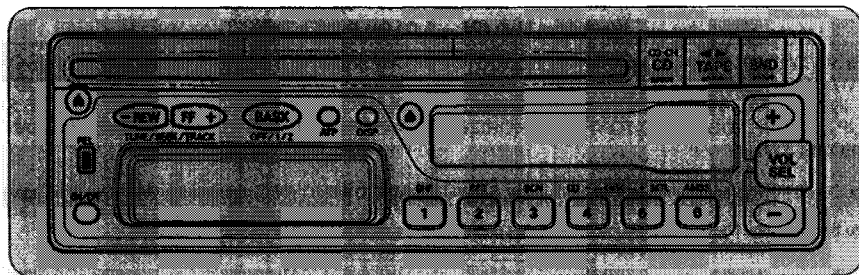


# OPERATING INSTRUCTIONS

# SANYO



## FXCD-500

**Full Panel Detachable  
FM Stereo/AM Receiver  
Auto Reverse Cassette Player  
Compact Disc Player  
with CD Changer Controller  
ISO Mounting with Removable Trim Ring**

*(English)*

**OPERATING INSTRUCTIONS**

**1~30**

*(Español)*

**LIBRITO DE INSTRUCCIONES**

**31~59**

GB

E

# SANYO MOBILE AUDIO MODEL FXCD-500 LIMITED WARRANTY

## OBLIGATIONS

In order to obtain warranty service, the product must be delivered to and picked up from an Authorized Sanyo Factory Service Center at the user's expense, unless specifically stated otherwise in this warranty. The names and addresses of Authorized Sanyo Service Centers may be obtained by calling the toll-free number listed below.

For product operation, authorized service center referral, service assistance or problem resolution, call

**CUSTOMER INFORMATION 1-800-421-5013**

**Weekdays 8:00 AM — 5:00 PM Pacific Time**

For accessories and/or parts not available from an authorized dealer, call

**PARTS ORDER INFORMATION 1-800-726-9662**

**Weekdays 8:00 AM — 5:00 PM Pacific Time**

**THIS WARRANTY IS VALID ONLY ON SANYO PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL RETAIL USER, AND DOES NOT APPLY TO PRODUCTS USED FOR ANY INDUSTRIAL, PROFESSIONAL OR COMMERCIAL PURPOSE. THE ORIGINAL DATED BILL OF SALE OR SALES SLIP MUST BE SUBMITTED TO THE AUTHORIZED SANYO SERVICE CENTER AT THE TIME WARRANTY SERVICE IS REQUESTED.**

Subject to the OBLIGATIONS above and EXCLUSIONS below, SANYO FISHER COMPANY (SFC) warrants this SANYO product against defects in materials and workmanship for the periods specified below. SFC will repair or replace (at its option) the product and any of its parts which fail to conform to this warranty. The warranty period commences on the date the product was first purchased at retail.

LABOR	PARTS
1 YEAR	1 YEAR

## EXCLUSIONS

This warranty does not cover (A) the adjustment of customer-operated controls as explained in the appropriate model's instruction manual, or (B) the repair of any product whose serial number has been altered, defaced or removed.

This warranty shall not apply to the cabinet or cosmetic parts, knobs or routine maintenance.

This warranty does not apply to uncrating, setup, installation, removal of the product for repair or reinstallation of the product after repair.

This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of SFC including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, modification or repair by the user, abuse, misuse, neglect, accident, incorrect power line voltage, fire, flood or other Acts of God, or normal wear and tear.

The foregoing is in lieu of all other expressed warranties and SFC does not assume or authorize any party to assume for it any other obligation or liability.

THE DURATION OF ANY WARRANTIES WHICH MAY BE IMPLIED BY LAW (INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS) IS LIMITED TO THE TERM OF THIS WARRANTY. IN NO EVENT SHALL SFC BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OWNERSHIP OR USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE PERFORMANCE OF ITS OBLIGATIONS UNDER THIS WARRANTY DUE TO CAUSES BEYOND ITS CONTROL.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

## ATTENTION

For your protection in the event of theft or loss of this product, please fill in the information below for your own personal records.

Model No \_\_\_\_\_

Serial No \_\_\_\_\_

(Located on back or bottom side of unit)

Date of Purchase \_\_\_\_\_

Purchase Price \_\_\_\_\_

Where Purchased \_\_\_\_\_

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

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## CAUTION

- This unit is designed to operate on 12 volts DC, NEGATIVE ground electrical systems only
- When fuse replacement is necessary, use only a 15 amp fuse Do not replace with a higher rated fuse If the fuse blows often, carefully check all electrical connections for any short circuits and have your car's voltage regulator checked also
- Do not install the unit where it will be exposed to direct sunlight or hot air discharged from the car heater
- Do not expose the unit to water or moisture
- To avoid damaging the unit, never insert anything other than a compact disc into the disc slot
- This unit should not be adjusted or repaired by anyone except qualified service personnel If servicing is required, return the unit to an authorized SANYO mobile audio dealer
- Use of Controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure
- Changes or modifications not expressly approved by Sanyo may void the user's authority to operate this equipment
- For CD player section:  
This device complies with Part 15 of the FCC Rules Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

## NOTE

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

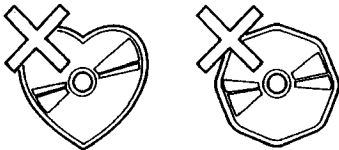
- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

# COMPACT DISC CARE

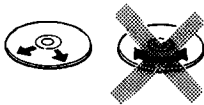
Dirt, dust, scratches and warpage can cause a deterioration in the sound or intermittent skipping some tracks during play



- This unit has been designed to play compact discs bearing the identification logo shown on the left. Discs bearing other types of identification logos may not play properly.
- CD-R and CD-RW discs cannot be used.



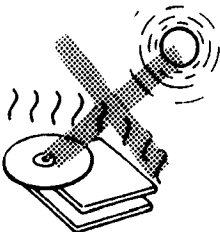
- Do not use non-conventional discs such as heart-shaped, octagonal discs, etc. The player could be damaged.



Label Side



- Fingerprints and dust should be carefully wiped from the signal surface of the disc (glossy side) with a soft cloth. Wipe in a straight motion from the inside to the outside of the disc. Unlike conventional records, the compact disc has no grooves to collect dust and debris. Small dust particles will have no effect on reproduction quality.
- Do not insert a disc which is cracked into the unit.
- Do not apply paper or write anything on the surface of the disc.



- To prevent warping the disc, do not expose it to direct sunlight, high humidity or high temperatures for extended periods.

