

KENWOOD

7-Inch WIDE SCREEN MONITOR-RECEIVER

KVT-M700

INSTRUCTION MANUAL

KENWOOD CORPORATION



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The illustrations of the display and the panel appearing in this manual are examples used to explain more clearly how the controls are used. Therefore, what appears on the display in the illustrations may differ from what appears on the display on the actual equipment, and some of the illustrations on the display may represent something impossible in actual operation.

Before Use

Safety Precautions

▲WARNING

To prevent injury and/or fire, take the following precautions:

- Ensure that the unit is securely installed. Otherwise it may fly out of place during collisions and other jolts.
- When extending the ignition, battery or ground wires, make sure to use automotive-grade wires or other cables with an area of 0.75mm² (AWG18) or more to prevent wire deterioration and damage to the wire coating.
- To prevent short circuits, never put or leave any metallic objects (e.g., coins or metal tools) inside the unit.
- If the unit starts to emit smoke or strange smells, turn off the power immediately and consult your Kenwood dealer.
- Do not touch the liquid crystal fluid if the LCD is damaged or broken due to shock. The liquid crystal fluid may be dangerous to your health or even fatal. If the liquid crystal fluid from the LCD contacts your body or clothing, wash it off with soap immediately.

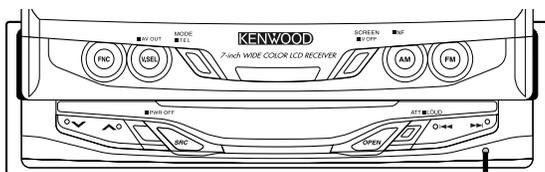
▲CAUTION

To prevent damage to the machine, take the following precautions:

- Make sure to ground the unit to a negative 12V DC power supply.
- Do not open the top or bottom covers of the unit.
- Do not install the unit in a spot exposed to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- Do not subject the faceplate to excessive shock, as it is a piece of precision equipment.
- When replacing a fuse, only use a new one with the prescribed rating. Using a fuse with the wrong rating may cause your unit to malfunction.
- To prevent short circuits when replacing a fuse, first disconnect the wiring harness.
- Do not use any screws except for the ones provided. The use of improper screws might result in damage to the main unit.
- You cannot view video pictures whilst the vehicle is moving. To enjoy TV/video pictures, find a safe place to park and engage the parking brake.

NOTE

- If you experience problems during installation, consult your Kenwood dealer.
- If the unit does not seem to be working right, try pressing the reset button first. If that does not solve the problem, consult your Kenwood dealer.



Reset button

Cleaning the Unit

If the faceplate of this unit is stained, wipe it with a dry soft cloth such as a silicon cloth.

If the faceplate is stained badly, wipe the stain off with a cloth moistened with neutral cleaner, then wipe neutral detergent off.

▲CAUTION

Applying spray cleaner directly to the unit may affect its mechanical parts. Wiping the faceplate with a hard cloth or using a volatile liquid such as thinner or alcohol may scratch the surface or erase characters.

Mask key

If you have transmitted the Mask Key's signal once to the unit in advance, you will have to transmit it once again if the unit has been removed from the battery.

▲CAUTION

Do not loose the "Mask Key".

If power is disconnected from the unit, correct operation can only be restored by the "Mask Key's" signal.

The "Mask Key" will also be required for service repair.

NOTE

If you send products in for repair that include a mask key, make sure to present the unit together with the mask key.

Screen brightness during low temperatures

When the temperature of the unit falls such as during winter, the liquid crystal panel's screen will become darker than usual. Normal brightness will return after using the monitor for a while.

IMPORTANT INFORMATION

About the disc changer/CD player to be connected:

To connect a disc changer having the "O-N" switch to this unit, set the "O-N" switch to "N".

To connect a disc changer having no "O-N" switch to this unit, the converter cord CA-DS100 and/or switching adapter KCA-S210A are required as options.

A disc changer doesn't work when it is connected without using these options.

If a model with no "O-N" switch is connected, some unavailable functions and information that cannot be displayed are generated.

Note that none of the KDC-C100, KDC-C302, C205, C705, and non-Kenwood CD changers can be connected..



You can damage both your unit and the CD changer if you connect them incorrectly.

About RDS

RDS (Radio Data System)

When listening to an RDS station, the programme service name of the station is displayed, advising you quickly which station is being received.

RDS (Radio Data System) stations also transmit frequency data for the same station. When you are making long trips, this function automatically alternative switches to the particular frequency with the best reception for the particular network of stations that you want to listen to. The data is automatically stored, allowing you to switch quickly to another RDS stations, broadcasting the same programme, that has better reception. These include stations stored in the station preset memory that you often listen to.

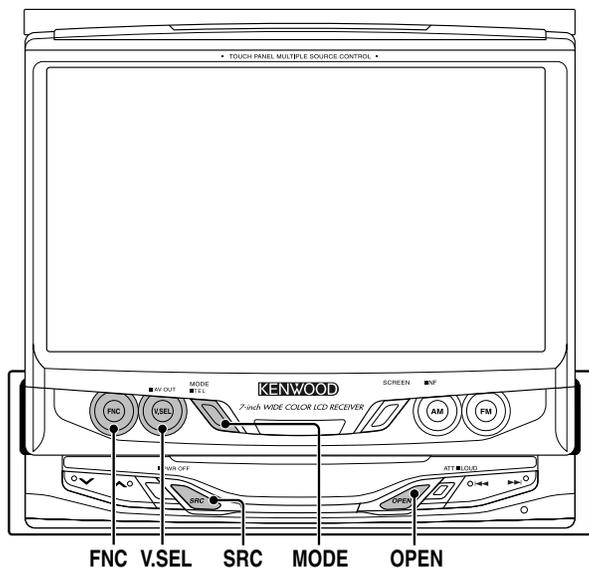
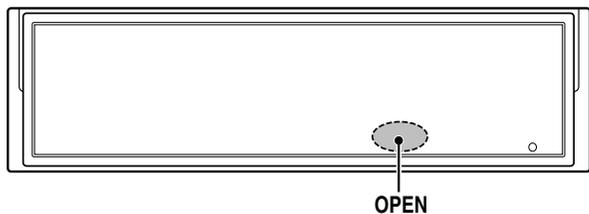
Enhanced Other Network

Stations that offer <Enhanced Other Network> also transmit information about other RDS stations that have traffic information. When you are tuned to a station that is not transmitting traffic information, but another RDS station starts transmitting a traffic bulletin, the tuner automatically switches to the other station for the duration of the bulletin.

Alarm

When an emergency transmission (announcing disasters, etc.) is sent, all current functions are interrupted to allow the warning to be received.

Monitor Control Function



Opening the Monitor

1 Set the vehicle's parking brake.

2 Press the [OPEN] button.

The monitor will open.

- The gear shift lever or other parts may interfere with the monitor when it opens. If so, move the gear shift lever (being sure to do so safely) before operating the set. (The monitor is drawn back in automatically if it cannot be opened normally due to an obstacle.)
- The monitor cannot be opened unless the parking brake is set.
- The position to which the monitor slides or angle when the power is turned on can be set. (Refer to the angle control screen on (Page 7).

Closing the Monitor

Press the [OPEN] button.

The monitor will close.

- The monitor cannot be closed unless the parking brake is set.
- Make sure not to get your fingers caught between the faceplate and the unit.

Power Off

Press the [SRC] button for at least 1 second.

Power On

Press the [SRC] button.

Switching the Monitor's Picture

Press the [V.SEL] button.

Each time the button is pressed the monitor's picture switches as follows:

During the KTC-V500E is not connected:

| Display | Picture |
|---------|--|
| "VD 1" | Video 1 (AV IN1 setting during "VD") |
| "VD 2" | Video 2 (AV IN2 setting during "VD") |
| "NAV" | RGB (from I/F terminal: RGB setting during "ON") |

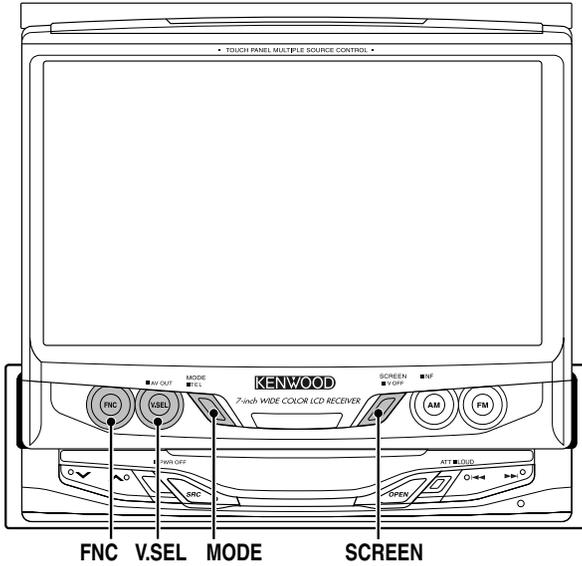
During the KTC-V500E is connected:

| Display | Picture |
|---------|--|
| "VD 1" | Video 1 (AV-IN1 setting during "VD") |
| "VD 2" | Video 2 (AV IN2 setting during "VD") |
| "NAV" | RGB (from I/F terminal: RGB setting during "ON") |
| "ch" | Television |

- For "AV IN" and "RGB" setting, refer to <AV Setup Screen>. (Page 11).
- The "NAV", "VD 1" and "VD 2" displays can be changed by the <AV Setup Screen>.

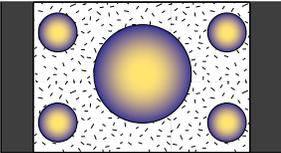
⚠ You cannot view television and video pictures whilst the vehicle is moving. To enjoy television and video pictures, find a safe place to park and engage the parking brake.

Monitor Control Function

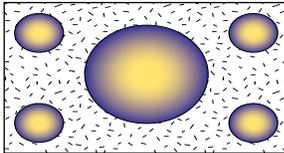


Screen Mode

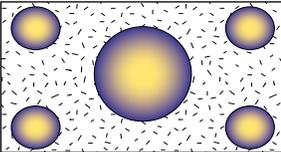
• NORMAL



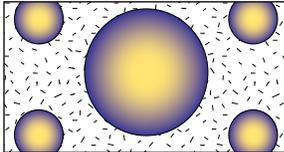
• FULL



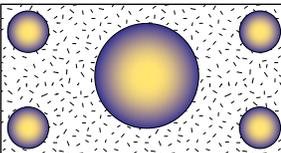
• JUST



• ZOOM



• CINEMA



Switching the TV/Video Screen Mode

Press the [MODE] button.

Each time the button is pressed the screen mode switches as follows:

| Display | Setting |
|----------|--------------------|
| "FULL" | Full screen mode |
| "ZOOM" | Zoom screen mode |
| "JUST" | Just screen mode |
| "CINEMA" | Cinema screen mode |
| "NORMAL" | Normal screen mode |



You cannot operate when the navigation picture is displayed.

Switching the AV Output

Press the [V.SEL] button for at least 1 second.

Each time the button is pressed for at least 1 second the AV output switches as follows:

| Display | Setting |
|----------|---|
| "VIDEO1" | Picture/sound input from the AV IN 1 terminal |
| "VIDEO2" | Picture/sound input from the AV IN 2 terminal |
| "TV" | Picture/sound of the television (During the KTC-V500E is connected) |

Switching to the Angle/Screen Control Screen

Press the [SCREEN] button.

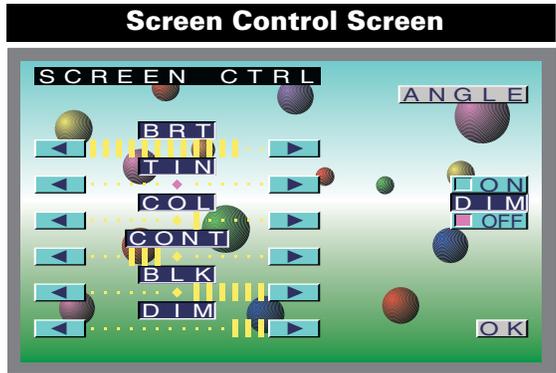
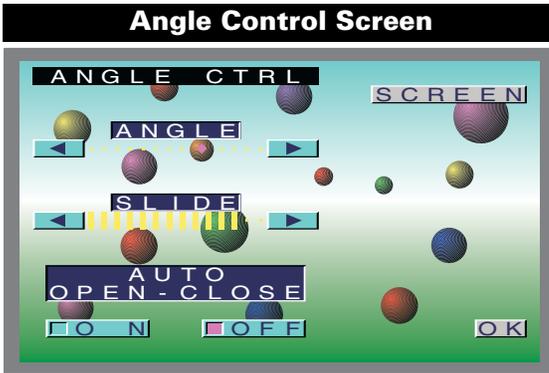
(☛ Page 7)

Turning the Monitor Picture Off

Press the [SCREEN] button for at least 1 second.



The picture reappears when the one of the SCREEN, MODE, V.SEL or FNC buttons is pressed.



Adjusting the Angle Position [ANGLE]

The monitor slants back one step:
Touch the [▶] button.

The monitor slants forward one step:
Touch the [◀] button.



- The angle can be adjusted in 9 steps.
- The next time the monitor is opened it stops at the set location.
- When the Monitor slide position is set toward the back, the Angle position can't be set more than 90 degrees toward the back.

Adjusting the Slide Position [SLIDE]

The monitor to the front:
Touch the [▶] button.

The monitor to the back:
Touch the [◀] button.



- The next time the monitor is opened it stops at the set location.
- When the Angle position is set more than 90 degrees toward the back, the Monitor slide position can't be set toward the back.

Automatic Open/Close [AUTO OPEN-CLOSE]

| Touch | Setting |
|--------|---|
| [■ON] | Switch the ACC on/off to open/close the monitor |
| [■OFF] | Use the OPEN button to open/close the monitor |

If the shift lever or other parts of the vehicle interfere with the monitor when it opens, select "OFF".

Switching to the Screen Control Screen

Touch the [SCREEN] button.

Exit the Angle Control Screen

Touch the [OK] button.

Adjusting the Picture Quality

| Item | Touch | Setting |
|------|-------|----------------------|
| BRT | [▶] | Brighter screen |
| | [◀] | Darker screen |
| TIN | [▶] | Stronger green level |
| | [◀] | Stronger red level |
| COL | [▶] | Deeper color |
| | [◀] | Paler color |
| CONT | [▶] | Stronger contrast |
| | [◀] | Less contrast |
| BLK | [▶] | Less black level |
| | [◀] | Stronger black level |
| DIM | [▶] | Brighter screen |
| | [◀] | Darker screen |

- The [TIN] and [COL] cannot be adjusted for the navigation picture or the control screen.
- The [TIN] cannot be adjusted for the picture of PAL/SECAM.
- Separate picture quality settings can be stored for the television, video, control screens and navigation screens.

