. Não exponha este aparelho à chuva nem à umidade.

警告

為了減低觸電，火災等危險：

1. 請勿擅自卸下螺絲釘，蓋子或機殼。
2. 切勿讓本機受雨淋或置潮濕環境中。

تحذير

لتجنب خطر الحريق، الصدمات الكهربائية، الخ.:

1. لا تقم بفك البراغي، الاغطية أو الخزانات.
2. لا تقم بتعرض هذا الجهاز للمطر أو للرطوبة.

IMPORTANT FOR LASER PRODUCTS / IMPORTANTE PARA PRODUCTOS LÁSER / IMPOTANTE PARA PRODUTOS LASER / 雷射產品的重要說明 / مهم للمنتجات الليزرية

REPRODUCTION OF LABELS / REPRODUCCIÓN DE ETIQUETAS / REPRODUÇÃO DE ETIQUETAS
標籤內容說明 / إنتاج اللاصقات

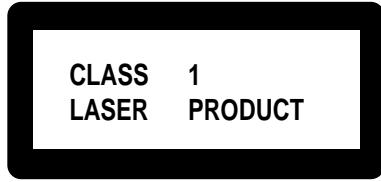
① CLASSIFICATION LABEL, PLACED ON REAR ENCLOSURE

① ETIQUETA DE CLASIFICACIÓN, PEGADA EN LA PARTE POSTERIOR DE LA CAJA

① ETIQUETA DE CLASSIFICAÇÃO LOCALIZADA NA PARTE POSTERIOR DA CAIXA DO APARELHO.

① 分類標籤，貼在機殼背後。

① لاصق التصنيف، موضوعة على المرفق الخلفي



② WARNING LABEL, PLACED INSIDE THE UNIT

② ETIQUETA DE ADVERTENCIA, PEGADA EN EL INTERIOR DE LA UNIDAD

② ETIQUETA DE ADVERTÊNCIA LOCALIZADA NA PARTE INTERNA DA UNIDADE.

② 警告標籤，貼於機內。

② لاصقة التحذير، موضوع بداخل الجهاز

DANGER: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)

WARNING: Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)

ADVARSEL: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling (d)

VARO: Avattaessa ja suojalukitus ohitettaessa olet alltiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.

1. PRODUCTO LÁSER CLASE 1
2. **PELIGRO:** En el interior hay radiación láser invisible. Evite el contacto directo con el haz.
3. **PRECAUCIÓN:** No abra la tapa superior. En el interior de la unidad no existen piezas reparables por el usuario; deje todo servicio técnico en manos de personal calificado.

1. PRODUTO LASER CLASSE 1
2. **PERIGO:** O laser emite uma radiação invisível que é perigosa, caso o aparelho esteja aberto e a trava inoperante ou danificada. Evite exposição direta ao feixe dos raios.
3. **CUIDADO:** Não abra a caixa do aparelho. Não existem peças reparáveis pelo usuário na parte interna da unidade. Solicite assistência técnica somente a pessoal técnico qualificado.

1. 一級雷射產品
2. 危險：當內部鎖定裝置失效或者損壞後，打開蓋板可能會產生不可見的雷射輻射。應避免受到光束直接照射。
3. 注意：請勿打開頂蓋板。本機內部沒有用戶可自行維修的部件；所有維修工作應由有資格的人員完成。

1. صنف 1 منتج ليزري
2. خطر: أشعة ليزرية غير مرئية عند الفتح والاعلاق الفاشل أو غير الصحيح. تجب التعرض المباشر للأشعة.
3. تحذير: لا تفتح الغطاء العلوي، ليس في داخل الجهاز أقسام بمستطاع المستخدم صيانتها؛ إعهد بكافة الأعمال الصيانية لفني مختص.

Caution: Proper Ventilation

To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:

- 1 Front: No obstructions and open spacing.
- 2 Sides/ Top/ Back: No obstructions should be placed in the areas shown by the dimensions below.
- 3 Bottom: Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.

Precaución: el aparato debe estar bien ventilado

Para evitar posibles riesgos de descargas eléctricas e incendios y prevenir cualquier posible daño, coloque el aparato del modo siguiente:

- 1 Parte delantera: No ponga nada delante, deje el espacio libre.
- 2 Laterales/ parte superior/ parte trasera: No se debería colocar nada en las áreas y las distancias que se detallan a continuación.
- 3 Parte inferior: Coloque el aparato sobre una superficie recta. Debe haber buena circulación de aire; para ello, coloque el aparato sobre una base a una altura mínima de 10 cm.

Precaução: Ventilação adequada

Para evitar riscos de choques elétricos e incêndios, e prevenir avarias, instale o aparelho como segue:

- 1 Parte frontal: Sem obstruções e espaços abertos.
- 2 Partes laterais/Tampa/Posterior: Nenhuma obstrução deverá ser colocada entre as áreas cujas dimensões são indicadas abaixo.
- 3 Parte inferior: Instale-o sobre uma superfície plana. Deverá ser mantido espaço suficiente para a ventilação se este for instalado numa posição que tenha uma altura de 10 cm ou mais.

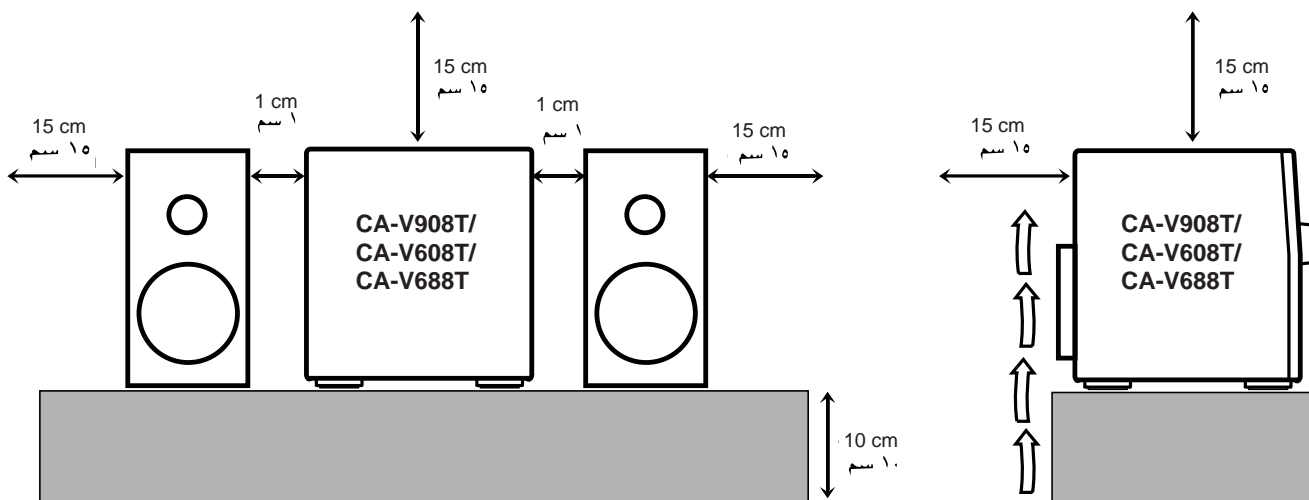
告誡：正確通風

為免發生觸電和火警的危險，及防止本機受損，請將本機如下放置：

- 1 前面：沒有障碍物及地方開闊。
- 2 側面／頂面／背面：在圖中所示範圍中，不應放置任何障碍物。
- 3 底部：放置在水平面上。放置在一個高 10 厘米或以上的臺上，以保持足夠的通風道。

تحذير: التهوية الصحيحة

لتجنب حصول صدمات كهربائية واطار الحريق ومنع حصول تلف وضرر للجهاز، ركب الجهاز كما يلي:
١ الجهة الامامية: يجب ان لا يكون هنالك عوائق ويجب ان تكون المنطقة مفتوحة امام الجهاز.
٢ الجهات الجانبية / العلوية / الخلفية: يجب عدم وضع عوائق في المناطق المبينة بالابعاد في الاسفل.
٣ القاعدة: يجب وضع الجهاز على سطح منبسط. اترك مسافة كافية من اجل التهوية بواسطة وضع الجهاز على حامل بارتفاع ١٠ سم او اكثر.



Thank you for purchasing the JVC Compact Component System.
 We are proud to serve you and we hope this valued addition to your home will give you years of enjoyment.
 Please read this instruction manual carefully before operating your new stereo system.
 For questions that are not answered in the manual, kindly refer to your dealer.

How This Manual Is Organized

In this manual we have incorporated some special features :

- Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditions, which are discussed in the Common Operations section.
- Name of the buttons and controls are written in all capital letters like this: SOUND MODE.
- Illustrations used in this manual are of CA-V908T unless mentioned otherwise.

The manual has a table of contents to help you quickly look up what you want to know. We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your System.

IMPORTANT PRECAUTIONS

1. Installation of the Unit

- Select a place which is level, dry and neither too hot nor too cold. (Between 5°C and 35°C or 41°F and 95°F.)
- Leave sufficient distance between the Unit and a TV.
- Do not use the Unit in a place subject to vibrations.

2. Power cord

- Do not handle the power cord with wet hands!
- Some power (12 watts — CA-V908T, 10 watts — MX-V608T/MX-V688T) is always consumed as long as the power cord is connected to the wall outlet.
- When unplugging the Unit from the wall outlet, always pull the plug, not the power cord.

3. Malfunctions, etc.

- There are no user-serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object into the Unit.

Difference between each model

○ ... equipped × ... not equipped

Function	CA-V908T	MX-V608T/MX-V688T
Dolby Surround	○	×
Display button	×	○

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Accessories

Check that you have all of the following items, which are supplied with the Unit.

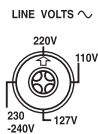
- AM Loop Antenna (1)
- Remote Control (1)
- Batteries (2)
- FM Wire Antenna (1)
- Video cord (1)
- AC Plug Adaptor (except for Hong Kong and the people's republic of China) (1)

If any of these items is missing, contact your dealer immediately.

Setting the Voltage Selector

To avoid damaging the System, set the voltage before plugging in the Unit.

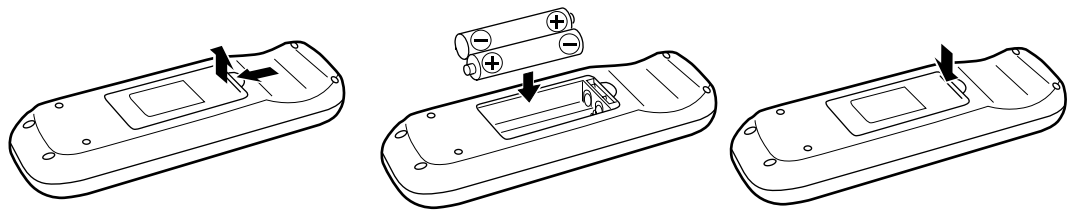
- Set the correct voltage for your area with the Voltage Selector on the back panel of the Unit. Use a screwdriver to rotate the selector so the number the arrow is pointed at is the same as the voltage.



How to Put Batteries in the Remote Control

Match the polarity (+ and -) on the batteries with the + and - markings in the battery compartment.

R6P (SUM-3)/AA (15F)



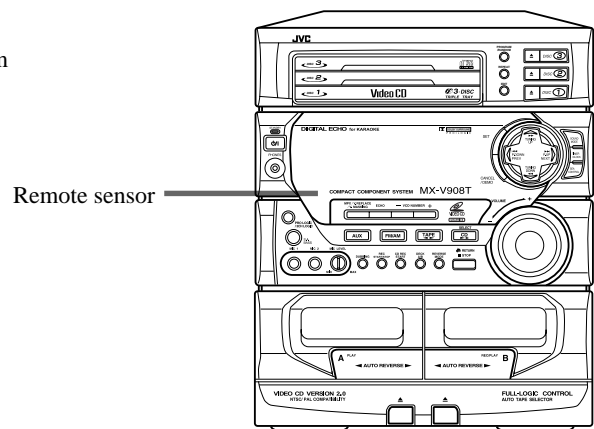
CAUTION: Handle batteries properly.

To avoid battery leakage or explosion:

- Remove batteries when the remote control will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Do not use an old battery with a new one.
- Do not use different types of batteries together.

Using the Remote Control

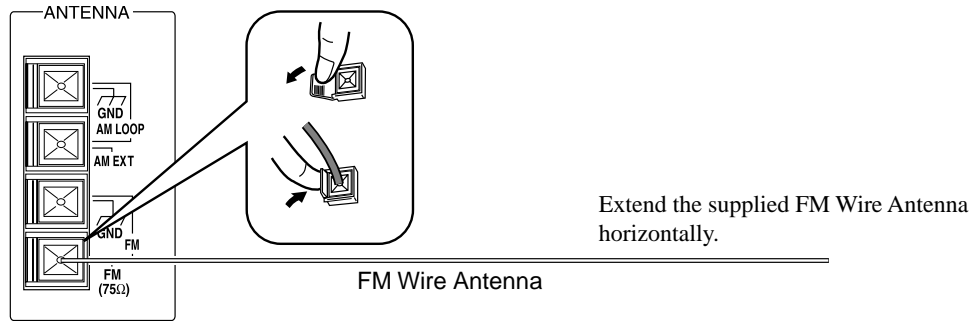
The remote control makes it easy to use many of the functions of the System from a distance of up to 7 m (23 feet) away. You need to point the remote control at the remote sensor on the System's front panel.



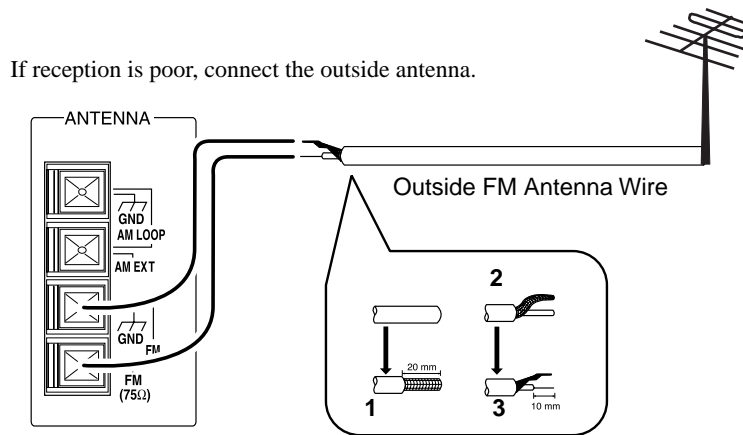
CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the FM Antenna

Using the Supplied Wire Antenna



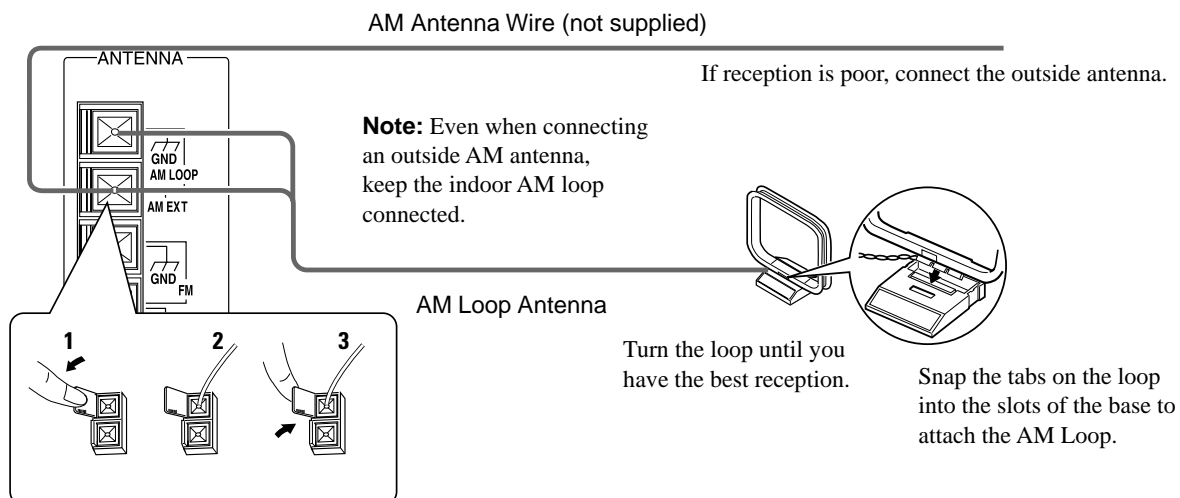
Using an FM 75-Ohm Antenna Cable (not supplied)



Before attaching a 75-ohm coaxial lead (the kind with a round wire going to an outside antenna), disconnect the supplied FM Wire Antenna.

CAUTION: To avoid noise, keep antennas away from metallic parts of the System, connecting cord and the AC power cord.

Connecting the AM Antenna



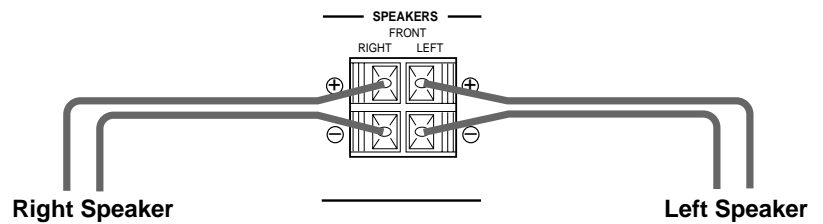
CAUTION: Make all connections before plugging the Unit into an AC power outlet.

Connecting the Front Speakers

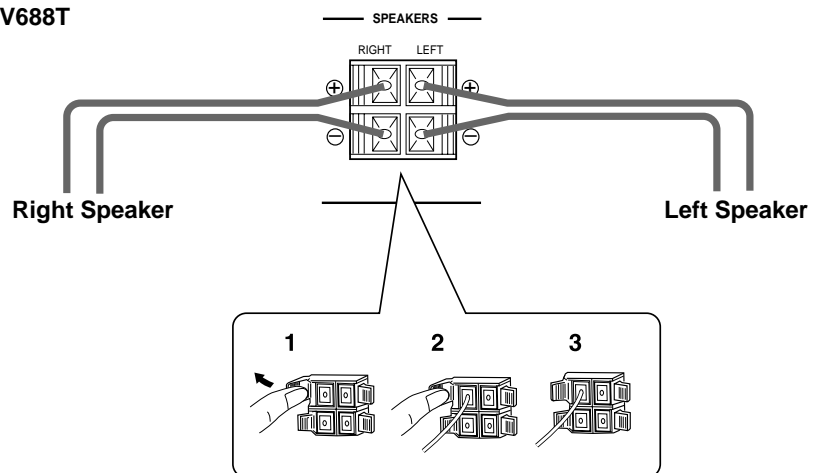
■ Refer to instructions for speakers as well when you connect speakers.

For each speaker, connect the red (+) and black (-) cords to the red (+) and black (-) terminals on the back of the Unit.

CA-V908T



MX-V608T/MX-V688T



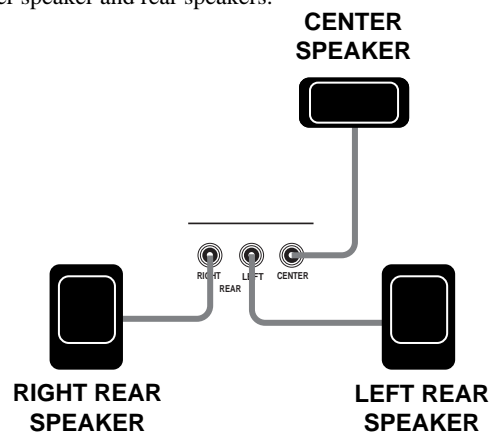
IMPORTANT: Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.