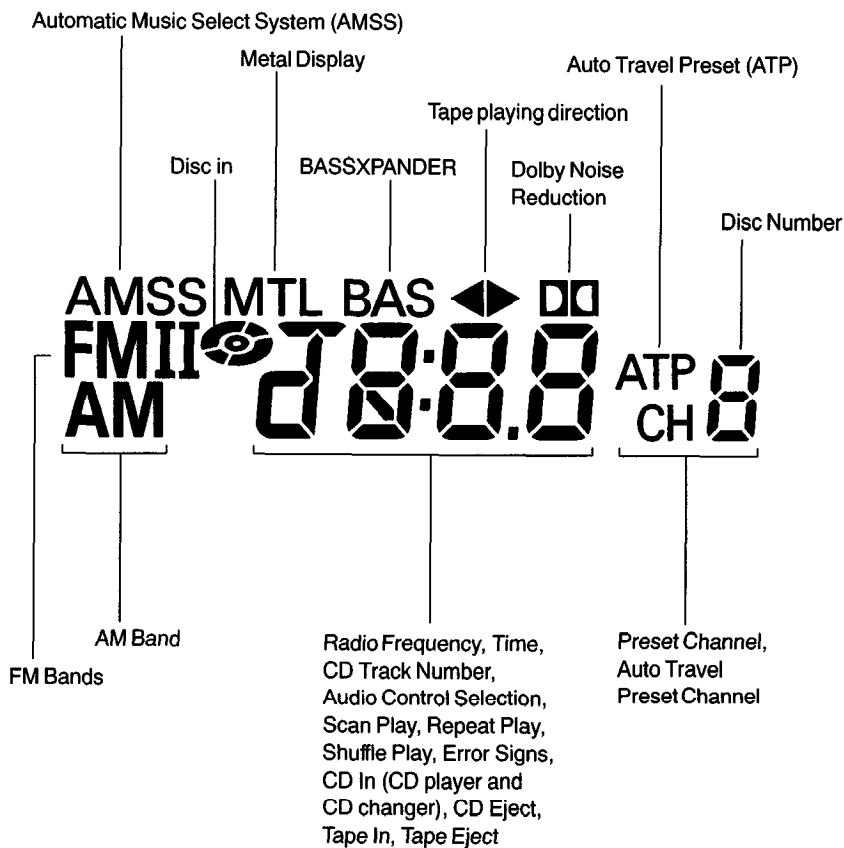


Benzene Thinner Cleaning spray



- Never use chemicals such as record cleaning sprays, antistatic sprays or fluids, benzene or thinner to clean compact discs. These chemicals will permanently damage the plastic surface of the disc.
- When not using the disc player for extended periods, remove the compact disc and return it to the plastic storage case. This will protect the disc from dust and exposure to the sun.

# DIGITAL DISPLAY



\*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation  
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation

## SAFETY CERTIFICATION

This Compact Disc Player is made and tested to meet exacting safety standards  
It meets FCC requirements and complies with safety performance standards of the U S Department of Health and Human Services

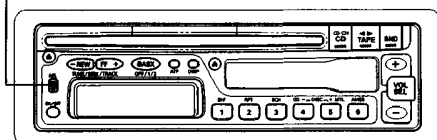
# DETACHABLE FRONT PANEL

The front panel is designed to be removable for antitheft purposes. It is recommended that you remove and carry the front panel with you when you leave your car. A carrying case is provided with the unit for this purpose.

## HOW TO DETACH THE FRONT PANEL

- 1 Press the release knob (REL) to release the front panel
- 2 Pull the entire panel to remove it from the unit

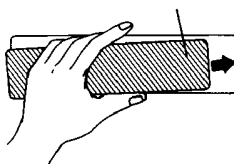
RELEASE KNOB



## HOW TO REPLACE THE FRONT PANEL

Align the right side of the panel with the stopper, and then push the left side of the panel into the unit until it clicks.

FRONT PANEL



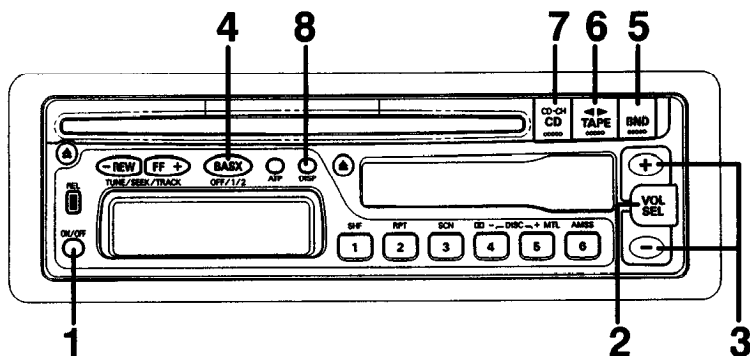
### Note

*The unit will not operate if it is installed incorrectly.*

### ⚠ CAUTION

- Do not attempt to remove the panel in a manner other than that described above
- When installing the panel, do not force it into the unit
- Do not touch the connection terminals of the panel or the unit. It may cause poor contact.
- Use a clean, dry cloth when cleaning the terminals
- Keep the panel out of direct sunlight and high temperatures
- Prevent the panel from coming into contact with benzene, thinner, or insecticides
- Do not drop the panel

# GENERAL OPERATION



## TURNING THE POWER ON

Install the front panel and press the ON/OFF button ① when ACC is on

## TURNING THE POWER OFF ..... 1

Press the ON/OFF button ① to stop the current operation

The button dims when the power is off (ACC on)

## ELECTRONIC CONTROLS ..... 2, 3

Press the SEL button ② to select the audio functions as shown in the table below

To adjust the volume, press the ⊕ or ⊖ buttons ③ while in the volume mode

To adjust the bass, treble, balance or fader, press the SEL button to select the desired operation, then press the ⊖ or ⊕ buttons

### Note

*While no other mode is displayed, the ⊕ and ⊖ buttons function as a volume control*

MODE	⊖ (Min)	⊕ (Max)
VOL	Down  0	Up  50
bAS	Down -5	Up 5
TRE	Down -5	Up 5
bAL	Left L15	Right R15
FAd	Rear R15	Front F15

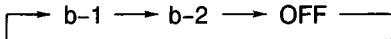


## ELECTRONIC CONTROL RESET

Press the SEL button ② for about 3 seconds until the unit beeps, the audio controls, except for volume, will be reset

## BASSXPANDER (BASX) - 1/2 ..... 4

BASSXPANDER is a dual-mode sound equalization feature. Press button ④ to select the BASSXPANDER modes as follows:



BASSXPANDER offers two preset modes: b-1 enhances the low and high frequencies, while b-2 enhances the low frequencies and reduces the high frequencies

## RADIO SELECTION BUTTON (BND) ..... 5

Press the BND button ⑤ to switch from tape, CD player or CD changer\* mode to radio  
\* If a CD changer is connected

Each time the button is pressed, the function changes as shown below



## TAPE SELECTION BUTTON ..... 6

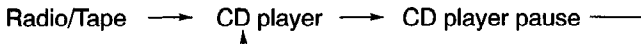
Press the TAPE button ⑥ with a tape inserted in the tape slot to switch from radio, CD player or CD changer\* mode to tape mode  
\* If a CD changer is connected

## CD PLAYER OR CD CHANGER\* SELECTION BUTTON (CD/CD-CH) ..... 7

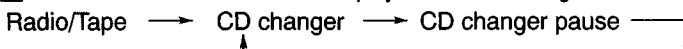
Press the CD/CD-CH button ⑦ with a CD inserted in the disc slot to switch from radio or tape mode to CD player or CD changer\* mode  
\* If a CD changer is connected

