ProAudio

PP107234 and PP107236

CD-RECEIVER
INSTRUCTION MANUAL
AUTORADIO CD
MODE D'EMPLOI
RECEPTOR CD
MANUAL DE INSTRUCCIONES

Brought to market by Pana-Pacific, Inc.

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Before Use

IMPORTANT
- To ensure proper use, please read through this manual before using this product. It is especially important that you read and observe Warnings and Cautions in this manual.
- Please keep the manual in a safe and accessible place for future reference.

⚠ WARNING
- **Do not operate any function that takes your attention away from safe driving.**

⚠ CAUTION

Volume setting:
- Adjust the volume so that you can hear sounds outside the car to prevent accidents.
- Lower the volume before playing digital sources to avoid damaging the speakers by the sudden increase of the output level.

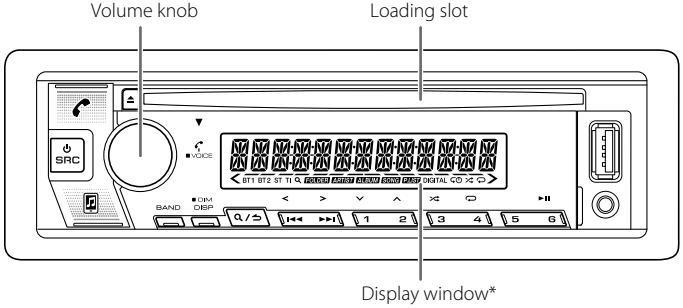
General:
- Avoid using the external device if it might hinder safe driving.
- Make sure all important data has been backed up. We shall bear no responsibility for any loss of recorded data.
- Never put or leave any metallic objects (such as coins or metal tools) inside the unit to prevent a short circuit.
- If a disc error occurs due to condensation on the laser lens, eject the disc and wait for the moisture to evaporate.

How to read this manual
- The displays shown in this manual are examples used to provide clear explanations of the operations. For this reason, they may be different from the actual displays.
- Operations are explained mainly using buttons on the faceplate.
- English indications are used for the purpose of explanation. You can select the display language from the **[FUNCTION]** menu. (Page 6)
- **[XX]** indicates the selected items.
- (Page XX) indicates references are available on the stated page.

This symbol on the product means there are important operating and maintenance instructions in this manual. Be sure to carefully read instructions in this manual.

Basics

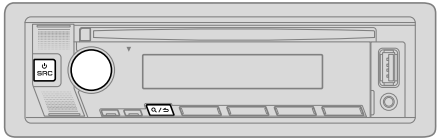
Faceplate



* Only for illustration purpose.

To	On the faceplate
Turn on the power	Press ⏻SRC. • Press and hold to turn off the power.
Adjust the volume	Turn the volume knob.
Select a source	• Press ⏻SRC repeatedly. • Press ⏻SRC, then turn the volume knob within 2 seconds.
Change the display information	Press DISP repeatedly. (Page 24)

Getting Started



1 Set the clock and date

1 Press the volume knob to enter [FUNCTION].
2 Turn the volume knob to select [CLOCK], then press the knob.

To adjust the clock

3 Turn the volume knob to select [CLOCK ADJUST], then press the knob.
4 Turn the volume knob to make the settings, then press the knob.
Set the time in the order of "Hour" ➡ "Minute".
5 Turn the volume knob to select [CLOCK FORMAT], then press the knob.
6 Turn the volume knob to select [12H] or [24H], then press the knob.

To set the date

7 Turn the volume knob to select [DATE FORMAT], then press the knob.
8 Turn the volume knob to select [DD/MM/YY] or [MM/DD/YY], then press the knob.
9 Turn the volume knob to select [DATE SET], then press the knob.
10 Turn the volume knob to make the settings, then press the knob.
Set the date in the order of "Day" ➡ "Month" ➡ "Year" or "Month" ➡ "Day" ➡ "Year".
11 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

2 Set the other optional settings

You can only set the following items while the unit is in STANDBY source.

1 Press ⏻SRC repeatedly to enter STANDBY.
2 Press the volume knob to enter [FUNCTION].
3 Turn the volume knob to select an item (see the following table), then press the knob.
4 Repeat step 3 until the desired item is selected or activated.
5 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Default: [XX]

[AUDIO CONTROL]	
[SWITCH PREOUT]	[REAR]/[SUB-W]: Selects whether rear speakers or a subwoofer are connected to the line out terminals on the rear (through an external amplifier). (Page 25)
[TUNER SETTING]	
[PRESET TYPE]	[NORMAL]: Memorizes one station for each preset button in each band (FM1/FM2/FM3/AM). ; [MIX]: Memorizes one station for each preset button, regardless of the selected band.
[SYSTEM]	
[KEY BEEP]	[ON]: Activates the keypress tone. ; [OFF]: Deactivates.

Getting Started

[SOURCE SELECT]	
[SPOTIFY SRC]	[ON]: Enables SPOTIFY/SPOTIFY BT in source selection. ; [OFF]: Disables. (Page 10)
[BT AUDIO SRC]	[ON]: Enables BT AUDIO in source selection. ; [OFF]: Disables. (Page 17)
[BUILT-IN AUX]	[ON]: Enables AUX in source selection. ; [OFF]: Disables. (Page 11)
[CD READ]	[1]: Automatically distinguishes between audio file disc and music CD. ; [2]: Forces to play as a music CD. No sound can be heard if an audio file disc is played.
[F/W UPDATE]	
[UPDATE SYSTEM]	
[F/W UP xxxx]	(This feature is not available for this model.) [YES]: Starts upgrading the firmware. ; [NO]: Cancels (upgrading is not activated). • Once you have upgraded the firmware, you are unable to downgrade the firmware.
[FACTORY RESET]	[YES]: Resets the settings to default (except the stored station). ; [NO]: Cancels.
[ENGLISH] [ESPANOL] [FRANCAIS]	Select the display language for [FUNCTION] menu and music information if applicable. By default, [ENGLISH] is selected.

Radio

- "ST" indicator lights up when receiving an FM stereo broadcast with sufficient signal strength.
- The unit switches to FM alarm automatically when receiving an alarm signal from FM broadcast.

Search for a station

1. Press ⏻SRC repeatedly to select RADIO.
2. Press BAND repeatedly to select FM1/FM2/FM3/AM.
3. Press ⏮ / ⏭ to search for a station.

You can store up to 18 stations for FM and 6 stations for AM.
- **To store a station:** Press and hold one of the number buttons (1 to 6).
- **To select a stored station:** Press one of the number buttons (1 to 6).