CAUTION: If a TV is installed near the speakers, the TV may display irregular colors. In this case, set the speakers away from the TV.

Connecting the Optional Speakers (CA-V908T)

■ Refer to instructions for speakers as well when you connect speakers.

Connect the optional center speaker and rear speakers.



IMPORTANT: Use speakers with the correct impedance only. The correct impedance is indicated on the back panel.

CAUTION: If a TV is installed near the speakers, the TV may display irregular colors. In this case, set the speakers away from the TV.

Connecting Auxiliary Equipment

VCR or other equipment

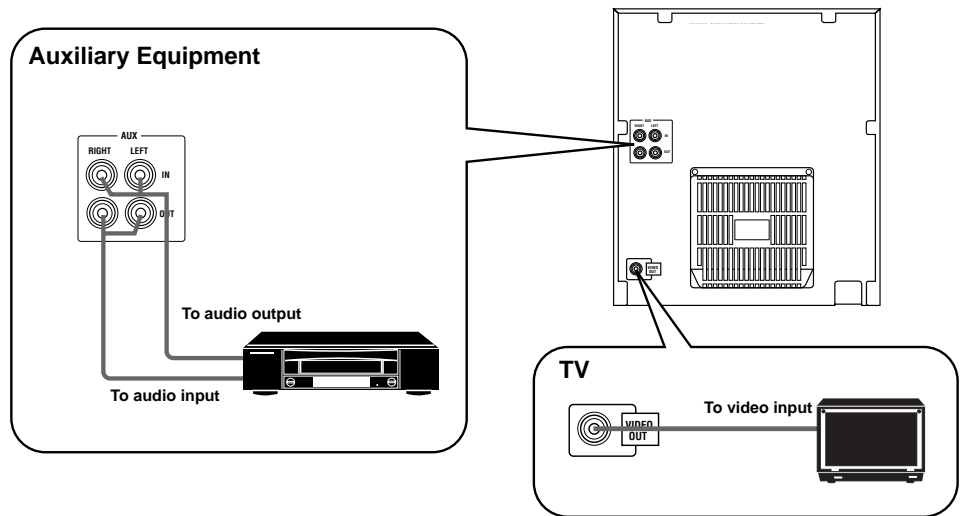
You can connect the following equipment to this System.

- **TV with a video input jack:** used as a monitor of video CD playback.
- **Audio/Video equipment.**

Note :

- Connect the VIDEO OUT jack at the back panel of the System to the video input jack on the TV via the supplied video cord.
- Connect the AUX jacks to the audio input and output of Audio/Video equipment.
- The AUX OUT jacks will transmit audio signals from the selected TAPE, CD or TUNER, to the connected equipment. No audio signal is produced at the AUX IN jacks.

To listen to this source, press AUX.



Now you can plug the AC power cord into the wall outlet, and your System is at your command!

COMPU PLAY



COMPU PLAY is JVC's feature that lets you control the most frequently used functions of the System with a single touch.

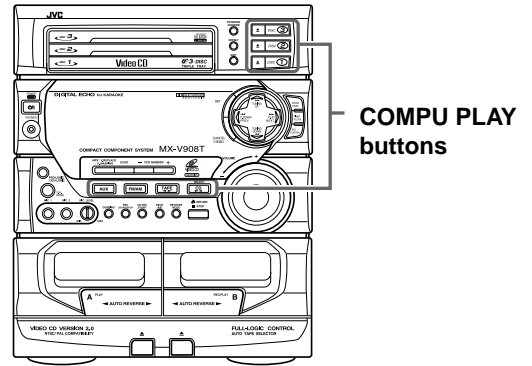
One Touch Operation starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have specified. If the Unit is not ready, such as no CD or tape in place, the Unit still powers on so you can insert a CD or tape.

How One Touch Operation works in each case is explained in the section dealing with that function.

The COMPU PLAY buttons are:

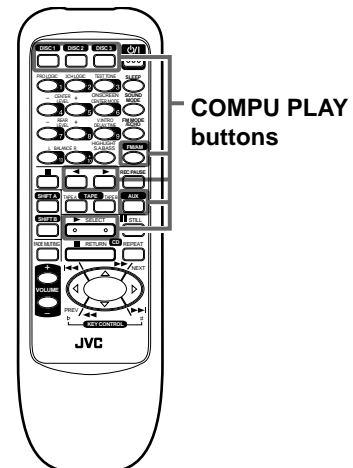
On the Unit

- CD Player DISC 1 to DISC 3 buttons
- CD Player ▲ (Open/Close) buttons
- CD ►/|| button
- TAPE ◀▶ button
- FM/AM button
- AUX button

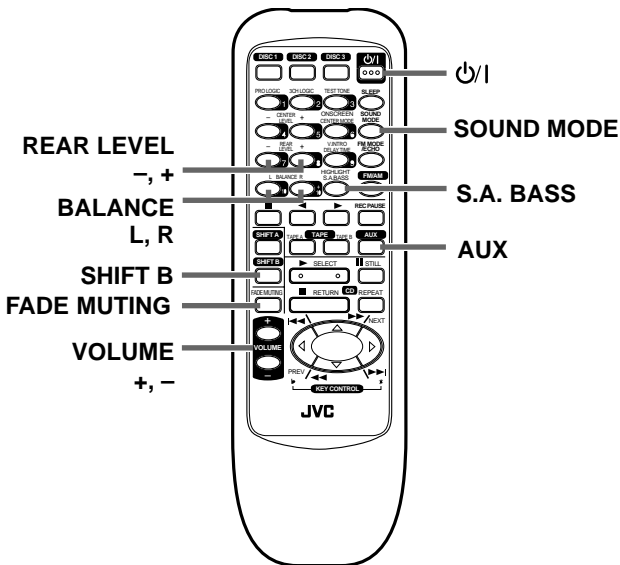
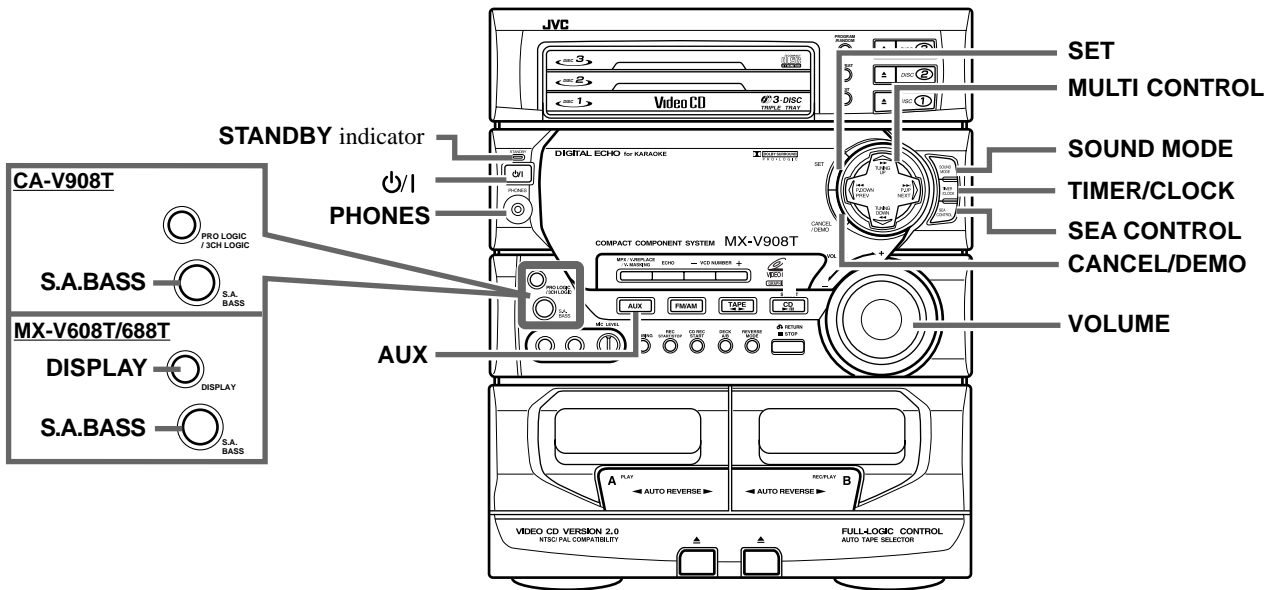


On the remote control

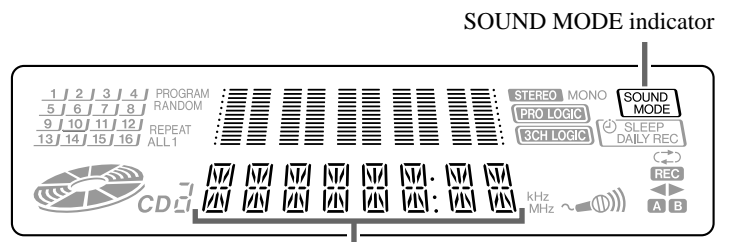
- FM/AM button
- DISC 1 to DISC 3 buttons
- AUX button
- ◀ or ▶ button on the Cassette Deck control section
- ▶ button on the CD Player control section



Common Operations



Display



Source, Sound Mode Volume level etc.

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Demo Mode

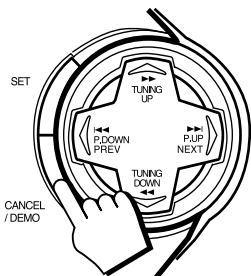
When the System is connected to an AC power outlet, a Demo automatically starts showing some of the System's features.

The Demo display cycles through the following items repeatedly.

- Scrolling display of "DEMO MODE START".
- Demo of PRO LOGIC and 3CH LOGIC (CA-V908T).
- Demo of Sound Modes.
- Demo of S.A. BASS.
- Demo of continuous play from DISC 1 to DISC 3.

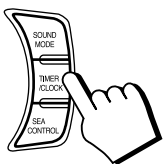
To turn the Demo off, press any of the operation buttons. "DEMO OFF" appears on the display and the Demo automatically stops.

To turn the Demo on, press CANCEL/DEMO for more than 2 seconds.



Setting the Clock

1



Before operating the unit, set the correct time.
You can set the clock whether the Unit is on or off.

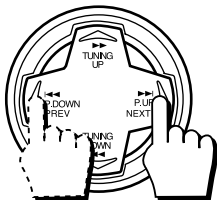
1. Press TIMER/CLOCK.

The hour digit begins flashing.



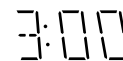
Flashing

2, 4



2. Press ◀◀ or ▶▶ on the MULTI CONTROL to set the hours.

Press ▶▶ to increase the hour. Press ◀◀ to decrease the hour.
Holding down continuously changes the hour setting more rapidly.



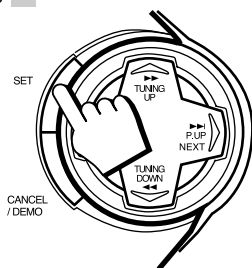
3. Press SET.

The minute digits begin flashing.



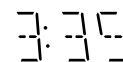
Flashing

3, 5



4. Press ◀◀ or ▶▶ on the MULTI CONTROL to set the minutes.

Press ▶▶ to increase the minutes. Press ◀◀ to decrease the minutes.
Holding down continuously changes the minute setting more rapidly.



5. Press SET.

“CLOCK OK” appears on the display.

The clock stops flashing, and the clock timer starts from 0 second.



- If the clock is not set, “0:00” will flash instead of the clock indication.
- When the time has been set, TIMER/CLOCK can be used to operate the Daily Timer and Recording Timer.
- To adjust the time once the clock has been set, press TIMER/CLOCK 5 times and follow the procedure above.

CAUTION: If there is a power failure, the clock loses its setting. The display shows “0:00”, and the clock must be reset.

Turning the Power On and Off

Turning the System On

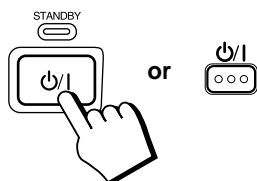
Press .

“WELCOME” appears on the display and the STANDBY indicator goes out.



The System comes on ready to continue in the mode it was in when the power was last turned off.

- If the last thing you were doing was listening to a tape in Deck B, you are now ready to listen to a tape again in Deck B, or you can change to another source.
- If you were listening to the Tuner last, the Tuner comes on playing the station it was last set to.



Turning the System Off

Press again.

“GOOD BYE” appears on the display for a while and the STANDBY indicator lights up. The clock time appears on the display.



- Some power (12 watts — CA-V908T, 10 watts — MX-V608T/MX-V688T) is always consumed even though the power is on standby.
- To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will be reset to 0:00 immediately, and preset Tuner stations will be erased in a few days.

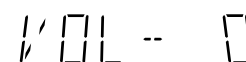
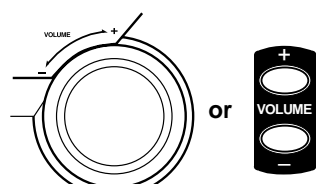
Adjusting the Volume

Turn VOLUME clockwise to increase the volume or counterclockwise to decrease it.

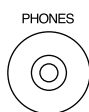
Turning VOLUME quickly also adjusts the volume level quickly.

When using the remote control, press VOLUME + to increase the volume or press VOLUME – to decrease it.

You can adjust the volume level between 0 and 50.

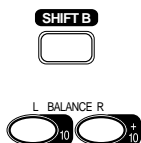


CAUTION: The Volume cannot be adjusted while the Unit is on STANDBY. DO NOT turn on the Unit and/or start playing any source without setting the VOLUME control to 0; otherwise, the sudden blast of sound can damage your hearing, speakers and/or headphones.



For private listening

Connect a pair of headphones to the PHONES jack. No sound comes out of the front speakers. Be sure to turn down the volume before connecting or putting on headphones.



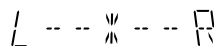
Balance Adjustment

You can use the remote control to adjust the left and right balance of the speakers.

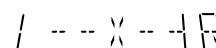
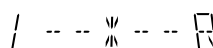
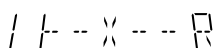
1. Press and hold SHIFT B.

2. Press BALANCE L (10) or R (+10).

The display changes to show the balance adjustment.



Pressing L (10) moves the pointer to the left, pressing R (+10) moves the pointer to the right.



Display when set for no sound from the right speaker.

Display at the center position.

Display when set for no sound from the left speaker.

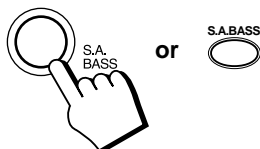
■ The balance is normally set to the center position.

Note: If no adjustments are made for 2 seconds, the display reverts to the previous display.

3. Release SHIFT B.

Reinforcing the Bass Sound

S.A. (Signal Adaptive) BASS adjusts low tones at low volume to enhance their effect. When the volume level is low, this enhances low tones that are normally difficult to hear and adjusts low tones to a fixed level to reduce low tone distortion.



Press S.A. BASS.

Each time you press the button, the bass setting changes as follows:

→ SA-BASS1 → SA-BASS2 → OFF → (back to the beginning)

The S.A. BASS indicator lights up, and “SA-BASS1” or “SA-BASS2” appears on the display for 3 seconds.

■ SA-BASS2 enhances low tones more than SA-BASS1.

To cancel the effect, press S.A. BASS until “OFF” appears on the display. The button light goes out.

To recall the previous S.A. BASS mode, press S.A. BASS once.

■ When listening to recording with low volume low tones, the difference between SA-BASS1 and SA-BASS2 is clear. When listening to recording with louder low tones, however, the difference between SA-BASS1 and SA-BASS2 may not be so clear.

Muting Sounds



Press FADE MUTING on the remote control to turn down the volume.

To restore the previous volume level, press the button again.

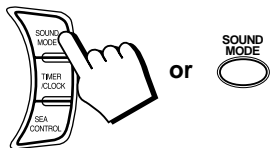
You can also increase the volume by using VOLUME on the Unit or VOLUME + on the remote control.

Sound Modes

The System has some preset sound effects that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is to try them yourself.

You can also create up to three of your own customized S.E.A. (Sound Effect Amplifier) settings and store them in the Unit's memory (MANUAL 1, MANUAL 2 and MANUAL 3).

- The preset sound modes include modes using surround effects and modes using S.E.A. effects.
- Sound Mode effects cannot be recorded.



To get an effect, press SOUND MODE repeatedly until the Sound Mode you want appears on the display. The Sound Mode selected will appear on the display for three seconds. When a surround effect mode is selected, the frame around the SOUND MODE indicator will light up. When an S.E.A. effect mode is selected, the SOUND MODE indicator will light up.

Each time you press SOUND MODE, the Sound Mode changes as follows:

→ D. CLUB → HALL → STADIUM → ROCK → POP → CLASSIC → MANUAL 1 → MANUAL 2 → MANUAL 3 → OFF → (back to the beginning)

Surround effect modes

- | | | |
|-----------------------------|---|--|
| D. CLUB (Dance Club) | Increases resonance and bass. | |
| HALL | Adds depth and brilliance to the sound, like in a concert hall. | |
| STADIUM | Adds clarity and spreads the sound, like in an outdoor stadium. | |

S.E.A. effect modes

- | | | |
|----------------|--|--|
| ROCK | Boosts low and high frequencies. | |
| POP | Good for vocal music. | |
| CLASSIC | Set for wide and dynamic sound stereo systems. | |

To cancel an effect, press SOUND MODE until "OFF" appears on the display. The SOUND MODE indicator goes out.

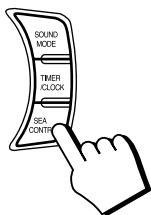
To recall the previous Sound Mode, press SOUND MODE once.

Customizing a Sound Mode

You can change an existing sound mode to suit your own preferences. These changed settings can be stored in the Unit's sound mode memory.

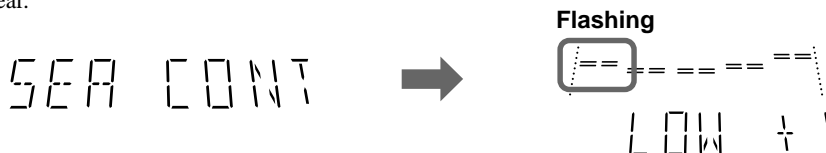
1. Select the Sound Mode you want to change.

If you select D. CLUB, HALL, or STADIUM, the surround effect remains unchanged, but you can adjust the S.E.A. effect.



2. Press SEA CONTROL.

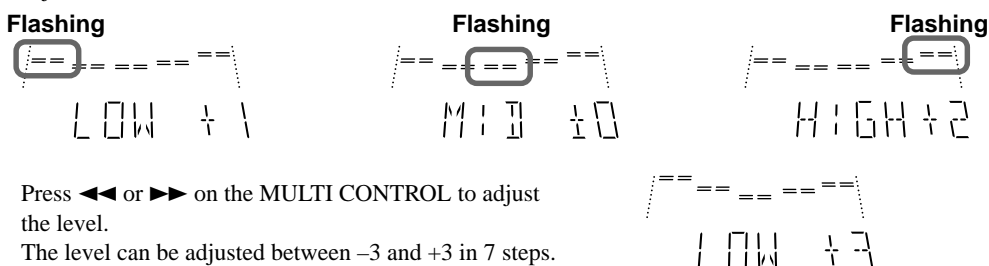
The low tone section of the tone equalizer flashes. Once "SEA CONT" appears, the low tone levels will appear.