Pressing the button will change the mode as follows:

① When a CD is loaded in the CD player and a CD changer is not connected;



② When a CD is not loaded in the CD player and a CD changer is connected,



③ When a CD is loaded in the CD player and a CD changer is connected,



## CLOCK BUTTON (DISP) ..... 8

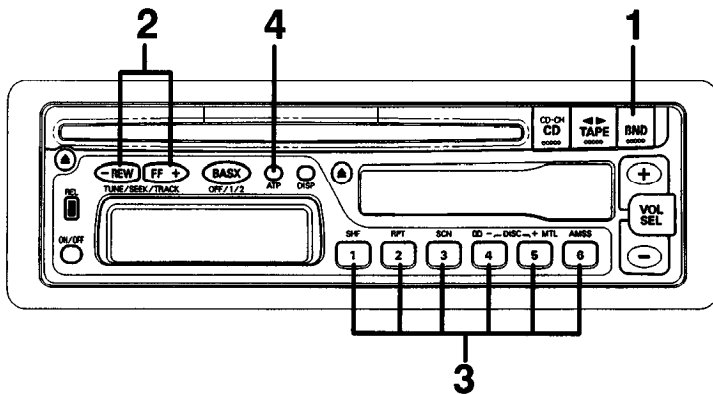
Press the DISP button ⑧ to switch between the clock and audio display. When an audio function is performed while the time display is selected, the audio display will appear for 5 seconds, then the display will return to the time mode

## TO CANCEL THE BEEP TONES ..... 6

① To cancel all beep tones, press TAPE button ⑥ for more than 3 seconds with no tape in the slot, and then **bEE P/0FF** is displayed

② To turn on the beep tones again, perform the same procedure. The beep tones are set and **bEE P/ON** is displayed

# RADIO OPERATION



## SELECTING RADIO MODE

Press the BND button ① to switch from tape, CD or CD changer\* mode to the radio. Each time the BND button is pressed, the selected band changes as shown below.

\* If a CD changer is connected



## RADIO TUNING ..... 2

- Automatic tuning: Press the TUNE/SEEK/TRACK ⊕ or ⊖ button ② for more than 1 second until it beeps twice if the beep tones are on. When the button is released, the system will start automatic tuning and stop at the next receivable station.
- Manual tuning: To select higher frequency stations, press the ⊕ button for less than 0.5 seconds. To select lower frequency stations, press the ⊖ button for less than 0.5 seconds. To quickly scan up or down in frequency, press and hold the ⊕ or ⊖ button. Release the button when the display approaches the desired frequency, then press and release the button repeatedly until the desired frequency is displayed. In FM mode a flashing decimal point in the frequency display indicates that the system is receiving a station 50 kHz higher than the displayed frequency.

## STORING PRESET STATIONS ..... 3

The preset buttons ③ can be used to store 6 stations in each band (FMI, FMII, and AM) for convenient access to your favorite stations.

- Programming stations:
  - 1 Select the desired band, then tune in the station you want to store in memory.
  - 2 Press and hold one of the preset buttons for more than 2 seconds. Repeat steps 1 and 2 to program additional stations.
- Quick tuning: Select the desired band, then press one of the six preset buttons.

## ATP (AUTO TRAVEL PRESET) OPERATION ..... 4

The Auto Travel Preset function searches for and memorizes the 6 strongest stations in one of the two bands (FM I, AM) in order of signal strength

This feature is useful when you are driving in an unfamiliar location and want to memorize local stations without changing the standard preset stations

A total of 12 stations (6 FM and 6 AM) can be programmed

- To set the stations
  - 1 Select the desired band
  - 2 Press and hold the ATP button ④ for more than 2 seconds "ATP" appears in the display  
When the stations have been memorized, scanning stops and the strongest station is selected
- Quick Tuning of ATP Stations
  - 1 Select the desired band
  - 2 Press the ATP button if the "ATP" indicator does not appear in the display
  - 3 Press button ④ for less than 1 second to select the desired ATP preset  
Each time the ATP button is pressed, the next ATP preset is selected  
If a total of six stations cannot be preset "----" will be displayed for the empty channels
- To scan programmed stations See "PRESET-SCAN OPERATION"

### Notes

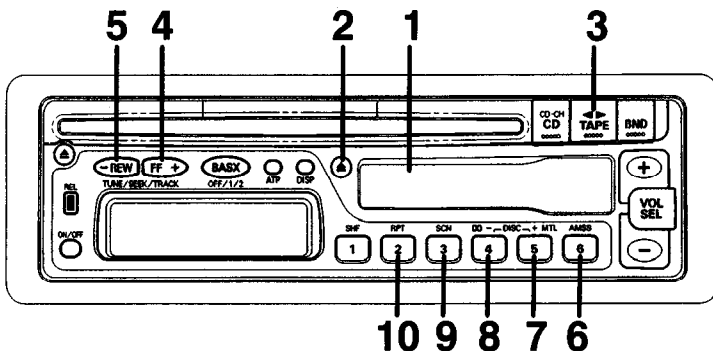
- If no station can be received, "----" appears in the display
- If fewer than 6 stations can be received, the system will memorize as many stations as possible, then select the one memorized first
- If ATP mode is selected in FM II band, FM I ATP mode is selected

## PRESET-SCAN OPERATION (using BND button) ..... 1, 4

This function scans each of the preset stations stored in the selected band (both manual preset and auto travel presets)

- 1 Press the BND button ① for FMI, FMII, or AM Press the ATP button ④ for less than 0.5 seconds to select the desired band or ATP mode
- 2 Press the BND button ① for more than 2 seconds The system will select and receive each preset station for 5 seconds
- 3 To stop scanning and retain the station currently selected, press the BND button ① again during this five-second period

# TAPE OPERATION



## LOADING AND EJECTING THE TAPE

- Insert a cassette into the tape slot ① and the tape player will start
- Press the eject button ② to eject a tape
- The system will return to the last mode

### ⚠ CAUTION

Only cassette tapes that play no longer than 90 minutes should be used. Tapes exceeding 90 minutes are thin and may easily break.

## SELECTING TAPE MODE

Inserting a cassette into the tape slot as stated above will start the tape player. If radio, CD player or CD changer\* is in operation with a tape loaded, press the TAPE button ③ to switch to tape mode.

\* If a CD changer is connected

## SWITCHING THE TAPE DIRECTION ..... 3

Press the TAPE button ③



- When the tape reaches the end of one side, the unit will automatically switch to the opposite side of the tape

## FAST FORWARD AND REWIND ..... 4, 5

Press the FF button ④ to fast forward and press the REW button ⑤ to rewind the tape. Pressing the TAPE button ③ during fast forward and rewind operation resumes tape playing.


