KENWOOD

CD CASSETTE DSP RECEIVER
DPX-500

INSTRUCTION MANUAL

KENWOOD CORPORATION

KENWOOD

COMPACT
disc
DIGITAL AUDIO

© B64-0812-00(M) (+)

CONTENTS

Accessories

Remote control unit	1 piece
Power supply harness	1 piece
Truss head screws (M5×6mm)	6 pieces
Binding head screw (M5×6mm)	1 piece

SAFETY PRECAUTIONS

⚠WARNING

Take the following precautions to prevent fire and avoid personal injury :

- When extending the ignition cable, battery cable, or ground cable, use 0.75mm² (AWG18) or larger automotive grade cable to avoid cable deterioration or damage to the covering.
- Check that no metal objects (coins, tools, etc.) are left inside the unit to avoid short circuits.
- Keep your hands or fingers away from the panel while it is in operation for opening or closing to prevent injury.
- If you smell or see smoke, turn the power off immediately and consult your Kenwood dealer.

⚠CAUTION

Take the following precautions to keep the unit in proper working order.

- Be sure the unit is connected to a 12V DC power supply with a negative ground connection.
- Some automobiles cause the panel to interfere with the gearshift in the parking position when you are adjusting the panel angle or loading/removing the tape. To conunteract this, move the gearshift using the utmost care for safety.
- Do not open the top or bottom cover.
- Do not install the unit in places it is exposed to direct sunlight, high heat or humidity, water may splash over it, or dust exists.

NOTE

- If you have difficulty in installing this unit in your vehicle, contact your Kenwood dealer.
- If it doesn't seem to be working properly, first press the Reset button. If the malfunction persists, consult your Kenwood dealer.

Cleaning the unit

- If the front panel is dirty, wipe it clean with a silicon cloth or soft dry cloth with the power off.

⚠CAUTION

Do not use hard cloths or paint thinner, alcohol, or other volatile solvents. These may damage external surfaces or remove indicator characters.

Cleaning the tape head

- As you play tapes for a long time, magnetic dust and other grime accumulates around the heads and eventually causes noise that lowers sound quality. To clean the heads, use a cleaning tape or cleaning kit. Make sure you purchase a cleaning tape or cleaning kit suited to car audio use.

Be careful with your tapes.

• Before loading a cassette, take up any slack tape, by turning one of the spools with a pencil. Loading a slack tape can cause tape to tangle around the capstan and pinch roller and other problems.

• Do not use any deformed cassettes or cassettes with labels coming off, or the unit may fail.

• Do not leave cassettes exposed to high heat (for example, on the dashboard where it is exposed to direct sunlight, or near heater outlets). This can deform the cassette shell.

• Avoid long cassettes, such as 100-minute tapes. The tape is thin and easily tangled around the pinch roller or other parts.

• If you do not listen to your tape, remove it from the unit and store it safely. If a cassette is left in for a long time, the tape can stick to the tape head, causing failure.

Before Using the Card Remote Control

Be sure to remove the tape from the battery box when using the remote controller for the first time.
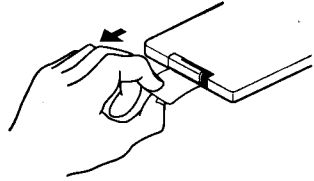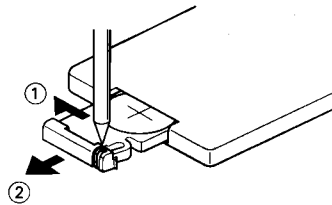
Replacing the Lithium Battery of the Card Remote Control

One lithium battery (CR2025) is used for the remote controller.
Be sure to place the battery correctly according the ⊕ and ⊖ indication inside the battery box.
The battery life is about six months. Replace the battery with a new one at regular six month intervals.
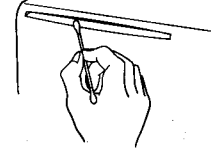
⚠WARNING

Be sure to store the button-type lithium batteries outside the reach of small children. If accidentally swallowed, seek medical assistance immediately.

Cleaning the CD slot

• Since dust accumulates in the CD slot, it will cometimes need to be cleaned. Discs loaded in dusty slots may be damaged.

Lens fogging

• In cold climates, there may be a period after you turn on your vehicle's heater when the lens that guides the laser beam used in your CD player fogs up. If this happens, you cannot play compact discs. Take out discs and the fogging will disappear. If it does not return to normal after several hours, contact your Kenwood dealer.

Heat protection

Under direct sunlight, the temperature in the car with closed windows becomes high; the DPX-500 with internal temperature above 60 [deg]C activates the protection circuit, which indicates "HOLD," and disables the play of the CD.
If this happens, lower the temperature by turning on the airconditioner or opening the window. The "HOLD" display disappears and the play will be resumed.

SAFETY PRECAUTIONS

⚠CAUTION

Never use 8 cm (3") adaptors
- 8-cm CDs can be loaded without use of an adaptor. They can be played as-is in the same way as any 12-cm CD. Use of an adaptor for 8-cm CDs may result in equipment malfunction or damage.

⚠CAUTION

Tinted and/or soiled CDs cannot be used.
- If the recording side of the CD (opposite of the label side) is tinted or soiled, it may result in misoperation such as not being loaded into the player or ejected properly.

Stains, scratches, or warping can cause skipping, malfunction, or low sound quality. Take the following precautions to avoid damage to the compact discs.

Holding a disc
- Avoid touching the recorded side (the side without the titles on) when you hold a compact disc.
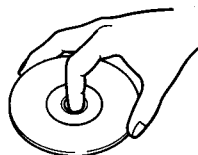
- Do not stick paper tape, etc. on either stick of the disc.

Paper tape

Storing your discs
- Do not store discs where they will be exposed to direct sunlight (such as on the seat and dashboard) or high heat.
- If you do not use your unit for an extended time, remove the discs from the unit and put them in their cases. Do not leave them lying around without cases, piled up, or leaning on a wall and so on.

Cleaning your discs

- If there are stains on a disc, wipe them off with a cleaning cloth or a soft cotton cloth, wiping from the center to the edge. Never use conventional record cleaners, anti static agent, paint thinner, benzine, or other chemicals.
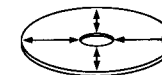
Check your new discs
- Some new discs have burrs on their outer edges or around the hole in the center. Discs with burrs may not fit properly on the player, causing skipping when they are played. Use a ballpoint pen or similar instrument to remove the burrs.
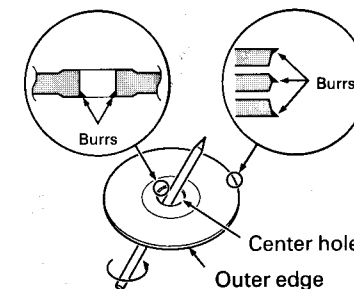
Disc accessories
- Stabilizers, protective seals, and other disc accessories on the market, which claim to offer improved sound quality or disc protection, may cause this unit to malfunction. They should not be used on discs played in this unit.

Removing your disc

- When removing your disc from the unit, be sure to pull it out horizontally. Failure to do so may cause damage to the surface of the disc.

Burrs

Burrs

Center hole

Outer edge
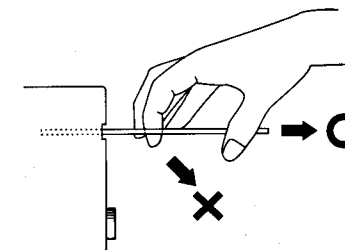
● Panel Angle Control

Utilizing an automatic open/close mechanism, and with a large display for easy visual identification and large buttons for superior operability, front panel information can be checked quickly and easily.

● SBF (Select By File)

When listening to a CD, this feature displays all discs for which names have been given using the Disc Name Preset function in the order stored, allowing you to also select discs by name. This feature also allows you to select MD discs by disc title from among MDs on which a disc title is recorded.

● DSP (Digital Signal Processor)

Sometimes when listening to music in a car some things just don't sound right. This is because the passenger compartment of a car is small and has poor acoustic characteristics. A DSP is a device which uses digital control to correct the audio signal and produce sound effects that can compensate for the small passenger compartment.

● Hall Simulation Mode

When you listen to music in a concert hall, you not only hear sounds which reach your ear in a direct line, you also hear sounds which have reflected off the walls, ceiling and floor. Reflected sounds include initial reflections which reach your ear soon after the original direct sound and have similar sound characteristics as well as reverberations that arrive later and have been reflected off many areas. Each time a sound is reflected, it loses volume and its sound characteristics are altered. Hall Simulation Mode is a DSP effect used to virtually recreate in your car the reflected sound patterns found in larger spaces.
There are six built-in simulation modes: Concert, Theater, Disco, Jazz Club, Surround and Minus 1.

● Hall Effect Level

For each hall simulation (except for Minus 1), the effect level can be adjusted to one of three levels. Changing the effect level balances the various reflected sounds differently and changes the volume of the direct sound source. This allows you to adjust the acoustic properties of the musical instruments and vocals.

● Position Select

When you're in a car, you can't always be at the central point among all four speakers. The Position Select feature allows you to adjust the sound image to the position of the listener.

● User Memory

Up to three combinations of your favorite hall simulation, hall effect level and position settings can be stored in memory for future recall.

ALL MODE

- **SRC button**
- **CLOSE button**
- **OPEN button**
- **UP/DOWN button**
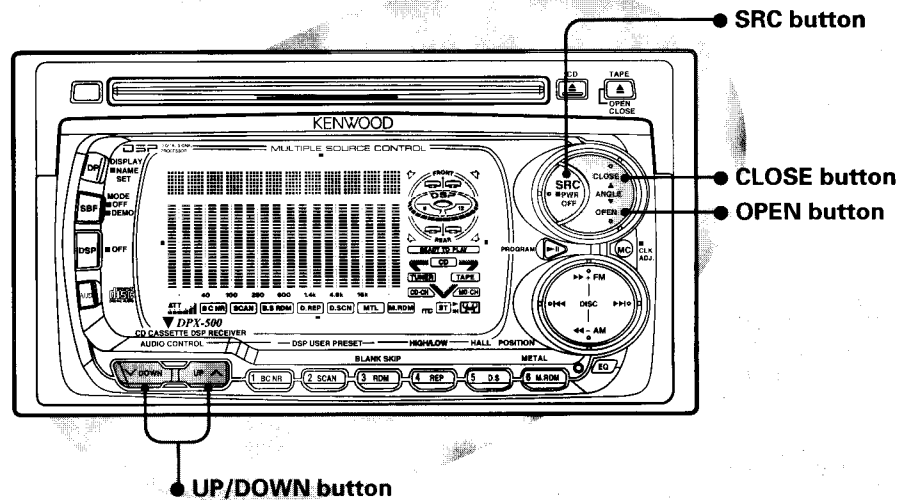
Power On *– Turning on the power –*
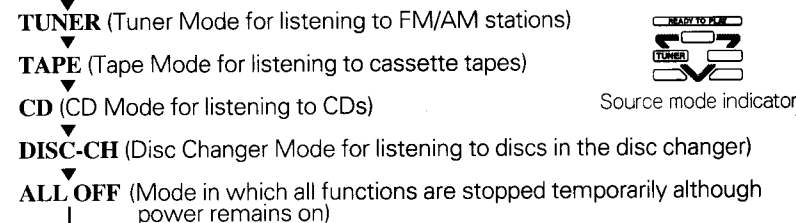Press the SRC button to turn the power on.