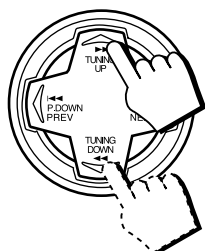
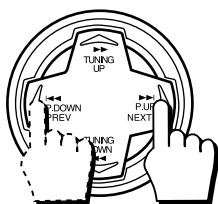
Note: If no adjustments are made for 10 seconds after SEA CONTROL is pressed, Sound Mode will appear on the display then revert to the previous display.

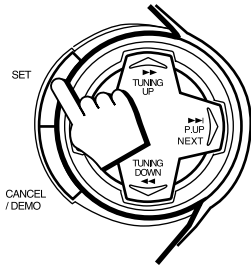
3. Use MULTI CONTROL to adjust to any Sound Mode desired.

Press ◀◀ or ▶▶ on the MULTI CONTROL to select the tone range you want to adjust. You can adjust "LOW," "MID" or "HIGH" tone.



Press ◀◀ or ▶▶ on the MULTI CONTROL to adjust the level.
The level can be adjusted between -3 and +3 in 7 steps.





4. Press SET.

“MANUAL 1” appears on the display.

MANUAL 1

5. Press ◀◀ or ▶▶ on the MULTI CONTROL to select the MANUAL number for the memory.

6. Press SET again.

“MEMORY” appears for 2 seconds.

MEMORY

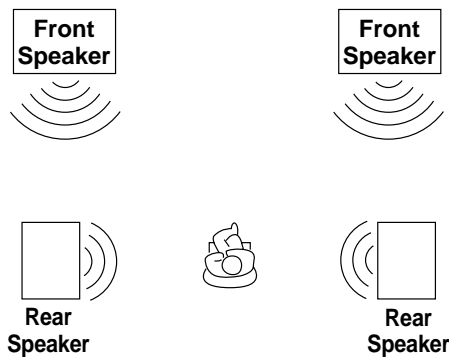
The setting that has been created is stored in the memory.

- The adjustment you have made will apply to the sound you hear.
- If you store new settings to a memory number that has already been used, the new settings replace the existing setting.

When Rear Speakers are Connected (CA-V908T)

If the optional rear speakers are connected, you can use the rear speakers to enjoy Surround effects when a Surround effect (D. CLUB, HALL, STADIUM, or a MANUAL setting based on one of these) Sound Mode is selected.

- The rear speakers cannot be used when an S.E.A. effect (ROCK, POP or CLASSIC) is selected.



Adjusting the Rear Speaker Level

You can use the steps below to adjust the rear speaker level.

1. Select a Surround effect Sound Mode.

2. Start playback from the desired source.

3. Press and hold SHIFT B on the remote control.

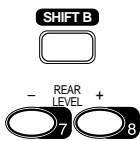
4. Press REAR LEVEL + (8) or - (7) on the remote control to adjust the rear speaker level.

Each time you press the button, the level changes by one step.

- You can set the level between -10 and +10 in 21 steps.
- The rear speaker level changes equally for both left and right. You cannot adjust the left and right balance for the rear speakers independently.
- You can adjust the rear speaker level for each of the Surround effect modes.

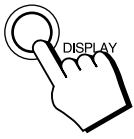
REAR ± 0

5. Release SHIFT B.



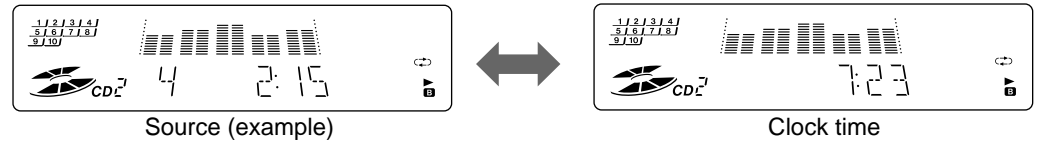
Changing the Display (MX-V608T/MX-V688T)

The display normally indicates each source, but it can be switched to the clock time.



Press DISPLAY.

Each time you press the button, the source and the clock time are shown alternately on the display.



- The clock indication can be interchanged with the source indication using the Unit or remote control.
- The clock indication may change to source indication depending on the operation of the Unit.

Listening to Auxiliary Equipment

By playing the sound from auxiliary equipment through the System, you can gain control over how the music or program sounds. Once the connected equipment is playing through the System, you can apply the sound effects.



or



- First make sure that the auxiliary equipment is properly connected to the System. (See page 6).

1. Turn down the volume level to 0.

2. Press AUX.

“AUX” appears on the display. The AUX button on the Unit lights up.

AUX

COMPU PLAY

When AUX is pressed while the power is on standby, the power is automatically turned on.

3. Start playing the equipment.

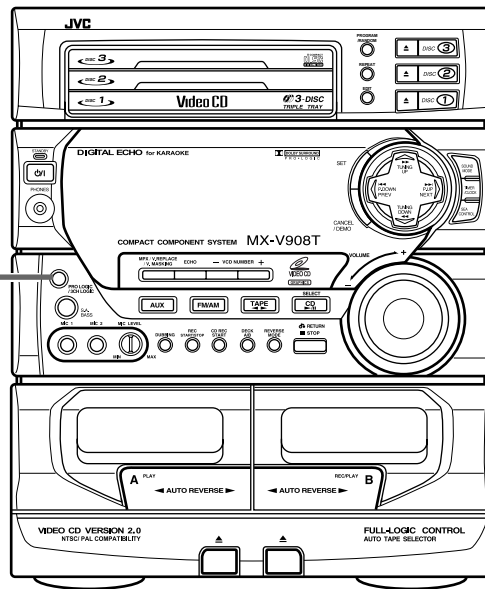
4. Adjust the volume level to the desired listening level.

5. Select a Sound Mode, if you wish.

To cancel the setting

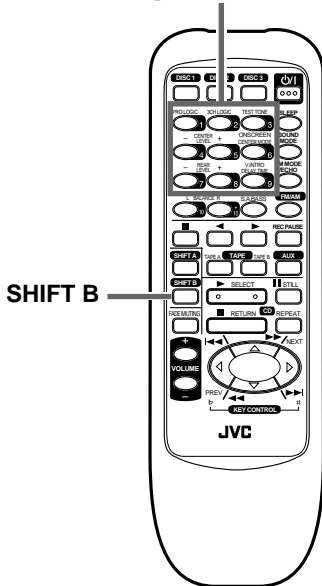
Change the source by starting any one of the System's built-in sound sources, such as the Tuner or CD Player.

Dolby Surround (CA-V908T)



PRO LOGIC
/ 3CH LOGIC

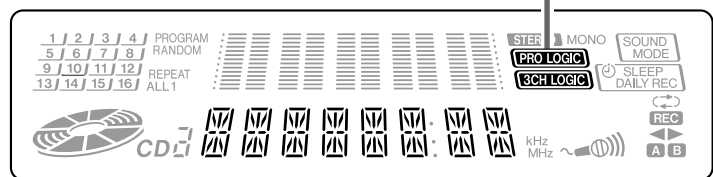
Operation buttons



SHIFT B

Display

Dolby Surround indicator




When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Accessing the Dolby Surround Functions

Press the operation keys with green labels on the remote control to use the Dolby Surround functions.

To use the function marked in green, press the desired operation buttons while pressing down SHIFT B.

The Dolby Surround has been also developed to reproduce the important elements of the acoustic surround at home. To watch the sound tracks of video software bearing the mark  which includes the same encoded surround information as found in Dolby Stereo film, the Unit can provide you with two Dolby Surround programs (Dolby Pro Logic and Dolby 3ch Logic).

Dolby Pro Logic: Select this mode when the optional rear speakers are connected.

Dolby 3ch Logic: Select this mode when no rear speakers are connected.

Manufactured under license from Dolby Laboratories Licensing Corporation.
DOLBY, the double-D symbol and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

■ You need to connect the optional center speaker and rear speakers to use the Dolby Surround functions.

Preparing the Dolby Surround

To use the Dolby Surround, you need to prepare the various settings. These settings are set using the remote control. The Dolby Surround settings are:

Center Speaker Mode

Center Speaker mode contains the following four settings.

- PHANTOM:** Select this setting if you have not connected a center speaker. The left and right front speakers project the sound to give the effect of a center speaker. (PRO LOGIC only)
- NORMAL:** Select this setting if you are using a small center speaker. Since the center speaker cannot boost the low tones effectively, this setting uses the front speakers to boost the low tones from the center speaker.
- WIDE:** Select this setting if you are using a center speaker that is similar in power to the front speakers.
- OFF:** Select this setting to turn off the output for the center speaker.

Delay Time Mode

Delay Time mode contains the following four settings.

- DELAY 1:** Select this setting if the rear speakers are further away from your listening position than the front speakers. (Delay time: 15 msec.)
- DELAY 2:** Select this setting if the rear speakers and front speakers are about the same distance way from your listening position. (Delay time: 20 msec.)
- DELAY 3:** Select this setting if the rear speakers are nearer to your listening position than the front speakers. (Delay time: 25 msec.)
- DELAY 4:** Select this setting if the rear speakers are very close to your listening position compared to the front speakers. (Delay time: 30 msec.)

Adjusting the level of the Center Speaker

Adjust the level of the center speaker between +10 and -10. Set the level so that it is about the same as the level from the front speakers.

Adjusting the level of the Rear Speakers (for PRO LOGIC only)

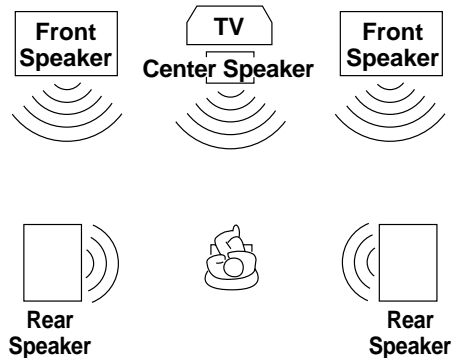
Adjust the level of the rear speakers between +10 and -10. Set the level so that it is about the same as the level from the front speakers.

- You cannot adjust the levels of the left and right rear speakers independently.

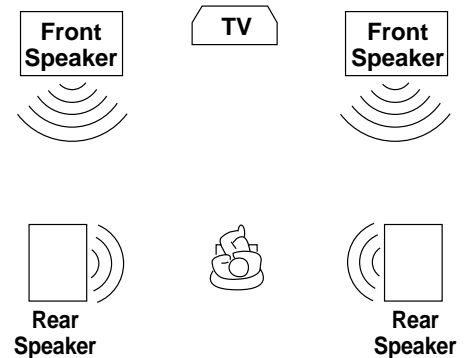
Getting Ready to Use Dolby Pro Logic

Speaker Arrangements for Dolby Pro Logic

Layout when using the center speaker and rear speakers



Layout when using the rear speakers



Setting-up Dolby Pro Logic

Perform the steps below using the buttons on the remote control.



1. Press and hold SHIFT B during following procedures.



2. Press PRO LOGIC (1).

When using the Unit, press PRO LOGIC/3CH LOGIC to select PRO LOGIC (1).



Each time you press the button, Dolby Surround programs change as follows:

→ PRO LOGIC → 3CH LOGIC → (previous sound mode) → (back to the beginning)

- When you select Dolby Surround, Sound Mode (see page 11) is canceled.



3. Select the desired Center Speaker mode.

Press CENTER MODE (6).

Each time you press the button, Center Speaker modes change as follows:

→ NORMAL → WIDE → OFF → PHANTOM → (back to the beginning)



4. Select the Delay time.

Press DELAY TIME (9). Each time you press the button, Delay time changes as follows:

→ DELAY 2 → DELAY 3 → DELAY 4 → DELAY 1 → (back to the beginning)



5. Set the volume to the level you like.

6. Press TEST TONE (3).

A test tone comes out of the speakers in the following order:

→ LEFT → CENTER → RIGHT → REAR → (back to the beginning)

- When a test tone comes out of the rear speakers, "SURROUND" appears on the display.
- When "PHANTOM" or "OFF" is selected for Center Speaker mode, no test tone comes out of the center speaker.



7. Adjust the level for the center speaker.

Press CENTER LEVEL + (5) or - (4). Set the level so that it is about the same as the level from the front speakers.

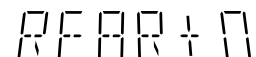


- You cannot adjust the level for the center speaker if "PHANTOM" or "OFF" is selected for Center Speaker mode.



8. Adjust the level for the rear speakers.

Press REAR LEVEL + (8) or - (7). Set the level so that it is about the same as the level from the front speakers.



9. Press TEST TONE (3) again.

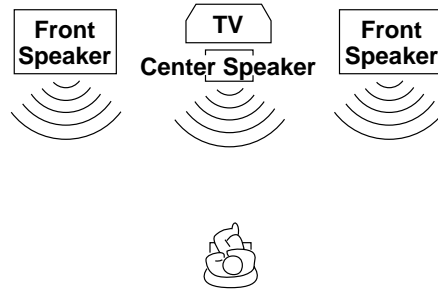
Test Tone mode is canceled.

This completes the preparations required for using Dolby Pro Logic.

10. Release SHIFT B.

Getting Ready to Use Dolby 3 Channel Logic

Speaker Arrangements for Dolby 3 Channel Logic



Setting-up Dolby 3ch Logic

Perform the steps below using the buttons on the remote control.



1. Press and hold **SHIFT B** during following procedures.



2. Press **3CH LOGIC (2)**.

When using the Unit, press PRO LOGIC/3CH LOGIC to select 3CH LOGIC (2).



Each time you press the button, Dolby Surround programs change as follows:

→ **PRO LOGIC** → **3CH LOGIC** → (previous sound mode) → (back to the beginning)

- When you select Dolby Surround, Sound Mode (see page 11) is canceled.



3. Select the desired **Center Speaker mode**.

Press **CENTER MODE (6)**. Each time you press the button, Center Speaker modes change as follows:

→ **NORMAL** → **WIDE** → **OFF** → (back to the beginning)

4. Set the volume to the level you like.



5. Press **TEST TONE (3)**.

A test tone comes out of the speakers in the following order:

- When “OFF” is selected for Center Speaker mode, no test tone comes out of the center speaker.

→ **LEFT** → **CENTER** → **RIGHT** → (back to the beginning)



6. Adjust the level for the center speaker.

Press **CENTER LEVEL + (5)** or **- (4)**. Set the level so that it is about the same as the level from the front speakers.



- You cannot adjust the level for the center speaker if “OFF” is selected for Center Speaker mode.



7. Press **TEST TONE (3)** again.

Test Tone mode is canceled.

This completes the preparations required for using Dolby 3 Channel Logic.

- You cannot adjust the Delay Time or rear speaker levels in Dolby 3 Channel Logic mode.

8. Release **SHIFT B**.

Using Dolby Surround



1. Press **PRO LOGIC/3CH LOGIC** and select the desired mode.

If you are using the remote control, press PRO LOGIC (1) or 3CH LOGIC (2) while pressing SHIFT B. Make sure that the center speaker and rear speakers have been set up correctly.

or

2. Playback as source with the  **[DOLBY SURROUND]** mark.

Enjoy the great sound achieved through Dolby Surround.



+



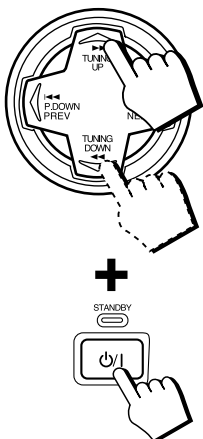
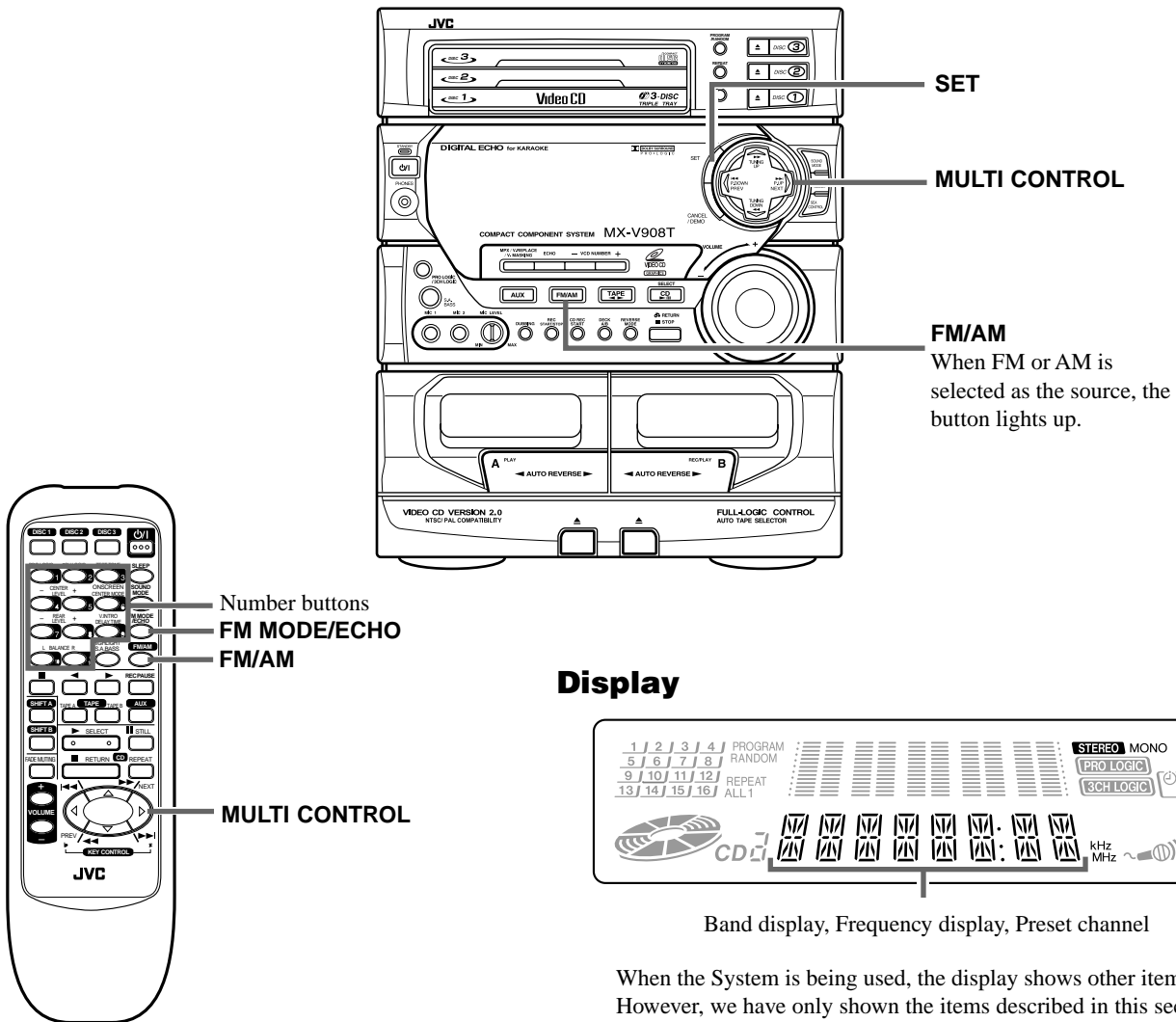
To cancel Dolby Surround

Press PRO LOGIC/3CH LOGIC until the Dolby Surround indicator goes out. If you are using the remote control, press the Dolby Surround buttons (PRO LOGIC (1) or 3CH LOGIC (2)) while pressing SHIFT B.

or



Using the Tuner



You can listen to both FM and AM stations. Stations can be tuned in manually, automatically, or from preset memory storage.