## LOCATING THE BEGINNING OF A PROGRAM (AMSS) .... 4, 5, 6


This system is equipped with a function that allows you to skip forward or backward to locate the beginning of a particular selection on the tape (Automatic Music Select System : AMSS)

- 1 Press the AMSS button  "AMSS TAP E" is displayed
- 2 Press the FF button  to skip forward up to 9 selections from the current location on the tape

e.g.) With "AMSS TAP E" displayed, press button  three times "AMSS F 3" is displayed

The system will search for 3 blank spaces between selections in the forward direction, then begin playing the third selection from the starting point

- 3 Press the REW button  to skip backward to the beginning of the current selection, or up to 8 selections from the current location on the tape

e.g.) With "AMSS TAP E" displayed, press button  five times "AMSS R 5" is displayed


The system will search for 5 blank spaces between selections in the backward direction, then begin playing the forth selection from the starting point (The blank space before the current selection counts as one blank space)

- 4 To cancel AMSS mode, press button  again


### Notes

- If AMSS detects 15 seconds of blank space, it will automatically advance the tape to the next selection
- AMSS may not operate properly if
  - A tape was recorded at low level
  - A tape has long, silent intervals
  - A tape is a live recording

## METAL PLAY MODE ..... 7

If a metal or high-position tape is used, press the MTL button  to make the player in metal play mode MTL is indicated


## DOLBY B NOISE REDUCTION BUTTON ..... 8


To play back a tape encoded with Dolby\* NR, press button  When Dolby\* NR is activated, the indicator lights  
To play other tapes not encoded with Dolby\* NR, press the button to switch Dolby\* NR off The indicator goes out

\*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation  
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation

## SCAN MODE ..... 9

Scan helps to find a program by playing about the first 10 seconds of each selection

Press the SCN button  during play to start scan operation "SCN" is displayed

To cancel scan, press the SCN button  again


### **Notes**

*RPT/SCN may not operate properly if*

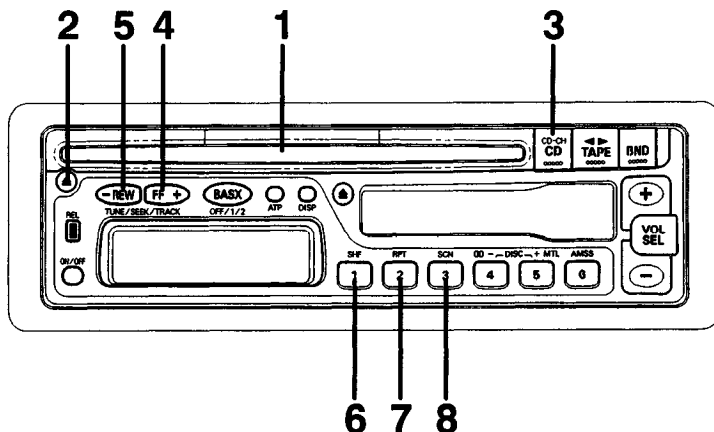
- *A tape was recorded at a low level*
- *A tape has long, silent intervals*
- *A tape is a live recording*

## REPEAT MODE ..... 10

This operation makes it possible to listen repeatedly to a selection

Press the RPT button  during play "REP" is displayed, the selection playing will continue until RPT is pressed again

# CD OPERATION



## LOADING AND EJECTING THE CD ..... 1, 2

Insert a disc into the CD slot ① and the CD player will start

Press the eject button ② to eject a disc

### ⚠ CAUTION

- This CD player is not designed for 8 cm CDs  
Please do not use an 8 cm CD nor 8 cm CD adaptor
- If the unit is already loaded with a CD, please do not attempt to insert another disc, which may result in damage to both of the discs and the unit

## SWITCHING TO CD MODE ..... 3

Press the CD button ③ to switch from radio, tape or CD changer\* mode to CD player mode. Pressing the button will change the mode as explained in section "CD PLAYER OR CD CHANGER SELECTION BUTTON (CD/CD-CH)" in page 8

When the CD mode is switched on while a disc is loaded, play resumes from the point at which play was stopped

When the entire disc has played, the unit returns to the first track and play resumes

The CD player continues playing the disc until the ON / OFF button is pressed, the other mode is selected, or the disc is ejected

\* If a CD changer is connected

## SKIPPING TRACKS ..... 4, 5

Press the TRACK ⊕ button ④ to skip to the beginning of the next track

Press the TRACK ⊖ button ⑤ to skip to the beginning of the track currently playing

Press the TRACK ⊖ button ⑤ twice to skip to the beginning of the previous track

Press and hold the TRACK ⊕ or ⊖ button for more than 1.5 seconds to search quickly (with sound) in the forward or reverse direction. The elapsed time is displayed.

When the button is released, the CD resumes normal play.

## SHUFFLE MODE ..... 6

This function plays the tracks on a CD in random order.

Press the SHF button ⑥ to begin shuffle play.

Press the TRACK ⊕ or ⊖ button to select another random track.

To cancel this mode, press the SHF button ⑥ again or eject the CD.

### Note

*If a disc is already loaded under the following conditions, shuffle play will resume from the point at which play was stopped*

- If the vehicle ignition is turned off, then on again
- If the power is switched off, then on again with the ON/OFF button

## REPEAT MODE ..... 7

Press the RPT button ⑦ to play the current track repeatedly.

To cancel this mode, press the RPT button ⑦ again or eject the CD.

### Note

*If a disc is already loaded under the following conditions, repeat play will resume*

- If the vehicle ignition is switched off, then on again
- If the power is switched off, then on again with the ON/OFF button

## SCAN MODE (PLAYING THE BEGINNING OF EACH TRACK) ..... 8

This function plays the first 10 seconds of each track sequentially.

Press the SCN button ⑧ to begin the scan mode.

The system will remain in this mode until it comes to the track where the scan mode started.

To cancel this mode, press the SCN button ⑧ again.

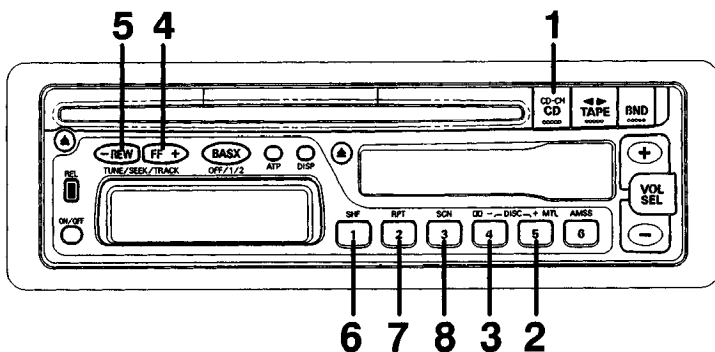
### Note

*Scan mode will be cancelled when the vehicle ignition is turned off, when any other key operations are performed except time and audio adjustments, or when the disc is ejected*



# CD CHANGER OPERATION

THE UNIT CAN BE USED TO CONTROL THE FUNCTIONS OF THE AX-300, AX-500 OR OTHER COMPATIBLE SANYO CD CHANGERS



## SELECTING CD CHANGER MODE ..... 1

Press the CD/CD-CH button ① to switch from radio, tape or CD player mode to CD changer mode  
Pressing the button will change the mode as explained in section "CD PLAYER OR CD CHANGER SELECTION BUTTON (CD/CD-CH)" in page 8