Auto Dimmer [DIM]

| Touch | Setting |
|--------|---|
| [■ON] | The [DIM] level can be adjusted. Also, when the area around the monitor dark it's at the brightness level set by the [DIM]. |
| [■OFF] | The [DIM] items can't be adjusted. Also, even if the area around the monitor is dark, it can't be changed from the brightness set by [BRT]. |

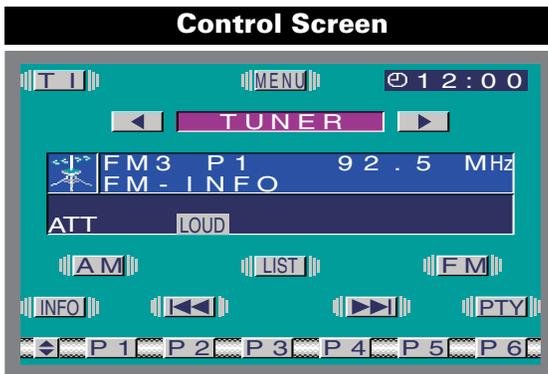
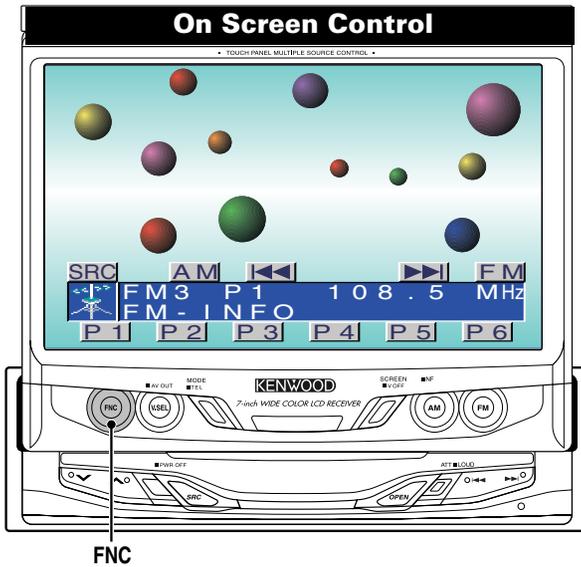
Switching to the Angle Control Screen

Touch the [ANGLE] button.

Exit the Screen Control Screen

Touch the [OK] button.

Menu Function



Selecting the Menu Screen

1 Displaying the On Screen Control

Press the [FNC] button to display the on screen control.

If you make no button operation for 10 seconds, the on screen control is automatically cancelled.

2 Selecting the Control Screen

When the [FNC] button is pressed during on screen control display, it switches to control screen.

3 Selecting the Menu Screen

Touch the [MENU] button to switch the menu screen.

Selecting the Setup Menu Screen

Touch the [SETUP] button.
(☛ Page 9)

Selecting the Sound Control Menu Screen

Touch the [SOUND] button.
(☛ Page 16)

Selecting the Tuner Setting Menu Screen

Touch the [TUNER] button.
(☛ Page 14)

Selecting the External Display Control Screen

Touch the [EXT] button.
(☛ Page 35) <During the KPA-SD100 is connected>

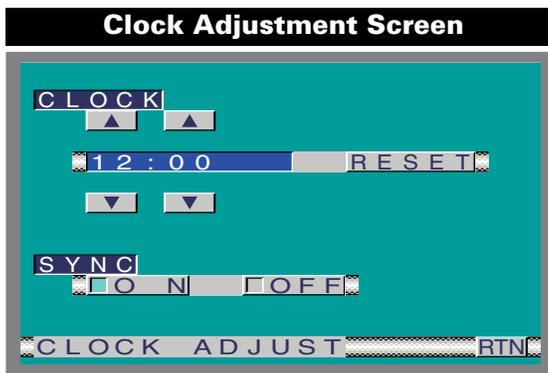
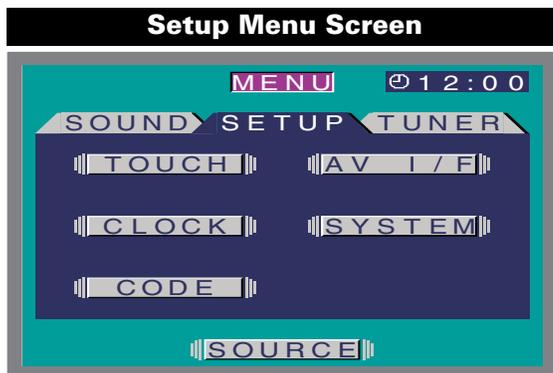
Selecting the Sensor Box Control Screen

Touch the [SENS] button.
(☛ Page 35) <During the KPA-SS100 is connected>

Exit the Menu Screen

Touch the [SOURCE] button.
Return to source control screen.

Setup Function



Selecting the Touch Panel Adjustment Screen

Touch the [TOUCH] button.
(☛ Page 10)

Selecting the AV Setup Screen

Touch the [AV I/F] button.
(☛ Page 11)

Selecting the Clock Adjustment Screen

Touch the [CLOCK] button.
(☛ Page 9)

Selecting the System Setup Screen

Touch the [SYSTEM] button.
(☛ Page 12)

Selecting the Code Security Screen

Press the [CODE] button for at least 2 seconds.
(☛ Page 10)

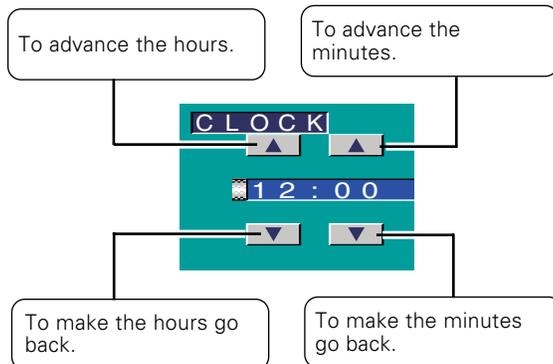
Synchronize Clock [SYNC]

Synchronizing the RDS station time data and this unit's clock.

| Touch | Setting |
|-------|---------------------------|
| [ON] | Synchronizes the time. |
| [OFF] | Adjust the time manually. |

☞ It takes 3 to 4 minutes to synchronize the clock.

Manual Clock Adjustment [CLOCK]



Setting the Minutes to "00"

Touch the [RESET] button.

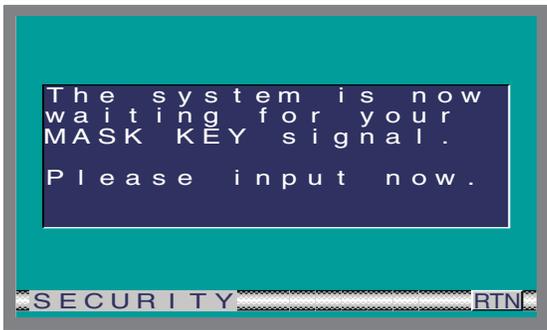
- ☞ Touch the [RESET] button while the minute is below "30" rounds it off, and while the minute is "30" or more rounds it up.
- This adjustment can be done when the <SYNC> is set as OFF.

Exit the Clock Adjustment Screen

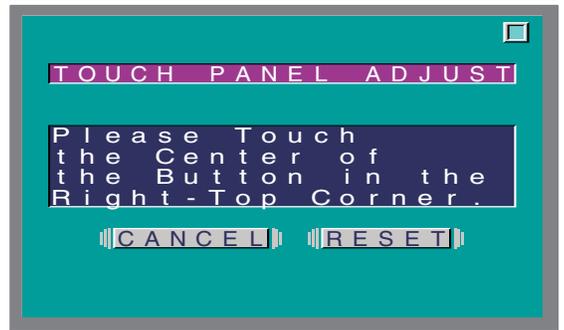
Touch the [RTN] button.
Return to the setup menu screen.

Setup Function

Code Security Screen



Touch Panel Adjustment Screen

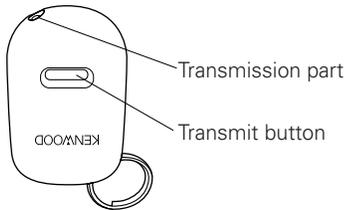


Mask Key

Because authorization by the Mask Key is required when it's removed from the vehicle, personalizing this unit by using the Mask Key is a help in preventing theft.

1 Enter the Mask Key's signal

Hold down the transmit button on the Mask Key until the full transmit level indicator lights up in the display. "Checking." is displayed.



Keep the Mask Key close to the signal sensor when you transmit the Mask Key's signal.

2 Reenter the Mask Key's signal

Hold down the transmit button on the Mask Key until the full transmit level indicator lights up in the display. Return to the setup menu screen.

Press the Reset button and when it's removed from the battery power source

1 Turn the power ON

The vehicle engine turns ON.
"The system is now waiting for your MASK KEY signal. Please input now." is displayed.

2 Enter the Mask Key's signal

Repeat steps 4 and 5 above, and enter the Mask Key's signal.
The "ALL OFF" screen is displayed.
The unit can be used.

Exit the Code Security Screen

Touch the [RTN] button.
Return to the setup menu screen.

Adjusting the Touch Position

The touch panel can be adjusted if the position touched and the operation performed do not match.

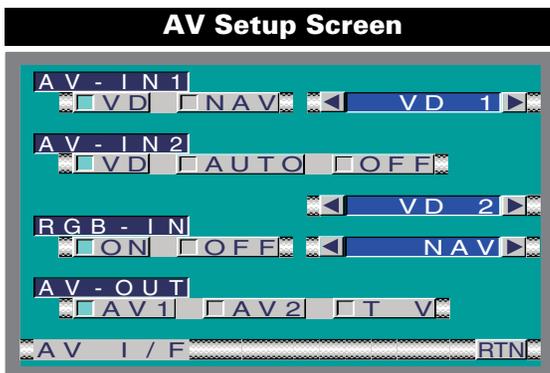
1 Accurately touch the mark at the upper right.

2 Accurately touch the mark at the lower left.

When the mark at the lower left is touched, the adjustment is completed and the system setup menu screen reappears.



- If the [CANCEL] button is touched without touching the button at the upper right, the adjustment is canceled and the screen that was set before switching to the system setup menu reappears.
- If the [CANCEL] button is touched after touching the button at the upper right, the button at the upper right reappears.
- If the [RESET] button is touched, the settings are reset to the factory defaults and the setup menu screen reappears.



Setting the AV IN-1 Mode [AV-IN1]

| Touch | Setting |
|-------|--|
| [NAV] | It becomes the navigation mode setting. Operate the V.SEL button when the image from the navigation unit connected to AV IN1 terminal is shown on the monitor. |
| [VVD] | It becomes the video mode setting. Operate the V.SEL button when the image from the device connected to AV IN1 terminal is shown on the monitor. |

Select the AV-IN1 input display:

Selecting the display when this device is switched to internal AV-IN1 terminal input source.

Each time you touch the [◀] or [▶] button, the display switches as follows:

"VD 1" ↔ "VIDEO1" ↔ "NAV1" ↔ "DVD1" ↔ "VCR1" ↔
"VCD1" ↔ "GAME1" ↔ "AUX1"

Setting the AV IN-2 Mode [AV-IN2]

| Touch | Setting |
|--------|--|
| [VVD] | It becomes the video mode setting. Operate the V.SEL button when the image from the device connected to AV IN2 terminal is shown on the monitor. |
| [AUTO] | It becomes the auto video mode setting. When the video signal input to the AV IN2 terminal, the monitor image is switched to the image of the device connected to the AV IN2 terminal. |
| [OFF] | It becomes the OFF mode setting. Use this setting when there's nothing connected to the AV IN2 terminal. |

Select the AV-IN2 input display:

Selecting the display when this device is switched to internal AV-IN2 terminal input source.

Each time you touch the [◀] or [▶] button, the display switches as follows:

"VD 2" ↔ "VIDEO2" ↔ "NAV2" ↔ "DVD2" ↔ "VCR2" ↔
"VCD2" ↔ "GAME2" ↔ "AUX2" ↔ "CAMERA"

Setting the RGB Mode [RGB-IN]

| Touch | Setting |
|-------|--|
| [ON] | It becomes the RGB mode setting. Operate the V.SEL button when the image from the the navigation unit connected to I/F terminal is shown on the monitor. |
| [OFF] | It becomes the OFF mode setting. Use this setting when there's nothing connected to the I/F terminal. |

Select the I/F input display:

Selecting the display when this device is switched to internal I/F terminal input source.

Each time you touch the [◀] or [▶] button, the display switches as follows:

"NAV" ↔ "DVD" ↔ "DVB" ↔ "RGB"

Setting the AV Output Mode [AV-OUT]

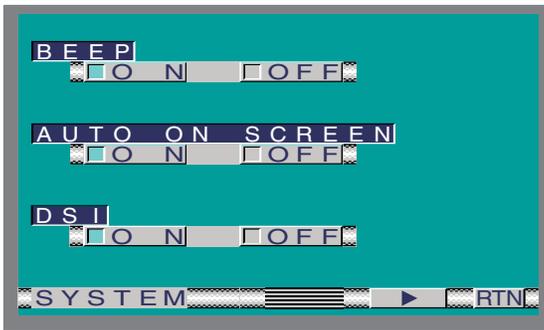
| Touch | Setting |
|-------|---|
| [AV1] | Picture/sound from AV IN1 terminal. |
| [AV2] | Picture/sound from AV IN2 terminal. |
| [TV] | Picture/sound from television. (During the KTC-V500E is connected) |

Exit the AV Setup Screen

Touch the [RTN] button.
Return to the setup menu screen.

System Setup Function

System Setup Screen-1



Touch Sensor Tone [BEEP]

Setting the operation check sound (beep sound) ON/OFF.

| Touch | Setting |
|--------|---------------------------------|
| [■ON] | Touch sensor tone is turned on |
| [■OFF] | Touch sensor tone is turned off |

On Screen Display [AUTO ON SCREEN]

| Touch | Setting |
|---------|--|
| [■AUTO] | When a button on the main unit or remote control unit is pressed, or the disc track is changed, the audio source control information is temporarily superimposed on the picture. |
| [■MANU] | When the lower center of the screen is touched while a TV/video picture is displayed, the audio source control information is temporarily superimposed on the picture. |

Disabled System Indicator [DSI]

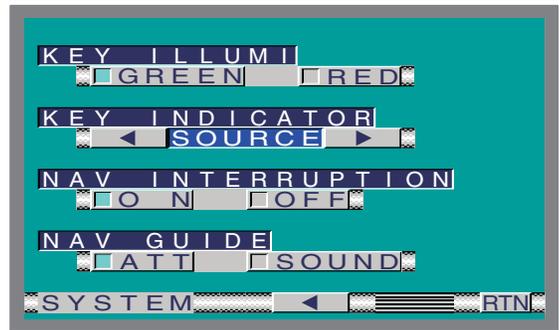
A red indicator (Reset button) will blink on the unit after the ignition Key switch is off, warning potential thieves.

| Touch | Setting |
|--------|--------------|
| [■ON] | LED flashes. |
| [■OFF] | LED OFF. |

Switching the Setup Screen -1 and 2

Touch the [◀] or [▶] button.

System Setup Screen-2



Selectable Illumination [KEY ILLUMI]

Selecting the button illumination color as green or red.

| Touch | Setting |
|----------|----------------------------------|
| [■GREEN] | The illumination color is green. |
| [■RED] | The illumination color is red. |

Key Indicator Color [KEY INDICATOR]

Selecting the OPEN and SRC button indicator color. Touch the [◀] or [▶] button.

| Display | Setting |
|----------|---|
| "SOURCE" | The color changes according to the selected source. |
| "MARS" | Red |
| "LIME" | Green |
| "SUNSET" | Red Green |
| "SKY" | Blue |
| "VIOLET" | Violet |
| "AQUA" | Blue Green |
| "MOON" | White |

Navigation Announcement [NAV INTERRUPTION]

The navigation voice is output from the front speaker at navigation voice guide announcement time.

| Touch | Setting |
|--------|------------------------------|
| [■ON] | Announcement function is on |
| [■OFF] | Announcement function is off |

 This function available when the KENWOOD navigation unit is connected to the I/F terminal.