■ Before listening to the radio:

- Check that both the FM and AM antennas are firmly connected. (See page 4.)

Setting the AM Tuner Interval Spacing

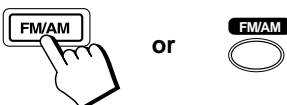
Some countries space AM stations 9 kHz apart, and some countries use 10 kHz spacing. Europe, the U.K., Australia, and some other areas use 9 kHz spacing, while Canada, the United States, and some other Western Hemisphere countries use 10 kHz spacing.

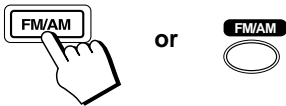
- To select the 10 kHz interval, be sure that the Unit is in STANDBY mode. Turn on by pressing while holding down TUNING UP on the MULTI CONTROL. "AM --10" appears on the display.
- To select the 9 kHz interval, be sure that the Unit is in STANDBY mode. Turn on by pressing while holding down TUNING DOWN on the MULTI CONTROL. "AM -- 9" appears on the display.

Tuning in a Station

Press FM/AM to turn on the radio.

The frequency of the previously selected channel appears on the display.





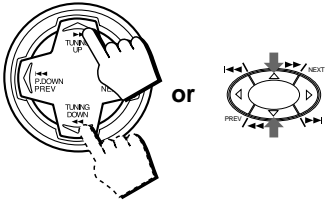
Switching between Frequency Bands

Press FM/AM.

Each time you press the button, the band alternates between FM and AM.

COMPU PLAY

When FM/AM is pressed while the power is on standby, the power is automatically turned on.



Three Ways to Select a Station

■ Press TUNING DOWN or TUNING UP on the MULTI CONTROL repeatedly to move from frequency to frequency until you find the one you want. (Manual Tuning).

OR

■ Press and hold TUNING DOWN or TUNING UP on the MULTI CONTROL for a few seconds, the frequency starts changing on the display. When a station is tuned in, the frequency stops changing. (Auto Tuning).

OR

■ Possible only after presetting stations.

Press once and release P. DOWN or P. UP on the MULTI CONTROL to go to the next preset station.

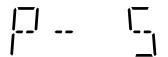
You can also use the remote control to tune in preset channels:

1. Press FM/AM so that you can receive the last station tuned in.

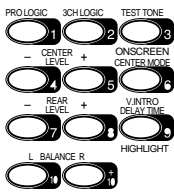
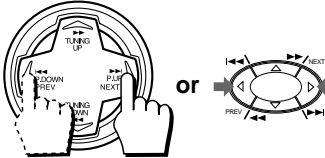
2. Select the station by entering the preset number in the number keys of the remote control.

- Example: for channel 5, press 5. For channel 15, press +10 then 5.

For channel 20, press +10, then 10. For channel 30, press +10 twice then 10.



- After you have selected the preset number and the number appears, the broadcast frequency of the selected channel appears on the display.



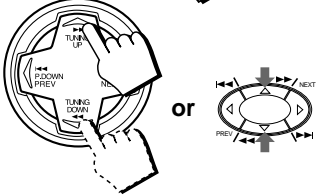
Presetting Stations

You can preset up to 30 FM stations and up to 15 AM stations for the preset numbers.

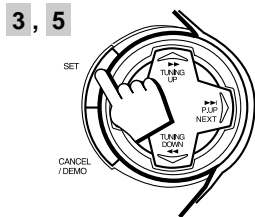
Note: In some cases, test frequencies have been already memorized for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.



1. Select a band by pressing FM/AM on the Unit.



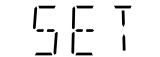
2. Press TUNING DOWN or TUNING UP on the MULTI CONTROL to tune into a station.



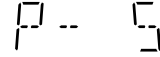
3. Press SET.

“SET” flashes for 5 seconds.

While it is still flashing, carry out the following procedure.



4. Press P. DOWN or P. UP on the MULTI CONTROL on the Unit to set the preset number.

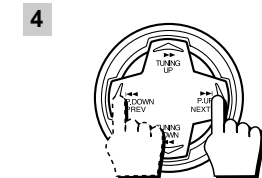


5. Press SET again.

“STORED” appears for 2 seconds. The preset station is stored in the memory.



6. Repeat steps 1 to 5 for each station you want to store in memory using different preset numbers.



CAUTION: If the Unit is unplugged or if a power failure occurs, the preset stations will be erased in a few days. If this happens, preset the station again.

Changing the FM Reception Mode

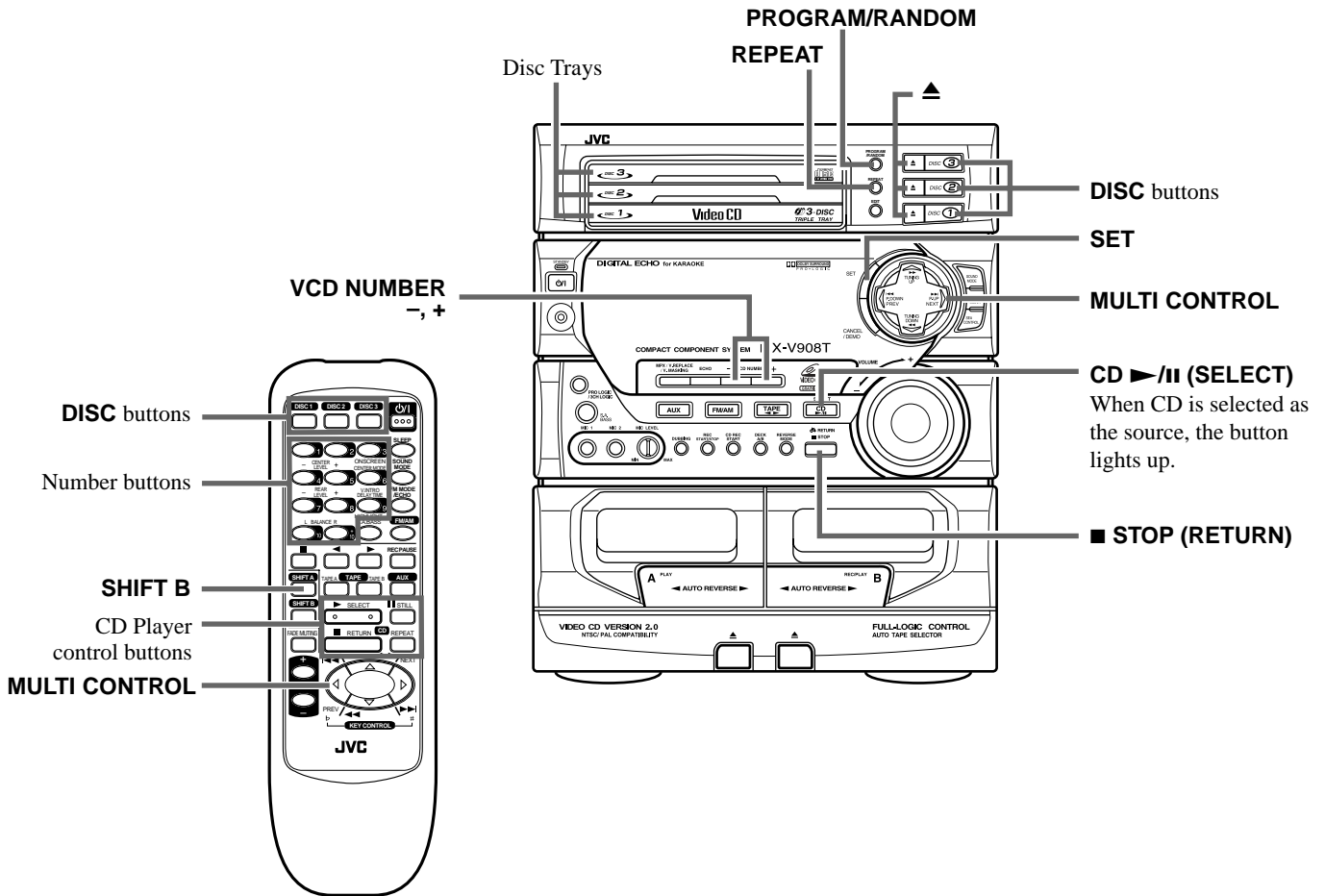


When an FM stereo broadcast is hard to receive or noisy, press FM MODE/ECHO on the remote control so that the MONO indicator lights up on the display. Reception improves, but there is no stereo effect.

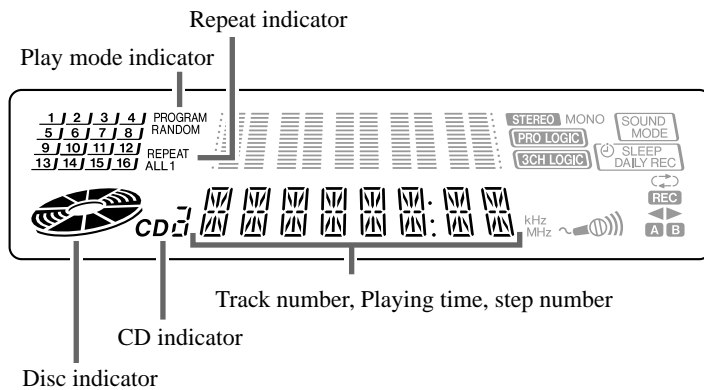
To restore the stereo effect, press FM MODE/ECHO on the remote control so that the MONO indicator goes out. In this stereo mode, the STEREO indicator lights up and you can hear stereo effects, when a program is broadcast in stereo.

Note: When the tuner is selected as the source, you can change the FM reception mode using FM MODE/ECHO.

Using the CD Player



Display



Disc indicator

Flashes while a CD is playing.
Is lit when a CD has stopped or is paused.

CD indicator

Indicates the number of the disc selected.

When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.



PlayBack Control

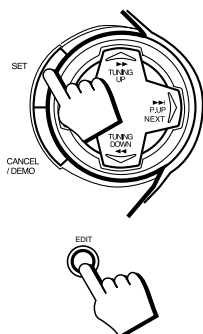


Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

The CD Player can play the following compact discs :

- **Video CD:** for audio and video (moving picture) reproduction, including multiplex sound.
- **Video CD with Playback Control function:** featuring menu-type operation and super fine still pictures for audio and video (moving picture) reproduction, including multiplex sound.
- **CD-G (CD Graphics):** for audio and video (still picture) reproduction, including multiplex sound.
- **Audio CD, including single discs:** for audio reproduction.

Selecting Video Out



To play back images correctly on your TV, select the video out according to your TV system. Select the proper video out using the buttons on the Unit before you play a disc.

1. Press and hold SET.

2. Press EDIT repeatedly until the TV system of your TV appears on the display.

Each time you press the button, the video out changes as follows:
 → NTSC → PAL → PAL AUTO → (back to the beginning)

NTSC for NTSC exclusive TV.

PAL for PAL exclusive TV.

PAL AUTO for Multisystem TV.

PAL AUTO detects the formula of the disc (NTSC/PAL) automatically and plays the image on the screen correctly.

3. Release SET.

Note :

- Select the video output mode before you play the disc. If you change the mode during play, images may get distorted. In this situation, stop the player and select the mode again.
- When you play an NTSC disc in PAL AUTO mode on a PAL exclusive TV, the image may be distorted. If this happens, change the mode to PAL.
- When you play an NTSC disc in PAL AUTO mode on a Multisystem TV, the image may blink for a moment. This symptom is caused by the Unit detecting the formula of the disc, not by a malfunction of the Unit.

Loading CDs

1. Press ▲ on the CD Player you want to insert the disc onto.

“OPEN” appears on the display and the disc tray slides out.

OPEN

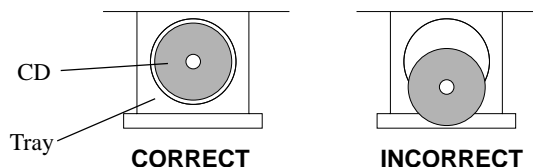


COMPU PLAY

When ▲ is pressed while the power is on standby, the power is automatically turned on.

2. Place a CD, with its label side up, onto the tray.

ATTENTION: To avoid malfunctions when you play a CD, set the CD in the right place at the center of the tray.



3. Press ▲ to close the tray.

“CLOSE” appears on the display.

CLOSE

4. Repeat steps 1 to 3 to insert other discs onto the other trays.

- To continue putting discs onto other trays, even if a tray is open, by pressing the ▲ button of another disc tray, the open tray will close automatically, and the new disc tray will slide out.

- When you place a CD onto the currently selected tray, whose disc number shown on the CD indicator, reading of the CD starts. After the reading is completed, the total number of tracks and total playing time will appear, and then the playing time of the first track.

1150 -- 1 → 14 67:44 → 1 5:40

Reading now (flashing)

Total number of tracks
and playing time

Playing time of the 1st
track

- If you place a video CD, “VIDEO CD” will appear before the playing time of the first track. If the video CD has the Playback Control function, “PBC” will appear.

- To put an 8 cm CD onto a tray, insert it so that it is aligned with the groove in the tray’s center.

- If a tray is open when the System switches to the standby mode, the tray will close automatically.

Playing a Video CD or CD-G

You can play video CDs either with or without the PBC function as well as CD-Gs.

1. Turn on the TV and select the video input so that you can view the pictures from the CD Player.

Refer also to the manual supplied for your TV.

2. Prepare a CD.

Refer to "Loading CDs" on page 22.

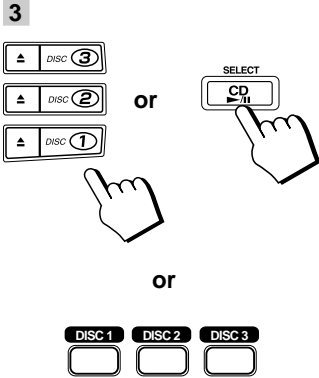
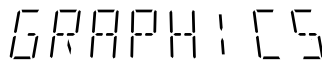
3. Start playback of the CD.

Press CD ►/II (or ► on the CD Player control section on the remote control) to start playback of the currently selected CD, or press DISC 1-3 to select the disc and start play.

When you play a video CD, "VIDEO CD" appears on the display.



When you play a CD-G, "GRAPHICS" appears on the display.

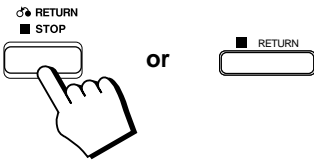


COMPU PLAY

When CD ►/II (or ► on the CD Player control section on the remote control) or DISC 1-3 is pressed while the power is on standby, the power is automatically turned on.

To stop during play, press ■ STOP (or ■ on the CD Player control section on the remote control).

To stop play and remove the disc, press ▲ for the disc being played.



Playing Video CDs with PBC Function — Menu Play

This System provides a Playback Control (PBC) function which utilizes a procedure (menu selection) programmed in a video CD. The playback operation procedure may differ depending on the disc you use.

■ For Menu Play, use the following buttons:

On the unit:

- NEXT (▶▶) for viewing the unshown portion of the menu
- PREV (PREVIOUS) (◀◀) for viewing the previously shown portion of the menu
- VCD (Video CD) NUMBER +, - for selecting an item
- SELECT (CD ►/II) for starting playback of the selected item,
- RETURN (■ STOP) for going back to the previous menu

On the remote control:

- NEXT (▶▶) for viewing the unshown portion of the menu
- PREV (PREVIOUS) (◀◀) for viewing the previously shown portion of the menu
- Number buttons for selecting and starting playback of an item
- SELECT (▶) for starting playback of the selected item
- RETURN (■) for going back to the previous menu

1. Turn on the TV and select the video input so that you can view the pictures from the CD Player.

Refer also to the manual supplied for your TV.

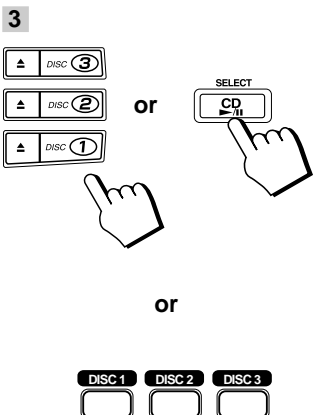
2. Prepare a CD.

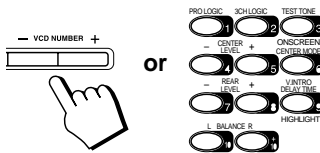
Refer to "Loading CDs" on page 22.

3. Start playback of the CD.

Press SELECT to start play of the currently selected CD, or press DISC 1-3 to select the disc and start play.

"VIDEO CD" and then "PBC" appears on the display.





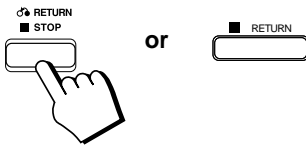
4. Select the item you want to view.

On the Unit:

Press VCD NUMBER + to select larger item numbers, or press VCD NUMBER – to select smaller item numbers. Then press SELECT to start the disc.

On the remote control:

Press the number buttons to select and play the item you want.



To stop the track being played and return to the menu, press RETURN (or RETURN on the remote control).

To stop Menu Play, press and hold RETURN (or RETURN on the remote control) for more than 2 seconds. A blue screen appears on the TV.

To view the unshown portion (continuation) of the menu

If the menu has more than it can show on the TV screen at one time, press NEXT on the MULTI CONTROL to show the remaining items on the TV screen.

To view the previously shown portion of the menu, press PREV on the MULTI CONTROL.

Basic Concept of the PBC function

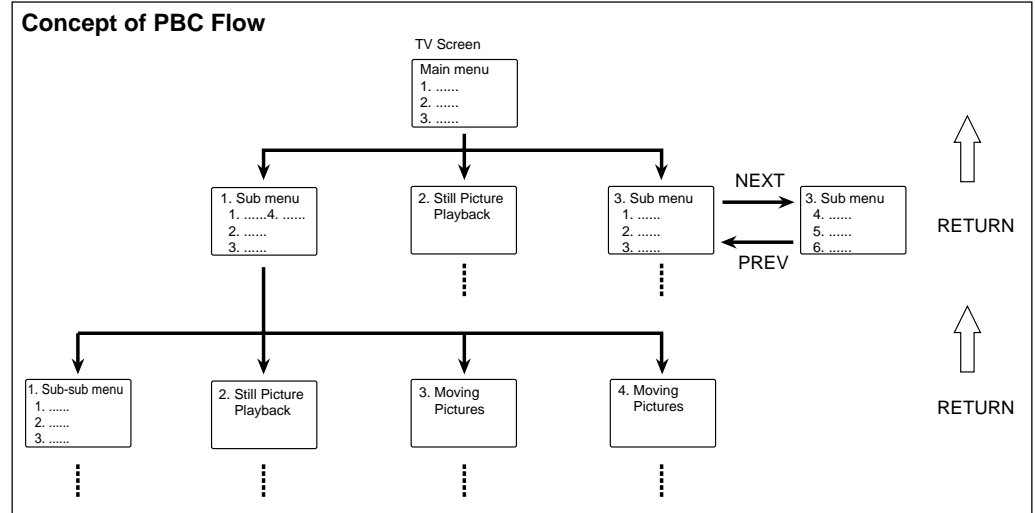
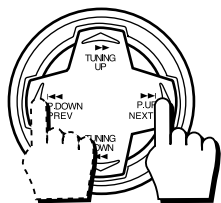
The PBC (Playback Control) function allows you to enjoy menu-driven operation and high resolution still images having a resolution four times greater than video pictures.