## SELECTING A DISC ..... 2, 3

Press the DISC ⊕ button ② to select the next disc  
Press the DISC ⊖ button ③ to select the preceding disc

## SKIPPING TRACKS ..... 4, 5

Press the TRACK ⊕ button ④ to skip to the beginning of the next track  
Press the TRACK ⊖ button ⑤ to skip to the beginning of the track currently playing  
Press the TRACK ⊖ button ⑤ twice to skip to the beginning of the previous track  
Press and hold the TRACK ⊕ or ⊖ button for more than 2 seconds to search quickly (with sound) in the forward or reverse direction  
When the button is released, the CD resumes normal play

## SHUFFLE MODE ..... 6

This function plays the tracks on one CD or all CDs in the magazine in random order

- Shuffle-playing tracks;  
Press the SHF button ⑥ to play tracks on the current disc in random order "SHF" is displayed
- Shuffle-playing discs,  
Press the SHF button ⑥ for more than 2 seconds "DSHF" is displayed The system selects a disc at random and plays all tracks on that disc When all tracks have been played, the next disc is selected and shuffle-play is repeated

To cancel the track shuffle or disc shuffle mode, press the SHF button ⑥ again  
The system will remain in this mode until it is cancelled

## REPEAT MODE ..... 7

- Repeat tracks Press the RPT button ⑦ to play the current track repeatedly
- Repeat discs Press the RPT button ⑦ for more than 2 seconds to play the current disc repeatedly

To cancel the track repeat or disc repeat mode, press the RPT button ⑦ again  
The system will remain in this mode until it is cancelled

## SCAN MODE (PLAYING THE BEGINNING OF TRACKS OR DISCS) ..... 8

- This function plays the first 10 seconds of each track or disc sequentially
- Playing the beginning of tracks (Track Scan) Press the SCN button ⑧ to play the first 10 seconds of each track on the current disc in order
  - Playing the beginning of discs (Disc Scan) Press the SCN button ⑧ for more than 2 seconds to play the first 10 seconds of each disc in the magazine

To cancel the track scan or disc scan mode, press button ⑧ again  
The system will remain in this mode until it is cancelled

### **Note**

*Scan mode will be cancelled when the vehicle ignition is turned off, when any other key operations are performed except time and audio adjustments, or when the disc is ejected*

# ERROR SIGNS

## CD Player

If a problem should occur while operating the built-in CD player, one of the following error signs may be displayed

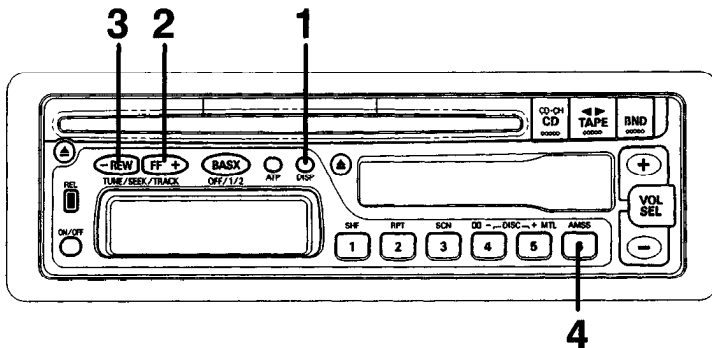
Error Sign	Cause	Remedy
E01	Abnormal mechanism function	Press the eject button Turn the power off and then on again If it is not corrected, contact the place of purchase
E07	The disc is inserted incorrectly	Eject the disc and insert it properly
	The disc is dirty	Clean the disc
	The disc is defective	Use another disc
	There is condensation on the optical lens	Leave the disc player off for an hour or so, then try again
E99	Internal connection check error	Turn the power off and then on again If it is not corrected, contact the place of purchase

## CD Changer

If a problem should occur while operating the connected CD changer, one of the following error signs may be displayed

Error Sign	Cause	Remedy
E01	Abnormal mechanism function	Contact the place of purchase
E07	The disc was inserted incorrectly	Insert the disc properly
	The disc is dirty	Clean the disc
	The disc is defective	Use another disc
	There is condensation on the optical lens	Leave the disc player off for an hour or so, then try again
		Refer to the instructions supplied with the CD changer
E30	Excessive temperature has been detected in the vehicle	Allow the car to cool
nOC d	The magazine is not fully inserted into the changer No discs in the magazine	Completely insert the magazine into the changer until it clicks into place Load discs into the magazine

# CLOCK



## DISPLAY MODE CHANGE ..... 1

The display on the unit can be changed by pushing button ① Press the DISP button ① to switch between the clock and audio display When a radio, tape or CD function is performed while the time display is selected, the audio display will appear for 5 seconds, then the display will return to the time mode

## ADJUSTING THE TIME ..... 1, 2, 3

To adjust the time, press the DISP button ① for more than 2 seconds The time display blinks

To adjust the minute, press the FF+ button ②

To adjust the hour, press the -REW button ③

To advance the time rapidly, hold the ⊖ or ⊕ button continuously

Press DISP button ① again to start the clock

## CLOCK RESET ..... 1, 4

Press DISP button ① for more than 2 seconds and the time display blinks While blinking, press preset button 6 ④ to skip to the nearest half-hour as follows:

Example 3 00~3 29 → 3 00

3 30~3:59 → 4:00

### Notes

- This unit uses a 12-hour clock
- The clock function and radio presets are retained in memory when the power is switched off

# HINTS FOR PROPER AND SAFE OPERATION

---

- **Condensation**

Moisture can condense on the optical lens of the CD player during humid or rainy days, or after the car heater is turned on. If this occurs the disc player may not function properly. To remedy the situation, remove the disc from the unit and wait approximately one hour. This should allow the moisture to evaporate and restore normal operation.

- **Temperature Consideration**

The unit may not operate correctly in extremely hot or cold temperatures. Avoid exposing the unit to extremely high or low temperatures.

- **Interruptions in the sound (skipping)**

When the car is driven on very rough surfaces, the sound from the CD player may skip and be interrupted. This will not cause any damage to the disc or the player. If this occurs, wait for the road surface to improve before using the CD player.

- **Safety**

For safer driving, keep the volume at a moderate level to enable you to hear outside sounds (such as emergency vehicle sirens).

- **Cleaning the unit**

Clean the unit with a soft, dry cloth. Stains should be removed by wiping the surfaces with a soft cloth immersed in lukewarm water and wrung dry. Never use strong chemicals or solvents. These will damage the finish of the unit.

- **Disc care**

When not using the disc player for extended periods, remove the compact disc and return it to the plastic storage case. Do not leave a disc partially ejected from the player.

- **Servicing**

Should a problem develop, do not open the unit or try to repair it yourself. If servicing is required, bring the unit to a Sanyo Authorized Service Center.

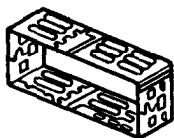
# TROUBLESHOOTING

Sometimes a simple operational error or a mistake in the wiring can appear to be a problem with the unit. Before having the unit serviced, refer to the troubleshooting chart below.

