

# KENWOOD

## LZ-702IR

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### **使用說明書**

Kenwood Corporation



## Safety precautions

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### **▲ WARNING**

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#### **To prevent injury or fire, take the following precautions:**

- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
- Do not watch or fix your eyes on the unit's display when you are driving for any extended period.
- Mounting and wiring this product requires skills and experience. For safety's sake, leave the mounting and wiring work to professionals.
- 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**

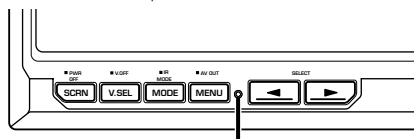
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#### **To prevent damage to the machine, take the following precautions:**

- Make sure to ground the unit to a negative 12V DC power supply.
- Do not 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.
- When replacing a fuse, only use a new fuse with the prescribed rating. Using a fuse with the wrong rating may cause your unit to malfunction.
- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

## Notes

- If you experience problems during installation, consult your Kenwood dealer.
- When you purchase optional accessories, check with your Kenwood dealer to make sure that they work with your model and in your area.
- If the unit fails to operate properly, press the Reset button. The unit returns to factory settings when the Reset button is pressed.



Reset button

- Even if the Reset button is pressed, values set for individual items are not cleared. To initialize set values, perform the operation mentioned in <Initializing the User Settings> (page 7).
- 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.

### 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 it again with a clean soft dry cloth.



- 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.

### Screen brightness during low temperatures

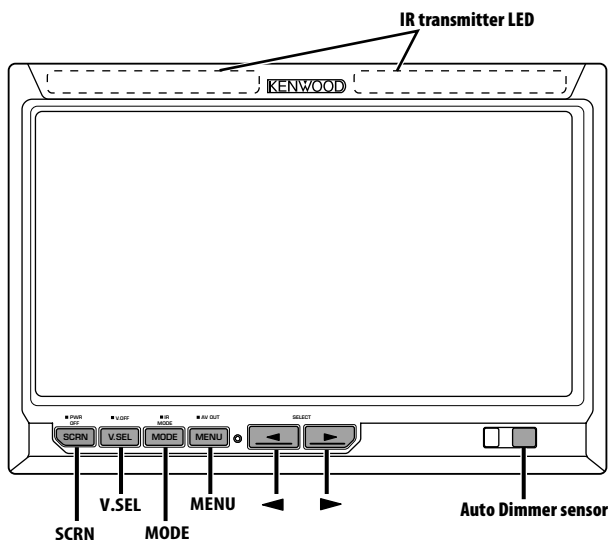
When the temperature of the unit falls such as during winter, the liquid crystal panel's screen will become darker than usual. Normal brightness will return after using the monitor for a while.

### Information on Disposal of Old Electrical and Electronic Equipment (applicable for EU countries that have adopted separate waste collection systems)



Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste.

Old electrical and electronic equipment should be recycled at a facility capable of handling these items and their waste byproducts. Contact your local authority for details in locating a recycle facility nearest to you. Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.



## Power

### Turning ON the Power

Press the [SCRN] button.

### Turning OFF the Power

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

## Video Source Selection

Press the [V.SEL] button.

Each time the button is pressed, the video source switches as follows:

Display	Setting
"AV-IN1"	Select the AV1 INPUT source.
"AV-IN2"	Select the AV2 INPUT source.

## Switching Screen mode

Press the [MODE] button.

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

Display	Setting
"Full"	Full picture mode.
"Just"	Justify picture mode.
"Cinema"	Cinema picture mode.
"Zoom"	Zoom picture mode.
"Normal"	Normal picture mode.

## IR Headphones audio setting

You can select the IR Headphones audio you wish.

**Press the [MODE] button for at least 1 second.**

Each time the button is pressed for at least 1 second, the audio input switches as follows:

Display	Setting
"Normal"	Sound with monitor source.
"AV-IN1"	Select the AV1 INPUT source.
"AV-IN2"	Select the AV2 INPUT source.
"Off"	No output to IR Headphones.



- Turn off the headphones before changing the <IR Headphones audio setting>.

## Switching the Display off mode

You can set the display off mode for the monitor.