■ Menu-driven playback

You can interact with the screen using a menu display to select and play an entry.

■ High-resolution still image display

You can display high-quality images four times clearer than video pictures.



Basic flow of Menu Play operation

A selection menu is shown when you start playing a video CD with the PBC function. The menu shows a list of items to select. Some disc may show moving pictures or a divided screen.

- When a list of items appears, you can select a number of the item you want to play back.
- When moving pictures appear, you can select a moving picture by pressing SELECT while the moving picture you want to view is being played back.
- When the menu appears after the item you have selected finishes playing, you can select another number of the item you want to view next.
- If the video CD has more than 2 pages of menu, you can view the remaining items by pressing NEXT on the MULTI CONTROL,
- After playback, press RETURN (or RETURN on the remote control) to go back to the previous screen. Each time you press the button, you can go back to the previous screen one by one.
- If you want to stop Menu Play, press and hold RETURN (or RETURN on the remote control) for more than 2 seconds, Some discs may return you to the menu screen shown before playback.

Notes:

- When a menu is shown for about 10 minutes, the screen background automatically fades out to prevent screen burn-in while the setting is suspended.

Playing Video CDs with the PBC function without using menu screen — Continuous Play

Even if a video CD has the PBC function, you can cancel the PBC function and play the disc without using menu screen, as if it were without the PBC function.

1. Turn on the TV and select the video input so that you can view the pictures from the CD Player.

Refer also to the manual supplied for your TV.

2. Prepare a CD.

Refer to “Loading CDs” on page 22.

3. Press REPEAT on the unit to select either “REPEAT 1” or “REPEAT ALL.”

4. Start playback of the CD.

On the unit:

Press SELECT or DISC 1-3 of the disc you want to play. The selected video CD starts playback from the first track.

On the remote control:

Press SELECT or DISC 1-3 of the disc you want to play. The selected video CD starts playback from the first track.

OR

Press the number button of the track you want to start playing with. The playback starts from the selected track of the currently selected disc.

To stop during play, press  RETURN (or RETURN on the remote control).

To restore the PBC function, press REPEAT repeatedly until the REPEAT indicator goes out.

Note:

- After canceling the PBC function, you can enjoy Continuous Play of more than one video CD with the PBC function.
- When the PBC function is canceled, some images such as still pictures may not be played back.





Playing an Audio CD



You can play audio CDs using the CD Player.

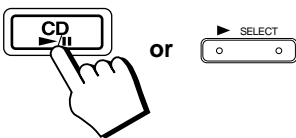
1. Prepare a CD.

Refer to “Loading CDs” on page 22.

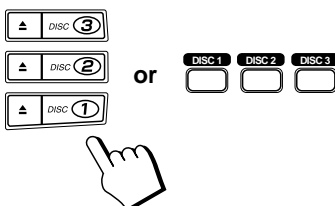
2. Start playback of the CD.

Press CD  (or  on the CD Player control section on the remote control) to start playback of the currently selected CD, or press DISC 1-3 to select the disc and start play.

- When you press CD  (or  on the CD Player control section on the remote control) or DISC 1-3 while the disc tray is open, the tray will automatically close before beginning to play.
- If there is no CD in the disc tray, “NO DISC” appears on the display.



or



Basic Operations for Continuous Play

You can play CD, CD-G, and video CD without the PBC function, in Continuous Play.

Playing order of discs

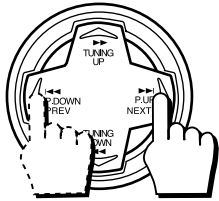
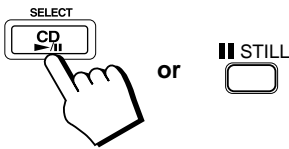
- When playback starts from DISC 1, the playing order is DISC 1 → DISC 2 → DISC 3.
When DISC 3 has finished, the CD Player stops.
- When playback starts from DISC 2, the playing order is DISC 2 → DISC 3 → DISC 1.
When DISC 1 has finished, the CD Player stops.
- When playback starts from DISC 3, the playing order is DISC 3 → DISC 1 → DISC 2.
When DISC 2 has finished, the CD Player stops.
 - If any of the disc trays are empty, the CD Player skips that disc tray and continues through the remaining disc trays in the order shown above. When the last disc has finished playing, the Unit will stop automatically.

Stopping play for a moment

Press CD ►/|| (or || STILL on the remote control).

The playing time will flash. When playing a CD-G or a video CD, you can view a still picture on the TV screen. If you pause a CD-G or a video CD for about 10 minutes, the still picture dims.

To resume play, press CD ►/|| (or ► on the CD Player control section on the remote control) again.



Selecting a Track

Press ◀◀ or ▶▶ on the MULTI CONTROL to select the track.

The selected track starts playing.

- Each time you press ◀◀ or ▶▶ the track changes by one.
Press and hold ◀◀ or ▶▶ to continuously change tracks.

Locating a Track with the Remote Control Directly

Using the number buttons on the remote control allows you to go directly to the beginning of any track.

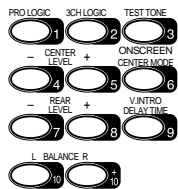
1. Press the DISC 1-3 for the disc tray containing the track you want to listen to.

- Example: for the third disc, press DISC 3.

2. Enter the number of the track you want to listen to with the number buttons.

The selected track starts playing.

- Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10. For track 32, press +10 three times, then 2.



Fast Forward and Reverse

Use ◀◀ or ▶▶ on the MULTI CONTROL.

For Fast Forward, press and hold down ▶▶. For Reverse, press and hold down ◀◀. Release the button when the part you wish to listen to is reached.

Changing Discs While Playing

You can replace a CD in a tray not being used, while another CD is playing.

1. Press ▲ of the tray not being used.

The tray opens.

2. Replace the disc in the tray.

3. Press ▲ to close the tray.

Programming the Playing Order of the Tracks

You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the CD Player.

- You can program up to 32 steps in any desired order from among the discs in the CD Player.
- You can only program the CD Player when it is stopped.

On the Unit



1. Press PROGRAM/RANDOM.

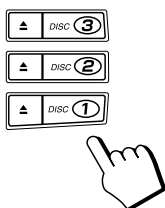
“PROGRAM” appears on the display and the PROGRAM indicator lights up.



If you have already created a program, the last step of the previous program will appear on the display.

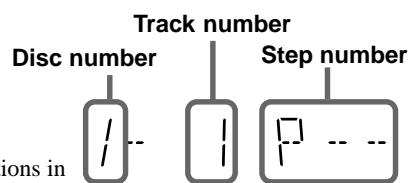
Each time you press the button, play mode changes as follows:

→ PROGRAM → RANDOM → No Play mode indicator (Continuous Play) → (back to the beginning)

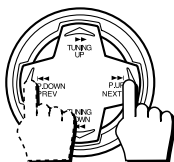


2. Select a disc with DISC 1-3.

The display changes to the Program Entry display and the disc number and track number flash for a few seconds.



- While the indications are flashing, perform the operations in steps 3 and 4. When the flashing indications change to “PROGRAM”, repeat the operations in steps 2 to 4.



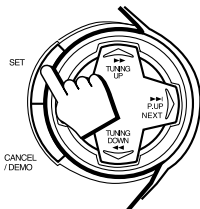
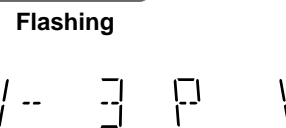
3. Press ◀◀ or ▶▶ on the MULTI CONTROL to select a track for programming.

The disc number and track number starts flashing on the display.



4. Press SET.

The indications on the display stop flashing and remain lit. The step number appears on the display.



5. Repeat steps 2 to 4 to select the other tracks for the program.

To select another track from the same disc, repeat the procedure from steps 3 and 4.

6. Press CD ►/II.

The Unit plays the tracks in the order you have programmed them.

On the remote control



1. Press PROGRAM/RANDOM on the Unit.

“PROGRAM” appears on the display and the PROGRAM indicator lights up.



If you have already created a program, the last step of the previous program will appear on the display unless you have erased the program.

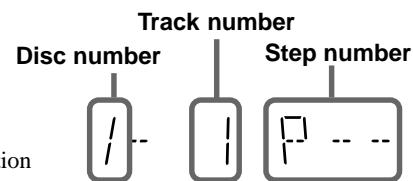
Each time you press the button, play mode changes as follows:

→ PROGRAM → RANDOM → No Play mode indicator (Continuous Play) → (back to the beginning)

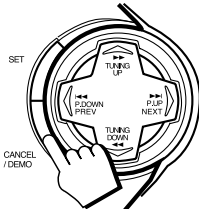
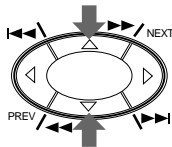
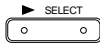
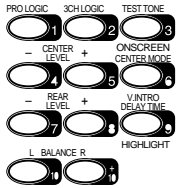


2. Select a disc with DISC 1-3.

The display changes to the Program Entry display and the disc number and track number flash for a few seconds.



- While the indications are flashing, perform the operation in step 3. When the flashing indications change to “PROGRAM”, repeat the operations in steps 2 to 3.



3. Press the number buttons (1 to 10 and +10) to select the tracks.

The indications on the display stop flashing and remains lit.

The selected track numbers light up and the step number appears on the display.

- Example: For track 5, press 5.

For track 15, press +10 then 5.

For track 20, press +10 then 10.

For track 32, press +10 three times, then 2.



4. Repeat steps 2 to 3 to select the other tracks for the program.

5. Press ► on the CD Player control section.

The Unit plays the tracks in the order you have programmed them.

- If you try to program a 33rd track, “FULL” will appear on the display to let you know that the program is full.
- If you try to program a disc tray that is empty, or a track number that does not exist on a disc (for example, selecting track 14 on a disc that only has 12 tracks), the selected disc or track are skipped when the program is played.
- You can skip to a particular program step by pressing ◀◀ or ▶▶ on the MULTI CONTROL during program play.
- To play the programmed tracks repeatedly, press REPEAT. For details, refer to “Repeating a Track or the Discs” on page 29.

To stop playing, press ■ STOP (or ■ on the CD Player control section on the remote control) once.

To delete all the tracks in a program, press ■ STOP (or ■ on the CD Player control section on the remote control) while the CD Player is stopped. The program is deleted and “PROGRAM” appears on the display.

To cancel program play, press ■ STOP (or ■ on the CD Player control section on the remote control) while “PROGRAM” is shown on the display.

Checking the Program

While the CD Player is stopped, use ◀◀ or ▶▶ on the remote control to check the contents of the program.

Each time you press ▶▶, the program contents are shown on the display in the programmed order. Pressing ◀◀ displays the previous step in the program.

Changing the Program

Modify the contents of a program while the CD Player is stopped.

Press CANCEL/DEMO on the Unit, the last step in the program is deleted.

Each time you press the button, the last step listed in the program is deleted from the program.

To add a step to the program, follow the procedure above (on either the Unit or the remote control).

The new steps are added to the end of the program.

Random Play

The tracks of all loaded CDs will play at random.

1. Press PROGRAM/RANDOM on the Unit while the CD Player is stopped to change to the Random Mode display.



Each time you press the button, play mode changes as follows:

→ PROGRAM → RANDOM → No Play mode indicator (Continuous Play) → (back to the beginning)

2. Press CD ►/II (or ► on the CD control section on the remote control).

The tracks of all the CDs are played in random order.

When all of the tracks have been played, the CD Player stops.

Note: Random Play cannot be activated with the DISC (1-3) buttons and the number keys.

- You can skip to the next track by pressing ▶▶ on the MULTI CONTROL during Random Play. Each time you press the button, the next track is jumped to. (You cannot skip to the previous tracks, nor to the beginning of the current track during Random Play.)
- To continue with a different random track selection after the last track is played, press REPEAT to select REPEAT ALL before or during Random Play.



To cancel Random Play, press ■ STOP (or ■ on the CD Player control section on the remote control) twice. When the RANDOM indicator goes out, Continuous Play mode is resumed.

Repeating a Track or the Discs



or



You can have all the discs, the program or the individual track currently playing repeat as many times as you like.

Press REPEAT.

Each time you press the button, the Repeat Modes change as follows.

→ REPEAT ALL → REPEAT 1 → No indicator → (back to the beginning)

REPEAT ALL: Repeats all the tracks on the CDs, or all the tracks in the program.

REPEAT 1: Repeats one track on one CD.

To exit Repeat Mode, press REPEAT until the Repeat Mode indicator on the display goes out.

Tray Lock Function

In order to safely keep the discs in the CD Player, the three trays can be electronically locked in a single operation.

When the Tray Lock function is on, the trays cannot be opened even if the ▲ button is pressed.

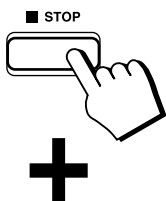
This function can only be accessed by using the buttons on the Unit itself.

Locking the Trays

1. Put the System's power into STANDBY mode.

2. While pressing ■ STOP, press ▲ for DISC 1 on the Unit.

"LOCKED" appears on the display to let you know that the trays have been locked.



LOCKED

When the CD Player trays are locked, pressing ▲ displays the message "LOCKED" on the display and the trays do not open. Also, ▲ cannot be used to automatically turn on the power.

Unlocking the Trays

1. Put the System's power into STANDBY mode.

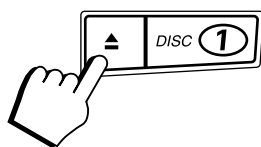
2. While pressing ■ STOP, press ▲ for DISC 1 on the Unit.

When the unlock operation is done, "UNLOCKED" appears on the display to show that the lock has been taken off.

UNLOCKED

The trays can now be opened by pressing ▲.

The ▲ can also be used to automatically turn on the power.



Special Plays for a Video CD

You can use the following special play modes for video CDs both with and without PBC function. The following functions can only be executed with the buttons on the remote control.

Frame-by-Frame Playback

Press II STILL during playback.



When you press the button first, play pauses and you see a still picture on the TV screen. Then each time you press the button, still pictures advance by one frame.

During frame-by-frame playback, no sound comes out.

To resume normal playback, press ► on the CD control section.

Viewing Operating Status

Usually, the following information of the track being played are shown on the TV screen during playback: the disc number, the track number, and the playing time.

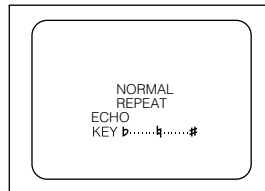
Press ON SCREEN (3) while pressing down SHIFT A.



Each time you press the buttons, the display of operation status turns on and off.

When the display of operation status turns on, the following information of the track being played appear on the TV screen briefly: CD play mode, karaoke mode, echo effect, and key control.

The TV screen will show the below :



To cancel the display of operation status, press ON SCREEN (3) while pressing down SHIFT A again. "DISP. OFF" appears on the TV screen briefly, and all the information about the track being played disappear.

Viewing the Video Intro of a Video CD

You can view the contents of a video CD, watching first 5 seconds of each track on the video CD. For a video CD with PBC, cancel the PBC function referring to page 25.



1. Press DISC 1-3 for the disc you want to view the video intro of.

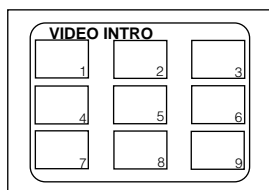
Playback starts.



2. Press V.INTRO (6) while pressing down SHIFT A after a picture appears on the TV screen.

The video intro play starts and shows in sequence, the first 5 seconds of nine tracks on the TV screen. If the CD consists of more than 9 tracks, tracks above 9 will be shown after the first 9 tracks are shown.

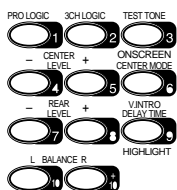
TV screen will show the below:



3. Press the number button for the video intro you want to select.

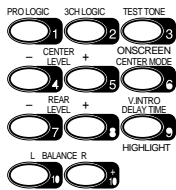
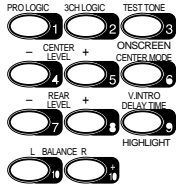
Playback starts from the selected track.

To stop and cancel the video intro play, press ■ RETURN.



Viewing the Highlights of a Video CD

You can view 9 highlight scenes of the selected track on a video CD. These highlight scenes are created by dividing the track equally into 9 portions and the beginning (5 seconds each) of those 9 scenes are shown on the display.



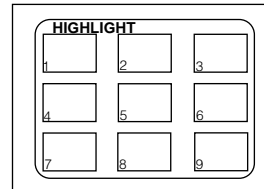
1. Press DISC 1-3 and the number button for the track you want to view the highlights of.

Playback starts.

2. Press HIGHLIGHT (9) while pressing down SHIFT A after a picture appears on the TV screen.

The highlight play starts and shows in sequence, the first 5 seconds of nine divided highlight scenes on the TV screen for 1 minute. If a highlight scene is not selected, it will automatically start and show highlight of the next track every one minute.

TV screen will show the below:



3. Press the number button for the highlight you want to select.

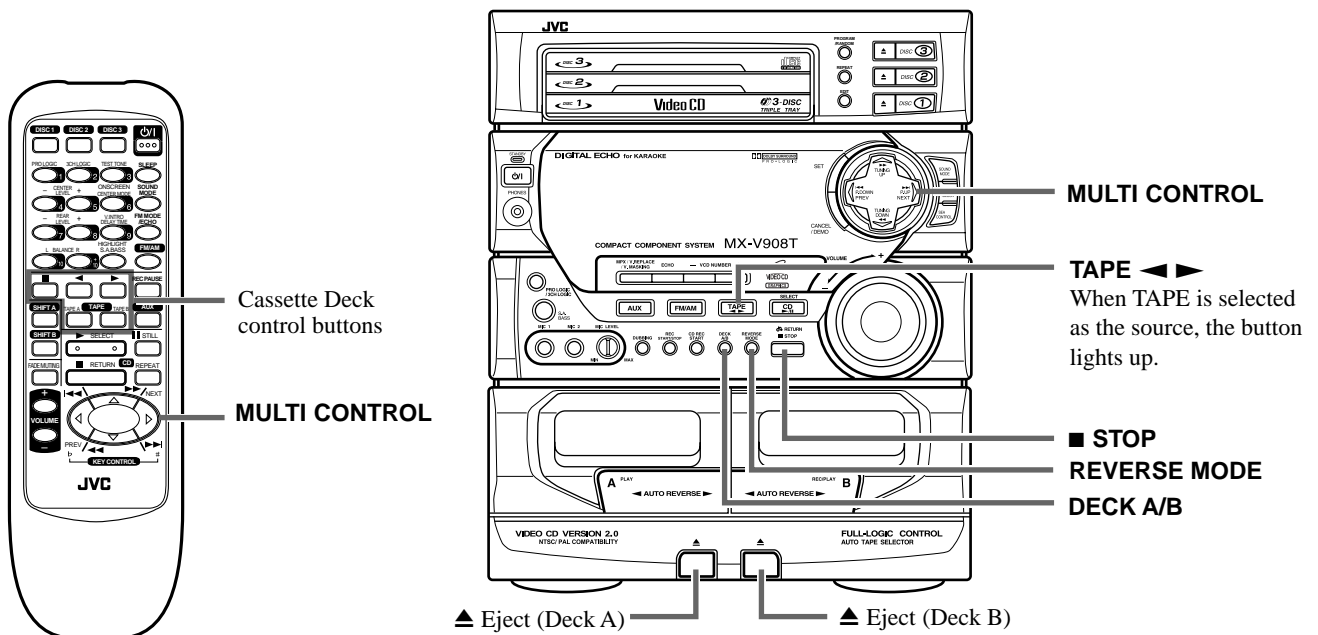
Playback starts from the selected scene.