Symptom	Cause	Solution
The compact disc does not play when inserted into the unit	The volume control is turned down	Turn up the volume control
	The power connections are not wired correctly	Check the +12V and ground connections
No power	The vehicle ignition is switched off	Switch the ignition to the "ON" or "ACC" position
	The fuse is blown	Replace the fuse with another 15A fuse
The unit does not work properly (Eject, Load, Play)	The microcomputer has been affected by electrical noise	Eject the disc, then insert it again
The sound from the CD player skips	The road surface is rough	Wait for the road surface to improve before playing a disc
	The unit is not mounted securely	Install the unit securely
	The disc is defective	Try another disc If it plays properly, the first disc may be defective
	The disc is dirty	Clean the disc as explained on pages 3—4
No radio reception	The antenna cable is not connected	Insert the antenna cable firmly into the antenna jack on the unit
The radio does not stop on any stations when automatic tuning is used	The signals are weak	Select a station using manual tuning

# ACCESSORIES AND HARDWARE

## INSTALLATION



Mounting Bracket  
(Half Sleeve) x 1



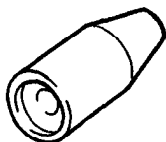
Rear Strap  
(Brace) x 1



Screw M5 x 14  
x 2



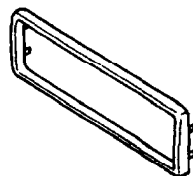
Hex bolt M8 x 6  
x 4



Mounting Grommet  
x 1



Mounting Screw M5  
x 1



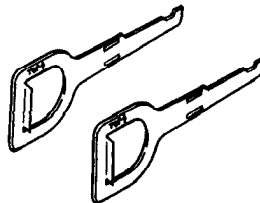
Removable Trim Ring  
x 1

## SECURITY OF FRONT PANEL



Screw M2 x 8  
x 1

## SET REMOVAL

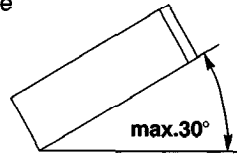


Unlock Levers  
x 2

# INSTALLATION

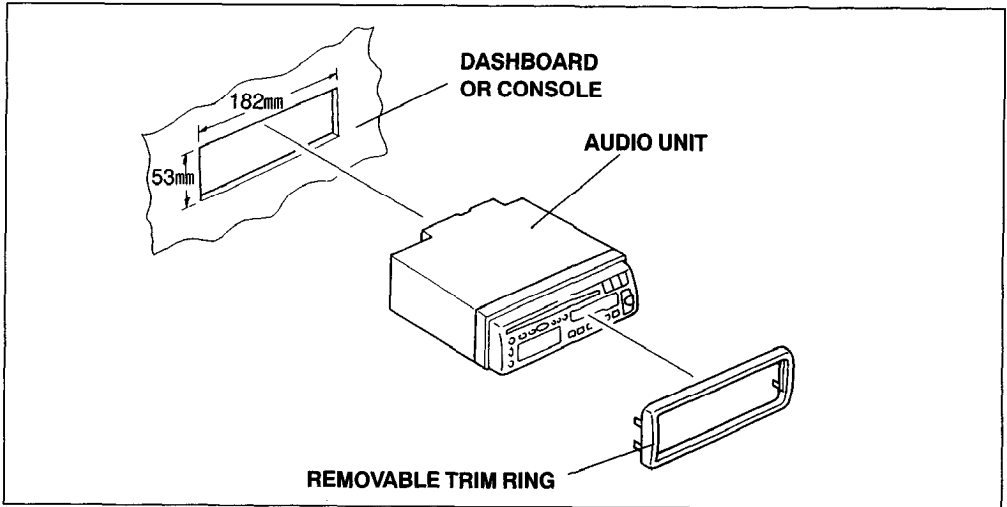
## 1. BEFORE INSTALLATION

When mounting the unit in a car, keep the unit as level as possible. If the unit must be mounted at an angle, due to the design of the vehicle, make sure the unit does not tilt by more than 30°.



## 2. ISO MOUNTING WITH REMOVABLE TRIM RING

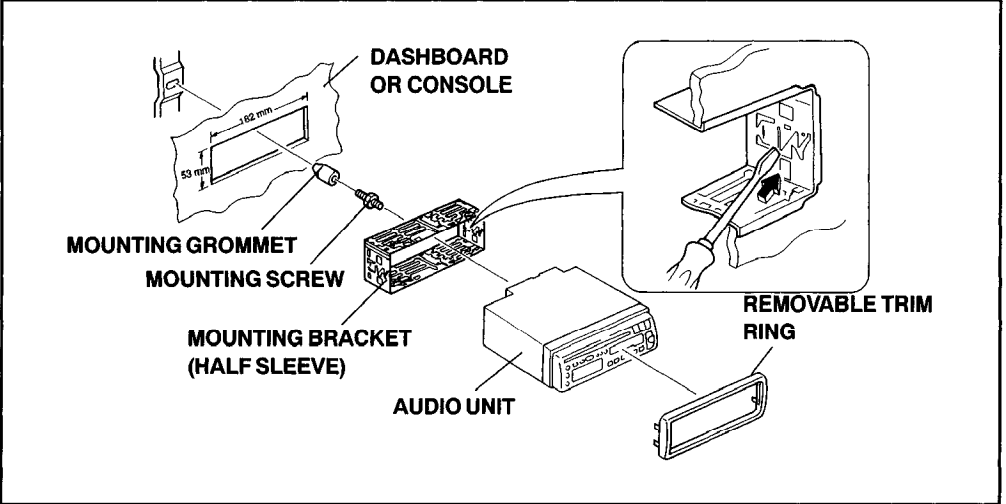
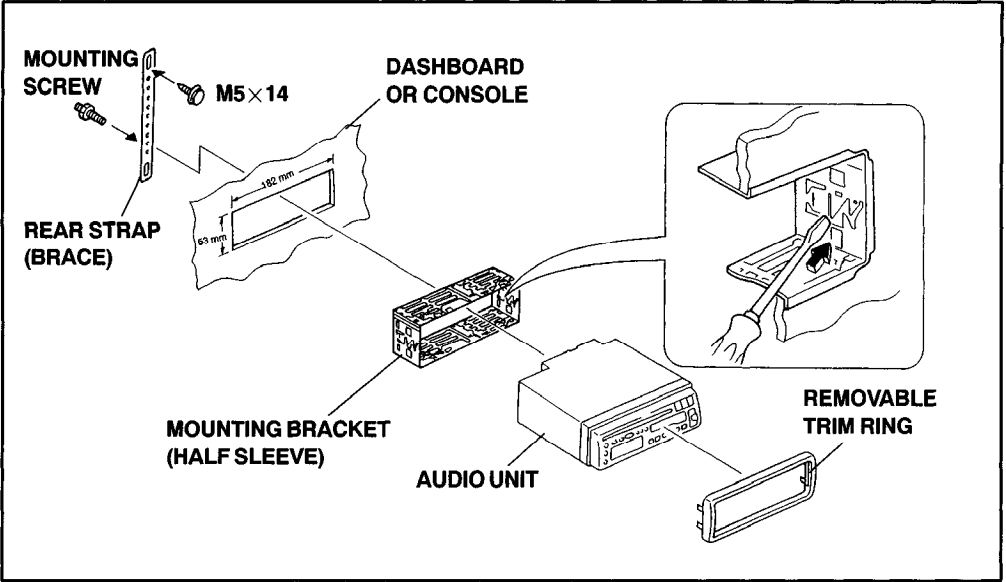
When mounting the unit into a DIN-standard cutout (182 × 53 mm) in the dashboard or console, attach the provided Removable Trim Ring to the unit.