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

**Exit the Display off mode**

**Press any button.**

Press the button other than the [◀] and [▶] buttons.

## Picture Quality setting

You can adjust the picture quality and Auto dimmer control of the monitor.

### 1 Select the adjusting item

**Press the [SCRN] button.**

Each time the button is pressed, the adjusting item switches.



### 2 Adjusting the item

**Press the [◀] or [▶] button.**

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

### Auto Dimmer

Item	Button	Setting
"Auto DIM"	[▶]	The display doesn't dim.
	[◀]	When it gets dark, the brightness of display lowers automatically.

### 3 Exit Picture Quality setting mode

**Press the [MODE] button.**



- The "BRT" can be adjusted when "Auto DIM" is set to "Off".
- The "TIN" can be adjusted when NTSC video signal is input.
- The screen select can be set for each source.
- If you make no operation for 15 seconds, this mode is automatically canceled.

## Operations

### Setting the AV Output

Selects an AV source to be output at the "AV OUTPUT" terminals.

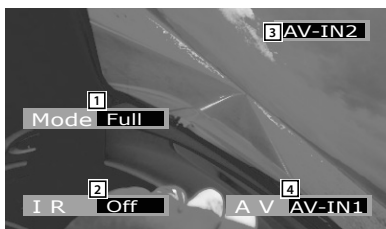
**Press the [MENU] button for at least 1 second.**

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

Display	Setting
"AV-IN1"	Select the AV1 INPUT source.
"AV-IN2"	Select the AV2 INPUT source.
"Off"	No output to the AV OUTPUT terminals.

### Display information

When you press the [V.SEL] button, the status of the monitor is displayed.



- 1 Screen mode Display
- 2 IR Headphones audio setting Display
- 3 Video source Display
- 4 AV output Display



- The information display is cleared automatically after approximately 5 seconds.

## Setup Menu

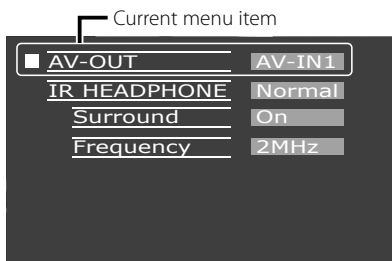
### Menu System

The Menu system operation method is explained here. The reference for the Menu items and their setting content is after this operation explanation.

#### 1 Enter Menu mode

**Press the [MENU] button.**

Menu screen is displayed, and the monitor enters to Menu mode.



#### 2 Select the menu item

**Press the [MENU] button.**

Each time the button is pressed, the menu item switches.

#### 3 Set the menu item

**Press the [◀] or [▶] button.**

You can continue by returning to step 2 and setting other items.

#### 4 Exit Menu mode

**Press the [MODE] button.**



- You can select "Surround" and "Frequency" when <IR HEADPHONE> is not set to "Off".
- If you make no operation for 15 seconds, this mode is automatically canceled.

## Setting the AV Output

Selects an AV source to be output at the "AV OUTPUT" terminals.

Display	Setting
"AV-IN1"	Select the AV1 INPUT source.
"AV-IN2"	Select the AV2 INPUT source.
"Off"	No output to the AV OUTPUT terminals.

## IR Headphones audio setting

You can select the IR Headphones audio you wish.

Display	Setting
"Normal"	Sound with monitor source.
"AV-IN1"	Select the AV1 INPUT source.
"AV-IN2"	Select the AV2 INPUT source.
"Off"	No output to IR Headphones.

## Surround Control

Turns the surround control function On or Off.

Display	Setting
"On"	The surround control function is On.
"Off"	The surround control function is Off.

## Frequency Setting

You can set to IR Headphones transmitter frequency.

Display	Setting
"2MHz"	Set to 2MHz.
"3MHz"	Set to 3MHz.



- Refer to the instruction manual of IR Headphones (optional accessory), when setting for frequency.

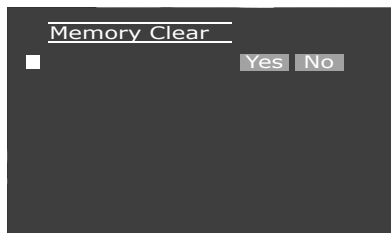
## Initializing the User Settings

The setting value is set to the initial state of factory.