To stop and cancel the highlight play, press ■ RETURN.

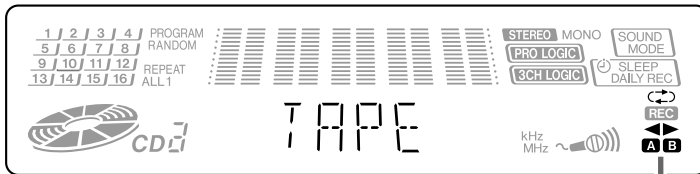
Notes:

- If a highlight scene is not selected while 9 scenes are shown on the TV, 9 highlight scenes of the next track will appear on the display.
- When a highlight scene is selected, playback starts from the beginning of the highlight scene, but not from the still image shown on the display (the part shown is the last part of the highlight scene, not its beginning).
- During the video intro or highlight play, image shown on the display may be partially distorted, resulting from noises or incorrect manufacturing of the disc.

Using the Cassette Deck (Playing)



Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

- ◀ ▶ : Reverse Mode indicator
- ◀ ▶ : Tape Direction indicator
- A B** : DECK A, B indicator

Tape Direction Indicator on the Display

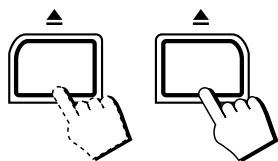
The Tape Direction indicator tells you which direction the selected tape deck will use for playback. During playback, the direction indicator flashes slowly. During fast left or fast right, the indicator flashes quickly. During Music Scan mode, the indicator flashes slowly and quickly alternately.

The Cassette Deck allows you to play, record and dub audio tapes.

■ With Automatic Tape Detection, you can listen to Type I or II tapes without changing any settings.

The use of tapes longer than 120 minutes is not recommended, since characteristic deterioration may occur and these tapes easily jam in the pinch-rollers and the capstans.

Regular Play



When the power is already on, you can use this basic procedure:

1. Press down \blacktriangle for the deck you want to use.

2. When the cassette holder opens, put a cassette in, with the exposed part of the tape down, toward the base of the Unit.

- If the cassette holder does not open, turn the power off, then back on and press down \blacktriangle again.

3. Close the holder gently.

When both Deck A and Deck B contain a tape, the last deck to have a tape inserted is selected. To change the selected deck, press DECK A/B. When using the remote control, press TAPE A or TAPE B.

4. Press TAPE $\blacktriangleleft \blacktriangleright$ on the Unit.

When you use the buttons on the tape control section on the remote control, press \blacktriangleright for forward direction playback, or press \blacktriangleleft for reverse direction playback.



or



COMPU PLAY

When the TAPE $\blacktriangleleft \blacktriangleright$ on the Unit (or \blacktriangleright or \blacktriangleleft on the Cassette Deck control section on the remote control) is pressed while the power is on standby, the power is automatically turned on.

If the power is on standby, the power will automatically be turned on.

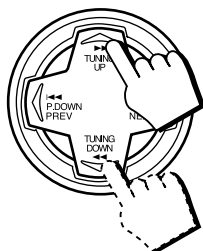
When "TAPE" appears on the display, the tape play starts toward the direction currently selected.

To stop playing, press \blacksquare STOP on the Unit (or \blacksquare on the Cassette Deck control section on the remote control).

To remove the tape, stop the tape, and press down \blacktriangle .

To change deck while playing a tape, press TAPE $\blacktriangleleft \blacktriangleright$ after pressing DECK A/B on the Unit or press \blacktriangleright or \blacktriangleleft after pressing TAPE A or TAPE B on the tape control section on the remote control.

To change the direction of a tape while it is playing, press TAPE $\blacktriangleleft \blacktriangleright$ on the unit (or \blacktriangleright or \blacktriangleleft on the Cassette Deck control section on the remote control).



Fast Left and Fast Right

■ While the tape is stopped, press $\blacktriangleleft \blacktriangleleft$ on the MULTI CONTROL and the tape will wind rapidly to the left side of the cassette without playing.

■ While the tape is stopped, press $\blacktriangleright \blacktriangleright$ on the MULTI CONTROL and the tape will wind rapidly to the right side of the cassette without playing.

Note: Deck A and Deck B cannot be used for playback at the same time.

Music Scan

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches blank portions that usually separate selections, then plays the next selection.

Finding the Beginning of the Current Selection

Press $\blacktriangleleft \blacktriangleleft$ or $\blacktriangleright \blacktriangleright$ on the MULTI CONTROL during play.

■ Make sure that you press $\blacktriangleleft \blacktriangleleft$ or $\blacktriangleright \blacktriangleright$ on the MULTI CONTROL in the opposite direction to that in which the tape is playing. Searching stops at the beginning of the current selection, and the current selection starts automatically.

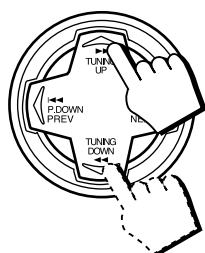
Finding the Beginning of the Next Selection

Press $\blacktriangleleft \blacktriangleleft$ or $\blacktriangleright \blacktriangleright$ on the MULTI CONTROL during play.

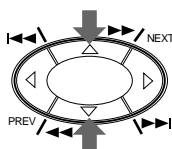
■ Make sure that you press $\blacktriangleleft \blacktriangleleft$ or $\blacktriangleright \blacktriangleright$ on the MULTI CONTROL in the same direction as that in which the tape is playing. Searching stops at the beginning of the next selection, and the next selection starts automatically.

Music Scan works by detecting a 4-second long blank at the beginning of each selection, so it will not work well if your tape has • • •

- No blank at the beginning of a selection.
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long, very soft passages or pauses in a selection. The scan will detect these as 4-second long blanks. If this happens, just scan again until you reach the selection you want.

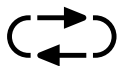


or



Reverse Mode

- Use Reverse Mode to make the tape automatically reverse at the end of a side and start playing the other side. Each time you press REVERSE MODE, the Reverse Mode turns on and off alternately.



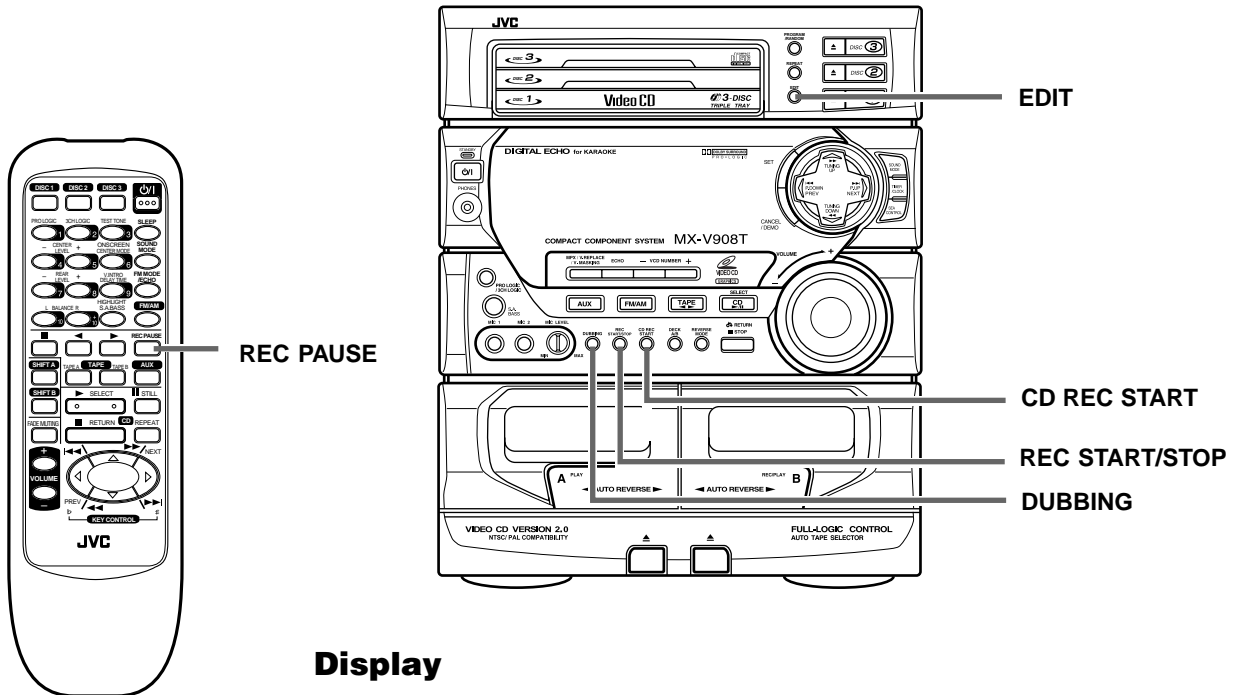
Reverse Mode ON



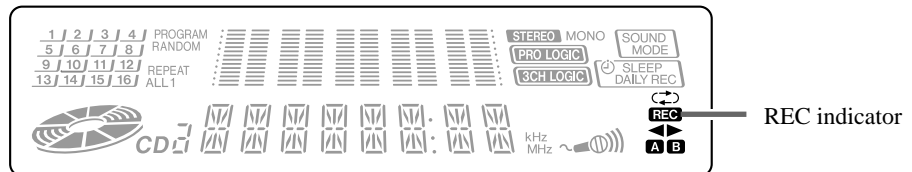
Reverse Mode OFF

- **Continuous Play:** With the Reverse Mode indicator on, when tape playback in the reverse (◀) direction finishes, the Unit always checks to see if a tape is in the other deck. If there is, it automatically starts playing. This Continuous Play function works regardless of which deck starts first.

Using the Cassette Deck (Recording)


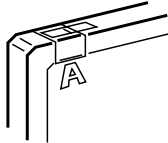


Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

Things to Know before You Start Recording

- It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.
- When you want to record onto both sides of a tape, you can set Reverse mode on to do so. However, recording automatically stops after recording in the ◀ direction in Reverse mode. Therefore, make sure that the tape direction is ▶ when recording with Reverse mode on.
- The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by volume control. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.
- Two small tabs on the back of the cassette tape, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first.
 

- When recording, you can hear Sound Mode effects through the speakers or headphones. However, the sound is recorded without Sound Mode effects.
- Type I and Type II tapes can be used for recording.

Note: At the start and end of cassette tapes, there is leader tape which cannot be recorded onto. Depending on the recording source, the first part of the recording may be missing because of the leader. When recording CDs or radio broadcasts, to get the beginning of the recording on the tape, first wind on the leader before beginning recording.

CAUTION: If recordings you have made have excessive noise or static, the Unit may be too close to a TV which was on during recording. Either turn off the TV or increase the distance between the TV and the System.

Standard Recording

This is the basic method for recording any source. The System also has special ways for recording CD to tape, and tape to tape, which save your time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method described below; just substitute the source you want into this procedure, such as a CD or the Tuner. You can also record from an auxiliary source with this procedure.

Using the Unit

1. Insert a blank or erasable tape into Deck B.

2. Press REVERSE MODE if you want to record on both sides of the tape.

Reverse Mode comes on.

- When using Reverse Mode, insert the tape so that it will be recorded in the forward (▶) direction.

3. Check the recording direction for the tape.

Check that the Tape Direction indicator is the same as that for the tape in the tape deck. If the directions are different, press ■ STOP after pressing TAPE ◀▶ to set the tape direction.

- When using the Reverse Mode to record both sides of a tape, check that the Tape Direction indicator is in the forward (▶) direction. If the direction indicator is not in the forward (▶) direction, press TAPE ◀▶ then press ■ STOP.

4. Start playing the source — tuner, CD Player, Deck A, or connected auxiliary equipment.

5. Press REC START/STOP.

The REC indicator lights up and the System begins recording.



Using the remote control

1. Insert a blank or erasable tape into Deck B.

2. Press REVERSE MODE on the Unit if you want to record on both sides of the tape.

Reverse Mode comes on.

- When using Reverse Mode, insert the tape so that it will be recorded in the forward (▶) direction.

3. Start playing the source — tuner, CD Player, Deck A, or connected auxiliary equipment.

4. Press REC PAUSE.

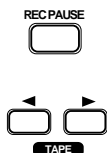
The REC indicator starts flashing.

5. Press ▶ or ◀ on the Cassette Deck control section.

- ▶: records on the front side.
- ◀: records on the reverse side.

Recording starts.

The REC indicator stops flashing and remains lit.



Notes for using Reverse Mode for recording

When recording with Reverse Mode on, the System automatically stops when it reaches the end of the reverse (◀) direction. To record on both sides of a tape, make sure that the recording direction for the tape inserted into Deck B is forward (▶), and that the Tape Direction indicator is also forward (▶), before you start recording.

To pause at any time during the recording process

Press REC PAUSE on the remote control. Then press ▶ or ◀ on the cassette control section on the remote control for the direction the tape was recorded in or REC START/STOP on the Unit to restart recording.

To stop at any time during the recording process

Press REC START/STOP on the Unit again, or press ■ on the Cassette Deck control section on the remote control.

Recording AM Station to Tape

When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In this case, press PROGRAM/RANDOM on the CD Player to eliminate the beats.



- 1. Set to AM station and start recording.**
- 2. Press PROGRAM/RANDOM repeatedly until the beats are eliminated.**
Each time you press the button, the indication on the display changes as follows:
→ CUT 2 → CUT 3 → CUT 1 → (back to the beginning)

CD Direct Recording

Everything on the CD goes onto the tape in the order it is on the CD, or according to the order you have set in a program.

- 1. Press CD ►/II, then ■ STOP.**
- 2. Prepare CDs. (See page 22.)**
Check that the CD Player is not playing a CD.
- 3. Insert a blank or erasable cassette in Deck B.**
 - When you want to record on both sides of a tape, press REVERSE MODE to turn on Reverse Mode. Check that the recording direction for the tape and the Tape Direction indicator are correct. (See page 36 “Notes for using Reverse Mode for recording”.)
- 4. Press CD REC START.**
“CD REC” appears on the display, the REC indicator lights up, and the System begins recording. If the tape reaches its end while recording a song, the last song will be re-recorded at the beginning of the other side.
When the recording is finished, “CD REC FINISHED” scrolls by on the display. The CD Player and Cassette Deck stop.



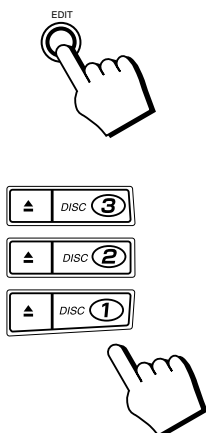
To stop at any time during the recording process, press ■ STOP.

Note: When making Sleep Timer settings while doing CD Direct recording, set the time so that there is enough leeway to finish the recording before the power turns off. If the time is set to about the length of the CD, the power may turn off before recording finishes.

For CD Direct Recording using more than one disc, use a blank tape. If you use a prerecorded tape, prerecorded material may not be erased between newly-recorded tracks.

Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection is not cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape. Auto Edit programs the CD tracks in numerical order. To prevent the end of the last track on the front side from being cut off, the last track on the front side is selected to fit on the remaining tape length.

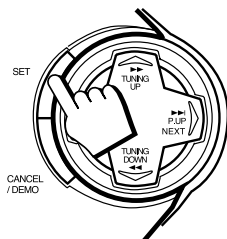


- 1. Press CD ►/II, then ■ STOP.**
- 2. Prepare CDs. (See page 22.)**
Check that the CD Player is not playing a CD.
- 3. Press EDIT on the Unit.**
“DISC-” appears on the display.
- 4. Press DISC 1-3 for the disc you want to record.**
After “TAPE C - -”, the optimum tape length for the disc appears on the display.

DISC --

TAPE [- -] → TAPE [70]

- You can select a different length of tape, depending on the actual size of the tape you are using, from eleven possibilities programmed into the Unit: 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, 90. Select the tape length that corresponds to the length of tape you are using, or the nearest length to it, by pressing ◀◀ or ▶▶ on the MULTI CONTROL.
 - If you select a tape length shorter than the total playing time of the CD, the last tracks on both sides of the tape will be faded out as the tape ends.



5. Press SET.

The tracks to be recorded on side B appear on the display.

5 1 0 E -- 1

- Each time you press the button, the tracks to be recorded on side A and side B appear on the display alternately.

6. Insert a blank or erasable cassette in Deck B.

When you want to record on both sides of a tape, press REVERSE MODE to turn Reverse mode on.

7. Press CD REC START .

The Unit plays the CD and starts recording. If the tape has not been rewound, the Unit rewinds the tape before starting to record the CD.

To stop at any time while recording, press ■ STOP or REC START/STOP on the Unit (or ■ on the remote control). If ■ STOP (or ■ on the CD Player control section on the remote control) is pressed, the Cassette Deck will create a four-second blank space after the CD Player stops. If REC START/STOP (or ■ on the tape control section on the remote control) is pressed, the CD Player and Cassette Deck will stop simultaneously.

To cancel Auto Edit, press PROGRAM/ RANDOM while the CD Player is stopped or press ▲ on the CD Player for the disc number being recorded.

Note: When making Sleep timer settings while doing Auto Edit recording, set the time so that there is enough leeway to finish the recording before the power goes out. If the time is set to about the length of the CD, the power may go out before recording finishes.

Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.

- When dubbing tapes, make sure that the playback direction of Deck A and Deck B are the same.
- When you record both sides of a tape, press REVERSE MODE to turn on the Reverse Mode.
- It is preferable that the type of tape (Type I or Type II) you record from be the same as the type you record onto.

How to Use DUBBING

1. Press TAPE ◀▶, then ■ STOP.

2. Insert the source cassette you want to copy from into Deck A for playback.

Insert the cassette so that it will be played in the forward (▶) direction.

3. Insert the blank or erasable cassette you want to copy onto into Deck B for recording.

Insert the cassette so that it will be recorded in the forward (▶) direction.