# 3. INSTALLATION PROCEDURES

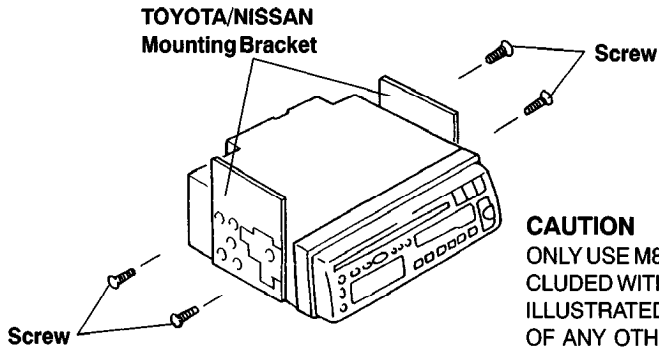
## 1) Installation with Mounting Kit



- 1 Insert the mounting bracket into the DIN-standard cutout (182 x 53 mm) in the dashboard or console
- 2 Bend the mounting bracket stopper outward until the bracket fits snugly in the cutout
  - If the rear strap is used
- 3 Push the unit into the mounting bracket until it locks in place
  - If the mounting screw is used
- 3 Install the supplied mounting screw (M5) in the audio unit
  - Cover the mounting screw with the supplied mounting grommet
- 4 Push the unit into the mounting bracket until it locks in place

## 2) Installation to TOYOTA/NISSAN Vehicles

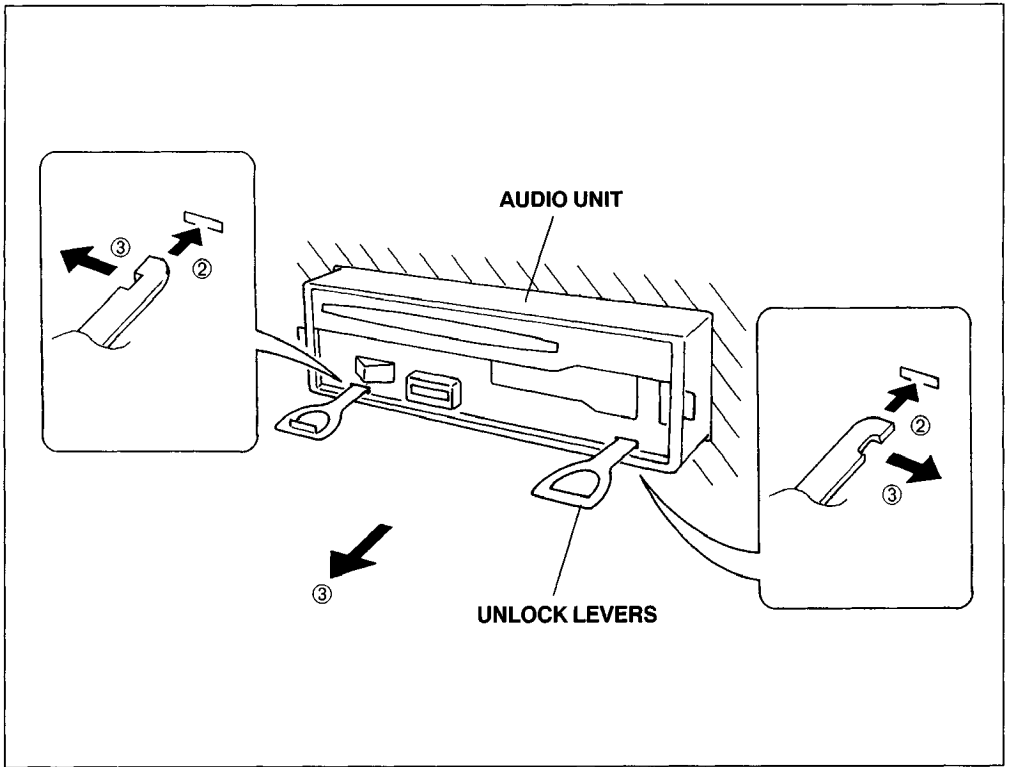
Install the unit using the existing TOYOTA/NISSAN Mounting Bracket and Screws. Use the mounting holes in the unit chassis. "T" or "N" is engraved next to each mounting hole. Use "T" holes for Toyota vehicles and "N" holes for Nissan vehicles.



### CAUTION

ONLY USE M8 x 6 SCREW (INCLUDED WITH THIS UNIT) AS ILLUSTRATED ABOVE. USE OF ANY OTHER SCREW OR HARDWARE MAY RESULT IN DAMAGE TO HEAD UNIT.

# UNIT REMOVAL



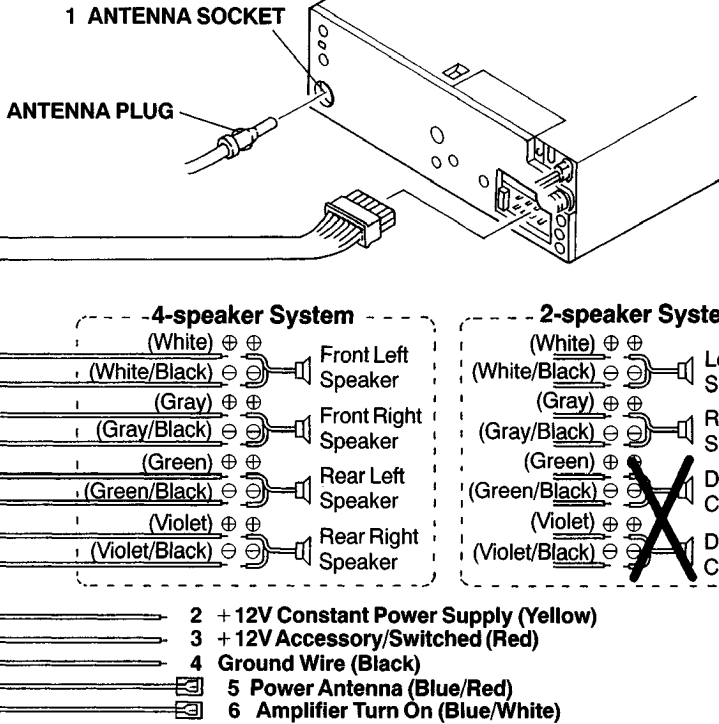
- 1 Remove the front panel by pressing the release knob
- 2 Insert the unlock levers into the slots as illustrated