(NOTE)
- The unit will come on in the mode it was in the last time power was turned off.
- Power can be turned on even if a cassette tape is loaded.

Power Off *– Turning off the power –*
Press the SRC button for more than one second to turn the power off.

Volume *– Adjusting the volume –*
The volume level will go up each time the UP button is pressed.
The volume level will go down each time the DOWN button is pressed.
"Volume" will be displayed and the volume indicator will blink each time the volume is adjusted.

Volume indicator
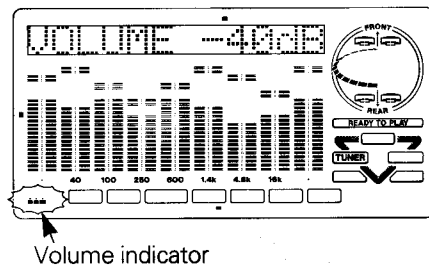
Source Mode Select *– Selecting a source to listen to –*
Each time the SRC button is pressed, the source mode display will be switched in the order given below:

TUNER (Tuner Mode for listening to FM/AM stations)

TAPE (Tape Mode for listening to cassette tapes)

CD (CD Mode for listening to CDs)

DISC-CH (Disc Changer Mode for listening to discs in the disc changer)

ALL OFF (Mode in which all functions are stopped temporarily although power remains on)

Source mode indicator

You can check the Source Mode Indicator to find the mode currently selected.

(NOTE)
- You cannot select the associated mode when there is no cassette tape loaded, CD loaded, or disc changer connected.
- If there are two disc changers connected, selection cycles in the order DISC-CH1 then DISC-CH2.

Panel Angle Adjustment *– Adjusting the angle for easy viewing –*
- **Sliding the panel**
  The panel will slide one step at a time each time the OPEN button is pressed. Holding down the button will cause the panel to slide continuously.
- **Closing the panel**
  The panel will close one step at a time each time the CLOSE button is pressed. Holding down the button will cause the panel to close continuously.
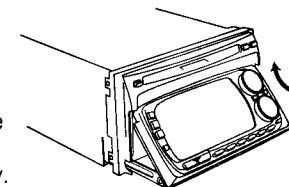
(NOTE)
- The panel will close automatically 15 seconds after the unit's power is turned off or the car's ACC is turned off.
- Press the TAPE ▲ button when loading a tape. For details, see page 18.
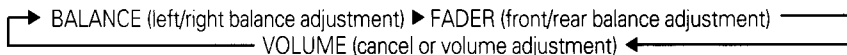
(CAUTION)
Some automobiles cause the panel to interfere with the gearshift in the parking position when you are adjusting the panel angle or loading/removing the tape. To conunteract this, move the gearshift using the utmost care for safety.

- DP button

- SRC button
- MC button
- ►►I button
- I◄◄ button

- System Reset button
- 1 button
- 5 button
- UP/DOWN button
- 4 button
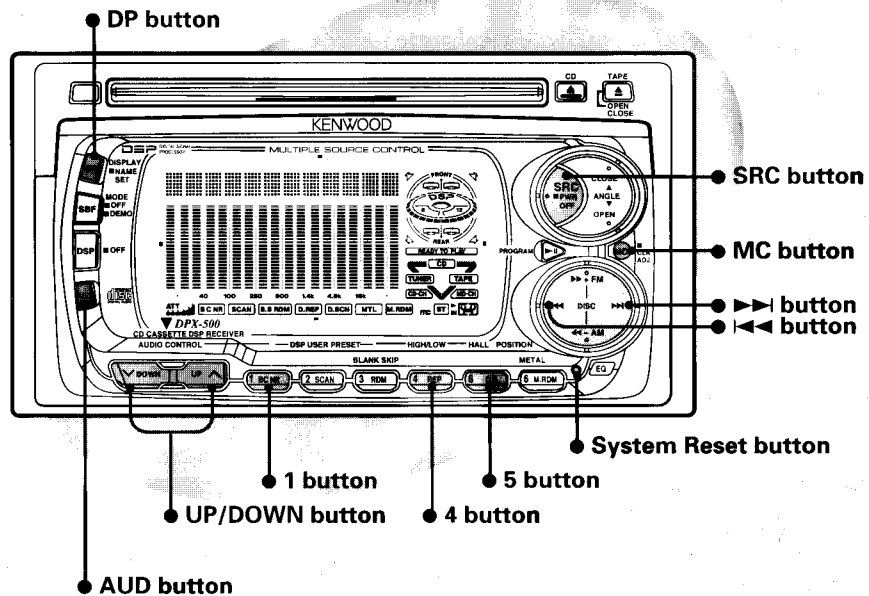
- AUD button

Audio Control – *Adjusting balance and fader* –
1. Balance Adjustment Mode can be turned on by pressing the AUD button. Each time the AUD button is pressed, the mode display will be switched in the order given below:

➤ BALANCE (left/right balance adjustment) ► FADER (front/rear balance adjustment) ─┐
└─ VOLUME (cancel or volume adjustment) ◄─────────────────

2. Setting values can be adjusted within the following ranges by pressing the UP or DOWN button within each adjustment mode.

`BALANCE          00`

BALANCE: L15 to R15

`FADER          00`

FADER: F15 to R15

3. Adjustment mode can be turned off by pressing the AUD button for more than one second. Adjustment mode will be cancelled automatically if no buttons are pressed for 5 seconds.

Pre-out Selection – *Switching the front pre-out to subwoofer output* –
1. Turn off the power by pressing the SRC button for more than one second.
2. Hold down the 1 button and 4 button and press the SRC button.
Each time the above operation is performed the function of front the pre-out will switch to non-fading output.

[NOTE]
- Non-fading means that the volume level of output does not change regardless of the front/rear balance adjustment using Fader. This is mainly used when connecting a subwoofer power amp.
- When non-fading output is selected, an "N-F" mode will be added to the Audio Control Adjustment Modes. The setting values can be adjusted within the following range by pressing the UP or DOWN button while in Non-Fading Adjustment Mode.

`N-F          00dB`

N-F: – – – to +6 dB

Clock Adjustment – *Setting the clock* –
1. Bring up the clock display by pressing the DP button.
2. Adjust the hour by pressing the I◄◄ button while holding down the MC button and adjust the minute by pressing the ►►I button while holding down the MC button.

`AM10:20`

Touch Tone Sensor ON/OFF – *Turning the beeping sound on/off* –
1. Turn off the power by pressing the SRC button for more than one second.
2. Hold down the 4 button and 5 button and press the SRC button.
Each time the above operation is performed the beep sound will switch on and off.

System Reset
Press the reset button when there is a display error, malfunction of the main unit or disc changer, error with the unit, or after replacing batteries.

[NOTE]
All memory contents except for disc names will be erased upon system reset.

● I◄◄ button
● DP button
● SRC button
● MC button
● FM button
● ►►I button
● AM button
● 1~6 button

⓵ Band Select – *Selecting a band to listen to* –
1. Select TUNER mode by pressing the SRC button.
2. The unit will switch between "F1" and "F2" each time the FM button is pressed.
   The unit will switch between "A1" and "A2" each time the AM button is pressed. The band selected will be displayed.

F1 --- F2 ---
FM1   FM2

A1 --- A2 ---
AM1   AM2

⓶ Tuning – *Selecting a station* –
● **Selecting a station by manual tuning**
Each time the I◄◄ button is pressed, the unit will tune one step at a time toward lower frequencies.
Each time the ►►I button is pressed, the unit will tune one step at a time toward higher frequencies.
The frequency indicator will display the level of the signal for each frequency.
The "ST" indicator will light while receiving stereo broadcasts.

Frequency indicator

F1 --- 92.1

ST indicator

● **Selecting a station by auto tuning**
Pressing the I◄◄ button for more than 0.5 seconds will cause the unit to automatically search for and begin receiving the next station toward lower frequencies.
Pressing the ►►I button for more than 0.5 seconds will cause the unit to automatically search for and begin receiving the next station toward higher frequencies.
The frequency indicator will display the level of the signal for each frequency.
The "ST" indicator will light while receiving stereo broadcasts.

⓷ Tuner Memory – *Setting the current station in memory* –
1. Pressing any number button 1 through 6 for more than 2 seconds while receiving a station will cause the station currently being listened to be set in memory in the button pressed. The button No. will be displayed at this time. Up to six stations for each band can be set in memory.

F1 --- 92.1 ◄---1C

2. Pressing any number button 1 through 6 will cause the station set in that memory location to be received.

⓸ Turning CRSC (Clean Reception System Circuit) On/Off
Temporarily have reception switched from stereo to monaural to reduce multi-path noise when listening to the tuner.
Press the MC button to turn the function on/off.

(NOTE)
Strong electrical fields(such as from power lines)may cause unstable sound quality when CRSC is turned on. In such a situation,turn it off.