Sound Attenuate [NAV GUIDE]

The rear speaker sound is attenuate during the navigation voice output time.

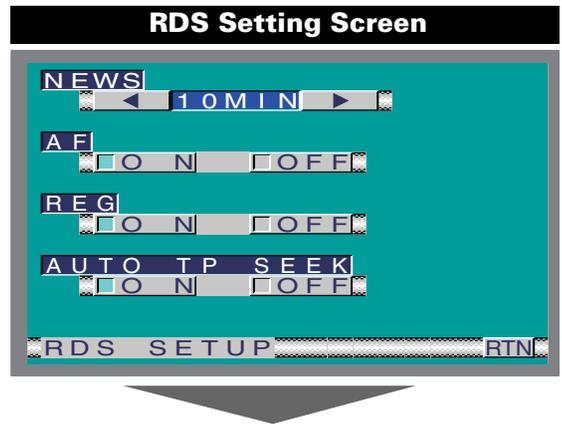
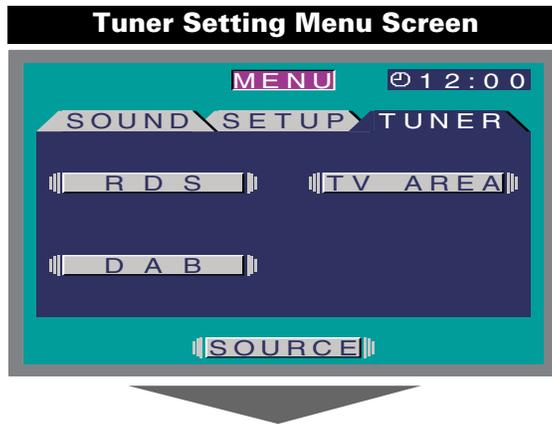
| Touch | Setting |
|----------|--|
| [■ATT] | Rear speaker attenuate function is on |
| [■SOUND] | Rear speaker attenuate function is off |

 This function available when the KENWOOD navigation unit is connected to the I/F terminal.

Exit the System Setup Screen

Touch the [RTN] button.
Return to the setup menu screen.

Tuner Setting Function



Selecting the RDS Setting Screen

Touch the [RDS] button.
(☛ Page 14)

Selecting the TV Area Setting Screen

Touch the [TV AREA] button.
(☛ Page 15)
(During the KTC-V500E is connected)

Selecting the DAB Tuner Setting Screen

Touch the [DAB] button.
(☛ Page 31)
(During the KTC-9090DAB is connected)

News Bulletin with Timeout Setting [NEWS]

It switches automatically when a news bulletin starts even if the radio isn't being listened to. Also, the time interval when interrupt is prohibited can be set.

Touch the [◀] or [▶] button.

Display and Setting

| |
|--------------|
| "NEWS OFF" |
| "NEWS 00MIN" |
| ⋮ |
| "NEWS 90MIN" |

When "NEWS 00MIN" — "NEWS 90MIN" is set, the News Bulletin Interrupt function is ON.

When it's ON, the "NEWS" indicator is ON in the source control screen.

When the news bulletin starts, "NEWS" is displayed in the source control screen, and it switches to the news bulletin.

- ☰ If you choose the "20MIN" setting, further news bulletins will not be received for 20 minutes once the first news bulletin is received.
- The news bulletin volume is the same level that was set for traffic information (page 23).
- This function is only available if the desired station sends PTY-code for news bulletin or belongs to <Enhanced Other Network>-Network sending PTY-code for news bulletin.
- When the News Bulletin Interrupt function is ON, it switches to an FM station.

Alternative Frequency Function [AF]

When poor reception is experienced, automatically switch to another frequency broadcasting the same program in the same RDS network with better reception.

| Touch | Setting |
|--------|---------------------------|
| ■[ON] | AF function is turned on |
| ■[OFF] | AF function is turned off |

When the AF function is ON, the "RDS" indicator is ON in the source control screen.

- ☰ When no other stations with stronger reception are available for the same program in the RDS network, you may hear the incoming broadcast in bits and snatches. Turn OFF the AF function in such a case.

TV Area Setting Screen



Region Restrict Function [REG]

You can choose whether or not to restrict the RDS channels, received with the AF function for a particular network, to a specific region.

| Touch | Setting |
|-------|--|
| [ON] | Region restrict function is turned on |
| [OFF] | Region restrict function is turned off |

 Sometimes stations in the same network broadcast different programs or use different program service names.

Auto TP Seek Function [ATPS]

When the TI function is ON and poor reception conditions are experienced when listening to a traffic information station, another traffic information station with better reception will be searched for automatically.

| Touch | Setting |
|-------|-------------------------------------|
| [ON] | Auto TP seek function is turned on |
| [OFF] | Auto TP seek function is turned off |

Exit the RDS Setting Screen

Touch the [RTN] button.
Return to the tuner setting menu screen.

Setting the TV Area

Select the area for TV broadcast viewing.

Selecting the Preset Bands:

Touch the [TV 1] or [TV 2] button.

Selecting the Reception Area:

Touch the [1] - [6] button.

Select the channel setting for your country as follows.

| | | |
|-----|---|-----------|
| [1] | Germany Spain Portugal Netherlands Belgium Switzerland Austria Sweden Norway Denmark Finland Yugoslavia Iceland | PAL-B/G |
| [2] | Italy Albania | |
| [3] | United Kingdom Ireland | PAL-I |
| [4] | France | SECAM-L |
| [5] | Russia Poland Hungary Czech Slovakia Bulgaria Romania | SECAM-D/K |
| [6] | Greece | SECAM-B/G |

 The reception area can be set for two separate preset bands TV1 and TV2.

Exit the TV Area Setting Screen

Touch the [RTN] button.
Return to the tuner setting menu screen.

Sound Control Function

Sound Control Menu Screen



Selecting the Audio Setting Screen

Touch the [AUDIO] button. (▶ Page 16)

You cannot operate when the standby mode is selected.

Selecting the System Es Setting Screen

Touch the [SYS Es] button. (▶ Page 19)

You cannot operate when the standby mode is selected.

Selecting the Speaker Select Screen

Touch the [SP SEL] button. (▶ Page 18)

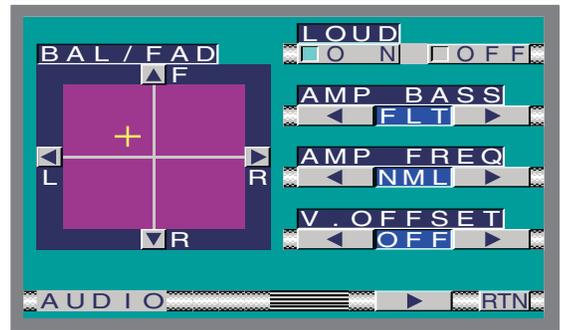
You can operate when the standby mode is selected.

Selecting the Tone Control Screen

Touch the [TONE] button. (▶ Page 18)

You cannot operate when the standby mode is selected.

Audio Setting Screen-1



Balance and Fader [BAL/FAD]

| Touch | Setting |
|-------|---|
| [◀]L | The sound in the left channel is emphasized. |
| [▶]R | The sound in the right channel is emphasized. |
| [▲]F | The sound in the front channel emphasized. |
| [▼]R | The sound in the rear channel emphasized. |

Loudness [LOUD]

Compensating for low and high tones during low volume.

| Touch | Setting |
|--------|---------------------------------|
| [■ON] | Loudness function is turned on |
| [■OFF] | Loudness function is turned off |

When the Loudness function is ON, the "LOUD" indicator is ON in the source control screen.

B.M.S. (Bass Management System) [AMP BASS]

Adjust the bass boost level of the external amplifier using the main unit.

Touch the [◀] or [▶] button.

| Display | Setting |
|---------|-----------------------------------|
| "FLT" | Bass boost level is flat. |
| "+6dB" | Bass boost level is low (+6dB). |
| "+12dB" | Bass boost level is mid (+12dB). |
| "+18dB" | Bass boost level is high (+18dB). |

- Refer to the catalog or instruction manual for power amplifiers that can be controlled from this unit.
- For amplifiers there are the model that can be set from Flat to +18 dB, and the model that can be set from Flat to +12 dB. When an amplifier is connected that can only be set to +12dB, even if "+18dB" is selected it won't operate correctly.

B.M.S. Frequency Offset [AMP FREQ]

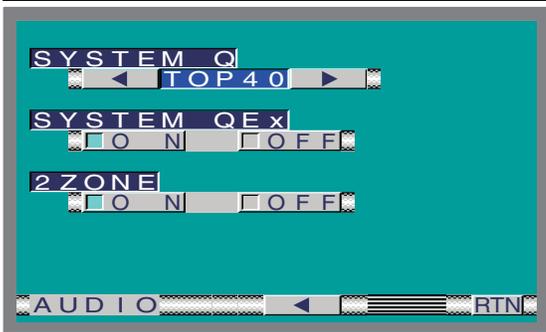
Setting the central frequency boosted by B.M.S.

Touch the [◀] or [▶] button.

| Display | Setting |
|---------|--|
| "NML" | Boost with the normal central frequency. |
| "LOW" | Drop the normal central frequency 20%. |

Refer to the catalog or instruction manual for power amplifiers that can be controlled from this unit.

Audio Setting Screen-2



Volume Offset [V OFFSET]

Each source's volume can be set as a difference from the basic volume.

| Touch | Setting |
|-------|-------------------------|
| [▶] | The level is increased. |
| [◀] | The level is decreased. |

Switching the Audio Setting Screen -1 and 2

Touch the [◀] or [▶] button.

System Q [SYSTEM Q]

You can recall the best sound setting preset for different types of the music.

Touch the [◀] or [▶] button.

| Display | Setting |
|----------|-------------|
| "FLAT" | Flat. |
| "ROCK" | Rock |
| "TOP 40" | Top 40 |
| "POPS" | Pops |
| "JAZZ" | Jazz |
| "EASY" | Easy |
| "USER" | User memory |

- User memory: The values set on the <Tone control screen> (page 18).
- Each setting value is changed on the <Speaker & Woofer Setting> (page 18). First, select the Speaker and Woofer type with the <Speaker & Woofer Setting>.

System Q Ex [SYSTEM QEx]

Setting display/don't display for the System Q factors (Bass center frequency, Bass Q factor, Bass extend, Middle center frequency, Middle Q factor, and Treble center frequency) in Tone control screen.

| Touch | Setting |
|--------|--|
| [■ON] | The System Q factors are displayed. |
| [■OFF] | The System Q factors aren't displayed. |

Dual Zone System [2 ZONE]

The following operation allows separate sound sources to control the output of the front and rear speakers.

| Touch | Setting |
|--------|---|
| [■ON] | The dual zone system function is on. AV-OUT sound send to the rear speaker. |
| [■OFF] | The dual zone system function is off. |

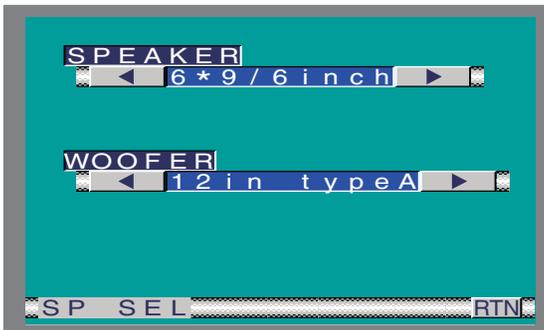
- When the Dual Zone System is ON, there is no rear channel audio control or other effect.
- When you set the Dual zone system to ON while the non-fading preout is switched ON, the sound of the non-fading preout isn't output.

Exit the Audio Setting Screen

Touch the [RTN] button.
Return to the sound control menu screen.

Sound Control Function

Speaker Select Screen



Speaker & Woofer Setting

Fine-tuning so that the System Q value is optimal when setting the speaker and woofer type.

Touch the [◀] or [▶] button.

In Speaker setting mode [SPEAKER]

| Display | Speaker type |
|-------------|--------------------------|
| "OFF" | Off |
| "6*9/6inch" | For 6 & 6x9 inch speaker |
| "5/4inch" | For 5 & 4 inch speaker |
| "OEM" | For the OEM speaker |

In Woofer setting mode [WOOFER]

| Display | Woofer type |
|--------------|----------------|
| "OFF" | Off |
| "12in typeA" | 12 inch A type |
| "10in typeA" | 10 inch A type |
| "12in typeB" | 12 inch B type |
| "10in typeB" | 10 inch B type |
| "12in typeC" | 12 inch C type |
| "10in typeC" | 10 inch C type |
| "8inch" | 8 inch type |
| "12in typeD" | 12 inch D type |
| "10in TypeD" | 10 inch D type |

Exit the Speaker Select Screen

Touch the [RTN] button.
Return to the sound control menu screen.

Tone Control Screen (Ex:OFF)



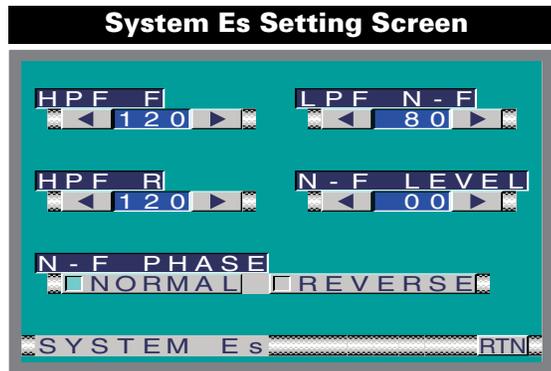
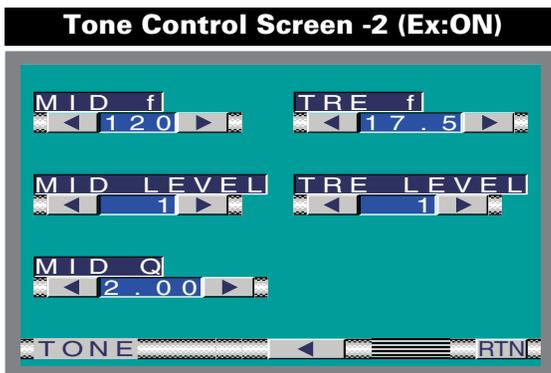
Tone Control (System OEx set to OFF)

Touch the [◀] or [▶] button.

| Display | Adjustment Item | Range |
|--------------|-----------------|---------|
| "BASS LEVEL" | Bass level | -8 — +8 |
| "MID LEVEL" | Middle level | -8 — +8 |
| "TRE LEVEL" | Treble level | -8 — +8 |

Exit the Tone Control Screen

Touch the [RTN] button.
Return to the sound control menu screen.