### 1 Select the Memory clear mode

Press the [MENU] button.

Each time the button is pressed, the menu item switches.



### 2 Set the Memory clear

Press the [◀] button.

"System Settings were Initialized" is displayed.



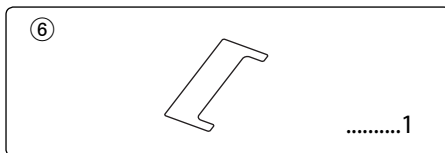
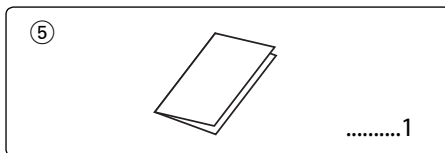
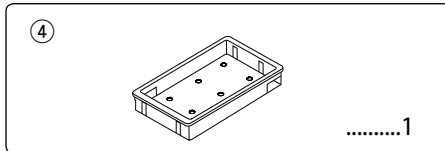
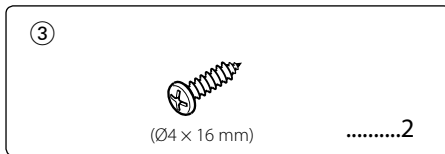
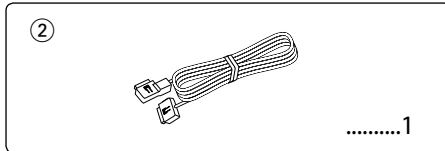
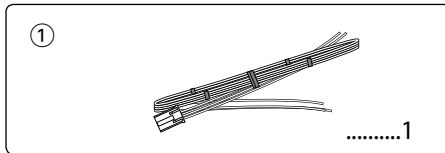
- When you cancel this function, press the [▶] button.

### 3 Exit Menu mode

Press the [MODE] button.

# Accessories/ Installation Procedure

## Accessories



## Installation Procedure

1. To prevent short circuits, remove the key from the ignition and disconnect the ⊖ terminal of the battery.
2. Make the proper input and output cable connections for each unit.
3. Connect the wiring harness wires in the following order: ground, ignition.
4. Connect the wiring harness connector to the unit.
5. Install the unit in your car.
6. Reconnect the ⊖ terminal of the battery.
7. Press the reset button. (page 3)