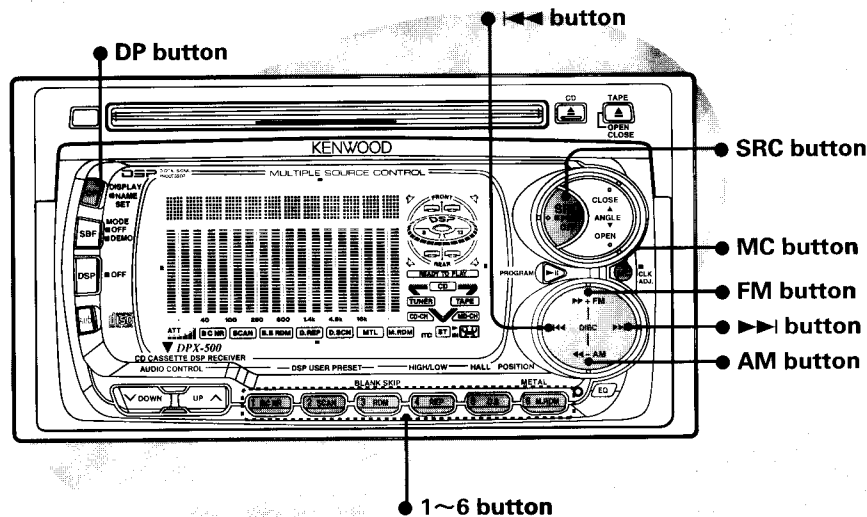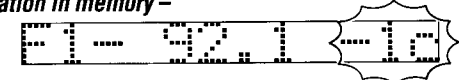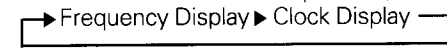### ⓹ FM Diversity Select – *Setting the unit to use an FM diversity antenna* –
1. Turn off the power by pressing the SRC button for more than one second.
2. Hold down the 2 button and 5 button and press the SRC button, and "FM DIVER ON" will be displayed.
   Each time the above operation is performed the FM diversity function will switch on and off.

(NOTE)
The default setting is off. Turn this function on if you have a car with an FM diversity antenna.

⓺ Display Mode Select – *Selecting the display mode* –
Each time the DP button is pressed, the display will switch in the order:
┌→ Frequency Display ▶ Clock Display ─┐
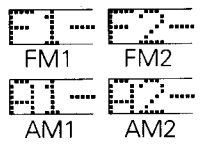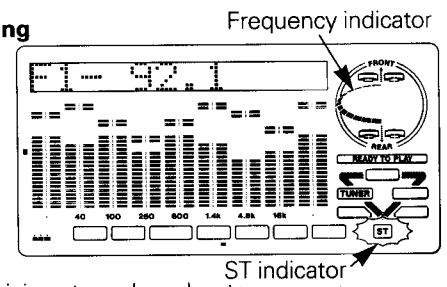
AM10:28

Clock Display

⓻ Frequency Step Setting
Switch the frequency step used in seeks. The factory defaults are 50 kHz for FM and 9 kHz for AM.
1. Turn off the power by pressing the SRC button for more than one second.
2. Hold down the 1 button and 5 button and press the SRC button.
   The frequency step setting will be changed to 200 kHz for FM and 10 kHz for AM.

(NOTE)
When you change the frequency step setting, all memory contents will be erased.

TAPE MODE

TAPE MODE

- ● I◀◀ button
- ● SRC button
- ● TAPE ▲ button
- ● ►II button
- ● ►► button
- ● ►►I button
- ● ◀◀ button
- ● METAL button

① Panel Open – *Loading a cassette tape* –

Pressing the TAPE ▲ button will cause the front panel to slide open, allowing you to load a tape in the cassette player. The panel will automatically return to its set angle position once a tape is loaded.

CAUTION

When inserting the cassette, be sure to lay it on top of the cassette door, and simply push it in.

CAUTION

Some automobiles cause the panel to interfere with the gearshift in the parking position when you are adjusting the panel angle or loading/removing the tape. To conunteract this, move the gearshift using the utmost care for safety.

Cassette door

Tape slot
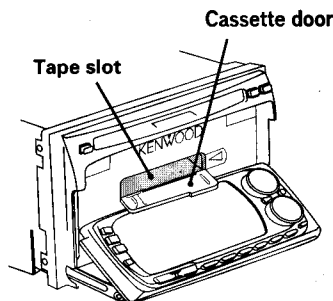
② Tape Play/Reverse Play – *Playing a cassette tape* –

Tape counter

If a cassette is loaded in the deck with the tape playback opening facing right, the tape "IN" indicator will light and tape playback will begin. If a cassette is already loaded, tape playback can be started by using the SRC button to select "TAPE". Pressing the ►II button during tape playback will cause "REVERSE" to be displayed and will result in reverse playback.

Tape IN indicator
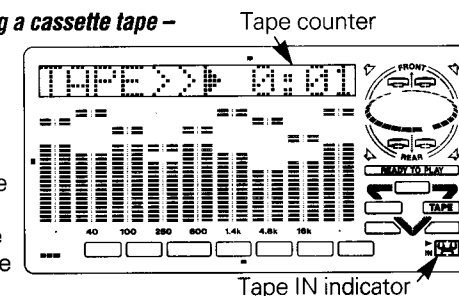
NOTE

When reverse playback is selected, the tape counter will be reset to 0:00.

③ Eject – *Ejecting a cassette tape* –

Pressing the TAPE ▲ button will cause the front panel to slide open and the cassette tape to be ejected from the cassette deck.

④ Fast Forward/Rewind

Press the ►► button to start fast forward.
Press the ◀◀ button to start rewind.
Press the ►II button to stop fast forward or rewind.

⑤ DPSS (Direct Program Search System) – *Cueing to tracks* –

● **Cueing to the start of the next track**
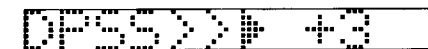
The number of tracks to be skipped will be displayed each time the ►►I button is pressed.
The tape will be fast forwarded to the start of the specified track and playback will begin automatically. It is possible to skip up to 9 tracks. Press the ►II button to cancel this operation.

● **Cueing to the start of the previous track**

The number of tracks to be skipped will be displayed each time the I◀◀ button is pressed.
The tape will be rewound to the start of the specified track and playback will begin automatically. It is possible to skip up to 9 tracks. Press the ►II button to cancel this operation.

⑥ Tape Selector – *Listening to metal/chrome tapes* –

Each time the METAL button is pressed, the tape selector will switch tape type in the order METAL (TYPE IV) / CHROME (TYPE II) ⇨ NORMAL (TYPE I). The "MTL" indicator will light if metal or chrome are selected.

TAPE MODE

TAPE MODE

TAPE MODE

TAPE MODE

● DP button

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● REP button

● BLANK SKIP button

● SCAN button
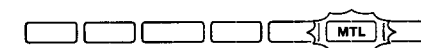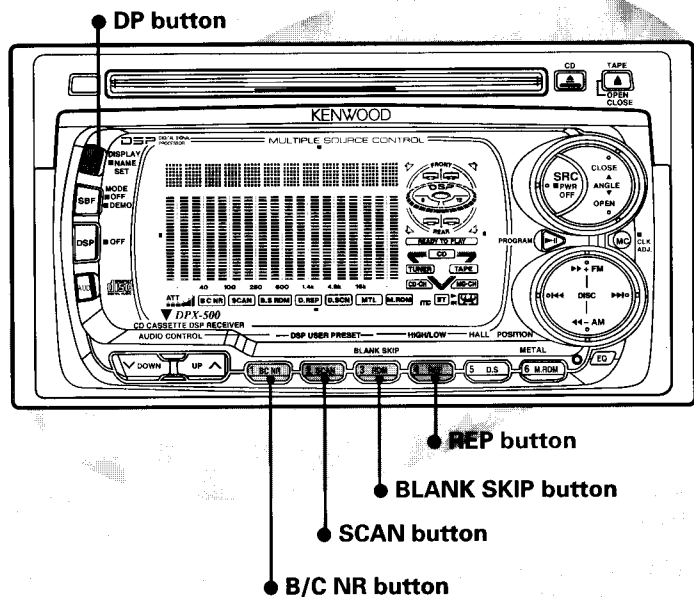
● B/C NR button

7 **Dolby B/C NR System** *– Listening to tapes recorded using Dolby B/C NR –*

Each time the BC NR button is pressed, the unit will switch noise reduction systems in the order B NR ⇨ C NR ⇨ NR OFF. The Dolby NR system indicator will light whenever Dolby B or C is on.

Dolby B NR on

Dolby C NR on
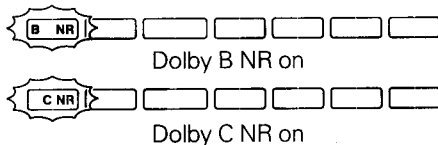
Be sure to select the appropriate Dolby NR system when playing a tape recorded using Dolby NR.

Dolby Noise reduction is manufactured under license from the Dolby Laboratories Licensing Corporation. Dolby and the double D symbol are registered trademarks of the Dolby Laboratories Licensing Corporation.

8 **Repeat Play** *– Listening to the same track repeatedly –*

Repeat play is switched on and off each time the REP button is pressed. The "REP" indicator will light when the feature is turned on. When this feature is on, the track currently being listened to will repeat indefinitely.

9 **Index Scan Play** *– Searching for a desired track –*

Index Scan Play is switched on and off each time the SCAN button is pressed. The "SCAN" indicator will light when the feature is turned on. During Index Scan Play, the unit will cue to the start of each track and play back the first 10 seconds.

NOTE

DPSS, Repeat Play, and Index Scan Play are implemented by searching for the blank part between tracks. It is therefore impossible to accurately search for tracks in the case of tapes where the blank part between tracks is less than 4 seconds, or when extremely low sound levels within a track last for more than 4 seconds as this portion of the track may be mistaken for the beginning of a track.

10 **Blank Skip** *– Skipping blank sections of tape –*

Blank Skip mode is switched on and off each time the BLANK SKIP button is pressed. The B.S indicator will light when the Blank Skip feature is turned on. If a blank portion of tape lasting 10 seconds or more is encountered, the B.S indicator will light and the unit will automatically fast forward to the next track.
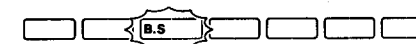
NOTE

● The Blank Skip feature is turned on by default.
● If the noise in the blank part of a tape is too loud, the Blank Skip feature may fail to fast forward past it. Also, if a 10-second or longer portion within a track has been recorded at a very low sound level, as is common in classical music, the Blank Skip feature may activate and skip this part. Turn the Blank Skip feature off if this happens.