Other settings

1. Press the volume knob to enter [FUNCTION].
2. Turn the volume knob to select an item (page 7), then press the knob.
3. Repeat step 2 until the desired item is selected/activated or follow the instructions stated on the selected item.
4. Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Radio

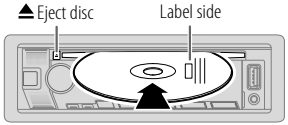
Default: [XX]

[TUNER SETTING]	
[SEEK MODE]	Selects the searching method for I◄◄ / ►►I buttons when pressed. [AUTO1]: Automatically search for a station. ; [AUTO2]: Search for a preset station. ; [MANUAL]: Manually search for a station.
[AUTO MEMORY]	[YES]: Automatically starts memorizing 6 stations with good reception. ; [NO]: Cancels. • Selectable only if [NORMAL] is selected for [PRESET TYPE]. (Page 5)
[MONO SET]	[ON]: Improves the FM reception, but the stereo effect will be lost. ; [OFF]: Cancels.
[TI]	[ON]: Allows the unit to temporarily switch to Traffic Information if available ("TI" indicator lights up). ; [OFF]: Cancels.
[PTY SEARCH]	Select the available Program Type (see the following), then press I◄◄ / ►►I to start.
[CLOCK]	
[TIME SYNC]	[ON]: Synchronizes the unit's time to the Radio Broadcast Data System station time. ; [OFF]: Cancels.

- [MONO SET]/[TI]/[PTY SEARCH] is selectable only when the band is FM1/FM2/FM3.
- If the volume is adjusted during reception of traffic information or news bulletin, the adjusted volume is memorized automatically. It will be applied the next time traffic information or news bulletin is turned on.
- Program Type:
  [SPEECH]:
  [NEWS], [INFORM] (information), [SPORTS], [TALK], [LANGUAGE], [REL TALK] (religious talk), [PERSNLTY] (personality), [PUBLIC], [COLLEGE], [HABL ESP] (spanish talk), [WEATHER]
  [MUSIC]:
  [ROCK], [CLS ROCK] (classic rock), [ADLT HIT] (adult hits), [SOFT RCK] (softrock), [TOP 40], [COUNTRY], [OLDIES], [SOFT], [NOSTALGA] (nostalgia), [JAZZ], [CLASSICL] (classical), [R & B] (rhythm and blues), [SOFT R&B] (soft rhythm and blues), [REL MUSC] (religious music), [MUSC ESP] (spanish music), [HIP HOP]

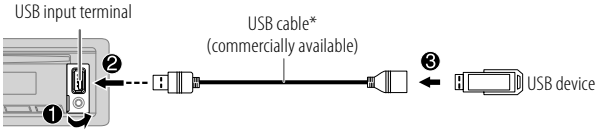
CD/USB/iPod

Insert a disc



The source changes to CD automatically and playback starts.

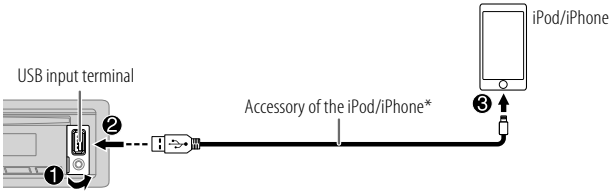
Connect a USB device



The source changes to USB automatically and playback starts.

* Do not leave the cable inside the vehicle when not in use.

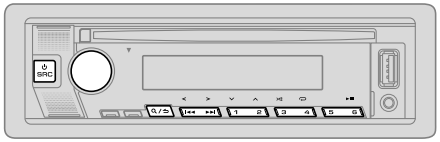
Connect an iPod/iPhone



The source changes to iPod USB automatically and playback starts.

- You can also connect iPod/iPhone via Bluetooth. (Page 12)

* Do not leave the cable inside the vehicle when not in use.



For playable audio file, see "Playable files" on page 23.

To	On the faceplate
Play back/pause	Press 6 ▶❚❚.
Reverse/Fast-forward	Press and hold ⏮ / ⏭.
Select a track/file	Press ⏮ / ⏭.
Select a folder*1	Press 2 ∧ / 1 ∨.
Repeat play*2	Press 4 ↻ repeatedly. **[TRACK REPEAT]**/**[ALL REPEAT]**: Audio CD **[FILE REPEAT]**/**[FOLDER REPEAT]**/**[ALL REPEAT]**: MP3/WMA/AAC/WAV/FLAC file **[REPEAT ONE]**/**[REPEAT ALL]**/**[REPEAT OFF]**: iPod
Random play*2	Press 3 ⤮ repeatedly. **[DISC RANDOM]**/**[RANDOM OFF]**: Audio CD **[FOLDER RANDOM]**/**[RANDOM OFF]**: MP3/WMA/AAC/WAV/FLAC file **[SHUFFLE ON]**/**[SHUFFLE OFF]**: iPod
	Press and hold 3 ⤮ to select **[ALL RANDOM]**.*1

*1 For CD: Only for MP3/WMA/AAC files. This does not work for iPod.
*2 For iPod: Applicable only when **[MODE OFF]** is selected.

Select music drive

While in USB source, press 5 repeatedly.

Stored songs in the following drive will be played back.
- Selected internal or external memory of a smartphone (Mass Storage Class).
- Selected drive of a multiple drive device. (This unit can support multiple drive device of up to 4 drives. However, this unit may take some time to read if three or more cards are connected.)

You can also select the music drive from the **[FUNCTION]** menu.

1. Press the volume knob to enter [FUNCTION].
2. Turn the volume knob to select [USB], then press the knob.
3. Turn the volume knob to select [MUSIC DRIVE], then press the knob.
4. Turn the volume knob to select [DRIVE CHANGE], then press the knob.
   The next drive (**[DRIVE 1]** to **[DRIVE 4]**) is selected automatically and playback starts.
5. Repeat step 1 to step 4 to select the following drives.
6. Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Select control mode

While in iPod USB source (or iPod BT source), press 5 repeatedly.

[MODE ON]: Control iPod/iPhone using the iPod/iPhone itself. However, you can still perform play/pause, file skip, fast-forward or fast-reverse from this unit.

[MODE OFF]: Control iPod/iPhone from this unit.

Select a file to play

From a folder or list

• For iPod, applicable only when [MODE OFF] is selected. (Page 8)

1 Press 🔍/⮌.
2 Turn the volume knob to select a folder/list, then press the knob.
3 Turn the volume knob to select a file, then press the knob.
Selected file starts playing.

Quick search (applicable only for CD source and USB source)

If you have many files, you can search through them quickly.

1 Press 🔍/⮌.
2 Turn the volume knob to select a folder/list, then press the knob.
3 Turn the volume knob quickly to browse through the list quickly.
4 Turn the volume knob to select a file, then press the knob.
Selected file starts playing.

Skip search (applicable only for iPod USB source and iPod BT source)

If you have many files in the selected list, you can perform the following to search for a file by skipping through the list at a rate selected in [SKIP SEARCH].
• For iPod, applicable only when [MODE OFF] is selected. (Page 8)

1 Press 🔍/⮌.
2 Turn the volume knob to select a list, then press the knob.
3 Press ⏮ / ⏭ to search at a preset skip search ratio.
• Pressing and holding ⏮ / ⏭ searches at a 10% ratio irregardless of the [SKIP SEARCH] settings.
4 Turn the volume knob to select a file, then press the knob.
Selected file starts playing.