System Es

Touch the [◀] or [▶] button.

| Display | Adjustment Item | Range |
|-------------|----------------------------|---|
| "HPF F" | Front High Pass Filter | Through/40/60/80/100/120/150/180/220 (Hz) |
| "HPF R" | Rear High Pass Filter | Through/40/60/80/100/120/150/180/220 (Hz) |
| "LPF N-F" | Non-Fading Low Pass Filter | 50/80/120/Through (Hz) |
| "N-F LEVEL" | Non-Fading level | -15 — +15 |
| "N-F PHASE" | Non-Fading Phase | ■NORMAL (0°) ■REVERSE(180°) |

Tone Control (System QEx set to ON)

Touch the [◀] or [▶] button.

| Display | Adjustment Item | Range |
|--------------|-------------------------|--------------------------|
| "BASS f" | Bass Center Frequency | 60/70/80/100 or 150 Hz |
| "BASS LEVEL" | Bass level | -8 — +8 |
| "BASS Q" | Bass Q Factor | 1.00/ 1.25/ 1.50/ 2.00 |
| "BASS EXT" | Bass Extend | ■ON(On) ■OFF(Off) |
| "MID f" | Middle Center Frequency | 0.5/1.0/1.5/ 2.0kHz |
| "MID LEVEL" | Middle level | -8 — +8 |
| "MID Q" | Middle Q Factor | 1.00/2.00 |
| "TRE f" | Treble Center Frequency | 10.0/12.5/15.0/ 17.5 kHz |
| "TRE LEVEL" | Treble level | -8 — +8 |

- According to the Bass Q Factor setting value, the frequencies that can be set in Bass Center Frequency change as shown below.

| Bass Q Factor | Bass Center Frequency |
|----------------|-----------------------|
| 1.00/1.25/1.50 | 60/70/80/100 Hz |
| 2.00 | 60/70/80/150 Hz |

- When the Bass Extend is set to ON, low frequency response is extended by 20%.

Exit the System Es Screen

Touch the [RTN] button.
Return to the sound control menu screen.

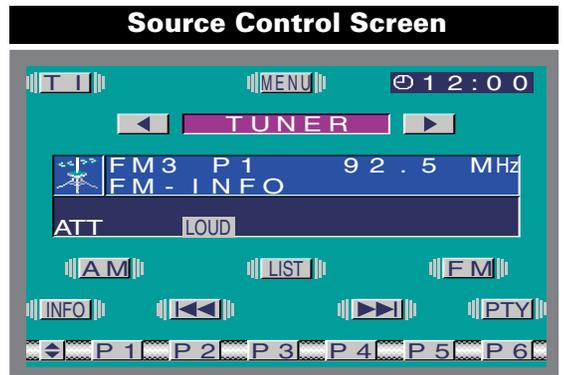
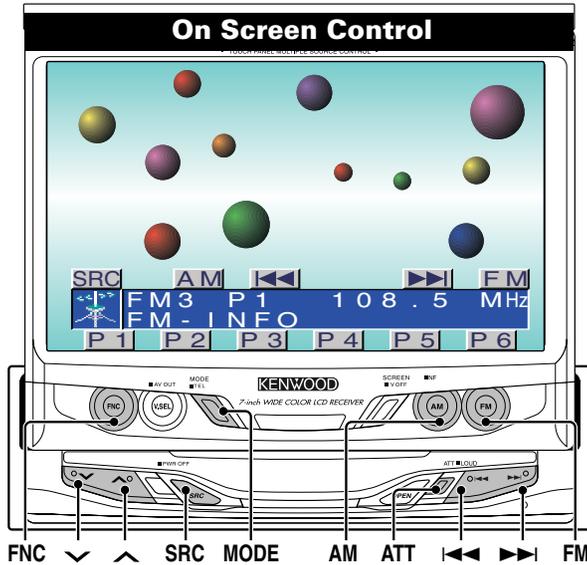
Switching the Tone Control Screen - 1 and 2

Touch the [◀] or [▶] button.

Exit the Tone Control Screen

Touch the [RTN] button.
Return to the sound control menu screen.

Source Control Function (Common operation)



Displaying the On Screen Control

Selecting the On Screen Control

Press the [FNC] button to switch the on screen control display.

If you make no button operation for 10 seconds, the on screen control is automatically cancelled.

Selecting the Control Screen

When the [FNC] button is pressed during on screen control display, it switches to control screen.

Changing the Audio Source Mode

<In Monitor's button/ On Screen Control>

Press/ Touch the [SRC] button.

<In Source Control Screen>

Touch the [◀] or [▶] button.

| Source required | Display |
|----------------------------------|-----------|
| FM/AM Tuner | "TUNER" |
| External CD player | "CD" |
| External disc changer | "DISC-CH" |
| | "MD-CH" |
| Video & External TV Tuner | "AV" |
| Auxiliary input | "AUX" |
| External DAB Tuner | "DAB" |
| Standby (Illumination only mode) | "ALL OFF" |

For Auxiliary input one of the below optional accessories is necessary.

- KCA-S210A
- CA-C1AX
- CD changer with an Auxiliary input function installed.

Volume

Increasing Volume:

Press the [^] button.

Decreasing Volume:

Press the [v] button.

Attenuator

Turning the volume down quickly.

Press the [ATT] button.

Each time the button is pressed the Attenuator turns ON or OFF.

When it's ON, the "ATT" indicator is ON.

Loudness

Compensating for low and high tones during low volume.

Press the [ATT] button for at least 1 second.

Each time the button is pressed for at least 1 second the Loudness turns ON or OFF.

When it's ON, "LOUD" indicator is ON.

Non-fading Output

Turning the Non-fading output ON or OFF.

Press the [AM] button for at least 1 second.

Each time the button is pressed for at least 1 second the Non-fading output switches ON or OFF.

Switching to the Menu Screen

Touch the [MENU] button. (▶ Page 8)

Changing the Function Buttons

Touch the [◆] button.

Each time the button is touched the under function buttons change.

Changing the Background Mode for the Control Screen

You can select the background between 11 different patterns for the source control screen and menu screen.

Press the [MODE] button.

Each time the button to change the background mode.

TEL Mute

The audio system automatically mutes when a call comes in.

When a call comes in

"CALL" is displayed.
The audio system pauses.

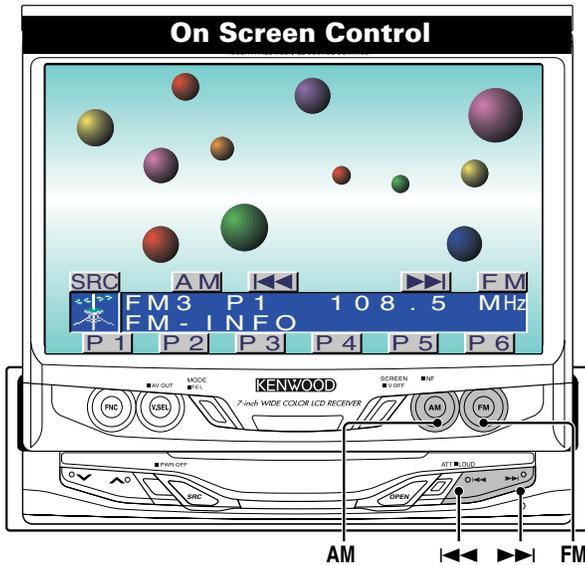
Listening to the audio during a call

Press the [SRC] button.
The "CALL" display disappears and the audio system comes back ON.

When the call ends

Hang up the phone.
The "CALL" display disappears and the audio system comes back ON.

FM/AM Tuner Control Function



Selecting the FM Band

Press/ touch the [FM] button.
Each time the button is pressed/ touched it switches between the FM1, FM2, and FM3 bands.

Selecting the AM Band

Press/ touch the [AM] button.

Tuning

Press/ touch the [◀◀] or [▶▶] button.
During reception of stereo stations the "ST" indicator is ON

Station Preset Memory

Putting the station in the memory.

- Select the band**
Press/ touch the [FM] or [AM] button.
- Select the frequency to put in the memory**
Press/ touch the [◀◀] or [▶▶] button.
- Put the frequency in the memory**
Touch the [P1] — [P6] button for at least 2 seconds.
On each band, 1 station can be put in the memory on each [P1] — [P6] button.

Preset Tuning

Calling up the stations in the memory.

- Select the band**
Press/ touch [FM] or [AM] button.
- Call up the station**
Touch the [P1] — [P6] button.

Auto Memory Entry

Putting stations with good reception in the memory automatically.

1 Select the band for Auto Memory Entry

Touch the [FM] or [AM] button.

2 Open Auto Memory Entry

Touch the [AME] button for at least 2 seconds.
When 6 stations that can be received are put in the memory Auto Memory Entry closes.

- When the <AF Function> (page 14) is ON, only RDS stations are put in the memory.
- When Auto Memory Entry is done in the FM2 band, the RDS stations preset in the FM1 band aren't put in the memory. Likewise, when it is done in the FM3 band, RDS stations preset in FM1 or FM2 aren't put in the memory.

Seek Mode

Sets the seeking mode.

Touch the [SEEK] button.
Each time the button is touched the seeking mode switches as shown below.

| Seek mode(display) | Operation |
|-------------------------------|---|
| Auto seek ("AUTO1") | Automatic search for a station. |
| Preset station seek ("AUTO2") | Search in order of the stations in the Preset memory. |
| Manual ("MANU") | Normal manual tuning control. |

Monaural Reception

Noise can be reduced when stereo broadcasts are received as monaural.

Touch the [MONO] button.
Each time the button is touched the Monaural Reception turns on or off.
When it's on, the "MONO" indicator is On

Local Seek

Only stations whose reception is good are searched for in auto seek tuning.

Touch the [LO.S] button.
Each time the button is touched the local seek function on and off.
When it's on, the LO.S indicator is on.

Control Screen -2



Traffic Information

Switching to traffic information automatically when a traffic bulletin starts even when you aren't listening to the radio.

Touch the [TI] button.

Each time the button is touched the Traffic Information function turns ON or OFF.

When it's ON, "TI" indicator is ON.

When a traffic bulletin starts, "TRAFFIC INFO" is displayed it and it switches to traffic information.

 During reception of a AM station when the Traffic Information function is turned ON, it switches to a FM station.

Presetting Volume for Traffic Information

Setting the volume during Traffic Information.

1 Receive the station

2 Set the volume you want

3 Preset the volume

Touch the [TIVOL] button for at least 2 seconds.

Switching Display

Switching the information displayed.

Touch the [DISP] button.

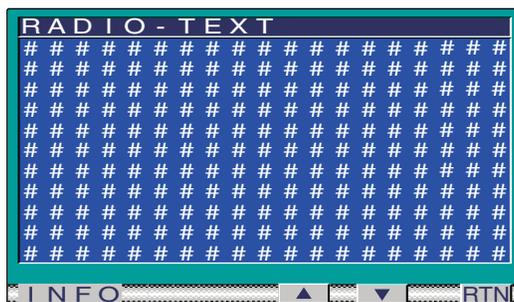
Each time the button is touched the display switches as shown below.

| Information | Display |
|----------------------|----------------|
| Program Service name | "STATION NAME" |
| Radio text | "RADIO-TEXT" |

Switching to the Radio Text Information Screen

The whole sentence of radio text is displayed.

Touch the [INFO] button.



Page Up/Down for the Radio text

Touch the [▲] or [▼] button.

 When all text are displayed on the information screen, [▼] and [▲] do not appear.

Exit the Information Screen

Touch the [RTN] button.

Return to the source control screen.

Switching to the FM/AM List Screen

Touch the [LIST] button.

(☛ page 24)

Switching to the PTY Search Screen

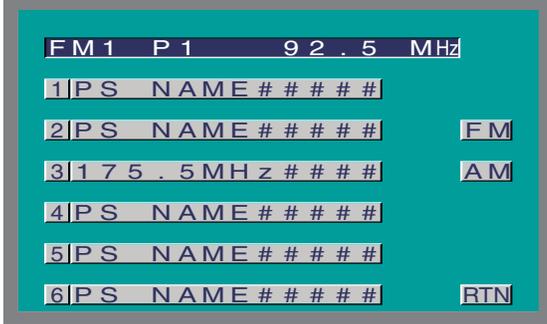
Touch the [PTY] button.

(☛ page 24)

 This function can't be used during a traffic bulletin or AM reception.

FM/AM Tuner Control Function

FM/AM List Screen



FM/AM List Screen

Selecting the FM band

Touch the [FM] button.

Each time the button is touched it switches between the FM1, FM2, and FM3 bands.

Selecting the AM band

Touch the [AM] button.

Call up the station

Touch the list.

Exit the FM/AM List Screen

Touch the [RTN] button.

Return to the source control screen.

PTY Search Screen

Selecting the Program Type and searching for a station.

Select the Program Type [PTY]

Touch the [◀] or [▶] button.

Each time the button is touched the Program Type switches as shown below.

| No. | Program Type | Display |
|-----|----------------------|--------------------|
| 1. | Speech | "All Speech" |
| 2. | Music | "All Music" |
| 3. | News | "News" |
| 4. | Current Affairs | "Current Affairs" |
| 5. | Information | "Information" |
| 6. | Sport | "Sport" |
| 7. | Education | "Education" |
| 8. | Drama | "Drama" |
| 9. | Culture | "Cultures" |
| 10. | Science | "Science" |
| 11. | Varied | "Varied Speech" |
| 12. | Pop Music | "Pop Music" |
| 13. | Rock Music | "Rock Music" |
| 14. | Easy Listening Music | "Easy Listening M" |
| 15. | Light Classical | "Light Classic M" |
| 16. | Serious Classical | "Serious Classics" |
| 17. | Other Music | "Other Music" |
| 18. | Weather | "Weather & Metr" |
| 19. | Finance | "Finance" |
| 20. | Children's programs | "Children's Prog" |
| 21. | Social Affairs | "Social Affairs" |
| 22. | Religion | "Religion" |

PTY Search Screen



| | | |
|-----|----------------|--------------------|
| 23. | Phone In | "Phone In" |
| 24. | Travel | "Travel & Touring" |
| 25. | Leisure | "Leisure & Hobby" |
| 26. | Jazz Music | "Jazz Music" |
| 27. | Country Music | "Country Music" |
| 28. | National Music | "National Music" |
| 29. | Oldies Music | "Oldies Music" |
| 30. | Folk Music | "Folk Music" |
| 31. | Documentary | "Documentary" |



Speech and Music include the Program types shown below.
Music: No.12 — 17, 26 — 30
Speech: No.3 — 11, 18 — 25, 31

Select the language [LANG]

Touch the [◀] or [▶] button.

| Language | Display |
|----------|-----------|
| English | "ENGLISH" |
| French | "FRENCH" |
| German | "GERMAN" |

Search for the selected Program Type station

Touch the [SEARCH] button.

When you want to search for other stations touch the [SEARCH] button again.



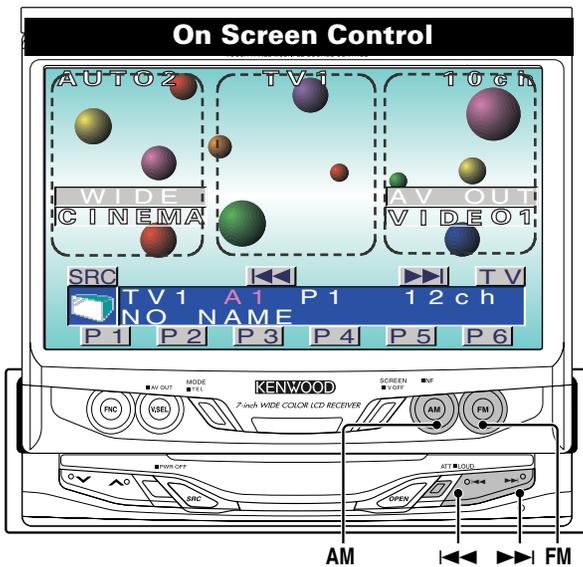
When the selected Program Type isn't found, "NO PTY" is displayed. Select another Program Type.