11 **Display Mode Select** *– Selecting the display mode –*

Each time the DP button is pressed, the display will switch in the order:
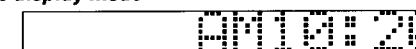
Clock display

Tape Counter/Running Time Display ⇨ Clock Display

CD MODE

CD Slot

● CD▲ button

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● SRC button

● ►II button

● ►►I button
● I◄◄ button

▼ *DPX-500*

● REP button

● RDM button

● SCAN button

Track No.   Time display

CD Play/Pause *– Listening to a CD –*
If a CD is loaded label-side up the
Track No. and Time display will
appear and CD playback will begin. If
a CD is already loaded, CD playback
can be started by using the SRC
button to select "CD". Pressing the
►II button during CD playback will
pause CD playback. Pressing the
►II button again will resume CD
playback.

Disc indicator
CD size indicator

(NOTE)
CD playback status can be found by looking at the disc indicator. The size of the
CD currently playing can also be found by looking at the CD size indicator.

CAUTION
• Load 8-cm CDs without using an adaptor. They can be played back as-is just like
12-cm CDs.
• Use of an adaptor for 8-cm CDs may result in malfunction or damage to the
system.
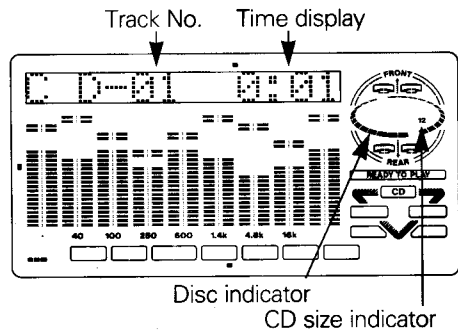
Eject *– Ejecting a CD –*
CDs can be ejected by pressing the CD ▲ button.

(NOTE)
When you eject a CD immediately after loading it, it is sometimes not possible to
load it again even if you push the tray. If this happens, remove the CD from the
tray and try again.

Track Search *– Searching for a desired track –*
● **Cueing to the start of the next track**
Each time the ►►I button is pressed, the unit will search for the start of the
next track.
Holding down the ►►I button will fast forward through the current track.
● **Cueing to the start of the previous track**
Each time the I◄◄ button is pressed, the unit will search for the start of the
current track, and each previous track thereafter.
Holding down the I◄◄ button will rewind through the current track.

Track Repeat Play *– Listening to the same track repeatedly –*
Track Repeat Play is switched on
and off each time the REP button is
pressed. The "REP" indicator will light
and the track No. will blink when the feature is turned on. When this feature is on,
the track currently being listened to will repeat indefinitely.

Track Scan Play *– Searching for a desired track –*
Track Scan Play is switched on and
off each time the SCAN button is
pressed. The "SCAN" indicator will
light when the feature is turned on. During Track Scan Play, the current track No.
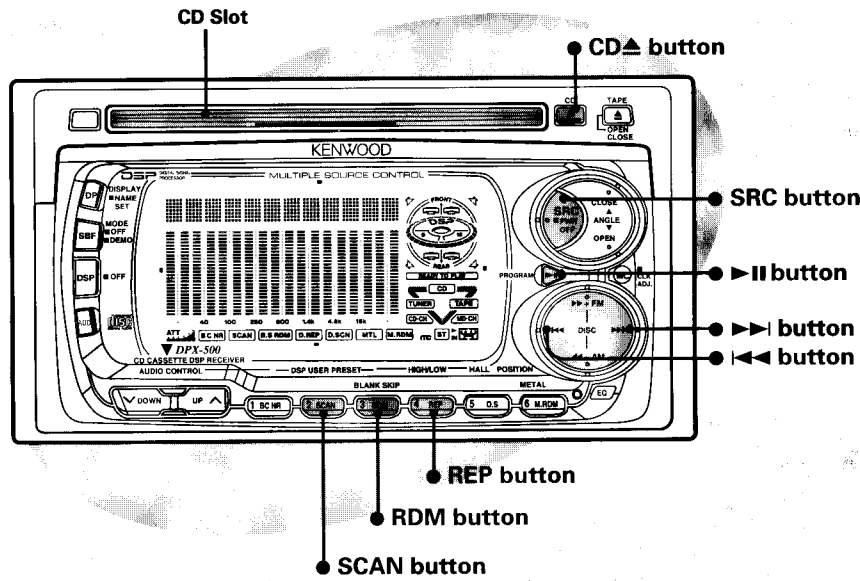will blink as the unit cues each track on the current disc and plays back the first 10
seconds. Scan Play will turn off automatically after all tracks have been scanned.

Random Play *– Listening to tracks on the current disc in random order –*
Random Play is switched on and off
each time the RDM button is
pressed. During Random Play, the
RDM indicator lights and the current track No. blinks. Each time a track ends, the
next track for playback is randomly selected automatically. Pressing the ►►I
button at any time will automatically select the next track for playback.

CD MODE

CD MODE

● **DP button**

KENWOOD

● **+ button**
● **►►I button**
● **- button**

● **SBF button**
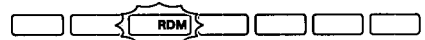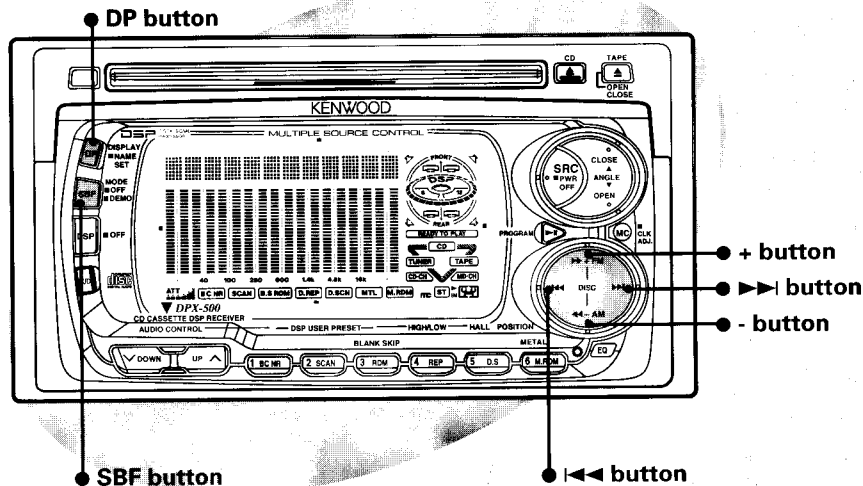
● **I◄◄ button**

Display Mode Select *– Selecting the display mode –*
Each time the DP button is pressed, the display will switch in the order:
Track Playback Time Display (P-TIME) ⇨ CD Total Playback Time Display (A-TIME)
⇨ DNPS (Disc Name Display) ⇨ Clock Display

Clock display

DNPS (Disc Name Preset) *– Entering a name for a disc –*
1. Play the disc you wish to name.
2. Press the DP button for more than 2 seconds and "NAME SET" will appear. A
cursor will blink at the point of input.
3. Press the ►►I or I◄◄ button and the cursor will blink at the point you wish to
input a character.
4. Each time you press the SBF
button the character type capable
of being input will switch among
"*" (symbols), "A" (alphabetic
Character type
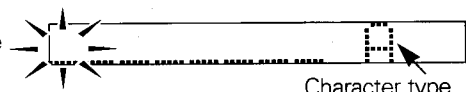upper case), and "a" (alphabetic lower case). Display the type of character you
wish to input.

(NOTE)
When you select "*" (symbols) as the character type to input, you can select from
the following:
_0123456789[]/+-*=<>&

5. Enter the desired character using the + or – button. Repeat steps 3 through 5
as necessary until you have finished inputting the disc name.

(NOTE)
• You can scroll through the list of characters by holding down the + or – button.
• Up to 8 characters per disc name can be input.
• Use the "_" character listed under symbols to input a space.

6. Press the DP button to register
the disc name.

(NOTE)
• If no buttons are pressed for more than 10 seconds, the characters currently
entered will be automatically stored in memory as the disc name and the Disc
Name Preset function will be cancelled.
• Up to 50 disc names can be registered in Disc Changer Mode using Disc Name
Preset. Once the 51st Disc Name Preset is made, the oldest Disc Name Preset
will be automatically erased to make room for the new setting.
• If you wish to change a disc name, perform steps 1 and 2 above to display the
current disc name, and then perform steps 3 through 6 to change it.
• Disc names remain stored even if the system reset button is pressed.
• Discs are identified by their total recording time and number of tracks. Correct
identification is not possible if two discs happen to have the same total
recording time and number of tracks.

CAUTION
Character input is a complicated operation. The driver should not perform this
operation while driving.

● SRC button

● ►II button
● DISC+ button
● ►►I button
● DISC- button
● I◄◄ button

● D.S button
● REP button
● SCAN button
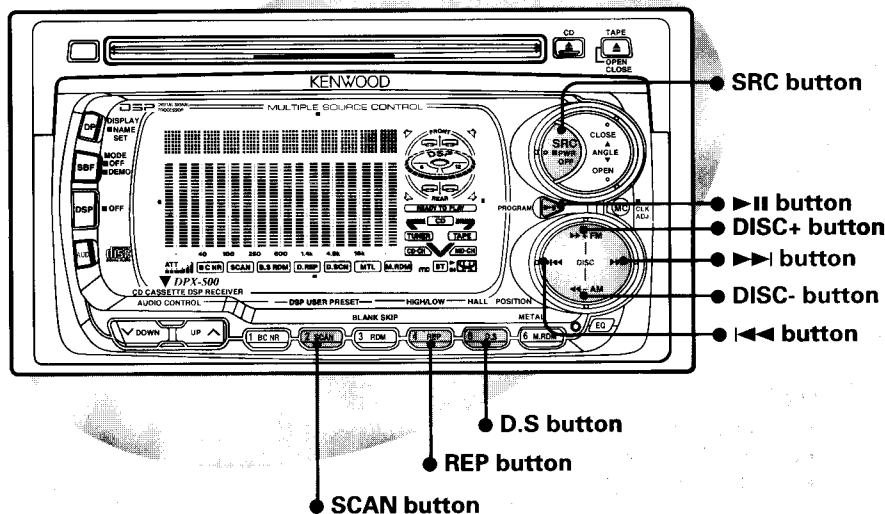
Disc Play/Pause – *Listening to a disc changer –*

If the SRC button is used to select "DISC-CH" when a disc changer is connected, the Disc/Track No. and Time display will appear and CD playback will begin. Pressing the ►II button during disc playback will cause the Time display to blink and pause CD playback. Pressing the ►II button again will resume CD playback.