[SKIP SEARCH] setting

1 Press the volume knob to enter [FUNCTION].
2 Turn the volume knob to select [USB], then press the knob.
3 Turn the volume knob to select [SKIP SEARCH], then press the knob.
4 Turn the volume knob to select the skip search ratio, then press the knob.
[0.5%] (default)/[1%]/[5%]/[10%]
The skip search ratio is shown as a percentage of the total files.
5 Press and hold 🔍/⮌ to exit.

Alphabet search (applicable only for iPod USB source and iPod BT source)

You can search for a file according to the first character.
• For iPod, applicable only when [MODE OFF] is selected. (Page 8)

1 Press 🔍/⮌.
2 Turn the volume knob to select a list, then press the knob.
3 Turn the volume knob quickly to enter character search.
4 Turn the volume knob to select the character.
• Select "✳" to search for a character other than A to Z, 0 to 9.
5 Press ⏮ / ⏭ to move to the entry position.
• You can enter up to 3 characters.
6 Press the volume knob to start searching.
7 Turn the volume knob to select a file, then press the knob.
Selected file starts playing.

• To return to the root folder/first file/top menu, press 5. (Not applicable for BT AUDIO source.)
• To return to the previous setting item, press 🔍/⮌.
• To cancel, press and hold 🔍/⮌.

Spotify

You can listen to Spotify on iPhone/iPod touch (via Bluetooth or via USB input terminal) or Android device (via Bluetooth).

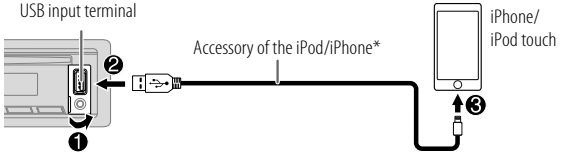
Preparation:

- Install the latest version of the Spotify application on your device (iPhone/iPod touch or Android device), then create an account and log in to Spotify.
- Select **[ON]** for **[SPOTIFY SRC]** in **[SOURCE SELECT]**. (Page 6)

Start listening

1 Start up the Spotify application on your device.

2 Connect your device to the USB input terminal.



You can also connect the iPhone/iPod touch or Android device via Bluetooth. (Page 12)

- Make sure the USB input terminal is not connected to any device when you connect via Bluetooth.

3 Press ⏻SRC repeatedly to select SPOTIFY (for iPhone/iPod touch) or SPOTIFY BT (for Android device).
Broadcast starts automatically.

* Do not leave the cable inside the vehicle when not in use.

To	On the faceplate
Play back/pause	Press 6 ▶❚❚.
Skip a track	Press ⏮*1 / ⏭.
Select thumbs up or thumbs down*2	Press 2 ∧ / 1 ∨.
Start radio	Press and hold 5.
Repeat play*3	Press 4 ↻ repeatedly. **[REPEAT ALL]**, **[REPEAT ONE]***1, **[REPEAT OFF]**
Random play*3	Press 3 ⤮ repeatedly*1. **[SHUFFLE ON]**, **[SHUFFLE OFF]**

*1 Available for premium account users only.

*2 This feature is available for tracks in Radio only. If thumbs down is selected, the current track is skipped.

*3 Available for tracks in Playlists only.

Save favorite song information

While listening to the Radio on Spotify...

Press and hold the volume knob.
"SAVED" appears and the information is stored to "Your Music" or "Your Library" on your Spotify account.

To unsave, repeat the same procedure.
"REMOVED" appears and the information is removed from "Your Music" or "Your Library" on your Spotify account.

Spotify

Search for a song or station

1 Press 🔍/⮌.
2 Turn the volume knob to select a list type, then press the knob.
The list types displayed differ depending on the information sent from Spotify.
3 Turn the volume knob to select the desired song or station.
4 Press the volume knob to confirm.
You can browse through the list quickly by turning the volume knob quickly.

To cancel, press and hold 🔍/⮌.

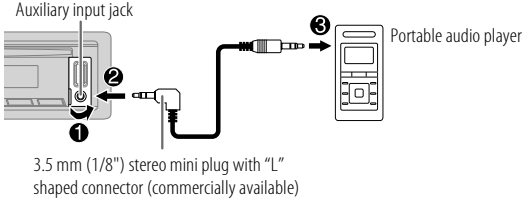
AUX

You can listen to music from a portable audio player via the auxiliary input jack.

Preparation:
Select **[ON]** for **[BUILT-IN AUX]** in **[SOURCE SELECT]**. (Page 6)

Start listening

1 Connect a portable audio player (commercially available).



2 Press ⏻SRC repeatedly to select AUX.
3 Turn on the portable audio player and start playback.

Set the name of the external device

While listening to a portable audio player connected to the unit...

1 Press the volume knob to enter [FUNCTION].
2 Turn the volume knob to select [SYSTEM], then press the knob.
3 Turn the volume knob to select [AUX NAME SET], then press the knob.
4 Turn the volume knob to select an item, then press the knob.
[AUX] (default)/[DVD]/[PORTABLE]/[GAME]/[VIDEO]/[TV]
5 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Bluetooth®

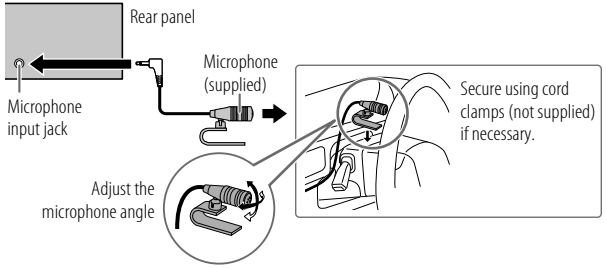
- Depending on the Bluetooth version, operating system and the firmware version of your mobile phone, Bluetooth features may not work with this unit.
- Be sure to turn on the Bluetooth function of the device to make the following operations.
- Signal conditions vary depending on the surroundings.

Bluetooth — Connection

Supported Bluetooth profiles
– Hands-Free Profile (HFP)
– Advanced Audio Distribution Profile (A2DP)
– Audio/Video Remote Control Profile (AVRCP)
– Serial Port Profile (SPP)
– Phonebook Access Profile (PBAP)

Supported Bluetooth codecs
– Sub Band Codec (SBC)
– Advanced Audio Coding (AAC)

Connect the microphone



Pair and connect a Bluetooth device for the first time

1 Press ⏻SRC to turn on the unit.
2 Search and select the name of your receiver (“PP-BT-RADIO”) on the Bluetooth device.
“PAIRING” ➡ “PASS XXXXXX” ➡ “Device name” ➡ “PRESS” ➡ “VOLUME KNOB” appears on the display.
- For some Bluetooth devices, you may need to enter the Personal Identification Number (PIN) code immediately after searching.