Exit the PTY Search Screen

Touch the [RTN] button.

Return to the source control screen.

AV Control Function (TV Control: During the KTC-V500E is connected)



Selecting the On Screen Control

Touch the centre part.

If you make no button operation for 10 seconds, the on screen control is automatically cancelled.

Selecting the Preset Band

<In Monitor's button>

Press the [FM] button.
Each time the button is pressed the preset band switches between the TV1 and TV2.

<In Screen's button>

Touch the [TV] button.
Each time the button is touched the preset band switches between the TV1 and TV2.

Selecting the Video Input

<In Monitor's button>

Press the [AM] button.
Each time the button is pressed the video input switches between the AV IN 1, AV IN2 and RGB.

<In Screen's button>

Touch the [AV] button.
Each time the button is touched the video input switches between the AV IN 1, AV IN2 and RGB.

Video1 and 2: During "AV IN1" and "AV IN2" set to "VD",

Seek Mode

Sets the seeking mode.

Touch the [SEEK] button.
Each time the button is touched the seeking mode switches as shown below.

| Seeking mode(display) | Operation |
|-------------------------------|---|
| Auto seek ("AUTO1") | Automatic search for a station. |
| Preset station seek ("AUTO2") | Search in order of the stations in the Preset memory. |
| Manual ("MANU") | Normal manual seeking control. |

Selecting the Channel

<In Monitor's button>

Press the [◀] or [▶] button.

<In Screen's button>

Touch the [◀◀] or [▶▶] button.

<On TV Picture>

Touch the left or right side part.

Station Preset Memory

Putting the station in the memory.

1 Select the band

Press/ touch the [FM] button.

2 Select the channel to put in the memory

Press/ touch the [◀◀] or [▶▶] button.

3 Put the channel in the memory

Touch the [P1] — [P8] button for at least 2 seconds.
On each band, 1 station can be put in the memory on each [P1] — [P8] button.

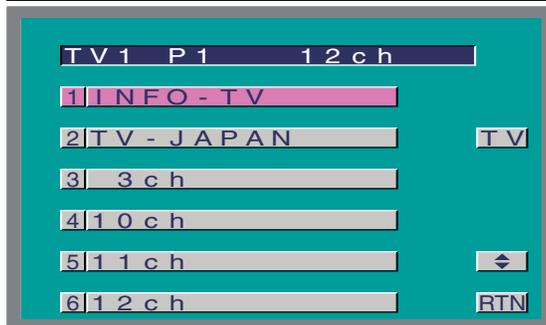
Control Screen-1



Control Screen-2



TV List Screen



TV List Screen

Selecting the TV preset band

Touch the [TV] button.

Each time the button is touched it switches between the TV1, and TV2 bands.

Switching the List

Touch the [↕] button.

Each time the button is touched the list switches between the [P1] — [P6] and [P7] — [P8].

Call up the channel

Touch the list.

Exit the TV List Screen

Touch the [RTN] button.

Return to the source control screen.

Auto Memory Entry

Putting stations with good reception in the memory automatically.

1 Select the band for Auto Memory Entry

Touch the [TV] button.

2 Open Auto Memory Entry

Touch the [AME] button for at least 2 seconds.

When 8 stations that can be received are put in the memory Auto Memory Entry closes.

Recalling a Preset Station

1 Select the band

2 Call up the station

Touch the [P1] — [P8] button.

Switching to the TV List Screen

Touch the [LIST] button.

Switching to the Name Set Screen

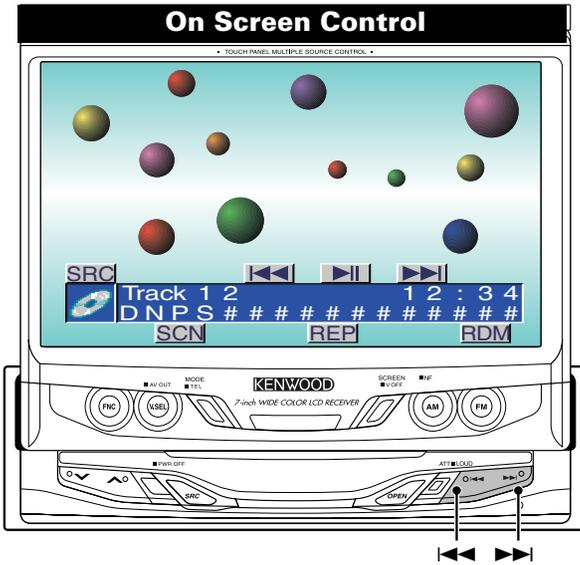
Touch the [NAME] button.

For the setting method refer to the name set screen (page 30).



You cannot operate unless the parking brake is set.

CD Player Control Function



Pause and play

Touch the [▶||] button.
Each time the button is touched it pauses and plays.

Fast Forwarding and Reversing

Fast Forwarding

Hold down on the [▶▶] button.
Release your finger to play the disc at that point.

Reversing

Hold down on the [◀◀] button.
Release your finger to play the disc at that point.

Track Search

Selecting the song you want to hear.
Press/ touch the [◀◀] or [▶▶] button.

Track Repeat

Replaying the song you're listening to.
Touch the [REP] button.
Each time the button is touched the Track Repeat turns ON or OFF.
When it's ON, "REP" indicator is ON.

Track Scan

Playing the first part of each song on the disc you are listening to and searching for the song you want to listen to.

1 Start Track Scan

Touch the [SCN] button.
"SCN" indicator is ON.

2 Release it when the song you want to listen to is played

Touch the [SCN] or [▶||] button.

Control Screen-1



Control Screen-2



Random Play

Playing all the songs on the disc in random order.

Touch the [RDM] button.

Each time the button is touched Random Play turns ON or OFF.

When it's ON, the "RDM" indicator is ON.

When the [▶||] button is touched, the next song select starts.

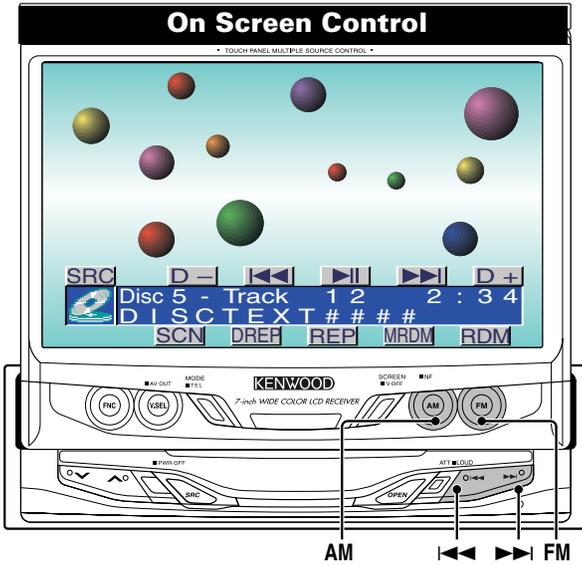
Switching to the Name Set Screen

Touch the [NAME] button.

For the setting method refer to the name set screen (page 30).

You cannot operate unless the parking brake is set.

Disc Changer Control Function



Pause and play

Touch the [▶||] button.
Each time the button is touched it pauses and plays.

Fast Forwarding and Reversing

Fast Forwarding:
Hold down on the [▶▶] button.
Release your finger to play the disc at that point.

Reversing:
Hold down on the [◀◀] button.
Release your finger to play the disc at that point.

Track Search

Selecting the song you want to hear.
Press/ touch the [◀◀] or [▶▶] button.

Album Search

Selecting the disc you want to hear.
Touch the [D+] or [D-] button.
Press the [FM] or [AM] button.

The 3+1MD changer cannot be operated when 4 discs are inserted.

Track Repeat

Replaying the song you're listening to.
Touch the [REP] button.
Each time the button is touched the Track Repeat turns ON or OFF.
When it's ON, "REP" indicator is ON.

Album Repeat

Replaying the disc in the Disc changer you're listening to.

Touch the [DREP] button.
Each time the button is touched Album Repeat turns ON or OFF.
When it's ON, the "DREP" indicator is ON.

The 3+1MD changer cannot be operated when 4 discs are inserted.

Track Scan

Playing the first part of each song on the disc you are listening to and searching for the song you want to listen to.

1 Start Track Scan
Touch the [SCN] button.
"SCN" indicator is ON.

2 Release it when the song you want to listen to is played
Touch the [SCN] or [▶||] button.

Random Play

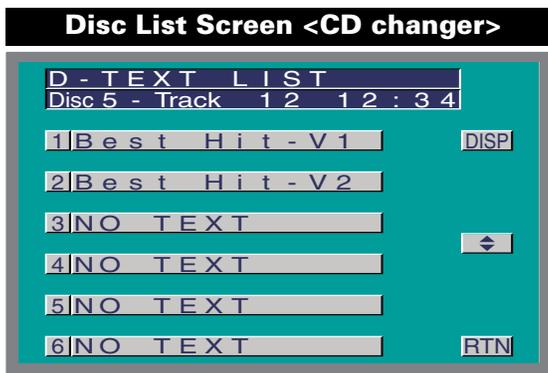
Playing all the songs on the disc in random order.
Touch the [RDM] button.
Each time the button is touched Random Play turns ON or OFF.
When it's ON, the "RDM" indicator is ON.

When the [▶||] button is touched, the next song select starts.

Magazine Random Play

Play the songs on all the discs in the disc changer in random order.
Touch the [MRDM] button.
Each time the button is touched Magazine Random Play turns ON or OFF.
When it's ON, the "MRDM" indicator is ON.

• When the [▶||] button is touched, the next song select starts.
• The 3+1MD changer cannot be operated when 4 discs are inserted.



Switching Display

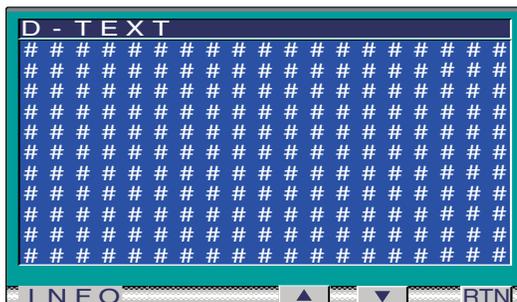
Touch the [DISP] button.
Each time the button is touched the display switches as shown below.

| Display | Information |
|--------------------|-------------------------|
| "DNPS" | Disc name (CD only) |
| "D-TEXT"/"D-TITLE" | Disc text/ Disc title |
| "T-TEXT"/"T-TITLE" | Track text/ Track title |

Switching to the Text/Title Information Screen

The whole sentence of CD text or MD title is displayed.

Touch the [INFO] button.



Page Up/Down for the CD text or MD title

Touch the [▲] or [▼] button.

When all text are displayed on the information screen, [▼] and [▲] do not appear.

Exit the Information Screen

Touch the [RTN] button.

Return to the source control screen.

Switching to the Disc List Screen

Touch the [LIST] button.

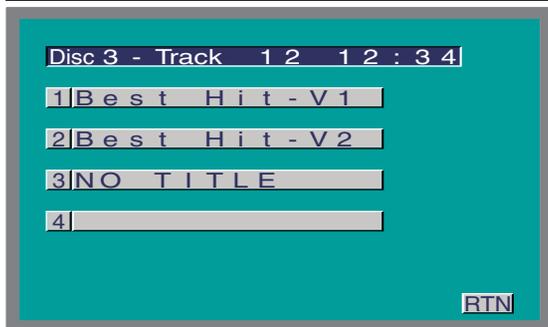
Switching to the Name Set Screen

Touch the [NAME] button.

For the setting method refer to the name set screen (page 30).

You cannot operate unless the parking brake is set.

Disc List Screen <MD changer>



Disc List Screen

Changing the Disc List (10 disc changer only)

Touch the [◆] button.

Each time the button is touched the disc list switches between the disc1-6 and disc 7-10.

Switching the Display for Discs (CD only)

Touch the [DISP] button.

Each time the button is touched the list switches between the DNPS and CD text.

Selecting the Disc

Touch the list.

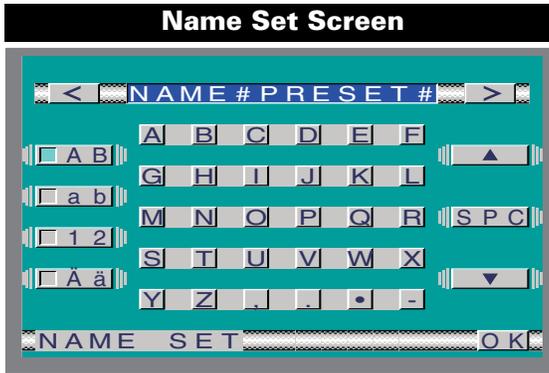
The 3+1MD changer cannot be operated when 4 disks are inserted.

Exit the Disc List Screen

Touch [RTN] button.

Return to the source control screen.

Name Set Function



Station Name Preset (SNPS)/ Disc Name Preset (DNPS)

1 Move the cursor to the enter character position

Touch the [<] or [>] button.

2 Select the character type

Touch the [AB], [ab], [12] or [Ää] button.

3 Select the character list

Touch the [▼] or [▲] button.

When all characters are displayed on the character list, [▼] and [▲] do not appear.

4 Touch a character.

5 Repeat steps 1 through 4 and enter the name.

- You can enter up to 12 characters for each name.
- To enter a space, touch the [SPC] button.

6 Exit name set screen

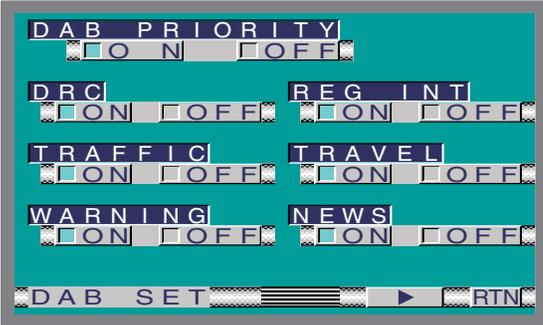
Touch the [OK] button.

- Media that you can attach names to
 - TV tuner: 100 stations.
 - External CD changer/ player: Varies according to the CD changer/player. Refer to the CD changer/ player manual.
- The name of a CD can be changed by the same operation you used to name it.

Other Option Control Function

■ DAB Tuner Control

DAB Tuner Setting Screen-1



DAB Tuner Setting Screen-2



Refer to the KTC-9090DAB's instruction manual for DAB tuner features.

Automatic Switching DAB priority [DAB PRIORITY]

| Touch | Setting |
|-------|-------------------------------------|
| [ON] | DAB priority function is turned on |
| [OFF] | DAB priority function is turned off |

When it's ON, the "PR" indicator is displayed in the source control screen.

Dynamic Range Control [DRC]

| Touch | Setting |
|-------|----------------------------|
| [ON] | DRC function is turned on |
| [OFF] | DRC function is turned off |

When it's ON, the "DRC" indicator is displayed in the source control screen.