Disc running indicator
Track No. Time display

CD changer in playback
Source mode indicator

(NOTE)
• The disc running indicator will display the state of disc playing.
• The Source Mode Indicator will show "CD-CH" when a CD changer is playing and "MD-CH" when an MD changer is playing.

Disc Changer Select – *Selecting from two disc changers –*

The SRC button can be used to select "DISC-CH1" or "DISC-CH2" when two disc changers are connected.
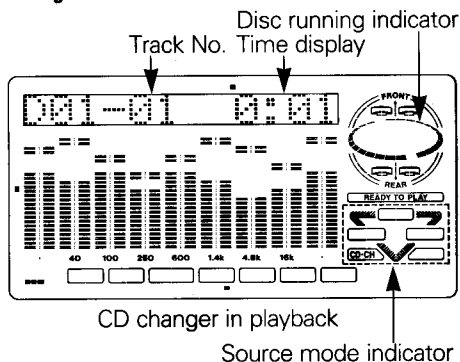
(NOTE)
A separately sold KCA-S200 CD/MD Changer Switching Unit is required in order to connect two disc changers.

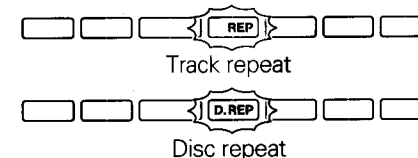## Track Search – *Searching for a desired track –*

● **Cueing to the start of the next track**
Each time the ►►I button is pressed, the unit will search for the start of the next track.
Holding down the ►►I button will fast forward through the current track.
● **Cueing to the start of the previous track**
Each time the I◄◄ button is pressed, the unit will search for the start of the current track, and each previous track thereafter.
Holding down the I◄◄ button will rewind through the current track.

Disc Search – *Listening to a desired disc –*

● **Selecting the next disc**
The unit will search for the next disc each time the DISC+ button is pressed.
● **Selecting the previous disc**
The unit will search for the previous disc each time the DISC– button is pressed.

Track/Disc Repeat Play – *Listening to the same track or disc repeatedly –*

Each time the REP button is pressed, the unit will switch between TRACK REPEAT ⇨ DISC REPEAT ⇨ OFF in that order. During track repeat, the "REP" indicator will light, the track No. will blink, and the current track will be repeated indefinitely. During disc repeat, the "D.REP" indicator will light, the disc No. will blink, and the current disc will be repeated indefinitely.

Track repeat

Disc repeat

Track Scan Play – *Searching for a desired track –*

Track Scan Play is switched on and off each time the SCAN button is pressed. The "SCAN" indicator will light when the feature is turned on. During Track Scan Play, the current track No. will blink as the unit cues each track on the current disc and plays back the first 10 seconds. Scan Play will turn off automatically after all tracks have been scanned.

## Disc Scan Play – *Searching for a desired disc –*

Disc Scan Play is switched on and off each time the D.S button is pressed. The "D.SCN" indicator will light when the feature is turned on. During Disc Scan Play, the current disc No. will blink as the unit cues the first track on each disc and plays back the first 10 seconds. Disc Scan Play will turn off automatically after all discs have been scanned.
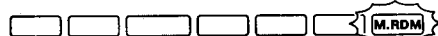
● DP button

● I◄◄ button

● + button
● ►►I button
● - button

● SBF button

● M.RDM button
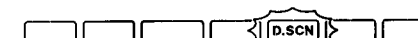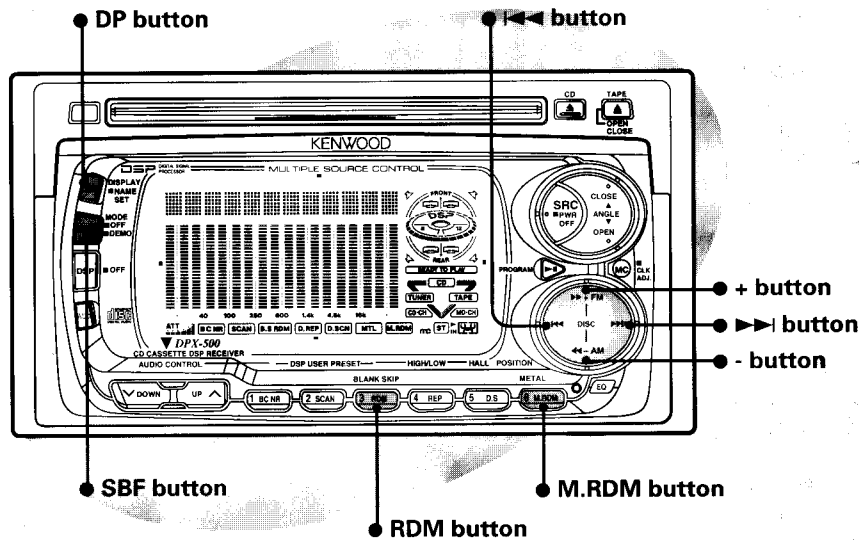
● RDM button

⑧ Track Random Play – *Listening to tracks on the current disc in random order –*

Random Play is switched on and off each time the RDM button is pressed. During Random Play, the "RDM" indicator lights and the current track No. blinks. Each time a track ends, the next track for playback is randomly selected. Pressing the ►►I button at any time will automatically select the next track for playback.

⑨ Magazine Random Play – *Listening to tracks in the magazine in random order –*

Magazine Random Play is switched on and off each time the M.RDM button is pressed. During Magazine Random Play, the "RDM" indicator lights and the current track No. and disc No. blinks. Each time a track ends, the next track for playback is randomly selected from within the magazine. Pressing the ►►I button at any time will automatically select the next track for playback.

⑩ Display Mode Select – *Selecting the display mode –*

Each time the DP button is pressed, the display will switch in the order given below:
Track Playback Time Display ⇨ CD Total Playback Time Display ⇨ Disc Name Display ⇨ Clock Display
If an MD changer is being used, the display will switch in the order given below:
Track Playback Time Display ⇨ Disc Name Display ⇨ Disc Title Display ⇨ Track Title Display ⇨ Clock Display
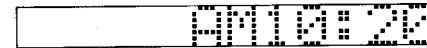
Clock display

(NOTE)
• "NO NAME" is displayed in the disc name indicator section if no name has been set using Disc Name Preset.
• "NO NAME" is also displayed if no disc title or track title is recorded on the MD.

⑪ DNPS (Disc Name Preset) – *Entering a name for a disc –*

1. Play the disc you wish to name.
2. Press the DP button for more than 2 seconds and "NAME SET" will appear. A cursor will blink at the point of input.
3. Press the ►►I or I◄◄ button and the cursor will blink at the point you wish to input a character.
4. Each time you press the SBF button the character type capable of being input will switch among "*" (symbols), "A" (alphabetic upper case), and "a" (alphabetic lower case). Display the type of character you wish to input.

Character type

(NOTE)
When you select "*" (symbols) as the character type to input, you can select from the following:
_0123456789[]/+-*=<>&

5. Enter the desired character using the + or – button. Repeat steps 3 through 5 as necessary until you have finished inputting the disc name.

(NOTE)
• You can scroll through the list of characters by holding down the + or – button.
• Up to 8 characters per disc name can be input.
• Use the "_" character listed under symbols to input a space.

6. Press the DP button to register the disc name.

(NOTE)
• If no buttons are pressed for more than 10 seconds, the characters currently entered will be automatically stored in memory as the disc name and the Disc Name Preset function will be cancelled.
• Up to 50 disc names can be registered in CD Mode using Disc Name Preset. Once the 51st Disc Name Preset is made, the oldest Disc Name Preset will be automatically erased to make room for the new setting.
• Disc names remain stored even if the system reset button is pressed.
• Discs are identified by their total recording time and number of tracks. Correct identification is not possible if two discs happen to have the same total recording time and number of tracks.

CAUTION
Character input is a complicated operation. The driver should not perform this operation while driving.
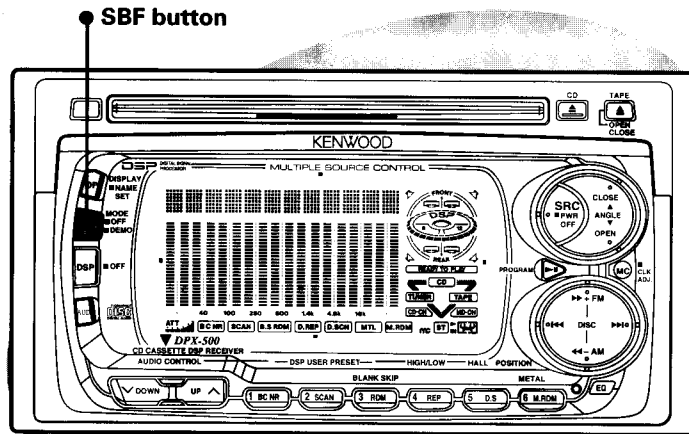
• SBF button

⑫ SBF (Select By File) *– Selecting a disc by disc name or disc title –*
● **When listening to a CD changer**
  1. Pressing the SBF button will cause the unit to display the disc name and disc No. of each disc in the CD changer magazine for 5 seconds each.
  2. Pressing the SBF button when the disc name you wish to listen to is being displayed will cause disc playback to start.

● **When listening to an MD changer**
  1. Each time the SBF button is pressed, the display will switch between "SBF DNPS" and "SBF DISC".
  2. If searching by disc name, bring up the "SBF DNPS" display, and then each disc name and disc No. will be displayed for 5 seconds each.
  If searching by disc title, bring up the "SBF DISC" display, and then each disc title and disc No. will be displayed for 5 seconds each.
  3. Pressing the SBF button when the disc name or disc title you wish to listen to is being displayed will cause disc playback to start.
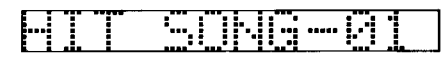
NOTE
● Press the SBF button for more than one second to cancel the selection process.
● "NO ACCESS" is displayed for discs which have not been played even once since the magazine was loaded.
● "NO NAME" is displayed if no disc name or disc title has been set using Disc Name Preset.
● Each time you press the DISC+ button, you can scroll forward through the display; each time you press the DISC– button, you can scroll backward through the display.