4. Press DUBBING.

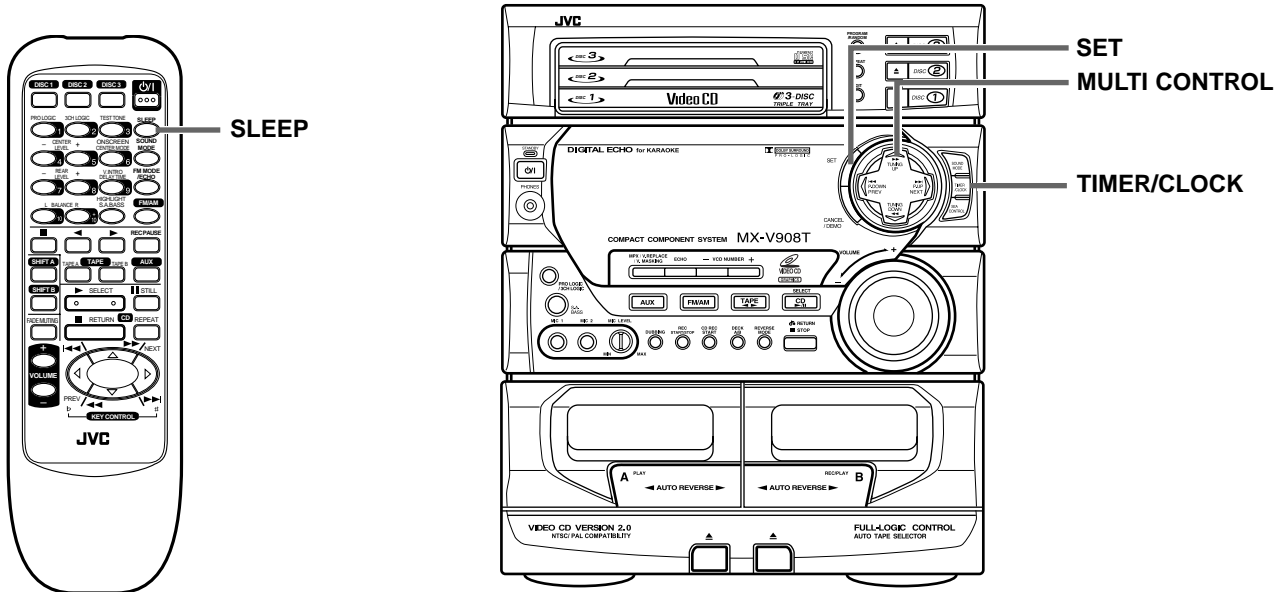
Deck A and Deck B start simultaneously.

To stop dubbing, press ■ STOP.

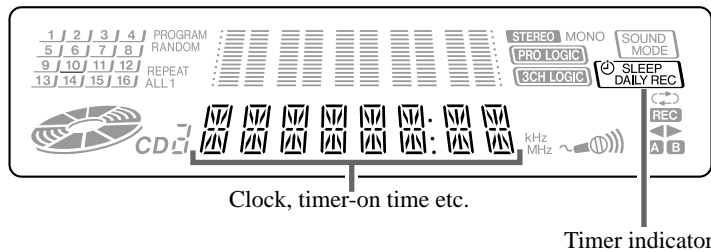
- When dubbing, you can hear Sound Mode effects through the speakers or headphones. However, the sound is dubbed without Sound Mode effects.



Using the Timer



Display



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The timers let you control recording and listening functions automatically.

Three types of timers are available:

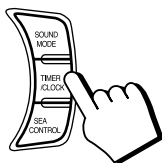
- **Daily Timer** — Use this timer to set wake up everyday to music from any source, instead of an alarm clock.
- **Recording Timer** — Unattended recording of radio broadcasts. You can set the starting time and stopping time of the recording.
- **Sleep Timer** — Fall asleep and have your Unit turn off automatically after a certain length of time.

Note: When operating the Daily Timer and Recording Timer, always set the clock first. If the clock is not set, the Daily Timer and Recording Timer functions cannot be used. For details, refer to "Setting the Clock" on page 9.

Setting the Daily Timer

With this timer you can wake up to music from a CD, tape, your favorite radio program.

■ You can set the Daily Timer whether the Unit is on or off.



Procedure For Setting the Daily Timer

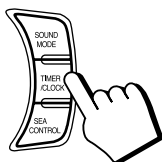
1. Press **TIMER/CLOCK** so that **"DAILY"** appears on the display.

The DAILY indicator flashes on the display.

DAILY

- Each time you press the button, the timer setting indication changes as follows:
DAILY → **ON TIME** (flashes) → **REC** → **ON TIME** (flashes) → Clock setting → Canceled (current source) → (back to the beginning)

Note: If the clock has not been set, even if **TIMER/CLOCK** is pressed you cannot select the Daily Timer.



2. Press **TIMER/CLOCK** again.

After "ON TIME" flashes for 2 seconds, it switches to the on-time setting display.

ON TIME



0:00

Flashing

3. Set the time you want the Unit to turn on.

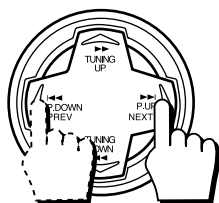
Press **◀◀** or **▶▶** on the **MULTI CONTROL** to adjust the hours and press **SET**. Then press **◀◀** or **▶▶** to adjust the minutes and press **SET**.

7:30



OFF TIME

- After adjusting the minutes and pressing **SET**, "OFF TIME" flashes for two seconds and on-time setting is completed.



4. Set the time you want the Unit to turn off.

Press **◀◀** or **▶▶** on the **MULTI CONTROL** to adjust the hours and press **SET**. Then press **◀◀** or **▶▶** to adjust the minutes and press **SET**.

8:30



-- [] -- -- --

- When the off-time has been set, the indication on the display changes to the source selection.

5. Select the source you want to listen to.

To use a CD as the source:

- Press **◀◀** or **▶▶** on the **MULTI CONTROL** repeatedly until **"- CD - -"** flashes on the display and press **SET**.

-- [] -- -- --

- Press **◀◀** or **▶▶** on the **MULTI CONTROL** repeatedly to select the CD disc number to be played and press **SET**.

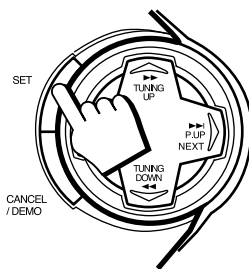
If you press **SET** without selecting a disc, the last disc played by the Unit will be used.

3 [] -- -- --

- Press **◀◀** or **▶▶** on the **MULTI CONTROL** repeatedly to select the CD track number to be played and press **SET**.

If you press **SET** without selecting a track, playback will start from the first track on the CD.

3 [] - 05



To use the Tuner as the source

(Possible only after presetting stations):

- To listen to FM, press ◀◀ or ▶▶ on the MULTI CONTROL repeatedly until "TUNER FM" flashes and press SET.
To listen to AM, press ◀◀ or ▶▶ on the MULTI CONTROL repeatedly until "TUNER AM" flashes and press SET.

TUNER FM or TUNER AM

- Press ◀◀ or ▶▶ on the MULTI CONTROL repeatedly to select the station to be listened to as a preset channel and press SET.

P -- 5

To use a Cassette Deck as the source:

Press ◀◀ or ▶▶ on the MULTI CONTROL repeatedly until "TAPE" flashes on the display and press SET.

TAPE

6. Set the Volume Level.

Press ◀◀ or ▶▶ on the MULTI CONTROL to adjust the volume.

VOL -- -- --

VOL - 10: Sets the volume level to 10.

VOL - 15: Sets the volume level to 15.

VOL - 20: Sets the volume level to 20.

VOL - - -: Sets the volume to the last volume setting used.

7. Press SET.

The DAILY indicator stops flashing and remains lit. The on-time, off-time, playback source (including the disc number and track number if a CD source is selected), and volume level appears on the display.

Turn the power off if you made the timer settings with the power turned on.

- A few seconds before the on-time, the Unit automatically turns on the power. When the on-time comes, playback starts using the selected source. A few seconds before the off-time, "OFF" flashes on the display. When the off-time comes, the power is automatically turned off.
- If a button is pressed when the Daily Timer is operating, playback continues but the timer is canceled.

Before turning off the Unit

- If the source is a CD, make sure that there is a CD in the selected disc number.
- If the source is a tape:
 - The tape in the deck corresponding to the Deck indicator mark is played. Make sure that there is a tape in the selected Cassette Deck.
 - Check that the tape direction is correct. This is important especially when Reverse Mode is off.
 - Set Reverse Mode on if you want to play both sides of the tape.
- Select the Sound Mode if you want to listen using a Sound Mode effect.

To change the Daily Timer setting

To change the settings for the Daily Timer, repeat the setting procedure from the beginning.

Turning the Daily Timer On and Off

Once the Daily Timer has been set it will be activated at the same time every day until the setting is turned off.

To turn the Daily Timer off, press TIMER/CLOCK until "DAILY" appears on the display. Press CANCEL/DEMO, "OFF" appears on the display and the DAILY indicator goes out.

To turn the Daily Timer on again, press TIMER/CLOCK until "DAILY" appears on the display, then press SET. The Timer on-time, off-time, playback source (including the disc number and track number if a CD source is selected), and volume level appear on the display, and the DAILY indicator lights up.

CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

Setting the Recording Timer

With the Recording Timer you can make a tape of a radio broadcast automatically whether or not you are home. For the timer to work correctly, you need to make sure of the following in addition to setting the time for the Tuner and Cassette Deck to come on:

- You can set the Recording Timer whether the Unit is on or off.
- The tape you want to record onto must be in Deck B.

Procedure for Setting the Recording Timer

- 1. Press TIMER/CLOCK repeatedly until “REC” appears on the display.**
The REC indicator flashes on the display.

REC

- Each time you press the button, the timer setting indication changes as follows:
DAILY → **ON TIME** (flashes) → **REC** → **ON TIME** (flashes) → Clock setting → Canceled (current source) → (back to the beginning)

Note: If the clock has not been set, even if TIMER/CLOCK is pressed you cannot select the Recording Timer.

- 2. Press TIMER/CLOCK again.**

After “ON TIME” flashes for 2 seconds, it switches to the time setting display.

- 3. Set the time you want the Unit to be turned on.**

Press ◀◀ or ▶▶ on the MULTI CONTROL to adjust the hours and press SET. Then press ◀◀ or ▶▶ to adjust the minutes and press SET.

- 4. Set the time you want the Unit to be turned off.**

Press ◀◀ or ▶▶ on the MULTI CONTROL to adjust the hours and press SET. Then press ◀◀ or ▶▶ to adjust the minutes and press SET.

- 5. Select the Recording band.**

Press ◀◀ or ▶▶ on the MULTI CONTROL to select “TUNER FM” or “TUNER AM” and press SET.

- 6. Select the preset channel for the station to be recorded.**

Press MULTI CONTROL ◀◀ or ▶▶ to select.

- 7. Press SET.**

The REC indicator stops flashing and remains lit. The on-time, off-time, Recording band (“TUNER FM” or “TUNER AM”) and the preset number appear on the display.

Turn the power off if you made the timer settings with the power turned on.

- A few seconds before the on-time for the recording, the Unit automatically turns on the power. When the on-time comes, recording starts using the selected source. A few seconds before the off-time, “OFF” flashes on the display. When the off-time comes, the power is automatically turned off.

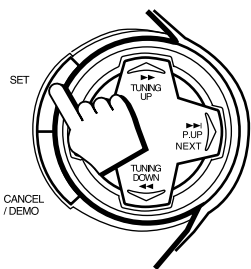
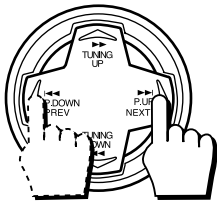
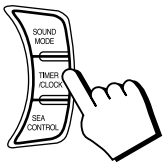
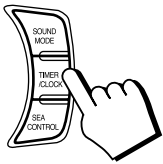
Before the timer starts

- Check that tape direction is correct. This is important especially when Reverse Mode is off.
- Set Reverse Mode on if you want to record on both sides of the tape.
- The volume level is automatically set to 0 when Recording Timer starts.

It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in Deck B you don't want recorded over. Although this happens to almost everyone at one time or another, we hope it won't happen to you!

To change the Recording Timer setting

Repeat the setting procedure from the beginning.



Turning the Recording Timer On and Off

Once the Recording Timer has been used, the setting is maintained but the Timer is set to off.

To turn the Recording Timer off before the timer starts, press TIMER/CLOCK repeatedly until “REC” appears on the display, then press CANCEL/DEMO. “OFF” appears on the display and the REC indicator goes out.

To record at the same time again, press TIMER/CLOCK repeatedly until “REC” appears on the display, then press SET. The on-time, off-time, Recording band (“TUNER FM” or “TUNER AM”) and the preset number appear on the display, and the REC indicator lights up.

CAUTION: If the Unit is unplugged, or a power failure occurs, the timer setting will be erased in a few days. If the settings are erased in this way, reset the timer settings.

Setting the Sleep Timer

Use the Sleep Timer to turn the Unit off after a certain number of minutes when it is playing. By setting this timer, you can fall asleep to music and know your Unit will turn off by itself rather than play all night.

■ You can only set the Sleep Timer when the Unit is on and a source is playing.

To set the SLEEP Timer, follow this procedure:



1. With the Unit on and a source playing, press SLEEP on the remote control.

“SLEEP” appears on the display.

SLEEP 10

2. Set the length of time you want the source to play before shutting off.

- Each time you press this button while the SLEEP indicator is flashing, it changes the number of minutes shown on the display in this sequence:

→ 10 → 20 → 30 → 60 → 90 → 120 → Canceled → (back to the beginning)

When the number of minutes you want shows on the display, just wait 5 seconds until the indicator stops flashing, and it remains lit.

The Unit is now set to turn off after the number of minutes you set.

To change the Sleep Timer setting

Press SLEEP until the number of minutes you want appears on the display.

To cancel the Sleep Timer setting

Press SLEEP until the SLEEP indicator goes out on the display.

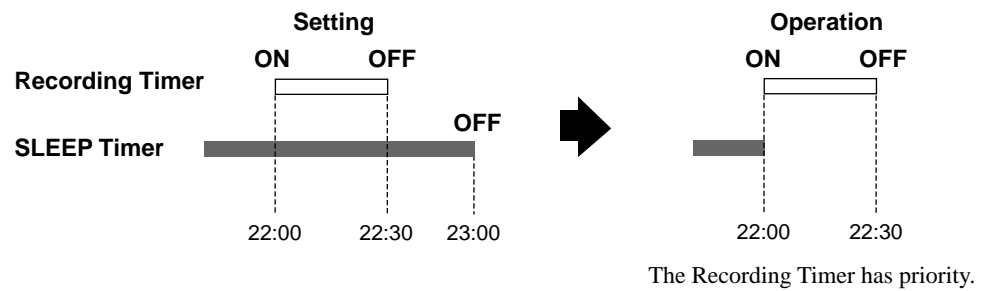
Turning off the Unit also cancels the Sleep Timer.

Timer Priority

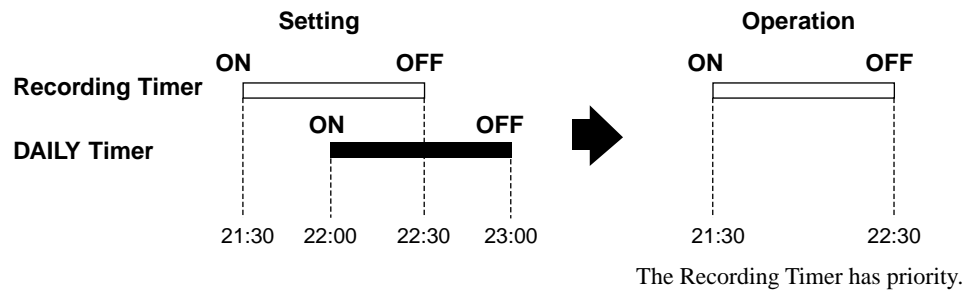
Since each timer can be set independently, you may wonder what happens if the settings overlap. Here are the priorities for each timer:

- The Recording Timer always has priority. This means that:
 - If another timer is set to come on during a time when the Recording Timer is operating, the other timer just will not come on at all, so you will always get the entire program on tape.
 - If the Recording Timer is set to come on while another timer is operating, the other timer will shut off 10 seconds before the Recording Timer is set to turn on, and the Recording Timer will then take over.
- If the Sleep Timer is set while the Daily Timer is operating, the Sleep Timer will take over. However, if the Daily Timer is set to come while the Sleep Timer is operating, the Daily Timer will take over.

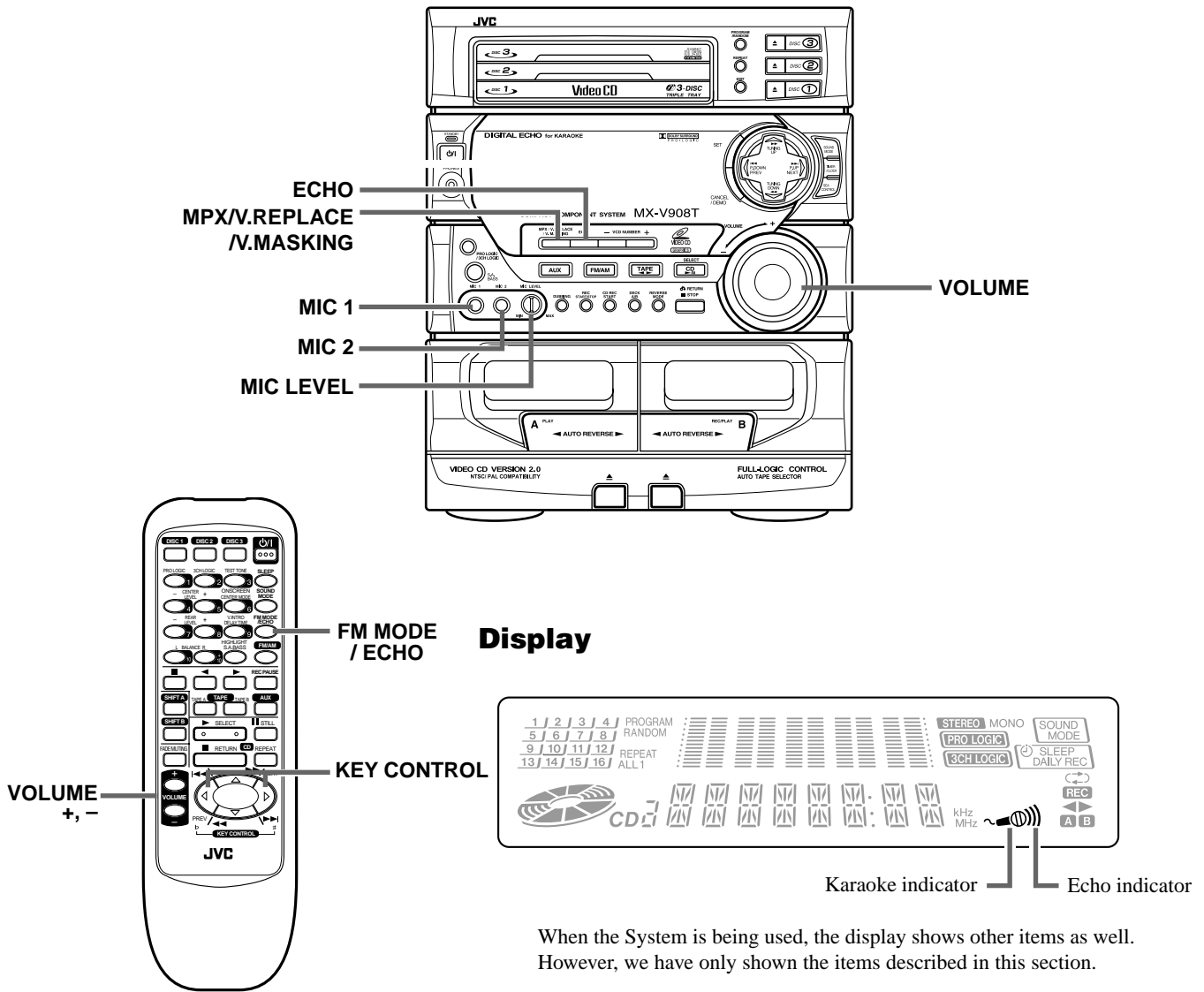
Example 1



Example 2

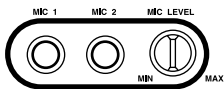


Using the Microphone



When the System is being used, the display shows other items as well. However, we have only shown the items described in this section.