3 Press the volume knob to start pairing.
“PAIRING OK” appears when pairing is completed.

Once pairing is completed, Bluetooth connection is established automatically.
- “BT1” and/or “BT2” indicator on the display window lights up.

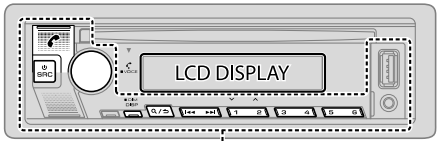
- This unit supports Secure Simple Pairing (SSP).
- Up to five devices can be registered (paired) in total.
- Once the pairing is completed, the Bluetooth device will remain registered in the unit even if you reset the unit. To delete the paired device, see **[DEVICE DELETE]** on page 16.
- A maximum of two Bluetooth phones and one Bluetooth audio device can be connected at any time. To connect or disconnect the registered device, see **[PHONE SELECT]** or **[AUDIO SELECT]** in **[BT MODE]**. (Page 16)
  However, while in BT AUDIO source, you can connect to five Bluetooth audio devices and switch between these five devices. (Page 17)
- Some Bluetooth devices may not automatically connect to the unit after pairing. Connect the device to the unit manually.
- Refer to the instruction manual of the Bluetooth device for more information.

Auto Pairing

When you connect iPhone/iPod touch to the USB input terminal, pairing request (via Bluetooth) is automatically activated if **[AUTO PAIRING]** is set to **[ON]**. (Page 16)

Press the volume knob to pair once you have confirmed the device name.

Bluetooth — Mobile phone



Receive a call

When there is an incoming call:
- The unit answers the call automatically if **[AUTO ANSWER]** is set to a selected time. (Page 14)

During a call:
- If you turn off the unit or detach the faceplate, Bluetooth is disconnected.

The following operations may differ or be unavailable depending on the connected phone.

To	On the faceplate
First incoming call...	
Answer a call	Press ✆ or the volume knob or one of the number buttons (1 to 6).
Reject a call	Press 🔍/⮌.
End a call	Press 🔍/⮌.
While talking on the first incoming call...	
Answer another incoming call and hold the current call	Press ✆.
Reject another incoming call	Press 🔍/⮌.
While having two active calls...	
End current call and activate held call	Press 🔍/⮌.
Swap between the current call and held call	Press ✆.
Adjust the phone volume*1 **[00]** to **[35]** (Default: **[15]**)	Turn the volume knob during a call.
Switch between hands-free and private talk modes*2	Press 6 ▶❚❚ during a call.

*1 This adjustment will not affect the volume of the other sources.
*2 Operations may vary according to the connected Bluetooth device.

Improve the voice quality

While talking on the phone...

1 Press the volume knob to enter [FUNCTION].
2 Turn the volume knob to select an item (see the following table), then press the knob.
3 Repeat step 2 until the desired item is selected or activated.
4 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Default: [XX]

[MIC GAIN]	[–10] to [+10] ([–4]): The sensitivity of the microphone increases as the number increases.
[NR LEVEL]	[LEVEL –5] to [LEVEL +5] ([LEVEL 0]): Adjust the noise reduction level until the least noise is being heard during a phone conversation.
[ECHO CANCEL]	[LEVEL –5] to [LEVEL +5] ([LEVEL 0]): Adjust the echo cancellation delay time until the least echo is being heard during a phone conversation.

• Call quality may depend on mobile phone.

Make the setting for answering a call

1 Press 📞 to enter Bluetooth mode.
2 Turn the volume knob to select [SETTINGS], then press the knob.
3 Turn the volume knob to select [AUTO ANSWER], then press the knob.
4 Turn the volume knob to select the time (in seconds) for the unit to answer the call automatically, then press the knob.
[01] to [30], or select [OFF] to cancels. (Default: [OFF])
5 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Make a call

You can make a call from the call history, phonebook, or dialing the number. Call by voice is also possible if your mobile phone has the feature.

1 Press 📞 to enter Bluetooth mode.
"(First device name)" appears.
• If two Bluetooth phones are connected, press 📞 again to switch to the other phone.
"(Second device name)" appears.
2 Turn the volume knob to select an item (see the following table), then press the knob.
3 Repeat step 2 until the desired item is selected/activated or follow the instructions stated on the selected item.
4 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

[CALL HISTORY]	(Applicable only if the phone supports PBAP.) 1 Press the volume knob to select a name or a phone number. • "I" indicates call received, "O" indicates call made, "M" indicates call missed. • Press DISP to change the display category (NUMBER or NAME). • "NO DATA" appears if there is no recorded call history or call number. 2 Press the volume knob to call.

[PHONE BOOK]	(Applicable only if the phone supports PBAP.) **1** Turn the volume knob quickly to enter alphabet search mode (if the phonebook contains many contacts). The first menu (ABCDEFGHIJK) appears. • To go to the other menu (LMNOPQRSTUV or WXYZ1✳), press 2 ∧ / 1 ∨. • To select the desired first letter, turn the volume knob or press I◄◄ / ►►I, then press the knob. Select "1" to search with numbers and select "✳" to search with symbols. **2** Turn the volume knob to select a name, then press the knob. **3** Turn the volume knob to select a phone number, then press the knob to call. • For using phonebook with this unit, make sure to allow access to or transfer from your smartphone. Depending on the connected phone, the process may be different. • Contacts are categorized as: HM (home), OF (office), MO (mobile), OT (other), GE (general) • This unit can display only non-accent letters. (Accent letters such as "Ú" are shown as "U".)
[NUMBER DIAL]	**1** Turn the volume knob to select a number (0 to 9) or character (✳, #, +). **2** Press I◄◄ / ►►I to move the entry position. Repeat step 1 and step 2 until you finish entering the phone number. **3** Press the volume knob to call.
[VOICE]	Speak the name of the contact you want to call or the voice command to control the phone functions. (See also the following "Make a call using voice recognition".)
[LOW]/[MID]/[FULL]: Shows the strength of the battery.*	
[NO SIGNAL]/[LOW]/[MID]/[MAX]: Shows the strength of the current received signal.*	

* Functionality depends on the type of the phone used.

Make a call using voice recognition

1 Press and hold 📞 to activate the voice recognition of the connected phone.
2 Speak the name of the contact you want to call or the voice command to control the phone functions.

• Supported Voice Recognition features vary for each phone. Refer to the instruction manual of the connected phone for details.

Store a contact in memory

You can store up to 6 contacts into the number buttons (1 to 6).

1 Press 📞 to enter Bluetooth mode.
2 Turn the volume knob to select [CALL HISTORY], [PHONE BOOK] or [NUMBER DIAL], then press the knob.
3 Turn the volume knob to select a contact or enter a phone number.
If a contact is selected, press the volume knob to show the phone number.
4 Press and hold one of the number buttons (1 to 6).
"STORED" appears when the contact is stored.

To erase a contact from the preset memory, select [NUMBER DIAL] in step 2, store a blank number in step 3 and proceed to step 4.