EQUALIZER MODE

- **+ button**
- **►►I button**
- **- button**
- **EQ button**
- **I◄◄ button**
- **1~3 button**
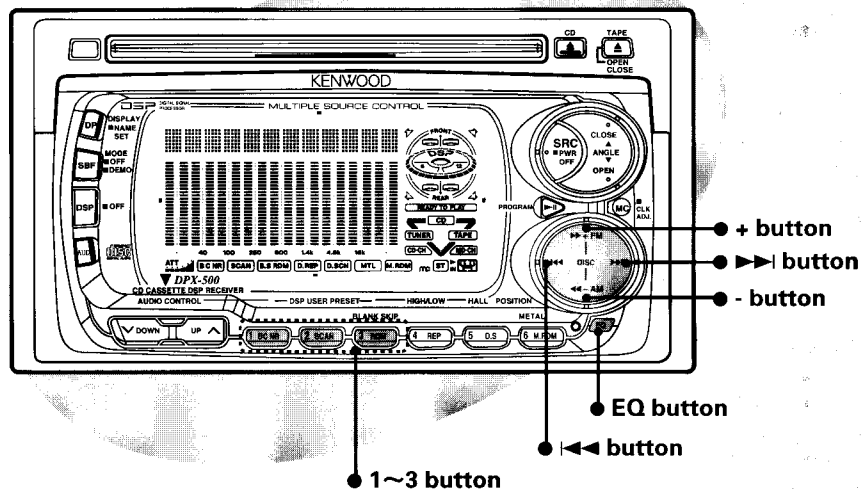
1 **Equalizer On Entering** – *Equalizer Adjustment Mode* –
Pressing the EQ button will cause the unit to enter Equalizer Adjustment Mode. Each time the EQ button is pressed during Equalizer Adjustment Mode, the original equalizer curve will switch in the order given below:

▼
FLAT (Flat)
▼
POPS (Results in sound quality with full instrumentals and vocals)
▼
LOUD (Results in full sound quality with enhanced highs and lows)
▼
VOCAL (Enhances mid-range frequencies around the human voice)
▼
CLASSIC (Optimum for playback of orchestra's configured like a pyramid)
▼
ARENA (Reproduces the acoustics of a large concert arena)

NOTE
Equalizer memory by source
Equalizer curves set for each source (during CD play, tape play, etc.) are automatically stored in memory, allowing you to obtain the sound quality and acoustic pattern suited for each source without having to redo settings after the source has been changed.

2 **Equalizer Off** – *Quitting Equalizer Adjustment Mode* –
Pressing the EQ button for more than one second will turn off Equalizer Adjustment Mode. Equalizer Adjustment Mode will also be cancelled automatically if no buttons are pressed for 10 seconds.

3 **Equalizer Adjustment/Memory**
– *Adjusting sound quality according to the track or car conditions and placing settings in memory* –
1. Press the EQ button to switch to Equalizer Adjustment Mode.
2. Each time the I◄◄ button is pressed, you can move to a lower frequency range to be adjusted.
   Each time the ►►I button is pressed, you can move to a higher frequency range to be adjusted.
3. Each time the + button is pressed, the equalizer level will be increased.
   Each time the – button is pressed, the equalizer level will be decreased.
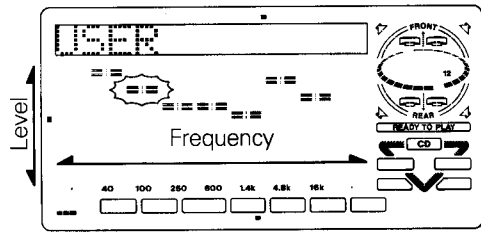
NOTE
Sounds will become distorted if the equalizer level is raised too high. If this happens, lower the equalizer level until the distortion goes away.

4. After making equalizer adjustments, press any of the number buttons 1 to 3 to store the current equalizer curve in memory at the corresponding button.

NOTE
Equalizer Adjustment Mode will be cancelled if the EQ button is pressed for more than one second or if no buttons are pressed for 10 seconds.

EQUALIZER MODE

EQUALIZER MODE

● **SBF button**

● **DP button**

● **EQ button**

● **1~3 button**

④ Equalizer Memory Recall – *Recalling a user-defined equalizer curve* –
1. Press the EQ button to switch to Equalizer Adjustment Mode.
2. Press any of the number buttons 1 to 3 to recall the equalizer curve stored in memory at the corresponding button.

(NOTE)
The setting of the recalled equalizer memory No. can be used in other source only after other memory No.s are recalled.

⑤ Spectrum Analyzer Display Select – *Selecting the display to enjoy sounds with eyes* –
1. Press the EQ button to switch to Equalizer Adjustment Mode.
2. Each time the DP button is pressed, the spectrum analyzer display will switch in order from ANA MODE 1 ⇨ 2 ⇨ 3 ... ⇨ 9 ⇨ EQ CURVE.

① Peak hold spectrum analyzer

⑥ Semi-twin spectrum analyzer

② Aurola

⑦ Heat up spectrum analyzer

③ Mouth

⑧ Twin peak spectrum analyzer

④ Stardust

⑨ Reverse spectrum analyzer

⑤ Half-reverse spectrum analyzer

⑩ Equalizer curve

⑥ Demonstration – *Automatically switching the spectrum analyzer display* –
Pressing the SBF button for more than one second will cause "ANA DEMO" to be displayed and a demonstration of the spectrum analyzer will begin. Demonstration mode will exit if any buttons are pressed during the demonstration.

● **DSP button**

▼ *DPX-500*

● **POSITION button**

● **HALL button**

● **HIGH/LOW button**

● **1~3 button**

❶ DSP ON – *Entering DSP Mode –*
Pressing the DSP button will cause the DSP indicator to light and DSP Mode to turn on. Pressing the DSP button while the DSP indicator is lit will cause the unit to switch between DSP Adjustment Mode On and DSP Adjustment Mode Off. The DSP indicator will blink during DSP adjustment mode.

DSP indicator

(NOTE)
DSP Adjustment Mode will be cancelled automatically and the DSP indicator will go from blinking to lit if no buttons are pressed for 10 seconds.

❷ DSP OFF – *Cancelling DSP Mode –*
Pressing the DSP button for more than one second will cause the DSP indicator to go out and DSP mode to turn off.
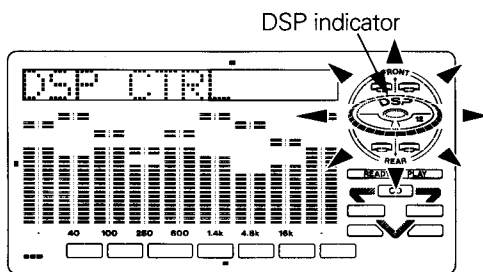
❸ Hall Simulation Select – *Recalling a preset hall simulation –*
Pressing the HALL button during DSP Adjustment Mode (when the DSP indicator is blinking) will cause the current hall simulation to be displayed. Each time this button is pressed, the hall simulation will be switched in the order given below:

> **CONCERT** (Reproduces a larger space inside the car to recreate the live feel of a concert arena)
> ▼
> **THEATER** (Reproduces the easy reverberating sound image of reflected sound found in a theater)
> ▼
> **DISCO** (Fully reproduces the lively beat sound of disco)
> ▼
> **JAZZ CLUB** (Now you can experience a jazz club performance in your car)
> ▼
> **SURROUND** (Experience a surround sound effect that wraps around the listener)
> ▼
> **MINUS 1** (Tones down vocals and enhances instrumentals)
> ▼
> **BYPASS** (Outputs the sound source as-is without added effects)

DSP memory by source
DSP settings (combinations of hall simulation mode, hall effect level and position) set for each source (during CD play, tape play, etc.) are automatically stored in memory, allowing you to obtain the sound quality and acoustic pattern suited for each source without having to redo settings after the source has been changed.
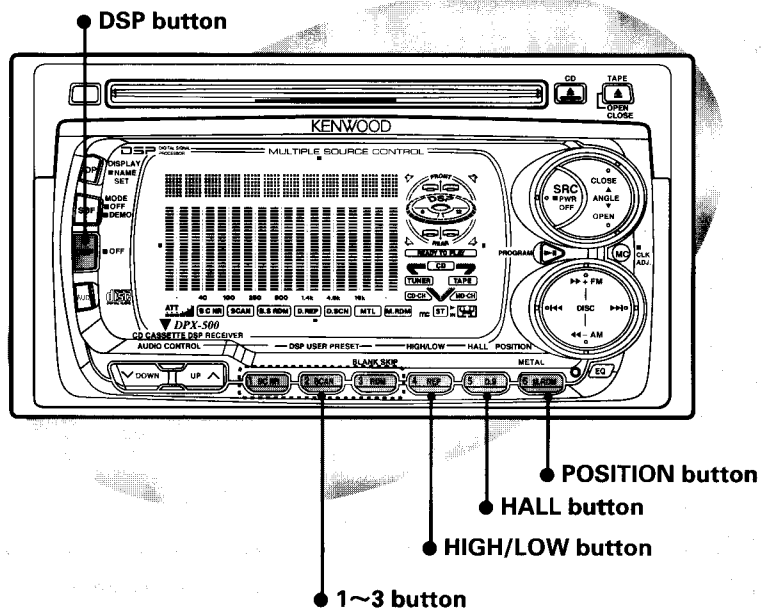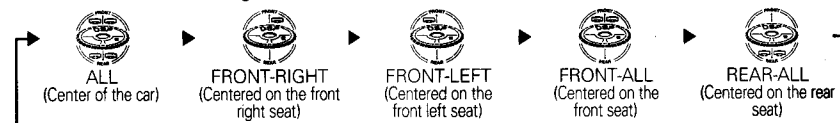
❹ Effect Level Select – *Selecting your favorite sound image effect –*
Each time the HIGH/LOW button is pressed during DSP Adjustment Mode (when the DSP indicator is blinking) the effect level will be switched in the order given below:
NORMAL (normal effect level) ⇨ LOW (low effect level) ⇨ HIGH (high effect level)
(NOTE)
• The default setting is "NORMAL".
• Effect level cannot be selected when hall simulation is set to "MINUS 1" or "BYPASS".

❺ Position Select – *Setting the DSP for various listening positions –*
Each time the POSITION button is pressed during DSP Adjustment Mode (when the DSP indicator is blinking) the position of the center of the sound image will be switched in the order given below:

| ALL (Center of the car) | FRONT-RIGHT (Centered on the front right seat) | FRONT-LEFT (Centered on the front left seat) | FRONT-ALL (Centered on the front seat) | REAR-ALL (Centered on the rear seat) |

❻ DSP Memory – *Setting original user-defined DSP settings in memory –*
Pressing one of the number 1 to 3 buttons for more than 2 seconds during DSP Adjustment Mode (when the DSP indicator is blinking) will cause the currently selected combination of hall simulation mode, hall effect level and position to be stored in memory at the corresponding button.