### ▲ WARNING

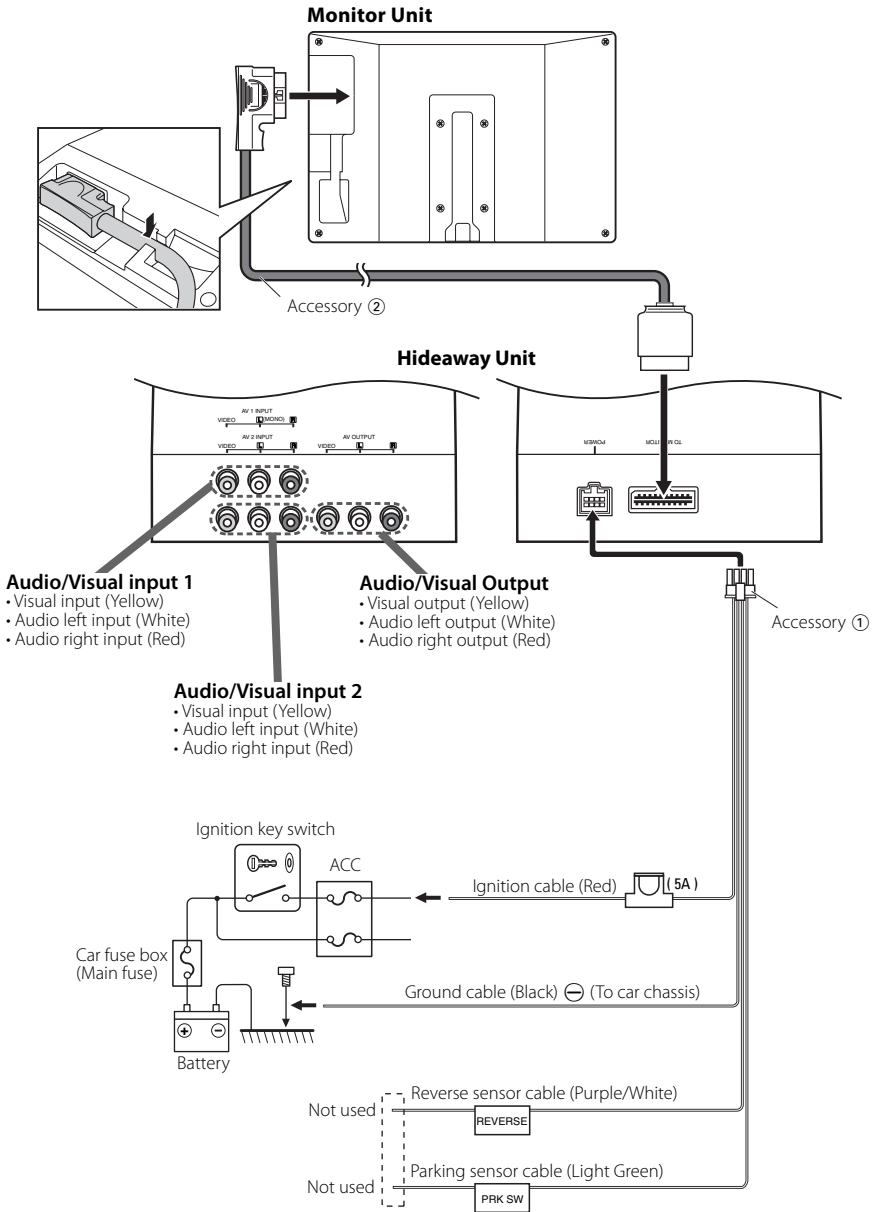
- This product is intended for use with 12V DC negative ground power only. Do not connect it to any other power supply.
- To prevent shorting, disconnect the battery cable from the negative terminal of the battery during installation.
- Be sure to firmly stabilise this product. Do not install it in a location which is not stable.
- Follow the installation and wiring procedures described in this manual. Improper wiring or modified installation can not only result in malfunction or damage to the unit but may also result in an accident.



- If your car's ignition does not come with an ACC position, connect the ignition wires to a power source that can be turned on and off with the ignition key. If you connect the ignition wire to a power source that receives a constant voltage supply, as with battery wires, the battery may die.
- If the fuse blows, first make sure that the wires have not caused a short circuit, then replace the old fuse with one with the same rating.
- Do not let unconnected wires 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 wires.
- After the unit is installed, check whether the brake lamps, blinkers, wipers, etc. on the car are working properly.
- Insulate unconnected wires with vinyl tape or other similar material.
- Thoroughly wipe away oil and other dirt from the installation surface.  
Please avoid installation on uneven surfaces.
- Do not install the Hideaway Unit under the carpet. Otherwise heat build-up occurs and the unit may be damaged.



# Connection



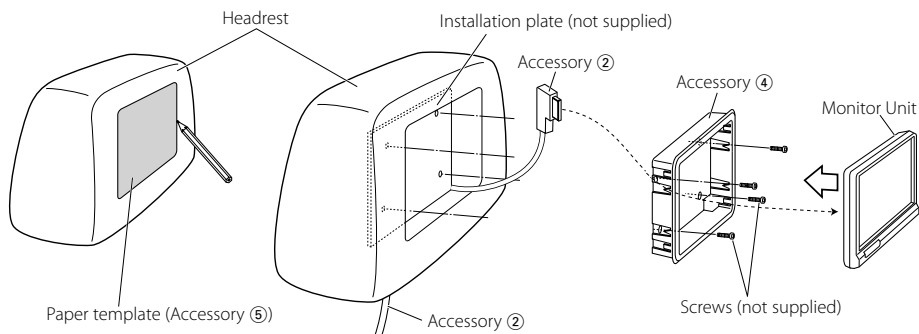
# Installation

## Installation for Monitor Unit

Mounting and wiring this product requires skills and experience. For safety's sake, leave the mounting and wiring work to professionals.