Regional Announcement Function [REG INTRUPT]

| Touch | Setting |
|-------|--|
| [ON] | Regional announcement function is turned on |
| [OFF] | Regional announcement function is turned off |

Switching the DAB Tuner Setup Screen -1 and 2

Touch the [◀] or [▶] button.

Announcement select mode

| Touch | Setting |
|-------|---------|
| [ON] | On |
| [OFF] | Off |

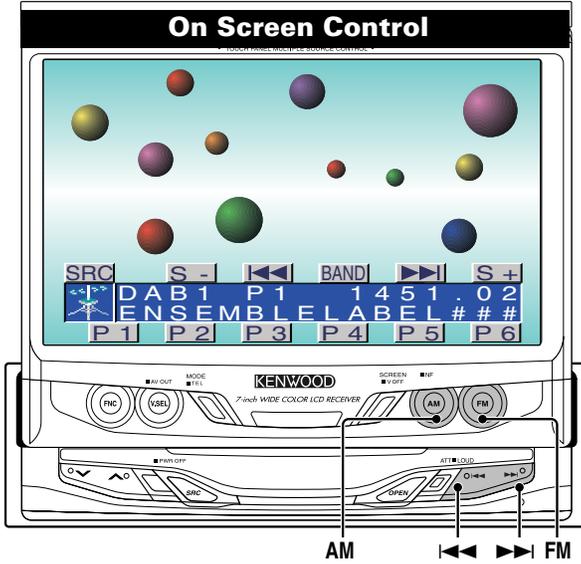
| Display | Contents |
|------------|--|
| "TRAFFIC" | Traffic information |
| "TRAVEL" | Time table information of public transportation services |
| "WARNING" | Lower priority items than Alarm (power failure, cut-off of the water supply, etc.) |
| "NEWS" | News flash |
| "WEATHER" | Weather forecasting |
| "EVENT" | Event information |
| "SPECIAL" | Undetermined event information |
| "RAD INFO" | Programme information, advance notice |
| "SPORTS" | Sports news |
| "FINANCE" | Financial news |

Exit the DAB Tuner Setting Screen

Touch the [RTN] button.
Return to the tuner setting menu screen.

Other Option Control Function

■ DAB Tuner Control



Refer to the KTC-9090DAB's instruction manual for DAB tuner features.

Switching the Pre-set band

Touch the [BAND] button.
Each time the button is touched the preset band switches between the DAB1, DAB2, and DAB3 bands.

DAB Reception

Switching the Ensemble

Press/ touch the [◀◀] or [▶▶] button.

Switching the service

<In Monitor's button>

Press the [FM] or [AM] button.

<In Screen's button>

Touch the [S+] or [S-] button.

Service Preset Memory

Touch the [P1] — [P6] button for at least 2 seconds.

Recalling a Preset Service

Touch the [P1] — [P6] button.

Traffic Announcement Function

Touch the [TI] button.

Each time the button is touched the interrupting function of the Traffic Announcement on/off.

Auto Ensemble Memory Entry

1 Select the band

Touch the [BAND] button.

2 Open Auto Memory Entry

Touch the [AME] button for at least 2 seconds.

Control Screen-1



Switching the Service Component

Touch the [P/S] button.

Each time the button is touched it switches between the Primary and Secondary.

When the Primary is selected, the "PR" indicator is ON.

When the Secondary is selected, the "SC" indicator is ON.

Seek Mode

Touch the [SEEK] button.

Each time the button is touched the Seek mode switches as shown below.

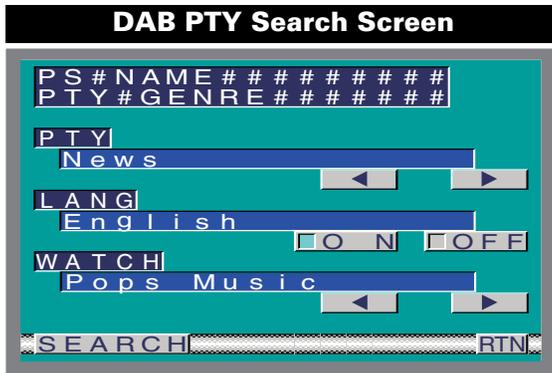
| Display | Setting |
|---------|----------------------|
| "AUTO1" | Auto Ensemble Seek |
| "AUTO2" | Pre-set Service Call |
| "MANU" | Manual Seek |

Presetting Volume for Announcement

1 Set the volume you want

2 Preset the volume

Touch the [TIVOL] button for at least 2 seconds.



Switching Display

Touch the [DISP] button.
Each time the button is touched the display switches as shown below.

| Display | Item |
|------------------|-----------------|
| "SERVICE LABEL" | Service Label |
| "ENSEMBLE LABEL" | Ensemble Label |
| "PTY LABEL" | PTY label |
| "COMPO LABEL" | Component label |
| "REGION LABEL" | Region label |
| "AUDIO QUALITY" | Audio quality |
| "DYNAMIC LABEL" | Dynamic label |

Switching to the Dynamic Label Information Screen

The whole sentence of Dynamic label information is displayed.

Touch the [INFO] button.



Page Up/Down for the DAB text

Touch the [▲] or [▼] button.

When all text are displayed on the information screen, [▼] and [▲] do not appear.

Exit the Information Screen

Touch [RTN] button.
Return to the source control screen.

Switching to the DAB PTY Search Screen

Touch the [PTY] button.

Switching to the Language Filter Screen

Touch the [LANG] button. (page 34)

DAB PTY Search Screen

Selecting the Programme Type for Search [PTY]
Touch the [◀] or [▶] button.

Searching by programme type and language [LANG]

| Touch | Setting |
|---|------------------------|
| <input checked="" type="checkbox"/> [ON] | Search function is on |
| <input checked="" type="checkbox"/> [OFF] | Search function is off |

Selecting the Programme Type for Watch [WATCH]

Touch the [◀] or [▶] button.

Searching the Programme Type

Touch the [SEARCH] button.

Exit the PTY Search Screen

Touch the [RTN] button.
Return to the source control screen.

Other Option Control Function

■ DAB Tuner Control



Language Filter Screen

Selection the Language

Touch the [◀] or [▶] button.

Searching the Language

Touch the [SEARCH] button.

Exit the Language Filter Screen

Touch the [RTN] button.

Return to the source control screen.

■ External Display Control



<Refer to the KPA-SD100 instruction manual for details on external box functions>

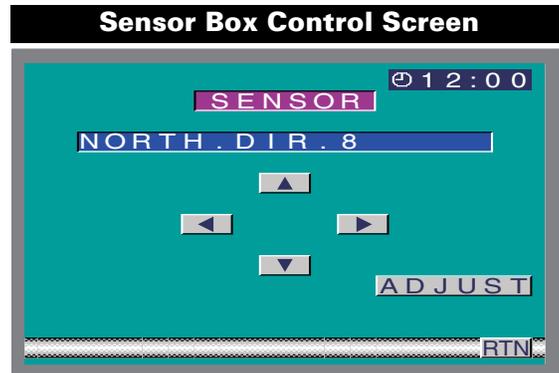
Switching the Display

Touch the [◀] or [▶] button.

Exit the External Display Control Screen

Touch the [RTN] button.
Return to the menu screen.

■ Sensor Box Control



<Refer to the KPA-SS100 instruction manual for details on sensor box functions>

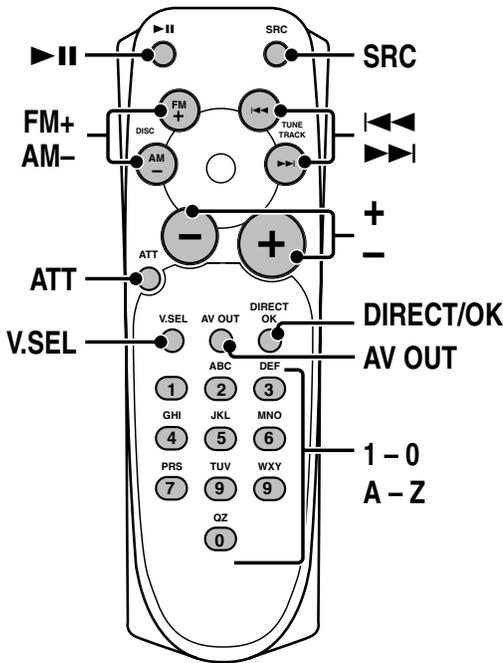
Setting the Menu

- 1 Touch the [ADJUST] button.
Select the item
Touch the [◀] or [▶] button.
Set the function
Touch the [▲] or [▼] button.
- 2 Touch the [ADJUST] button.

Exit the Sensor Box Control Screen

Touch the [RTN] button.
Return to the menu screen.

Remote Control Function

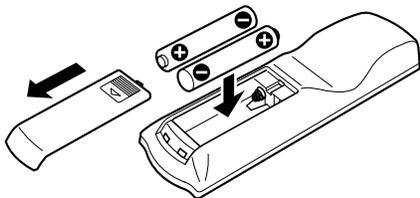


Loading and Replacing the Batteries for the Remote

▲ CAUTION

Do not set the remote on hot places such as above the dashboard.

1. Use two "AAA" batteries.
Slide the cover while pressing downwards to remove it as illustrated.
2. Insert the batteries with the ⊕ and ⊖ poles aligned properly following the illustration inside the case.



▲ WARNING

Store unused batteries out of the reach of children. Contact a doctor immediately if the battery is accidentally swallowed.

- The provided batteries are intended for use in operation checking, and their service life may be short.
- When the remote controllable distance becomes short, replace both of the batteries with new ones.

Monitor Control Function

▶ Switching the Monitor's Picture

Press the [V.SEL] button.
Each time the button is pressed the monitor's picture switches.

▶ Switching the AV Output Mode

Press the [AV OUT] button.
Each time the button is pressed the AV out mode switches.

Source Control Function (Common operation)

▶ Select the Audio Source Mode

Press the [SRC] button.
Each time the button is pressed the audio source switches.

▶ Volume

Increasing Volume

Press the [+] button.

Decreasing Volume

Press the [-] button.

▶ Attenuator

Press the [ATT] button.
Each time the button is pressed the Attenuator turns ON or OFF.

FM/AM Tuner Control Function

▶ Selecting the FM band

Press the [FM+] button.
Each time the button is pressed it switches between the FM1, FM2 and FM3 preset bands.

▶ Selecting the AM band

Press the [AM-] button.

▶ Tuning

Press the [◀◀] or [▶▶] button.

▶ Selecting the Seek Mode

Press the [▶▶] button.
Each time the button is pressed it switches between the AUTO1, AUTO2 and Manual seek mode.

▶ Recalling Preset Station

Press the [1] - [6] button.

▶ Direct Search

- 1 Press the [DIRECT/OK] button to switch the direct search mode.

- 2 Press the [0] - [9] buttons and enter the frequency.

Example:

| Desired frequency | Press button |
|-------------------|------------------------|
| 92.1 MHz (FM) | [#0], [#9], [#2], [#1] |
| 810 kHz (AM) | [#0], [#8], [#1], [#0] |

AV Control Function

▶ Selecting the Preset Band

Press the [FM+] button.

Each time the button is pressed the preset band switches between the TV1 and TV2.

 This function available during the KTC-V500E is connected.

▶ Selecting the Video

Press the [AM-] button.

Each time the button is pressed the video input switches between the AV IN 1, AV IN2 and RGB.

▶ Selecting the Channel

Press the [◀◀] or [▶▶] button.

 This function available during the KTC-V500E is connected.

▶ Selecting the Seek Mode

Press the [▶||] button.

Each time the button is pressed it switches between the AUTO1, AUTO2 and Manual seek mode.

 This function available during the KTC-V500E is connected.

▶ Recalling Preset Channel

Press the [1] – [8] button.

 This function available during the KTC-V500E is connected.

▶ Direct Search

1 Press the [DIRECT/OK] button to switch the direct search mode.

2 Press the [0] – [9] buttons and enter the channel number.

Example:

| Desired channel | Press button |
|-----------------|--------------|
| 3 ch | [#0], [#3] |
| 47 ch | [#4], [#7] |

-  • This function available during the KTC-V500E is connected.
• This function not available the alphabetical channel.

Disc Control Function

<During the disc changer or player is connected>

▶ Pause and play

Press the [▶||] button.

Each time the button is pressed it pauses and plays.

▶ Track Search

Press the [◀◀] or [▶▶] button.

▶ Direct Track Search

1 Press the [0] – [9] buttons and enter the track number.

2 Press the [◀◀] or [▶▶] button.

▶ Album Search (Function of disc changer)

Press the [FM+] or [AM-] button.

▶ Direct Album Search (Function of disc changer)

1 Press the [0] – [9] buttons and enter the disc number.

2 Press the [FM+] or [AM-] button.

DAB Tuner Control Function

<During the KTC-9090DAB is connected>

▶ Selecting the Preset Band

Press the [▶||] button.

Each time the button is pressed it switches between the DAB1, DAB2 and DAB3 preset bands.

▶ Switching the Ensemble

Press the [◀◀] or [▶▶] button.

▶ Switching the Service

Press the [FM+] or [AM-] button.

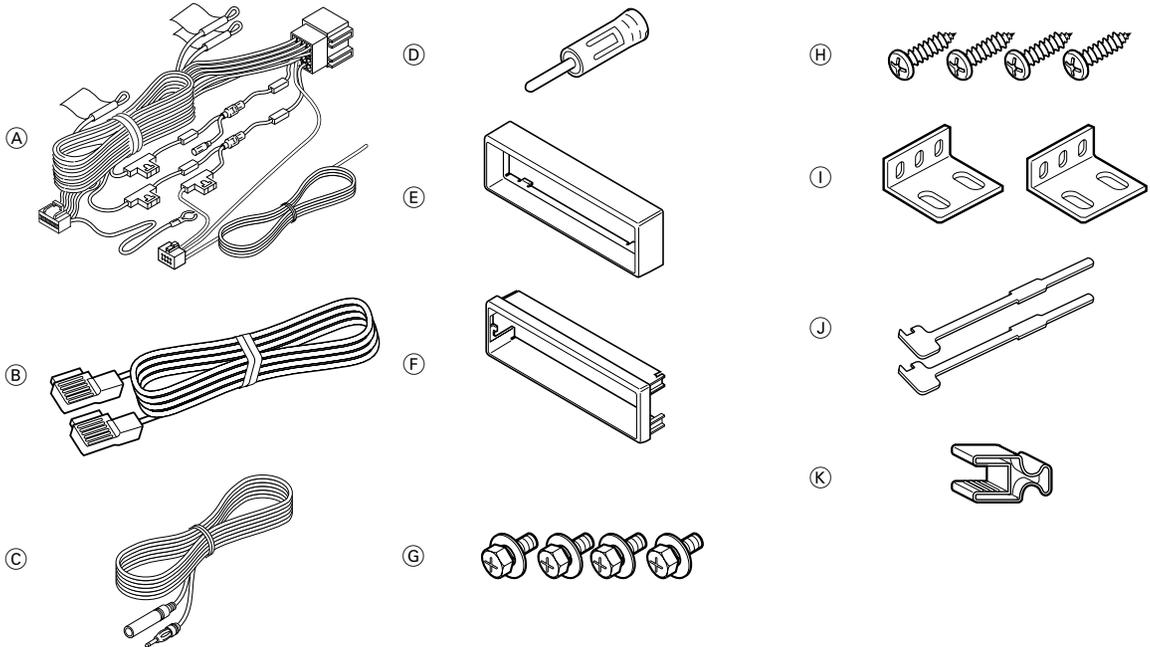
▶ Recalling a Preset Service

Press the [1] – [6] button.