Make a call to a registered number

1 Press 📞 to enter Bluetooth mode.
2 Press one of the number buttons (1 to 6).
3 Press the volume knob to call.
"NO MEMORY" appears if there is no contact stored.

Bluetooth mode settings

1 Press the volume knob to enter [FUNCTION].
2 Turn the volume knob to select an item (see the following table), then press the knob.
3 Repeat step 2 until the desired item is selected/activated or follow the instructions stated on the selected item.
4 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Default: [XX]

[BT MODE]	
[PHONE SELECT]	Selects the phone or audio device to connect or disconnect. "✳" appears in front of the device name when connected. "▷" appears in front of the current playback audio device. • You can connect a maximum of two Bluetooth phones and one Bluetooth audio device at a time.
[AUDIO SELECT]	
[DEVICE DELETE]	1 Turn the volume knob to select a device to delete, then press the knob. 2 Turn the volume knob to select [YES] or [NO], then press the knob.
[PIN CODE EDIT] (0000)	Changes the PIN code (up to 6 digits). 1 Turn the volume knob to select a number. 2 Press ⏮ / ⏭ to move the entry position. Repeat step 1 and step 2 until you finish entering the PIN code. 3 Press the volume knob to confirm.
[RECONNECT]	[ON]: The unit is automatically reconnect when the last connected Bluetooth device is within the connectable range. ; [OFF]: Cancels.
[AUTO PAIRING]	[ON]: The unit is automatically paired with the supported Bluetooth device (iPhone/iPod touch) when it is connected through USB input terminal. Depending on the operating system of the connected device, this function may not work. ; [OFF]: Cancels.
[INITIALIZE]	[YES]: Initializes all the Bluetooth settings (including stored pairing, phonebook, and etc.). ; [NO]: Cancels.

Bluetooth test mode

You can check the connectivity of the supported profile between the Bluetooth device and the unit.
• Make sure there is no Bluetooth device paired.

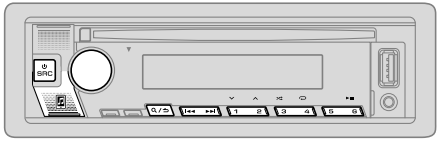
1 Press and hold 📞.
"PLEASE PAIR YOUR PHONE PIN 0000" appears on the display.
2 Search and select the name of your receiver ("PP-BT-RADIO") on the Bluetooth device.
3 Operate the Bluetooth device to confirm pairing.
"TESTING" flashes on the display.

The connectivity result (OK or NG) appears after the test.
PAIRING: Pairing status
HF CNT: Hands-Free Profile (HFP) compatibility
AUD CNT: Advanced Audio Distribution Profile (A2DP) compatibility
PB DL: Phonebook Access profile (PBAP) compatibility

To cancel test mode, press and hold ⏻SRC to turn off the unit.

Bluetooth — Audio

- Operations and display indications may differ according to their availability on the connected device.
- Depending on the connected device, some features may not work with your device.



While in BT AUDIO source, you can connect to five Bluetooth audio devices and switch between these five devices.

Listen to the audio player via Bluetooth

1 Press ⏻SRC repeatedly to select BT AUDIO.
- Pressing 🎵 enters BT AUDIO directly.

2 Operate the audio player via Bluetooth to start playback.

To	On the faceplate
Play back/pause	Press 6 ▶❚❚.
Select group or folder	Press 2 ∧ / 1 ∨.
Reverse skip/Forward skip	Press ⏮ / ⏭.
Reverse/Fast-forward	Press and hold ⏮ / ⏭.
Repeat play	Press 4 🔁 repeatedly. [ALL REPEAT], [FILE REPEAT], [GROUP REPEAT], [REPEAT OFF]
Random play	Press and hold 3 🔀 to select [ALL RANDOM] or [GROUP RANDOM]. • Press 3 🔀 to select [RANDOM OFF].
Select a file from a folder/list	Refer to "Select a file to play" on page 9.
Switch between connected Bluetooth audio devices	Press 5. (Pressing the "Play" key on the connected device itself also causes switching of sound output from the device.)

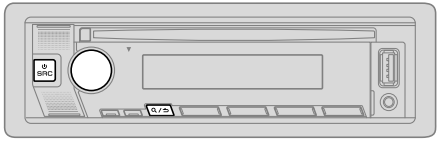
Listen to iPod/iPhone via Bluetooth

You can listen to the songs on the iPod/iPhone via Bluetooth on this unit.

Press ⏻SRC repeatedly to select iPod BT.

- You can operate the iPod/iPhone in the same way as iPod/iPhone via USB input terminal. (Page 7)
- If you plug in an iPod/iPhone to the USB input terminal while listening to iPod BT source, the source automatically changes to iPod USB source. Press ⏻SRC to select iPod BT source if the device is still connected via Bluetooth.

Audio Settings



1 Press the volume knob to enter [FUNCTION].
2 Turn the volume knob to select an item (see the following table), then press the knob.
3 Repeat step 2 until the desired item is selected or activated.
4 Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

Default: [XX]

[AUDIO CONTROL]	
[SUB-W LEVEL]	[LEVEL –50] to [LEVEL +10] ([LEVEL 0]): Adjusts the subwoofer output level.
[EASY EQ]	Adjusts your own sound settings. • The settings are stored to [USER] in [PRESET EQ]. • The settings made may affect the current settings of [MANUAL EQ]. [SW]: [LEVEL –50] to [LEVEL +10] (Default: [LEVEL 0] [BASS]: [LEVEL –9] to [LEVEL +9] [LEVEL 0] [MID]: [LEVEL –9] to [LEVEL +9] [LEVEL 0] [TRE]: [LEVEL –9] to [LEVEL +9] [LEVEL 0])
[MANUAL EQ]	Adjusts your own sound settings for each source. • The settings are stored to [USER] in [PRESET EQ]. • The settings made may affect the current settings of [EASY EQ].
[62.5HZ]	[LEVEL] [LEVEL –9] to [LEVEL +9] ([LEVEL 0]): Adjusts the level to memorize for each source. (Before making an adjustment, select the source you want to adjust.)
	[BASS EXTEND] [ON]: Turns on the extended bass. ; [OFF]: Cancels.
[100HZ]/[160HZ]/ [250HZ]/[400HZ]/ [630HZ]/[1KHZ]/ [1.6KHZ]/[2.5KHZ]/ [4KHZ]/[6.3KHZ]/ [10KHZ]/[16KHZ]	[LEVEL –9] to [LEVEL +9] ([LEVEL 0]): Adjusts the level to memorize for each source. (Before making an adjustment, select the source you want to adjust.)
[Q FACTOR]	[1.35]/[1.50]/[2.00]: Adjusts the quality factor.
[PRESET EQ]	[NATURAL]/[ROCK]/[POPS]/[EASY]/[TOP40]/[JAZZ]/[POWERFUL]/ [USER]: Selects a preset equalizer suitable to the music genre. (Select [USER] to use the settings made in [EASY EQ] or [MANUAL EQ].)
[BASS BOOST]	[LV1] to [LV5]: Selects your preferred bass boost level. ; [OFF]: Cancels.
[LOUDNESS]	[LV1]/[LV2]: Selects your preferred low or high frequencies boost to produce a well-balanced sound at low volume. ; [OFF]: Cancels.
[SUBWOOFER SET]	[ON]: Turns on the subwoofer output. ; [OFF]: Cancels.
[FADER]	[R15] to [F15] ([0]): Adjusts the front and rear speaker output balance.
[BALANCE]	[L15] to [R15] ([0]): Adjusts the left and right speaker output balance.
[VOLUME OFFSET]	[–15] to [+6] ([0]): Presets the initial volume level of each source by comparing to the FM volume level. (Before adjustment, select the source you want to adjust.)