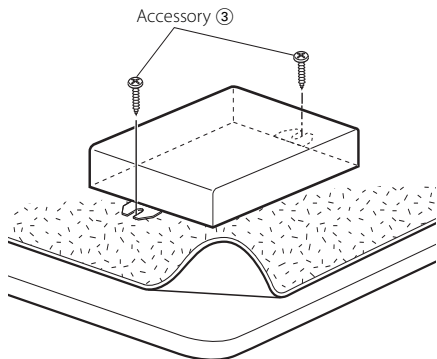
### Before mounting the monitor to the headrest:

- Perform the required external connections first (Accessory ②).
  - Using the supplied paper pattern (Accessory ⑤), mark the area to be cut out of the headrest, then carefully cut it.
1. Connect Monitor and system cord (Accessory ②).
  2. Install the monitor unit in the bracket (Accessory ④).



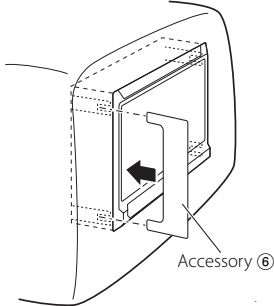
## Installation for Hideaway Unit

Use screws (Accessory ③) to fix Hideaway Unit onto an audio board or another.



### Removing the Monitor Unit

- 1 Insert the removal tool (Accessory ⑥) deeply into the slots on each side, as shown.



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

What might seem 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.

#### ? The power does not turn on.

- ✓ The fuse has blown.
  - ⓘ After checking for short circuits in the wires, replace the fuse with one having 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 3).

#### ? 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.

#### ? No sound from wireless headphones.

- ✓ IR Headphones setting is "Off".
  - ⓘ Turn it "On" (page 6).
- ✓ The frequency setting is not set correctly.
  - ⓘ Select the transmitter frequency according to your headphones.
- ✓ The headphones power is off.
  - ⓘ The headphones power switch is turned on.
- ✓ The headphones batteries are exhausted.
  - ⓘ Replace the headphones batteries with fresh ones.

# Specifications

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Specifications subject to change without notice.

## Monitor Unit

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- Screen size
  - : 6.95 inches wide
  - 156.2(W) × 82.4(H) × 176.0(Diagonal) mm
  - 6-1/8(W) × 3-1/4(H) inches
- Display system
  - : Transparent TN LCD panel
- Drive system
  - : TFT active matrix system
- Number of pixels
  - : 336,960 pixels (480 H × 234 V × RGB)
- Effective pixels
  - : 99.99 %
- Pixel arrangement
  - : RGB striped arrangement
- Back lighting
  - : Cold cathode tube
- IR Transmitter Output
  - : (2MHz) L ch: 2.3 MHz/ R ch: 2.8 MHz
  - : (3MHz) L ch: 3.2 MHz/ R ch: 3.8 MHz

## Hideaway Unit

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- Colour system
  - : NTSC/PAL
- External video input level (RCA jacks)
  - :  $1 \pm 0.1$  Vp-p/ 75  $\Omega$
- External audio input level (RCA jacks)
  - : 1 V/ 55 K $\Omega$
- Video output level (RCA jacks)
  - :  $1 \pm 0.1$  Vp-p/ 75  $\Omega$
- Audio output level (RCA jacks)
  - : 1 V/ 1 K $\Omega$

## General

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- Operating voltage
  - : 14.4 V DC (11 - 16 V)
- Current consumption
  - : 1.5 A
- Consumed Power
  - : 14 W
- Operational temperature range
  - : -10 °C to +60 °C
- Storage temperature range
  - : -30 °C to +85 °C
- Dimensions (W × H × D)
  - Monitor unit : 177 × 122 × 34 mm
  - 7 × 4-7/8 × 1-5/16 inch
  - Hideaway unit : 143 × 37 × 99 mm
  - 5-5/8 × 1-7/16 × 4-7/8 inch
- Weight
  - Monitor unit : 440 g (1.0 lbs)
  - Hideaway unit : 380 g (0.8 lbs)

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.

## FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

### NOTE

This Class B digital apparatus complies with Canadian ICES-003.