Installation

Accessories

 The use of any accessories except for those provided might result in damage to the unit. Make sure only to use the accessories shipped with the unit, as shown above.



Installation Procedure

1. To prevent short circuits, remove the key from the ignition and disconnect the \ominus terminal of the battery.
2. Make the proper input and output cable connections for each unit.
3. Connect the speaker cables of the wiring harness.
4. Take Connector B on the wiring harness and connect it to the speaker connector in your vehicle.
5. Take Connector A on the wiring harness and connect it to the external power connector on your vehicle.
6. Install the unit in your car.
7. Reconnect the \ominus terminal of the battery.
8. Press the reset button.

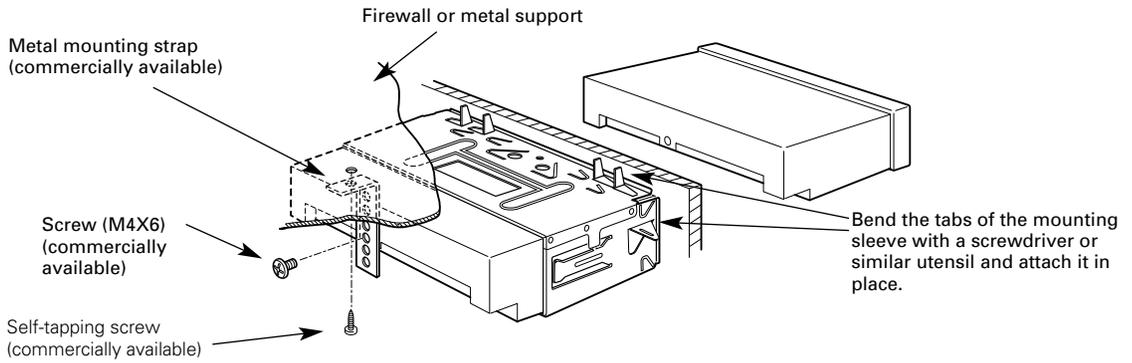
-  • If your car is not prepared for this special connection-system, consult your KENWOOD dealer.
- Only use antenna conversion adapters (ISO-JASO) when the antenna cord has an ISO plug.
 - Make sure that all cable connections are securely made by inserting jacks until they lock completely.
 - If your vehicle's ignition does not have an ACC position, or if the ignition cable is connected to a power source with constant voltage such as a battery cable, the power will not be linked with the ignition (i.e., it will not turn on and off along with the ignition). If you want to link the unit's power with the ignition, connect the ignition cable to a power source that can be turned on and off with the ignition key.
 - If the fuse blows, first make sure that the cables have not caused a short circuit, then replace the old fuse with one with the same rating.
 - Do not let unconnected cables or terminals touch metal on the car or anything else conducting electricity. To prevent short circuits do not remove

the caps from unused terminals or from the ends of the unconnected cables.

- Connect the speaker cables correctly to the terminals to which they correspond. The unit may receive damage or fail to work if you share the cables and/or ground them to any metal part in the car.
- After the unit is installed, check whether the brake lamps, blinkers, wipers, etc. on the car are working properly.
- Insulate unconnected cables with vinyl tape or other similar material.
- During use, the surface temperature of this unit will become high, therefore it should not be mounted where anything sensitive to the heat, such as people or resins, would come into contact with it.
- Do not install the unit under the carpet. Otherwise heat build-up occurs and the unit may be damaged.
- Install this unit in a location which allows heat to easily dissipate. Once installed, do not place any object on top of the unit.
- Install the unit securely in a location that does not interfere with driving.
- Mount the monitor unit so that the mounting angle is 30° or less.

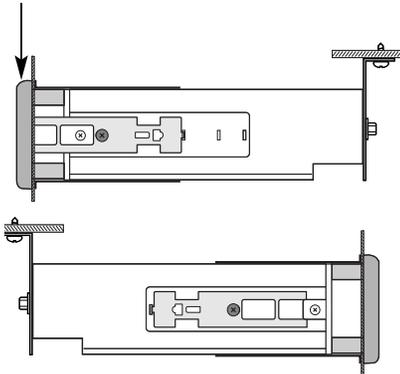
Installation for Monitor Unit

- ⚠ When mounting the main unit after checking the operation, close the monitor first.
- 💬 Make sure that the unit is installed securely in place. If the unit is unstable, it may malfunction.

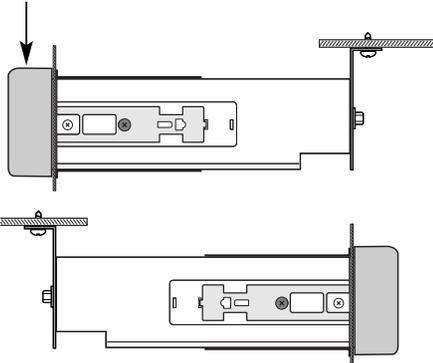


- ⚠ • Move the fittings on both sides to suit the installation chassis and select the embedding position from among the 3 positions. (●: Fixing screw)
- When the fittings are set closest to the front (i.e., the embedding position is farthest back), use the hard rubber frame (Accessory ⑤).

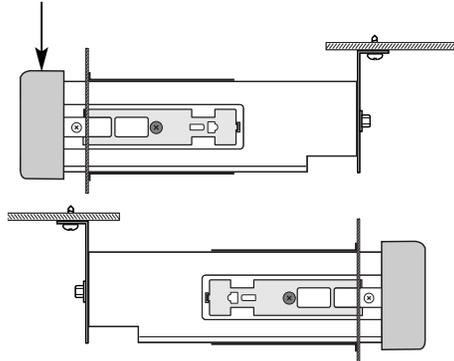
Accessory ⑥



Accessory ⑤



Accessory ⑤



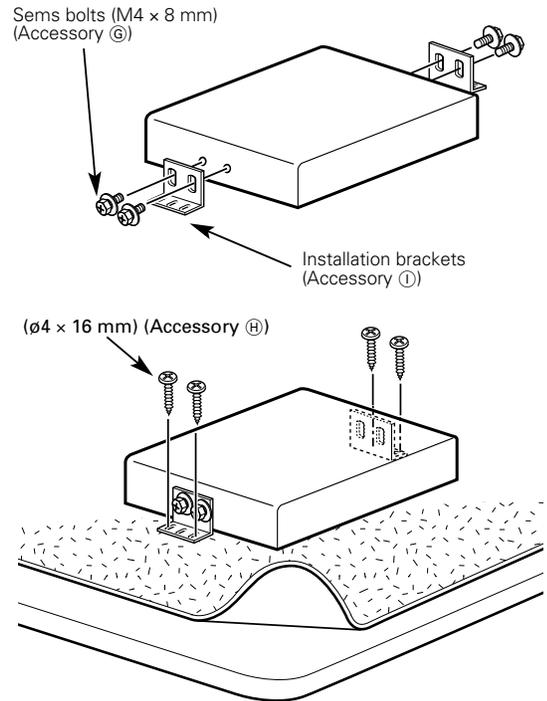
Installation

Installation for Receiver unit

■ Securing to audio board

- 1 Attach the installation brackets to the sides of the hideaway unit using the sems bolts (M4 × 8 mm).
- 2 Use the tapping screw (ø4 × 16 mm) to secure the hideaway unit to the audio board.

 Do not install the unit under the carpet. Otherwise heat build-up occurs and the unit may be damaged.



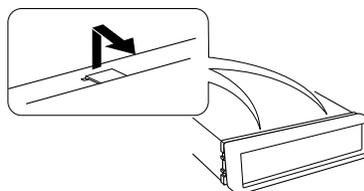
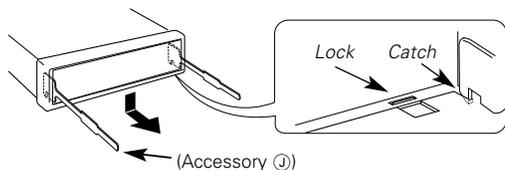
Removing Monitor Unit

■ Removing the Hard Rubber Frame

< for Accessory (E) >

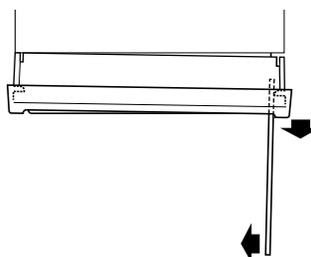
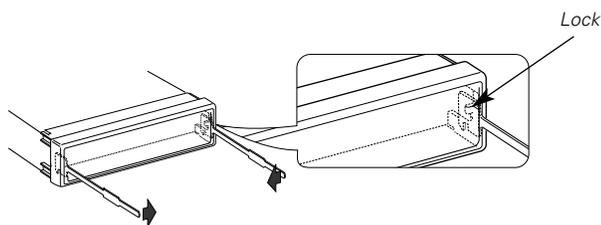
- 1 Engage the catch pins on the removal tool and remove the two locks on the lower level. Lower the frame and pull it forward as shown in the figure.
- 2 When the lower level is removed, remove the upper two locations.

 The frame can be removed from the top side in the same manner.



< for Accessory (F) >

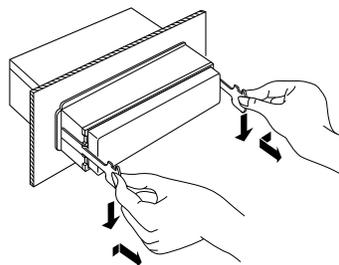
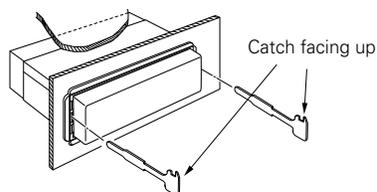
While pushing the lock parts on both sides toward the outside with the removal tool pull the Hard Rubber Frame toward you and remove it.



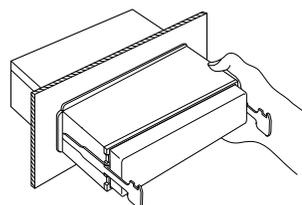
■ Removing the Unit

- 1 Refer to the section "Removing the Hard Rubber Frame" and then remove the hard rubber frame.
- 2 Remove the screw (M4x6) on the back panel.
- 3 Insert the two removal tools deeply into the slots on each side, as shown.
- 4 Lower the removal tool toward the bottom, and pull out the unit halfway while pressing towards the inside.

 Be careful to avoid injury from the catch pins on the removal tool.



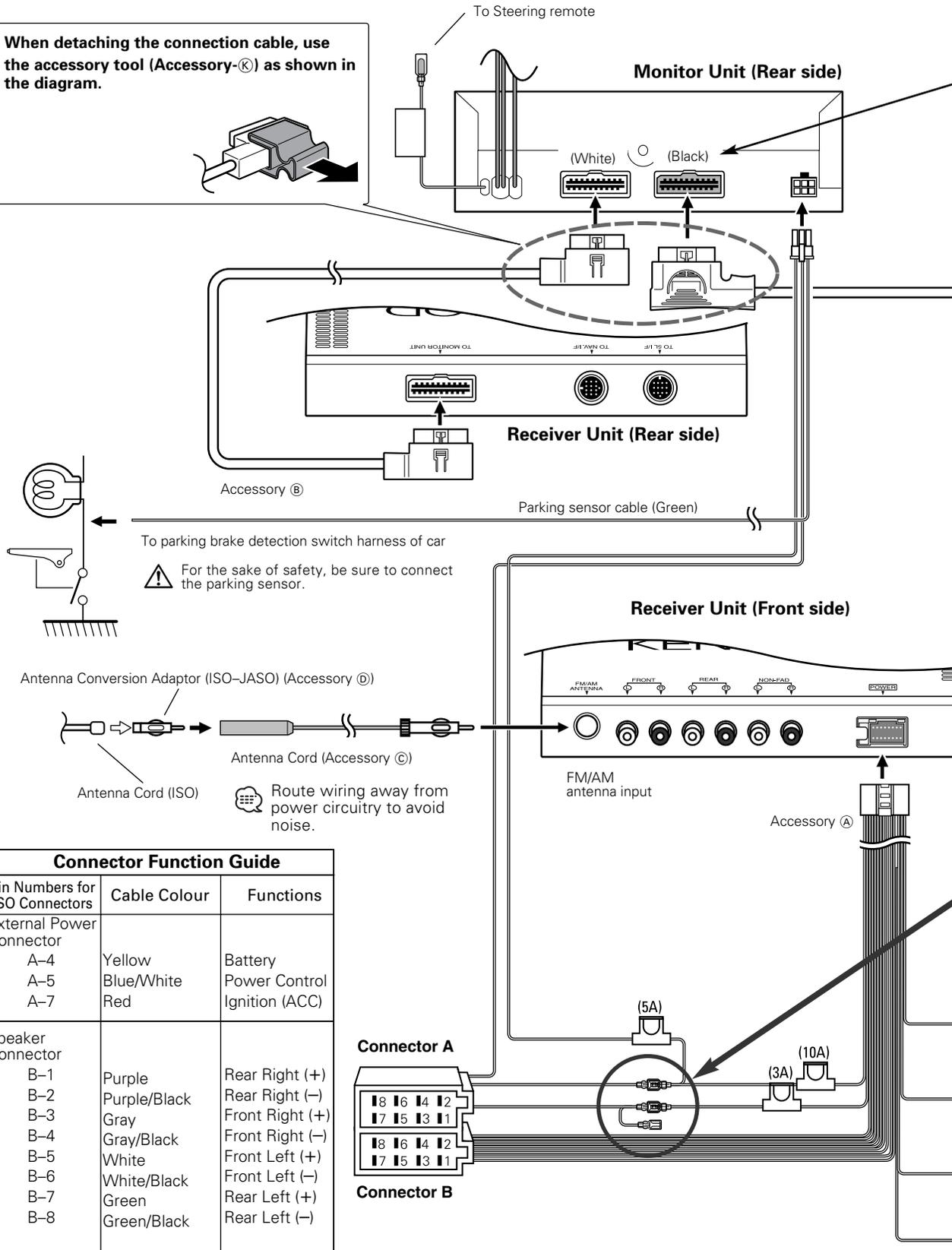
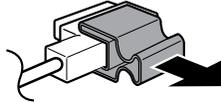
- 5 Pull the unit all the way out with your hands, being careful not to drop it.



Installation

Connection

When detaching the connection cable, use the accessory tool (Accessory-Ⓚ) as shown in the diagram.