❼ DSP Memory Recall – *Recalling user-defined DSP settings –*
Pressing one of the number 1 to 3 buttons during DSP Adjustment Mode (when the DSP indicator is blinking) will cause the DSP settings associated with the button pressed to be recalled.
(NOTE)
Recall other memory numbers before using the recalled DSP memory number settings to other sources.

REMOTE CONTROL MODE

■ALL MODE

● **TUNER button**
Turns the radio on/off each time pressed.

● **TAPE button**
Starts tape playback when pressed when a tape is loaded.

● **CD button**
Starts CD playback when pressed.

● **CD MD CH button**
Starts disc changer playback when pressed. Switches between disc changer 1 and 2 when 2 changers are connected.

● **OPEN/CLOSE button**
Panel opens and closes when pressed.

● **VOL button**
Volume level can be adjusted with the ∧/∨ buttons.

● **ATT button**
Turns the Attenuator on/off each time pressed.

■TUNER MODE

● **Number buttons**
1 through 6 are used to recall stations stored in memory. 0 through 9 are also used to directly input frequencies during Direct Tuning.

● **DIRECT button**
Turns Direct Tuning mode on/off each time pressed. Number buttons are used to input the frequency of the desired station while the frequency display blinks (for ten seconds).
Examples: FM 92.1MHz
Number buttons to press ..... ⑨②①
AM 810 kHz
Number buttons to press ..... ⑧①⓪

● **I◄◄/►►I buttons**
Pressing the I◄◄ button decreases the frequency being received.
Pressing the ►►I button increases the frequency being received.

● **FM button**
Switches between the FM1 and FM2 bands each time pressed.

● **AM button**
Switches between the AM1 and AM2 bands each time pressed.

■TAPE MODE

● **Number buttons**
Used to input the number of tracks to be skipped. Pressing the I◄◄ button while the number display is blinking (for ten seconds) will cause the unit to rewind the number of tracks indicated and begin tape playback. Pressing the ►►I button while the number display is blinking (for ten seconds) will cause the unit to fast forward the number of tracks indicated and begin tape playback.

● **I◄◄/►►I buttons**
The I◄◄ button performs DPSS to the start of the current track or previous track.
The ►►I button performs DPSS to the next track.

● **–/+ buttons**
Pressing the – button will start rewind.
Pressing the + button will start fast forward.

● **►/II button**
Pressing this button will result in reverse play. Tape play is resumed if this button is pressed during reverse, fast forward, or DPSS.

■CD/DISC CHANGER MODE

● **Number buttons**
Used to input the track or disc number to be played back in direct mode. Pressing the I◄◄ or ►►I button while the number display is blinking (for ten seconds) results in direct track search. Pressing the – or + button while the number display is blinking (for ten seconds) results in direct disc search.

● **I◄◄/►►I buttons**
Pressing the I◄◄ button once will cause the unit to track search to the beginning of the current track, and to the previous track each time it is pressed thereafter.
Pressing the ►►I button will cause the unit to track search to the beginning of the next track.

● **►/II button**
Plays/pauses disc playback.

● **–/+ buttons**
Pressing the – button will start playback of the previous disc.
Pressing the + button will start playback of the next disc.
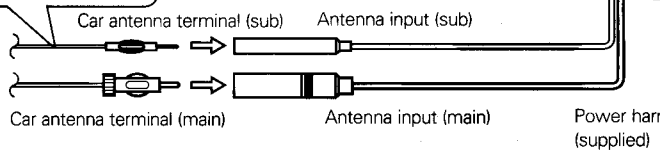
MAKING CONNECTIONS

First check that the engine key is removed, and disconnect the negative terminal of the battery to prevent any accidents due to shorting.

1. Check the input/output cords of each set and connect.
2. Connect the speaker cord of the power harness.
3. Connect the power harness in order of earth cord (black), battery power cord (yellow), accessory power cord (red).
4. Connect the power harness connector to the DPX-500.
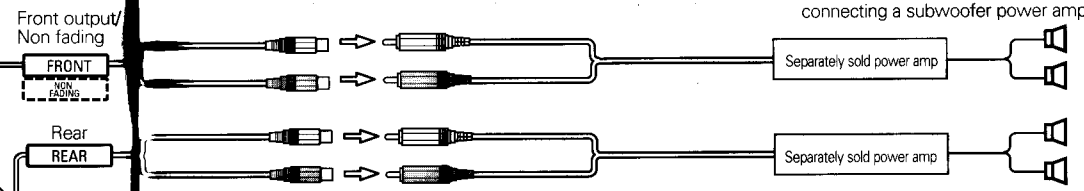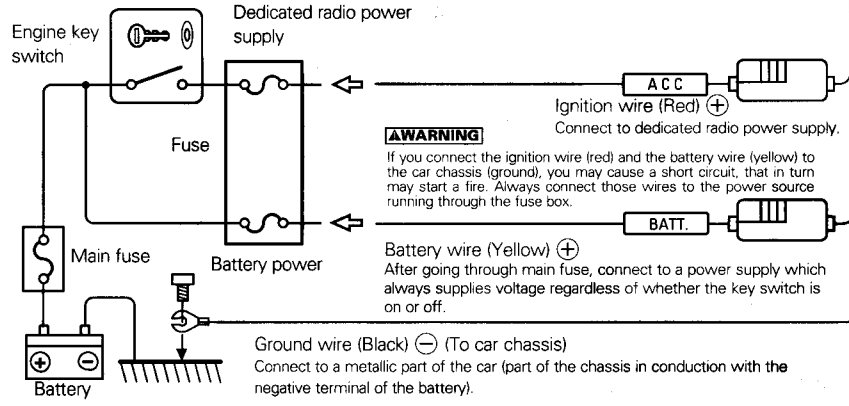5. After installation is complete, re-connect the negative terminal of the battery.

Front output/Non fading

FRONT
NON FADING

Rear
REAR

DPX-500

* Connect to FRONT (N-F) output when connecting a subwoofer power amp.

Separately sold power amp

Separately sold power amp

Connectable to cars that support diversity antennas.

Car antenna terminal (sub)   Antenna input (sub)

Car antenna terminal (main)   Antenna input (main)   Power harness (supplied)

Disc changer input

Disc changer connection cable (supplied with the disc changer)

Disc changer

KENWOOD

* Use a separately sold KCA-S200 when connecting two disc changers. A separately sold CA-K300 is required when connecting a C705i, C705si, or KMD-C80.
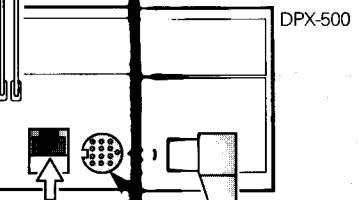
Power input for applying dimmer to the unit. Connect this cord to a power supply that can be turned on or off by the light switch.

ILLUM
Illumination control (orange)

If a separately sold power amp is being connected, connect to the power control terminal of the power amp. if not being connected, leave it with the cap on.

P.CONT OUT
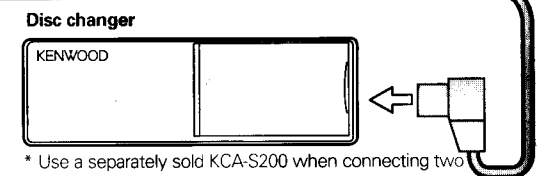Power /Full automatic power antenna control wire (Blue/White)

Connect to the control terminal of the motor antenna, or to the power terminal of the booster amp for the glass print antenna. If not being connected, leave it with the cap on.
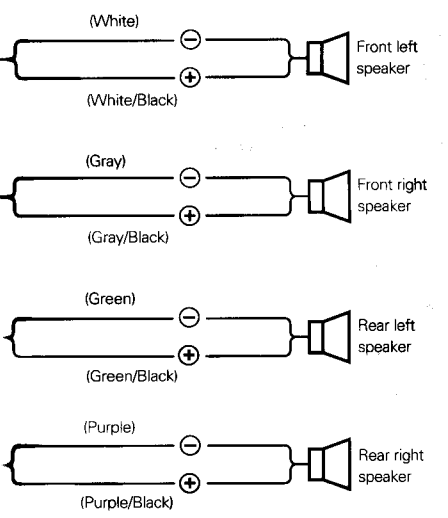
ANT. CONT
Power control wire (Blue)

Dedicated radio power supply

Engine key switch

Fuse

ACC
Ignition wire (Red) ⊕
Connect to dedicated radio power supply.

⚠WARNING
If you connect the ignition wire (red) and the battery wire (yellow) to the car chassis (ground), you may cause a short circuit, that in turn may start a fire. Always connect those wires to the power source running through the fuse box.

BATT.

Main fuse   Battery power

Battery wire (Yellow) ⊕
After going through main fuse, connect to a power supply which always supplies voltage regardless of whether the key switch is on or off.

Ground wire (Black) ⊖ (To car chassis)
Connect to a metallic part of the car (part of the chassis in conduction with the negative terminal of the battery).

Battery

(White)
(White/Black)
Front left speaker

(Gray)
(Gray/Black)
Front right speaker

(Green)
(Green/Black)
Rear left speaker

(Purple)
(Purple/Black)
Rear right speaker

Speaker Connections when Using Two Speakers

(White)
(White/Black)
Left Speaker

(Gray)
(Gray/Black)
Right Speaker

(Green)
(Green/Black)
Not connected

(Purple)
(Purple/Black)
Not connected
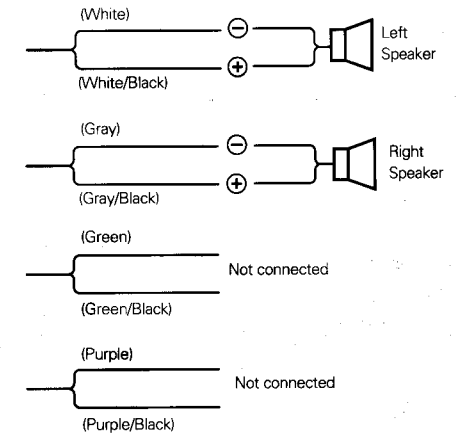
⚠CAUTION
When only two speakers are being connected to the system, connect the connectors either to both the front output terminals or to both the rear output terminals (do not mix front and rear). For example, if you connect the ⊕ connector of the speaker to a front output terminal, do not connect the ⊖ connector to a rear output terminal.