Audio Settings

[SOUND EFFECT]

[SOUND RECNSTR] (Sound reconstruction)	(Not applicable for RADIO source and AUX source.) [ON]: Creates realistic sound by compensating the high-frequency components and restoring the rise-time of the waveform that are lost in audio data compression. ; [OFF]: Cancels.
[SPACE ENHANCE]	(Not applicable for RADIO source.) [SML]/[MED]/[LRG]: Virtually enhances the sound space. ; [OFF]: Cancels.
[SND REALIZER]	[LV1]/[LV2]/[LV3]: Virtually makes the sound more realistic. ; [OFF]: Cancels.
[STAGE EQ]	[LOW]/[MID]/[HI]: Virtually adjusts the sound position heard from the speakers. ; [OFF]: Cancels.
[DRIVE EQ]	[ON]: Boosts the frequency to reduce the noise heard from outside the car or running noise of the tyres. ; [OFF]: Cancels.

[SPEAKER SIZE] The frequency and slope settings are automatically set for the crossover of the selected speaker.

[FRONT]	[SIZE]	[3.5"]/[4"]/[4.75"]/[5"]/[6.5"]/[6.75"]/[7"]/[4×6]/[5×7]/[6×8]/[6×9]/[7×10]: Selects according to the connected speaker size for optimum performance.
	[TWEETER]	[SMALL]/[MIDDLE]/[LARGE]: Selects according to the size range of the connected tweeter for optimum performance. ; [NONE]: Not connected.
[REAR]		[3.5"]/[4"]/[4.75"]/[5"]/[6.5"]/[6.75"]/[7"]/[4×6]/[5×7]/[6×8]/[6×9]/[7×10]: Selects according to the connected speaker size for optimum performance. ; [NONE]: Not connected.
[SUBWOOFER]		[6.5"]/[8"]/[10"]/[12"]/[15" OVER]: Selects according to the connected speaker size for optimum performance. ; [NONE]: Not connected.

[X ' OVER]

[TWEETER]	[FRQ]	[1KHZ]/[1.6KHZ]/[2.5KHZ]/[4KHZ]/[5KHZ]/[6.3KHZ]/[8KHZ]/[10KHZ]/[12.5KHZ]: Adjusts the crossover frequency for the tweeter speaker.
	[GAIN LEFT]	[–8] to [0]: Adjusts the output volume of the left tweeter.
	[GAIN RIGHT]	[–8] to [0]: Adjusts the output volume of the right tweeter.
[FRONT HPF]	[F-HPF FRQ]	[30HZ]/[40HZ]/[50HZ]/[60HZ]/[70HZ]/[80HZ]/[90HZ]/[100HZ]/[120HZ]/[150HZ]/[180HZ]/[220HZ]/[250HZ]: Adjusts the crossover frequency for the selected speakers (high pass filter). ; [THROUGH]: All signals are sent to the selected speakers.
	[F-HPF SLOPE]	[–6DB]/[–12DB]/[–18DB]/[–24DB]: Adjusts the crossover slope. (Selectable only if a setting other than [THROUGH] is selected for [F - HPF FRQ].)
	[F-HPF GAIN]	[–8] to [0]: Adjusts the output volume of the selected speaker.
[REAR HPF]	[R-HPF FRQ]	Configure the settings for the rear speakers similarly to the front speakers.
	[R-HPF SLOPE]	
	[R-HPF GAIN]	
[SUBWOOFER LPF]	[SW LPF FRQ]	[30HZ]/[40HZ]/[50HZ]/[60HZ]/[70HZ]/[80HZ]/[90HZ]/[100HZ]/[120HZ]/[150HZ]/[180HZ]/[220HZ]/[250HZ]: Adjusts the crossover frequency for the subwoofer (low pass filter). ; [THROUGH]: All signals are sent to the subwoofer.

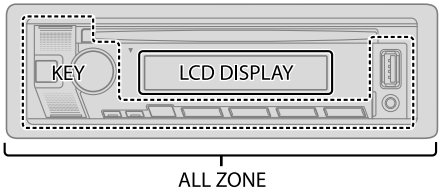
Audio Settings

	[SW LPF SLOPE]	[–6DB]/[–12DB]/[–18DB]/[–24DB]: Adjusts the crossover slope. (Selectable only if a setting other than [THROUGH] is selected for [SW LPF FRQ].)
	[SW LPF PHASE]	[REVERSE] (180°)/[NORMAL] (0°): Selects the phase of the subwoofer output to be in line with the speaker output for optimum performance.
	[SW LPF GAIN]	[–8] to [0]: Adjusts the output volume of the subwoofer.
[DTA SETTINGS]	For settings, see the following "Digital Time Alignment settings".	
[CAR SETTINGS]		

- The following item is selectable only if [SWITCH PREOUT] is set to [SUB-W] (page 5):
  – [SUB-W LEVEL]
  – [SUBWOOFER SET]
  – [SW LEVEL] of [EASY EQ]
  – [SUBWOOFER] of [SPEAKER SIZE]
  – [SUBWOOFER LPF] of [X ' OVER]
  – [SUBWOOFER] of [DISTANCE] and [GAIN] in [DTA SETTINGS]
- The following item is selectable only if [SUBWOOFER SET] is set to [ON] (page 18):
  – [SUB-W LEVEL]
  – [SW LEVEL] of [EASY EQ]
  – [SUBWOOFER] of [SPEAKER SIZE]
  – [SUBWOOFER LPF] of [X ' OVER]
  – [SUBWOOFER] of [DISTANCE] and [GAIN] in [DTA SETTINGS]
- The following item is selectable only if a setting other than [NONE] is selected for [TWEETER], [REAR] and [SUBWOOFER] of [SPEAKER SIZE]:
  – [TWEETER], [REAR HPF], [SUBWOOFER LPF] of [X ' OVER]

Display Settings

Zone identification for brightness setting



Set the dimmer

Press and hold DISP (DIM) to turn on or off the dimmer.

- Once you press and hold this button, [DIMMER] setting (page 21) will be overwritten.