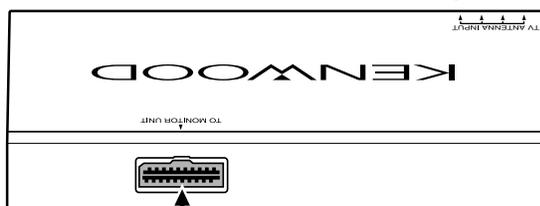


Connector Function Guide

| Pin Numbers for ISO Connectors | Cable Colour | Functions |
|--------------------------------|--------------|-----------------|
| External Power Connector | | |
| A-4 | Yellow | Battery |
| A-5 | Blue/White | Power Control |
| A-7 | Red | Ignition (ACC) |
| Speaker Connector | | |
| B-1 | Purple | Rear Right (+) |
| B-2 | Purple/Black | Rear Right (-) |
| B-3 | Gray | Front Right (+) |
| B-4 | Gray/Black | Front Right (-) |
| B-5 | White | Front Left (+) |
| B-6 | White/Black | Front Left (-) |
| B-7 | Green | Rear Left (+) |
| B-8 | Green/Black | Rear Left (-) |

KTC-V500E (Optional)

Remove the protective sheet on the black connector before the KTC-V500E is connected.

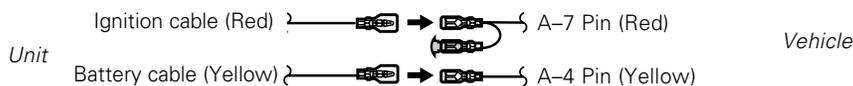


Connection cable
(Provided with the KTC-V500E)

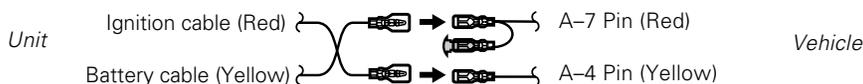
▲WARNING Connecting the ISO Connector

The pin arrangement for the ISO connectors depends on the type of vehicle you drive. Make sure to make the proper connections to prevent damage to the unit. The default connection for the wiring harness is described in 1 below. If the ISO connector pins are set as described in 2 or 3, make the connection as illustrated.

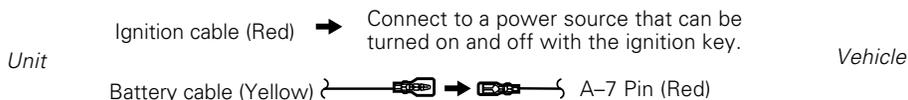
- 1 (Default setting) The A-7 pin (red) of the vehicle's ISO connector is linked with the ignition, and the A-4 pin (yellow) is connected to the constant power supply.



- 2 The A-7 pin (red) of the vehicle's ISO connector is connected to the constant power supply, and the A-4 pin (yellow) is linked to the ignition.



- 3 The A-4 pin (Yellow) of the vehicle's ISO connector is not connected to anything, whilst the A-7 pin (Red) is connected to the constant power supply (or both the A-7 (red) and A-4 (yellow) pins are connected to the constant power supply).



If no connections are made, do not let the cable come out from the tab.

Power control/ Motor antenna control cable
(Blue/White)

P. CONT

Connect either to the power control terminal when using the optional power amplifier, or to the antenna control terminal in the vehicle.

TEL mute cable (Brown)

TEL MUTE

Connect to the terminal that is grounded when either the telephone rings or during conversation.

External amplifier control cable (Pink / Black)

EXT. CONT

To connect the KENWOOD navigation system, consult your navigation manual.

To "EXT.AMP.CONT." terminal of the amplifier having the external amp control function.

Ground wire (Black) ⊖



To car chassis

Troubleshooting Guide

What might appear to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems.

General

? The power does not turn ON.

- ✓ The fuse has blown.
 - ☞ After checking for short circuits in the wires, replace the fuse with one with the same rating.
- ✓ No ACC position on vehicle ignition.
 - ☞ Connect the same wire to the ignition as the battery wire.

? Nothing happens when the buttons are pressed.

- ✓ The computer chip in the unit is not functioning normally.
 - ☞ Press the reset button on the unit (page 4).

? The monitor does not open/close.

- ✓ The unit is not connected to the parking brake detection switch.
 - ☞ Make proper connections according to "Connection" (See page 42).
- ✓ The parking brake is not engaged.
 - ☞ For safety reasons, the monitor does not open while the vehicle is moving. Engaging the parking brake.

? The screen is dark.

- ✓ The unit is in a location where temperature is low.
 - ☞ If the temperature of the monitor unit drops, the screen may appear darker when power is first turned on due to the characteristics of a liquid crystal panel. Wait a while after turning power on for the temperature to rise. Normal brightness will return.

? Nothing happens when the buttons are pressed.

- ✓ The computer chip in the unit is not functioning normally.
 - ☞ Press the reset button on the unit (page 4).

? The memory is erased when the ignition is turned OFF.

- ✓ The battery wire has not been connected to the proper terminal.
 - ☞ Connect the wire correctly, referring to the section on <Connection>.
- ✓ The ignition and battery wire are incorrectly connected.
 - ☞ Connect the wire correctly, referring to the section on <Connection>.

? There's no loudness effect.

- ✓ You're using Non-fading preout.
 - ☞ Loudness has no effect in Non-fading preout.

? The TEL mute function does not work.

- ✓ The TEL mute wire is not connected properly.
 - ☞ Connect the wire correctly, referring to the section on <Connecting Wires to Terminals>.

? The TEL mute function turns ON even though the TEL mute wire is not connected.

- ✓ The TEL mute wire is touching a metal part of the car.
 - ☞ Pull the TEL mute wire away from the metal part of the car.

? Even if Loudness is turned ON, high-pitched tone isn't compensated for.

- ✓ Tuner source is selected.
 - ☞ High-pitched tone isn't compensated for when in Tuner source.

? No sound can be heard, or the volume is low.

- ✓ The fader or balance settings are set all the way to one side.
 - ☞ Center the fader and balance settings.
- ✓ The input/output wires or wiring harness are connected incorrectly.
 - ☞ Reconnect the input/output wires or the wiring harness correctly. See the section on <Connection>.
- ✓ The values of Volume offset are low.
 - ☞ Increase the values of Volume offset. (page 17)

? The sound quality is poor or distorted.²⁵

- ✓ One of the speaker wires is being pinched by a screw in the car.
 - ☞ Check the speaker wiring.
- ✓ The speakers are not wired correctly.
 - ☞ Reconnect the speaker wires so that each output terminal is connected to a different speaker.

? Non-fading output, Non-fading Low Pass Filter and Non-fading setting can't be done.²⁸

- ✓ The <Non-fading output> (page 20) is OFF.
 - ☞ Turn it ON.
- The <Dual zone system> (page 17) is ON.
 - ☞ Turn it OFF.

? There's no Front High Pass Filter and Rear High Pass Filter effect.

- ✓ The Non-fading preout is being used.
 - ☞ There's no effect in Non-fading preout.

? The Mask Key item isn't displayed in the Menu System.

- ✓ The Mask Key function is already activated.
 - ☞ When the Mask Key function is activated it isn't displayed in the menu items.

? The Touch Sensor Tone doesn't sound.

- ✓ The preout jack is being used.
 - ☞ The Touch Sensor Tone can't be output from the preout jack.

? Even though Synchronize Clock is ON, the clock can't be adjusted.

- ✓ The received RDS station isn't sending time data.
 - ☞ Receive another RDS station.

Tuner source

? Radio reception is poor.

- ✓ The car antenna is not extended.
 - ☞ Pull the antenna out all the way.
- ✓ The antenna control wire is not connected.
 - ☞ Connect the wire correctly, referring to the section on <Connection>.

? The desired frequency can't be entered with the Direct Access Tuning.

- ✓ A station that can't be received is being entered.
 - ☞ Enter a station that can be received.
- ✓ You're trying to enter a frequency with a 0.01 MHz unit.
 - ☞ What can be designated in the FM band is to 0.1 MHz.

? It isn't the set Traffic information sound volume.

- ✓ The set sound volume is less than the tuner sound volume.
 - ☞ If the tuner sound volume is louder than the set sound volume, the tuner sound volume is used.

Troubleshooting Guide

Disc source

? "AUX" is displayed without achieving External disc control mode.

- ✓ O-N switch is set to "O" side.
 - ✎ Set the switch to "N" side.
- ✓ Unsupported disc changer is connected.
 - ✎ Connect the supported disc changer. (page 4)

? The specified disc does not play, but another one plays instead.

- ✓ The specified CD is quite dirty.
 - ✎ Clean the CD.
- ✓ The CD is upside-down.
 - ✎ Load the CD with the labeled side up.
- ✓ The disc is loaded in a different slot from that specified.
 - ✎ Eject the disc magazine and check the number for the specified disc.
- ✓ The disc is severely scratched.
 - ✎ Try another disc instead.

? The specified track will not play.

- ✓ Random play or magazine random play has been selected.
 - ✎ Turn off random play or magazine random play.

? Track repeat, disc repeat, track scan, random play, and magazine random play start by themselves.

- ✓ The setting is not canceled.
 - ✎ The settings for these functions remain on until the setting to off or the disc ejected, even if the power is turned off or the source changed.

? The specified track will not play.

- ✓ Random play has been selected.
 - ✎ Turn off random play.

? Track repeat, disc repeat, track scan, and random play, start by themselves.

- ✓ The setting is not canceled.
 - ✎ The settings for these functions remain on until the setting to off or the disc ejected, even if the power is turned off or the source changed.

? Cannot play CD-R or CD-RW.

- ✓ Finalization processing is not being conducted for CD-R/CD-RW.
 - ✎ Conduct finalization processing with CD recorder.
- ✓ A non-compatible CD changer is being used to play the CD-R/CD-RW.
 - ✎ Use a CD changer compatible with CD-R/CD-RW to play.

? Direct Track Search and Direct Disc Search can't be done.

- ✓ Another function is ON.
 - ✎ Turn Random Play or other functions OFF.

? Track Search can't be done.

- ✓ For the albums first or last song.
 - ✎ For each album, Track Search can't be done in the backward direction for the first song or in the forward direction for the last song.

If the following situations, consult your nearest service center:

- Even though the disc changer is connected, the Disc Changer source is not ON, with "AUX" showing in the display during the Changer Mode.
- Even though no device (KCA-S210A, CA-C1AX, KDC-CPS87, KDC-CX87, KDC-CPS85, KDC-CX85, KDC-CPS82 or KDC-CX82) is connected, the Auxiliary input is entered when switching modes.

The following messages are displayed when certain problems are occurring in your system. Take the recommended actions.

EJECT: No disc magazine has been loaded in the changer. The disc magazine is not completely loaded.
 ⇨ Load the disc magazine properly.
 No CD in the unit.
 ⇨ Insert the CD.

NO DISC: No disc has been loaded in the disc magazine.
 ⇨ Load a disc into the disc magazine.

READ ERROR: No disc has been loaded in the disc magazine.
 ⇨ Load a disc into the disc magazine.
 The CD is quite dirty. The CD is upside-down.
 The CD is scratched a lot.
 ⇨ Clean the CD and load it correctly.

BLANK DISC: Nothing has been recorded on the MD.

NO TRACK DISC: No tracks are recorded on the MD, although it has a title.

NO PANEL: The faceplate of the slave unit being connected to this unit has been removed.
 ⇨ Replace it.

E-77: The unit is malfunctioning for some reason.
 ⇨ Press the reset button on the unit. If the "E-77" code does not disappear, consult your nearest service center.

MECHA ERROR: Something is wrong with the disc magazine. Or the unit is malfunctioning for some reason.
 ⇨ Check the disc magazine. And then press the reset button on the unit. If the "MECHA ERROR" code does not disappear, consult your nearest service center.

E-99: The unit is malfunctioning for some reason.
 ⇨ Press the reset button on the unit. If the "E-99" code does not disappear, consult your nearest service center.

HOLD ERROR: The protective circuit in the unit activates when the temperature inside the automatic disc changer exceeds 60°C (140°F), stopping all operation.
 ⇨ Cool down the unit by opening the windows or turning on the air conditioner. As the temperature falls below 60°C (140°F), the disc will start playing again.

NO NAME:

- Attempted to display SNPS during the receiving session of the station having no station name preset.
- Attempted to display DNPS during the CD play having no disc names preset.

NO TITLE: Attempted to display the disc title or track title while the MD having no MD title is being played.

NO TEXT:

- Attempted to display the disc text or track text while the CD having no CD text is being played.
- Attempted to display text during reception of the station that isn't sending text data.

WAITING: Radio text data is being received.

LOAD: Discs are being exchanged in the Disc changer.

NO ACCESS: After setting it in the Disc Changer, Disc list was done without having it been played at least 1 time.

Specifications

Specifications subject to change without notice.

Monitor Section

| | |
|-------------------|--------------------------------------|
| Picture size | 7.0 inches wide (154.1 mm x 87.0 mm) |
| Display system | Transparent TN LCD panel |
| Drive system | TFT active matrix system |
| Number of pixels | 336.960 pixels (480 H x 234 V x RGB) |
| Effective pixels | 99.99% |
| Pixel arrangement | RGB striped arrangement |
| Back lighting | Cold cathode tube |

FM tuner section

| | |
|------------------------------------|-------------------------------------|
| Frequency range (50 kHz space) | 87.5 MHz – 108.0 MHz |
| Usable sensitivity (S/N = 26dB) | 9.3 dBf (0.7 μ V/75 Ω) |
| Quieting Sensitivity (S/N = 46dB) | 15.2 dBf (1.6 μ V/75 Ω) |
| Frequency response (\pm 3.0 dB) | 30 Hz – 15 kHz |
| Signal to Noise ratio (MONO) | 70 dB |
| Selectivity (\pm 400 kHz) | \geq 80 dB |
| Stereo separation (1 kHz) | 35 dB |

MW tuner section

| | |
|-------------------------------|--------------------|
| Frequency range (9 kHz space) | 531 kHz – 1611 kHz |
| Usable sensitivity | 28 dB μ |

LW tuner section

| | |
|-------------------------------|-------------------|
| Frequency range (9 kHz space) | 153 kHz – 281 kHz |
| Usable sensitivity | 28 dB μ |

Visual section

| | |
|--|------------------------------------|
| External video input level (RCA jacks) | 1 V _{p-p} / 75 Ω |
| External audio input level (RCA jacks) | 1 V/ 22 K Ω |
| Analog RGB input | 0.7 V _{p-p} / 75 Ω |
| Color system | NTSC/ PAL |

Audio section

| | |
|-------------------------------------|---------------------|
| Maximum output power | 47 W x 4 |
| Output power (DIN 45324, +B=14.4 V) | 29 W x 4 |
| Tone action | |
| Bass: | 100 Hz \pm 10 dB |
| Middle: | 1 kHz \pm 10 dB |
| Treble: | 10 kHz \pm 10 dB |
| Preout level / Load | 4.5 V/10k Ω |
| Preout impedance | \leq 600 Ω |

General

| | |
|----------------------------------|----------------------------|
| Operating voltage | 14.4 V DC (11 to 16 V) |
| Consumed current | 10 A |
| Operational temperature range | -10°C to +60°C |
| Storage temperature range | -20°C to +85°C |
| Size | |
| (Monitor unit) | 180(W) x 50(H) x 195(D) mm |
| (Receiver unit) | 217(W) x 30(H) x 155(D) mm |
| Installation size (Monitor unit) | 178(W) x 50(H) x 165(D) mm |
| Mass | |
| (Monitor unit) | 1.9 kg |
| (Receiver unit) | 0.86 kg |

Although the effective pixels for the liquid crystal panel is given as 99.99% or more, 0.01% of pixels may not light or may light incorrectly.