**Note**

*The jagged side of the key should face outward*

- 3 Slide down keys outward and pull to remove the audio unit

# ELECTRICAL CONNECTIONS



## ⚠ CAUTION

- DO NOT connect any speaker wires to the metal body or chassis of the vehicle
- DO NOT connect the speaker common (-) wires to each other
- Connect each speaker wire directly to each speaker terminal
- All speaker common (-) wires must remain floating

## 1 Antenna socket

- Insert the plug from the antenna installed in your vehicle into this socket (If your vehicle has a dual antenna system, a dual antenna to single antenna cable adaptor may be required)

## 2 +12V Constant Power Supply (Yellow)

- Connect this wire to the +12V power terminal which receives power continuously
- Connect to location drawing 10 A amperage or more

## 3 +12V Accessory/Switched (Red)

- Connect this wire to the terminal which receives power while the ignition switch is at ON or ACCESSORY position
- If the ignition switch does not have an ACC position, connect this wire to a +12V power terminal which receives power continuously (Same as item 2)
- Connect to location drawing 100 mA amperage or more

## 4 Ground wire (Black)

- Connect this wire to the vehicle chassis

## 5 Power Antenna (Blue/Red)

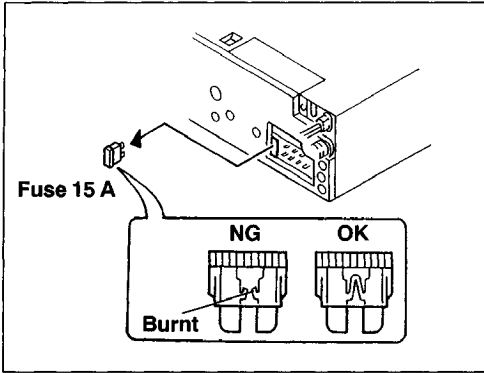
- Connect this wire to the control terminal of a Power Antenna
- When not using a Power Antenna, this wire is not connected

## 6 Amplifier Turn On (Blue/White)

- Connect this wire to an external amplifier
- When not using an external amplifier, this wire is not connected

## Notes

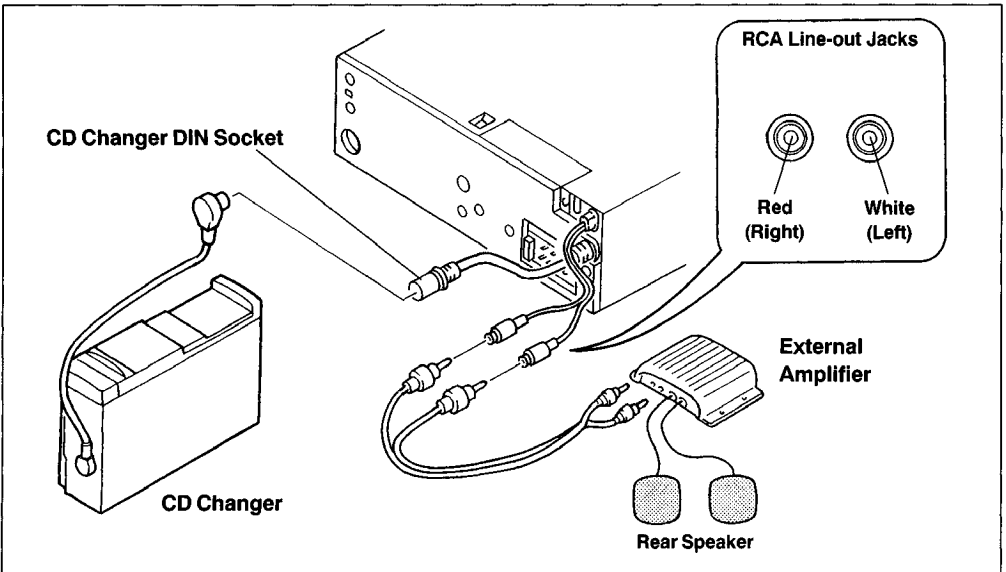
- When using a two-speaker installation, the Green, Green/Black, Violet, Violet/Black wires, which are used for a four-speaker installation, are not used. The ends of these wires must be covered with electrical tape to prevent them from shorting to the unit or the vehicle chassis



- When using a two-speaker installation, set the FADER control to the center position
- When fuse replacement is necessary remove the blown fuse by using pliers. Then install the new 15 amp fuse

## LINE OUT/CD CHANGER CONNECTIONS

- The unit has a built-in CD changer controller and line output terminals. You can use a compatible Sanyo CD changer and a separate rear channel amplifier to upgrade your system



### CD Changer DIN Socket

- Connect the 8-pin DIN cable, which is supplied with the AX-300, AX-500 or other compatible Sanyo CD changer, to the DIN socket on the back of the unit

### RCA Line-out Jacks (For Rear Speakers)

- Connect a patch cable (not supplied) from the White (left rear channel) and Red (right rear channel) RCA line output jacks to the line input terminals of the external amplifier

# SPECIFICATIONS

## FM TUNER SECTION

Frequency Range	87.5MHz ~ 107.9MHz
Usable Sensitivity	15dBf
50dB Quieting Sensitivity	30dBf
Frequency Response ( $\pm 3$ dB)	50Hz ~ 12.5kHz
I F Rejection	100dB
Image Rejection	65dB
Signal-to-Noise Ratio	60dB
Selectivity	65dB
Stereo Separation	27dB
Capture Ratio	2dB
Antenna Impedance	75 $\Omega$

## AM TUNER SECTION

Frequency Range	530kHz ~ 1710kHz
Usable Sensitivity (S/N 20dB)	20 $\mu$ V
I F Rejection	80dB
Image Rejection	75dB
S/N Ratio	50dB
Antenna Impedance	75 $\Omega$

## TAPE SECTION

Wow & Flutter	0.1%
S/N Ratio (Normal)	52dB
S/N Ratio (with Dolby)	62dB
Separation	50dB
Frequency Response	50Hz-15kHz

## CD SECTION

Disc size	5"
Channels	2-channel stereo
Sampling frequency	44.1kHz
D/A converter	Twin, 1-bit
Pickup	Optical 3-beam semiconductor laser
Digital filter	4 fs
Frequency response	5Hz ~ 20kHz
Total harmonic distortion	0.1% (1 kHz)
Dynamic range	85dB
Signal-to-noise ratio	90dB
Wow and flutter	Below measurable limits
Channel separation (1kHz)	85dB

**AUDIO SECTION**

RMS Power Rating (3% THD)	20W × 4 (14.4 V)
RMS Power Rating (10% THD)	24W × 4 (14.4 V)
Maximum Output Power	45W × 4CH (15.0 V)
Load Impedance	4Ω

**GENERAL**

Operating Voltage	12V (10.5—15.0 V)
Operating Current Maximum	13A

**IMPORTANT INFORMATION**

Because its products are subject to continuous improvement, SANYO reserves the right to modify product designs and specifications without notice and without incurring any obligation.

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