Change the display settings

1. Press the volume knob to enter [FUNCTION].
2. Turn the volume knob to select an item (page 21), then press the knob.
3. Repeat step 2 until the desired item is selected/activated or follow the instructions stated on the selected item.
4. Press and hold 🔍/⮌ to exit.

To return to the previous setting item, press 🔍/⮌.

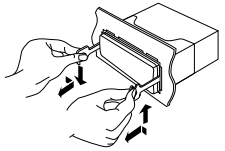
Display Settings

[DISPLAY]	
[DIMMER]	Dims the illumination. **[ON]**: Dimmer is turned on. **[OFF]**: Dimmer is turned off. **[DIMMER TIME]**: Set the time to turn on dimmer and to turn off dimmer. **1** Turn the volume knob to adjust the **[ON]** time, then press the knob. **2** Turn the volume knob to adjust the **[OFF]** time, then press the knob. Default: **[ON]**: **[6:00PM]** ; **[OFF]**: **[6:00AM]**
[BRIGHTNESS]	Sets the brightness for day and night separately. **1** **[DAY]**/**[NIGHT]**: Select day or night. **2** Select a zone. (See the illustration on page 20.) **3** **[LVL00]** to **[LVL31]**: Set the brightness level.
[TEXT SCROLL]	**[ONCE]**: Scrolls the display information once. ; **[AUTO]**: Repeats scrolling at 5-second intervals. ; **[OFF]**: Cancels.
[CLOCK]	
[CLOCK DISPLAY]	**[ON]**: The clock time is shown on the display even when the unit is turned off. ; **[OFF]**: Cancels.

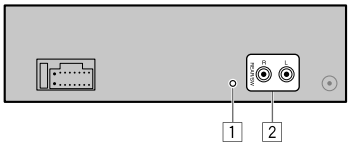
Installation/Connection

Removing the unit

Insert the extraction keys deeply into the slots on each side, then follow the arrows as shown on the illustration.



Connect external components



No	Part
1	Microphone input jack (Page 12)
2	Output terminals REAR/SW: Rear/subwoofer output • When connecting an external amplifier to the output terminals of this unit, securely connect the amplifier ground wire to the car chassis to prevent damage to the unit.

Installation/Connection

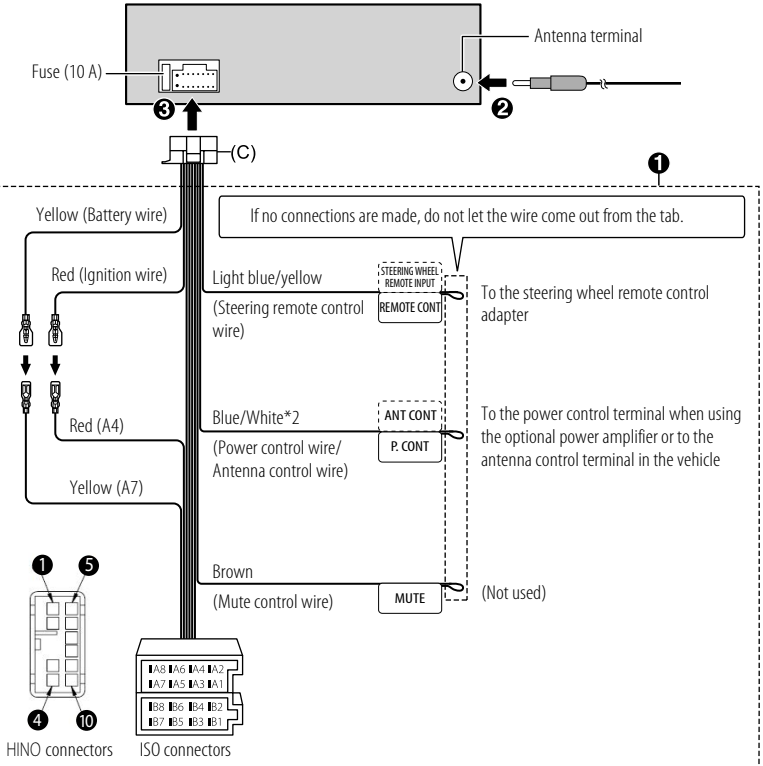
Wiring connection

The PP107234 radio will include a wiring harness adapter for standard ISO connection.

The PP107236 radio will include a wiring harness adapter for connection to Hino trucks.

Hino Pin	ISO Pin	Color and Function	
3	A4	Red	: Ignition (ACC)
8	A5	Blue/White*1	: Power control
4	A7	Yellow	: Battery
7	A8	Black	: Earth (ground) connection
N/A	B1	Purple ⊕	: Rear speaker (right)
N/A	B2	Purple/black ⊖	
1	B3	Gray ⊕	: Front speaker (right)
5	B4	Gray/black ⊖	
2	B5	White ⊕	: Front speaker (left)
6	B6	White/black ⊖	
N/A	B7	Green ⊕	: Rear speaker (left)
N/A	B8	Green/black ⊖	

NOTE: Total output for Blue/White wire (*1) + (*2) is 12 V ⎓ 350 mA



References

More information

General

- This unit can only play the following CDs:

Playable files

- Playable audio file:
  For disc: MP3 (.mp3), WMA (.wma), AAC (.aac)
  For USB mass storage class device:
  MP3 (.mp3), WMA (.wma), AAC (.aac), AAC (.m4a), WAV (.wav), FLAC (.flac)
- Playable disc media: CD-R/CD-RW/CD-ROM
- Playable disc file format: ISO 9660 Level 1/2, Joliet, Long file name
- Playable USB device file system: FAT12, FAT16, FAT32
  Even when audio files comply with the standards listed above, playback may be impossible depending on the types or conditions of media or devices.
  The AAC (.m4a) file in a CD encoded by iTunes cannot be played on this unit.

Unplayable discs

- Discs that are not round.
- Discs with coloring on the recording surface or discs that are dirty.
- Recordable/ReWritable discs that have not been finalized.
- 8 cm CD. Attempting to insert using an adapter may cause malfunction.

About USB devices

- You cannot connect a USB device via a USB hub.
- Connecting a cable whose total length is longer than 5 m may result in abnormal playback.
- This unit cannot recognize a USB device whose rating is other than 5 V and exceeds 1.5 A.

About iPod/iPhone

- Made for
  – iPod touch (6th generation)
  – iPhone 5S, 6, 6 Plus, 6S, 6S Plus, SE, 7, 7 Plus, 8, 8 Plus, X, XS, XS MAX, XR (iOS 12.1 or later)
- It is not possible to browse video files on the "Videos" menu in **[MODE OFF]**.
- The song order displayed on the selection menu of this unit may differ from that of the iPod/iPhone.
- You cannot operate iPod if "✔" is displayed on iPod.
- Depending on the version of the operating system of the iPod/iPhone, some functions may not operate on this unit.