The System includes two microphone terminals, MIC 1 and MIC 2. By attaching a microphone to one or both of these terminals, you can use the System for Karaoke or microphone mixing. You can also add an echo to the microphone's sound.

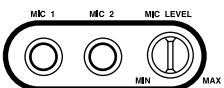


- MIC LEVEL adjusts the volume for both MIC 1 and MIC 2 at the same time.
- When you will not be using the microphone, keep MIC LEVEL set to MIN, and disconnect the microphone.

CAUTION: Always set MIC LEVEL to MIN when connecting or disconnecting the microphone.

Singing Along with Conventional Audio CDs or Tapes —Vocal Masking

When playing a stereo recorded source such as conventional audio CDs or tapes, you can reduce the lead vocals and replace it by singing into the microphone. Usually stereo recorded CDs are best source for Vocal Masking.



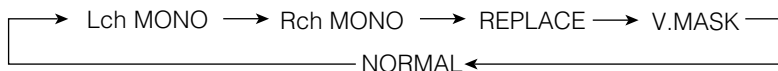
1. Turn MIC LEVEL to MIN.
2. Connect the microphone (not supplied) into the MIC 1 and/or 2 jack on the front panel.



3. Start the source CD, tape or other equipment.

4. Press MPX/V.REPLACE/V.MASKING until “V.MASK” appears on the display.

Each time you press the button, Karaoke function changes as follows



Lch MONO: See page 47.

Rch MONO: See page 47.

REPLACE: See page 47.

V.(Vocal) MASK: Reduces the lead vocals (but never erases) recorded on a stereo source.

NORMAL: Cancels the Karaoke function.

5. Turn MIC LEVEL and VOLUME to adjust the microphone level and the speaker output level.

6. Sing into the microphone.

To apply echo to your voice, see “Applying Echo to Your Voice” below.

To adjust the music key, see “Adjusting the Music Key Control” on page 48.

To record your singing along, see “Microphone Mixing” on page 48.

Note:

When finish singing, restore the stereo effect by pressing MPX/V.REPLACE/V.MASKING until “NORMAL” appears on the display.

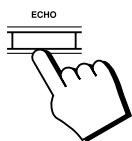
Important Information on Vocal Masking

- Because a radio signal is not as reliable as signals coming from a tape or CD, you may not always get satisfactory results using the radio as a source for Karaoke.
- Some tapes and CDs are better sources for Karaoke than others.
 - Mono sources are not suitable for Karaoke.
 - The lead vocals may not be completely reduced for sources with duets, strong echo, a chorus, or only a few instruments.
 - Poorly dubbed tapes may not be suitable for Karaoke.

Note: For preventing howling and squealing when using the microphone, adjust MIC LEVEL and VOLUME, and try not to point the microphone at the speakers.

Applying Echo to Your Voice

You can get an echo effect to apply to your voice.



or



Press ECHO on the Unit or FM MODE/ECHO on the remote control.

The))) (Echo) indicator lights up.

No echo is applied.



An echo is applied.



To prevent howling and squealing (feedback) when using the microphone, adjust MIC LEVEL and VOLUME. Also, try to avoid pointing the microphone towards the speakers.

- When two microphones are connected, turn the microphone ON/OFF switch on the microphone that is not being used to OFF.
- When recording sound from the microphone, the digital echo effect is also recorded.

Note: When the tuner is selected as the source, you cannot turn on and off the digital echo using ECHO on the Unit or FM MODE/ECHO on the remote control. You can change the FM reception mode using this button when the tuner is selected as the source. (See page 20.)

Singing Along with Multiplex Karaoke Discs or Tapes

If the source you are going to play is a multiplex karaoke disc or tape, you can use the following two functions by using the buttons on the Unit — Multiplex Sound and Vocal Replace.

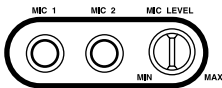
Before playing a source, turn on the TV and select the video input so that you can view the pictures from the System.

What is Multiplex Sound?

In a multiplex karaoke disc or tape, the instrumental parts are recorded on the left channel and the vocal parts are recorded on the right channel. With this System, you can select the playback sound with your voice through the microphone.

What is Vocal Replace?

By using this function, you can replace the lead vocals (recorded on the right channel) while singing along. If you stop singing while a source is still playing, the original lead vocals sound resumes.



1. Turn down MIC LEVEL and VOLUME fully.

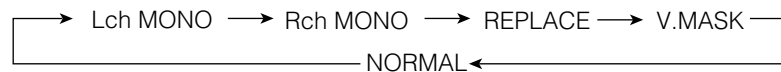
2. Connect the microphone (not supplied) into the MIC 1 and/or 2 jack on the front panel.

3. Play the source — CD, tape or others.

To play CDs, see pages 22 through 29.

To play tapes, see pages 33 and 34.

4. Press MPX/V.REPLACE/V.MASKING to select the output sound.



Lch MONO: Only the left channel (instrumental parts) is played back through both right and left speakers.

Rch MONO: Only the right channel (vocal parts) is played back through both right and left speakers.

REPLACE: Your voice replaces the right channel (vocal parts) when you sing into the microphone.

V.MASK: This cannot be used for multiplex karaoke sources. Refer to previous page for details.

NORMAL: Cancels the Karaoke function.

Used for conventional stereo sources.

5. Turn MIC LEVEL and VOLUME to adjust the microphone level and the speaker output level.

6. Sing into the microphone.

To apply echo to your voice, see “Applying Echo to Your Voice” on page 46.

To adjust the music key, see “Adjusting the Music Key Control” on page 48.

To record your singing along, see “Microphone Mixing” on page 48.

Note: When finish singing, restore the stereo effect by pressing MPX/V.REPLACE/V.MASKING until “NORMAL” appears on the display.

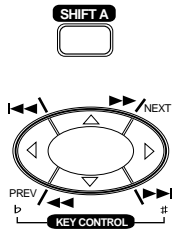
Recording Your Singing

1. Follow the steps in “Singing Along with the Multiplex Karaoke Discs and Tapes” above.

2. Follow the steps in “Standard Recording” (See page 36) to record your singing.

Adjusting the Music Key Control

You can adjust the music key by using the remote control.



- 1. Press and hold SHIFT A during the following procedures.**
- 2. Press KEY CONTROL b or $\#$ on the MULTI CONTROL to adjust the music key.**
To lower the key, press KEY CONTROL b on the MULTI CONTROL.
To raise the key, press KEY CONTROL $\#$ on the MULTI CONTROL.
- 3. Release SHIFT A.**

To cancel the key adjustment, press KEY CONTROL b or $\#$ until "KEY 0" appears on the display

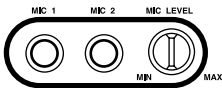
Notes:

- Once the music key is adjusted, the key level will not return to the previous level automatically after playing a song. Adjust the music key each time you sing along a song.
- The music key cannot be changed while recording.
- Once the source is changed, the key level returns to 0.
- The Sound Mode will be canceled if the Karaoke function (Multiplex Sound, Vocal Replace, Vocal Masking) is selected.

Microphone Mixing

When you want to record your singing along with any playback source, follow the procedure below.

- 1. Turn MIC LEVEL to MIN.**
- 2. Connect the microphone (not supplied) into the MIC 1 and/or 2 jack on the front panel.**
- 3. Start the source CD, tape, or other equipment.**
- 4. Adjust the volume and MIC LEVEL, as you sing into the microphone.**

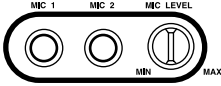


To apply echo to your voice, see "Applying Echo to Your Voice" on page 46.

Recording Microphone Mixing

- 1. Follow the steps in "Microphone Mixing" above.**
- 2. To record, follow the steps in "Standard Recording" on page 36.**

Playing the Microphone Sound through the Speakers



1. Press **CD** ►/||, then ■ **STOP**.
2. Turn **MIC LEVEL** to **MIN**.
3. Connect the microphone (not supplied) by plugging it into the **MIC** jack on the front panel.
4. Adjust the volume and **MIC LEVEL** as you sing into the microphone.

To apply echo to your voice, see “Applying Echo to Your Voice” on page 46.

Recording from the Microphone _____

1. Follow the steps in “Playing the Microphone Sound through the Speakers” above.
2. To record, follow the steps in “Standard Recording” on page 36.

Care and Maintenance

Compact Discs

Handle your compact discs, cassette tapes, and Cassette Deck carefully, and they will last a long time.



- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.



- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.



- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray thinner, benzene, etc.) to clean a CD.

Moisture Condensation



Moisture may condense on the lens inside the Unit in the following cases:

- After starting the heating in the room.
- In a damp room.
- If the Unit is brought directly from a cold to a warm place.

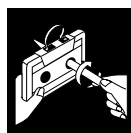
Should this occur, the Unit may malfunction. In this case, leave the Unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

General Notes

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the Cassette Deck's tape doors and the CD trays closed when not in use.

Cassette Tapes



- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.



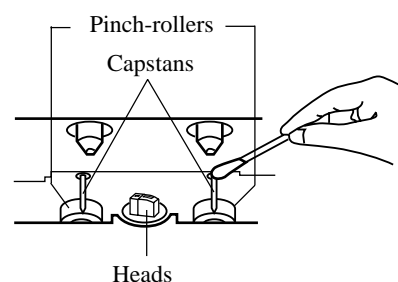
- Do not touch the tape surface.



- Do not store the tape:
 - In dusty places
 - In direct sunlight or heat
 - In moist areas
 - On a TV or speaker
 - Near a magnet

Cassette Deck

- If the heads, capstans, and pinch-rollers of the Cassette Deck become dirty, the following will occur:
 - Loss of sound quality
 - Discontinuous sound
 - Fading
 - Incomplete erasure
 - Difficulty recording
- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, the Unit will produce noise or lose high frequencies.
- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

- If you are having a problem with your System, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	Action
No sound is heard.	Connections are incorrect, or loose.	Check all connections and make corrections. (See pages 4 - 6.)
Unable to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Poor radio reception	<ul style="list-style-type: none"> • The antenna is disconnected. • The AM Loop Antenna is too close to the Unit. • The FM Wire Antenna is not properly extended and positioned. 	<ul style="list-style-type: none"> • Reconnect the antenna securely. • Change the position and direction of the AM Loop Antenna. • Extend FM Wire Antenna to the best reception position.
The CD skips.	The CD is dirty or scratched.	Clean or replace the CD.
Unable to operate the remote control.	<ul style="list-style-type: none"> • The path between the remote control and the sensor on the Unit is blocked. • The batteries have lost their charge. 	<ul style="list-style-type: none"> • Remove the obstruction. • Replace the batteries.
The CD tray cannot be opened.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built-in microprocessor has malfunctioned due to external electrical interference.	Unplug the Unit then plug it back in.
The cassette door cannot be opened.	During tape playing, the power cord was unplugged.	Plug in the power cord, press ⏻/I , and then press ▲ .
The image on the TV screen loses its colour.	Video Out selection is unmatching.	Select the correct video out. (See "Selecting Video Out" on page 22.)
The disc sound loses stereo effect.	The MPX sound, Vocal Masking or Vocal Replace function is in use.	Press the MPX/V.REPLACE/V.MASKING button until "NORMAL" appears on the display.
The pictures of the video CD or CD-G is distorted.	When you pause or advance the pictures manually, the pictures are distorted. This is not a malfunction.	

Specifications

For CA-V908T

Amplifier Section

Output Power (IEC 268-3/DIN)	
Front	41 watts per channel, min. RMS, both channels driven, into 6 ohms at 1 kHz, with no more than 0.9% total harmonic distortion.
Center	25 watts min. RMS, both channels driven, into 8 ohms at 1 kHz, with no more than 0.9% total harmonic distortion.
Rear	12.5 watts per channel, min. RMS, both channels driven, into 16 ohms at 1 kHz, with no more than 0.9% total harmonic distortion.
Input Sensitivity/Impedance (1 kHz)	
AUX	400mV/45 kohms
MIC 1	1.5 mV/4.7 kohms
MIC 2	1.5 mV/4.7 kohms
Speaker terminals	
Front 6 - 16 ohms
Rear 16 - 32 ohms
Center 8 - 16 ohms

Cassette Deck Section

Frequency Response	
Type II (CrO ₂):	50 - 14,000 Hz
Type I (NORMAL):	50 - 14,000 Hz
Wow And Flutter	0.15% (WRMS)

CD Automatic Changer Section

CD Capacity	3 discs
Dynamic Range	85 dB
Signal-To-Noise Ratio	90 dB
Wow And Flutter	Unmeasurable

Tuner Section

FM Tuner	
Tuning Range	87.5 - 108.0 MHz
AM Tuner	
Tuning Range	531 - 1,602 kHz (at 9 kHz channel space) 530 - 1,710 kHz (at 10 kHz channel space)

General

Cabinet color	Silver
Dimensions	265 × 315 × 340 mm (W/H/D) (10-7/16 × 12-7/16 × 13-7/16 inches)
Mass	9.0 kg (19.8 lbs)

Accessories (See page 3.)

Power Specifications

Power Requirements	AC 110/127/220/230-240 V [~] , 50/60 Hz, adjustable with the voltage selector
Power Consumption	160 watts 12 watts (in standby mode)
Max. Power Consumption	340 watts (Taiwan only)

Design and specifications are subject to change without notice.

For MX-V608T/MX-V688T

Amplifier Section

Output Power (IEC 268-3/DIN)	45 watts per channel, min. RMS, both channels driven, into 6 ohms at 1 kHz, with no more than 0.9% total harmonic distortion.
Input Sensitivity/Impedance (1 kHz)	
AUX	420 mV/45 kohms
MIC 1	1.5 mV/4.7 kohms
MIC 2	1.5 mV/4.7 kohms
Speaker terminals	6 - 16 ohms

Cassette Deck Section

Frequency Response	
Type II (CrO ₂):	50 - 14,000 Hz
Type I (NORMAL):	50 - 14,000 Hz
Wow And Flutter	0.15% (WRMS)

CD Automatic Changer Section

CD Capacity	3 discs
Dynamic Range	85 dB
Signal-To-Noise Ratio	90 dB
Wow And Flutter	Unmeasurable

Tuner Section

FM Tuner	
Tuning Range	87.5 - 108.0 MHz
AM Tuner	
Tuning Range	531 - 1,602 kHz (at 9 kHz channel space) 530 - 1,710 kHz (at 10 kHz channel space)

General

Cabinet color	CA-V608T Silver CA-V688T Gold
Dimensions	265 × 315 × 340 mm (W/H/D) (10-7/16 × 12-7/16 × 13-7/16 inches)
Mass	7.8 kg (17.2 lbs)

Accessories (See page 3.)

Speaker SP-V608/SP-V688

Type	3-way, 3-speaker bass-reflex type (Magnetically-shielded type)
Speaker	
Tweeter	2 cm (13/16 inches) dome × 1
Mid range	5 cm (2 inches) cone × 1
Woofer	16 cm (6-5/16 inches) cone × 1
Power Handling Capacity	80 Watts
Impedance	6 ohms
Frequency Range	46 - 20,000 Hz
Sound Pressure Level	87 dB/w • m
Cabinet color	SP-V608 Silver SP-V688 Gold
Dimensions	215 × 315 × 271 mm (W/H/D) (8-1/2 × 12-7/16 × 10-11/16 inches)
Mass	3.3 kg (7.3 lbs)

Power Specifications

Power Requirements	AC 110/127/220/230-240 V [~] , 50/60 Hz, adjustable with the voltage selector
Power Consumption	130 watts 10 watts (in standby mode)
Max. Power Consumption	320 watts (Taiwan only)

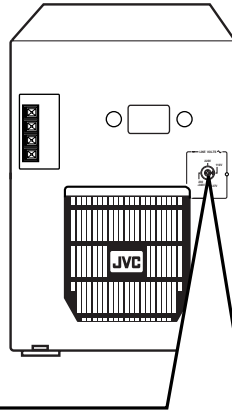
Design and specifications are subject to change without notice.

Mains (AC) Line Instruction (not applicable for Europe, U.S.A., Canada, and U.K.)
Instrucción sobre la línea de la red (CA) (no aplicable para Europa, EE.UU.,
Canadá, ni el Grã-Bretanha)

Instrução sobre a tensão da rede eléctrica (CA) (não aplicável para a Europa, os
E.U.A., o Canadá, e o Reino Unido)

主 (AC) 電源線路說明 (不適用於歐洲、美國、加拿大及英國型號)

تعليمات التيار الرئيسي (المتردد) (لا ينطبق لأوروبا وأمريكا وكندا والمملكة المتحدة)



IMPORTANT for mains (AC) line

BEFORE PLUGGING IN, do check that your mains (AC) line voltage corresponds with the position of the voltage selector switch provided on the outside of this equipment and, if different, reset the voltage selector switch, to prevent from a damage or risk of fire/electric shock.

IMPORTANT para la línea de la red (CA)

ANTES DE ENCHUFAR EL EQUIPO, compruebe si la tensión de la línea de la red (CA) corresponde con la posición del selector de tensión situado en la parte exterior del equipo, y si es diferente, reajuste el selector de tensión para evitar el riesgo de incendios/descargas eléctricas.

IMPORTANT para a ligação à tensão da rede (CA)

ANTES DE LIGAR O APARELHO A UMA TOMADA DA REDE, verifique se a tensão da rede CA corresponde à posição do seletor de voltagem localizado na parte externa deste equipamento. Caso não corresponda, reajuste o seletor de voltagem a fim de evitar avarias ou riscos de incêndio e choque elétrico.

有關主 (AC) 電源線路的重要事項

接插電源以前，務請檢查當地的主 (AC) 電源線路電壓是否和位於本機外面的電壓選擇開關設定的位置一致。如果不一致，即重新設定電壓選擇開關使符合當地電壓，以免損壞機器或引起火災/觸電的危險。

هام من أجل خط التيار المتردد (AC) الرئيسي

قبل ادخال القابس، تأكد من أن فولتية خط التيار المتردد (AC) الرئيسي لديك متوافقة مع موضع مفتاح اختيار الفولتية المتوفر خارج هذه المعدات وإذا اختلفت، فقم بإعادة ضبط مفتاح اختيار الفولتية، لمنع التلف أو الصدمة الكهربائية وخطر الحريق.