INSTALLATION

• Install onto the car bracket using the four supplied truss head screws (red) (M5 x 6 mm).

DPX-500   Car bracket

Truss head screw (red) (M5 x 6mm) (Attached)
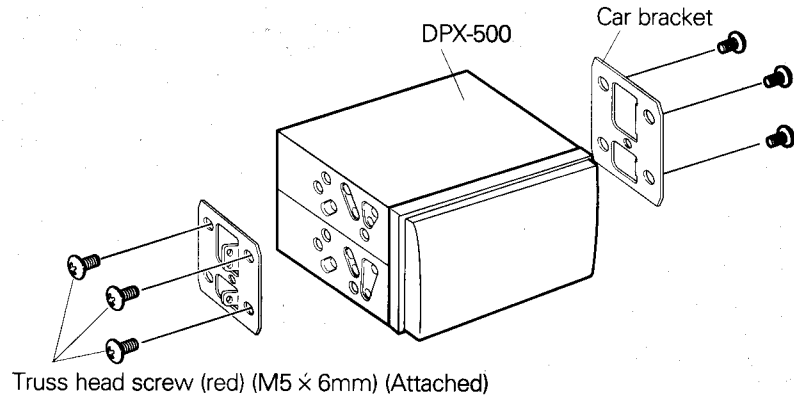
• Install such that the installation angle of the main unit is 30 [deg] or less. Audio skipping may result if installed at an angle greater than 30 [deg].

within 30[deg]
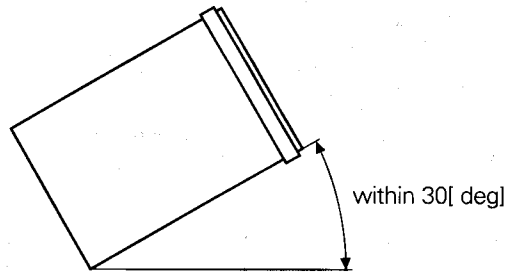
TROUBLESHOOTING GUIDE

Sometimes you may think the system is broken due to a simple misoperation or incorrect wiring. Check the items listed below before requesting repairs.

Symptom ▼	Cause ▼	Remedy ▼
Power will not come on	• The fuse is blown. • Output-input power cords have been connected incorrectly.	• Check that the cords have not shorted, and then replace the fuse with one of the specified rating. • See "MAKING CONNECTIONS (P.38)" and make connections properly.
No sound, or sound level is low	• The attenuator on the remote control is on. • The volume is turned all the way down. • Fader and balance are set all the way to one side. • Speaker cords are connected incorrectly.	• Turn the attenuator off. • Increase the volume. • Adjust fader and balance. • See "MAKING CONNECTIONS (P.38)" and connect correctly.
Operations are not performed even when operation switches are pressed	The microcomputer is malfunctioning.	Press the system reset button. (P.13)
Tape will not load	• Cassette casing is deformed. • Tape is backwards.	• Try using another cassette tape. • Try loading the tape with the tape side facing right.
Tuner sensitivity is poor	• The automatic car antenna is extended. • Antenna control power is not connected.	• Extend the antenna further. • See "MAKING CONNECTIONS (P.38)" and connect the antenna control power.
Cannot load a CD	A CD is already loaded.	Eject the CD already loaded and try again.
CD is ejected soon after loading	• The CD is upside down. • The CD is extremely dirty. • There is condensation on the CD.	• Load the CD with the label side facing up. • See "Cleaning your discs (P.7)" and try cleaning the CD. • Set the CD aside and try again later. (P.5)
Sound skips due to vibrations	• The installation angle exceeds 30[deg]. • The installation is not stable. • The CD is scratched or dirty.	• Adjust the angle to within 30[deg]. • Tighten all screws. • If skipping occurs at the same location even when the car is stopped, the problem is with the CD. See "Cleaning your discs (P.7)" and try cleaning the CD.

TROUBLESHOOTING GUIDE

Symptom ▼	Cause ▼	Remedy ▼
Sound quality is poor (Noise occurs during playback)	• The sound quality of this particular CD is poor. • The CD is scratched or dirty.	• If there is no problem when playing other CDs, then the problem is with this CD. • See "Cleaning your discs (P.7)" and try cleaning the CD.
Cannot get to the desired track even through track selection	The unit is in random play mode.	Cancel random play mode.
Sound quality is poor (sound is distorted)	• Volume is too loud. • Heads are dirty. • The speaker cord is being pinched by screw on the car. • Speakers have been wired incorrectly. • "LOUD" from the equalizer mode and "DISCO" from the DSP mode is selected.	• Use an appropriate volume level. • See "Cleaning the tape head (P.3)" and clean the heads. • Check all speaker wiring. • Connect all speaker output terminals to the correct speaker terminals. • The sound may be distorted depending on the source you are listening. Turn "LOUD" off.
Contents of memory are lost when the engine key is turned off	Battery power is not connected to the prescribed location.	See "MAKING CONNECTIONS (P.38)" and connect correctly.
DSP effects are not obtained.	• A two-speaker system is being used. • Speakers are connected in correctly. • Fader and balance are set all the way to one side.	• Use a front-rear, four-speaker system. • See "MAKING CONNECTIONS (P.38)" and connect correctly. • Adjust fader and balance.

● **When a disc changer (sold separately) is connected**

Symptom ▼	Cause ▼	Remedy ▼
System will not enter disc changer mode	Changer input of this unit is not connected.	Connect the changer input of this unit.
Operations are not performed even when operation switches are pressed	The microcomputer is malfunctioning.	Press the system reset button.
Disc playback does not start	The power is not on.	Press the SRC button to enter Disc Changer mode.
The specified disc does not playback	• The disc is extremely dirty. • The disc is upside down. • There are two discs loaded in the same location. • The specified number differs from the location the disc has been loaded. • There is a large scratch on the disc.	• Try cleaning the disc. • Eject the magazine and reload discs properly. • Eject the magazine and reload discs properly. • Eject the magazine and check the number of the specified disc. • Use another disc.
The changer display appears but there is no sound	• The volume is turned all the way down. • The attenuator on the remote control is on. • The microcomputer is malfunctioning.	• Increase the volume. • Turn the attenuator off. • Press the system reset button.
Cannot get to the desired track even through track selection	The unit is in random play or magazine random play mode.	Cancel random play or magazine random play mode.

TROUBLESHOOTING GUIDE

● **The following displays are used to indicate the status of the DPX-500.**

EJECT: No disc magazine is loaded. No disc magazine is present at all. Etc.

NO DISC: Not even one disc loaded in the disc magazine.

NO CHANGER: No disc changer is connected to the CH1 or CH2 terminal of the KCA-S200.

ERROR 04: Disc is extremely dirty. Disc is upside down. Disc is badly scratched.

ERROR 99: Not functioning normally for some reason. Please press the reset button on the unit. If the "ERROR 99" display does not disappear, please contact your Kenwood dealer.

HOLD: If the temperature exceeds 60[deg]C, a protective circuit will activate, and all operations will stop. This is the display when this occurs. This display will eventually disappear once the temperature of the location in which the CD player or disc changer is installed goes down.

NO NAME : • An attempt was made to display the name of the disc being played but it was not set in memory.
• An attempt was made to display the name of the MD disc during play, but it was not set in memory.

NO TRACK: No data is recorded on the MD for which playback was attempted. The next MD is played automatically.

BLANK DISC: Nothing is recorded on the MD for which playback was attempted. The next MD is played automatically.

SPECIFICATIONS

These specifications and designs are subject to change without notice to reflect technological development.

FM tuner section

Frequency range (50 kHz Space)	87.5 MHz – 108.0 MHz (50 kHz/200 kHz switchable)
Usable sensitivity (S/N = 30dB)	9.3dBf (0.8 µV/75 ohms)
Quieting Sensitivity	15.2dBf (1.6 µV/75 ohms)
Frequency response (±3.0 dB)	30 Hz – 15 kHz
Signal to Noise ratio (MONO)	75 dB
Selectivity(±400 kHz)	≥ 80 dB
Image response ratio	70 dB
IF response ratio	120 dB
Stereo separation (1 kHz)	40 dB

AM tuner section

Frequency range(9 kHz space)	531 kHz – 1611 kHz (9 kHz/10 kHz switchable)
Usable sensitivity (S/N: 20 dB)	28 dBµ (25 µV)

Cassette player section

Tape speed	4.76 cm/sec.
Wow & Flutter (WRMS)	0.08 %
Fast wind time (C-60)	100 sec.
Frequency response (±3.0 dB)	25 Hz – 22 kHz (70 µs)
	30 – 20 kHz (120 µs)
Separation(1 kHz)	45 dB
Signal to Noise ratio (Dolby NR OFF)	62 dB
Signal to Noise ratio (Dolby B NR ON)	71 dB
(Dolby C NR ON)	77 dB

CD player section

Laser diode	GaAlAs (λ=780nm)
Digital filter (D/A)	8 Time Over Sampling
D/A Converter	1 Bit
Spindle speed	500-200 rpm (CLV)
Wow/Flutter	Below measurable limit
Frequency response (±1dB)	10-20 kHz
T.H.D. (1KHz)	0.01%
Signal to Noise ratio	93 dB
Dynamic range	96 dB
Stereo separation	85 dB

DSP/Equalizer section

A/D Converter	Fourth-oder Δ Σ modulation 16 bit 64 times over sampling
D/A Converter	Fourth-oder Δ Σ modulation 20 bit 128 times over sampling
Equalizer Adjustable band (Hz)	40, 100, 250, 600, 1.4k, 4.8k, 16k
Boost range (dB)	–9 – +9STEP

SPECIFICATIONS

● Audio section

Max power (Full bandwidth, less than 1% THD)	35 W × 4
	20 W × 4
Preout level / load	450 mV
Impedance	≤ 600 ohms
Harmonic distortion	0.05%

● General

Operating voltage	14.4 V (11 – 16 V allowable)
Current consumption	10 A at Rated power
Installation size (W × H × D)	178 × 100 × 155 mm
	(7 × 3-15/16 × 6-1/8 inch)
Weight	3.0kg