About Spotify

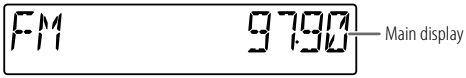
- Spotify application supports:
  – iPhone 5S, 6, 6 Plus, 6S, 6S Plus, SE, 7, 7 Plus, 8, 8 Plus, X, XS, XS MAX, XR (iOS 12.1 or later)
  – iPod touch (6th generation)
  – Android OS 4.0.3 or above
- Spotify is a third party service, therefore the specifications are subject to change without prior notice. Accordingly, compatibility may be impaired or some or all of the services may become unavailable.
- Some functions of Spotify cannot be operated from this unit.
- For issues using the application, please contact Spotify at <www.spotify.com>.

References

Change the display information

Each time you press DISP, the display information changes.

- If the information is unavailable or not recorded, "NO TEXT", "NO INFO", or other information (eg. station name) appears or display will be blank.



Source name	Display information: Main display
STANDBY	Source name/Clock ➡ Clock ➡ back to the beginning
RADIO	Source name/Clock ➡ Frequency ➡ Clock ➡ back to the beginning
	For FM Radio Broadcast Data System only: Source name/Clock ➡ Station name/Program type ➡ Radio text ➡ Radio text+ ➡ Radio text+ song title/Radio text+ artist ➡ Frequency ➡ Clock ➡ back to the beginning
CD or USB	For CD-DA: Source name/Clock ➡ Disc title/Artist ➡ Track title/Artist ➡ Playing time ➡ Clock ➡ back to the beginning
	For MP3/WMA/AAC/WAV/FLAC files: Source name/Clock ➡ Song title/Artist ➡ Album title/Artist ➡ Folder name ➡ File name ➡ Playing time ➡ Clock ➡ back to the beginning
iPod USB/iPod BT	When **[MODE OFF]** is selected (page 8): Source name/Clock ➡ Song title/Artist ➡ Album title/Artist ➡ Playing time ➡ Clock ➡ back to the beginning
SPOTIFY/ SPOTIFY BT	Source name/Clock ➡ Context title ➡ Song title ➡ Artist ➡ Album title ➡ Playing time ➡ Clock ➡ back to the beginning
BT AUDIO	Source name/Clock ➡ Song title/Artist ➡ Album title/Artist ➡ Playing time ➡ Clock ➡ back to the beginning
AUX	Source name/Clock ➡ Clock ➡ back to the beginning

Troubleshooting

	Symptom	Remedy
General	Sound cannot be heard.	• Adjust the volume to the optimum level. • Check the cords and connections.
	"MISWIRING CHECK WIRING THEN PWR ON" appears.	Turn the power off, then check to be sure the terminals of the speaker wires are insulated properly. Turn the power on again.
	"PROTECTING SEND SERVICE" appears.	Send the unit to the nearest service center.
	Source cannot be selected.	Check the **[SOURCE SELECT]** setting. (Page 6)
	• Sound cannot be heard. • The unit does not turn on. • Information shown on the display is incorrect.	Clean the connectors.
	The unit does not work at all.	Reset the unit. (Page 4)
	Correct characters are not displayed.	• This unit can only display uppercase letters, numbers, and a limited number of symbols. • Depending on the display language you have selected (page 6), some characters may not be displayed correctly.
Radio	• Radio reception is poor. • Static noise while listening to the radio.	Connect the antenna firmly.
CD/USB/iPod	Disc cannot be ejected.	Press and hold ⏏ to forcibly eject the disc. Be careful not to drop the disc when it is ejected. If this does not solve the problem, reset the unit (page 4).
	Noise is generated.	Skip to another track or change the disc.
	"PLEASE EJECT" appears.	Reset the unit (page 4). If this does not solve the problem, consult your nearest service center.

	Symptom	Remedy
CD/USB/iPod	Playback order is not as intended.	The playback order is determined by the order in which files were recorded (disc) or the file name (USB).
	Elapsed playing time is not correct.	This depends on the recording process earlier (disc/USB).
	"READING" keeps flashing.	• Do not use too many hierarchical levels and folders. • Reload the disc or reattach the device (USB/iPod/iPhone).
	"UNSUPPORTED DEVICE" appears.	• Check whether the connected USB device is compatible with this unit and ensure the file systems are in supported formats. (Page 23) • Reattach the USB device.
	"UNRESPONSIVE DEVICE" appears.	Make sure the USB device is not malfunction and reattach the USB device.
	"USB HUB IS NOT SUPPORTED" appears.	This unit cannot support a USB device connected via a USB hub.
	• The source does not change to "USB" when you connect a USB device while listening to another source. • "USB ERROR" appears.	The USB port is drawing more power than the design limit. Turn the power off and unplug the USB device. Then, turn on the power and reattach the USB device. If this does not solve the problem, turn the power off and on (or reset the unit) before replacing with another USB device.
	The iPod/iPhone does not turn on or does not work.	• Check the connection between this unit and iPod/iPhone. • Disconnect and reset the iPod/iPhone using hard reset.
	"LOADING" appears when you enter search mode by pressing 🔍/⮌.	This unit is still preparing the iPod/iPhone music list. It may take some time to load, try again later.
	"NO DISC"	Insert a playable disc into the loading slot.
	"TOC ERROR"	Make sure the disc is clean and inserted properly.

Troubleshooting

	Symptom	Remedy
CD/USB/iPod	"NA FILE"	Make sure the media (disc/USB) contain supported audio files. (Page 23)
	"COPY PRO"	A copy-protected file is played (disc/USB).
	"NO DEVICE"	Connect a device (USB/iPod/iPhone), and change the source to USB or iPod USB again.
	"NO MUSIC"	Connect a device (USB/iPod/iPhone) that contains playable audio files.
	"iPod ERROR"	• Reconnect the iPod. • Reset the iPod.
	"MEMORY FULL"	You have reached the maximum storage limit of your iPod/iPhone.
Spotify	"DISCONNECTED"	USB is disconnected from the head unit. Please make sure the device is connected properly through USB.
	"CONNECTING"	• Connected via USB input terminal: The device is connecting to the head unit. Please wait. • Connected via Bluetooth: The Bluetooth is disconnected. Please check Bluetooth connection and make sure both the device and unit are paired and connected.
	"CHECK APP"	The Spotify application is not connected properly or user is not login. End the Spotify application and restart. Then, log in to your Spotify account.

	Symptom	Remedy
Bluetooth®	No Bluetooth device is detected.	• Search from the Bluetooth device again. • Reset the unit. (Page 4)
	Bluetooth pairing cannot be made.	• Make sure you have entered the same PIN code to both the unit and Bluetooth device. • Delete pairing information from both the unit and the Bluetooth device, then perform pairing again. (Page 12)
	Echo or noise is heard during a phone conversation.	• Adjust the microphone unit's position. (Page 12) • Check the **[ECHO CANCEL]** setting. (Page 14)
	Phone sound quality is poor.	• Reduce the distance between the unit and the Bluetooth device. • Move the car to a place where you can get a better signal reception.
	Voice calling method is not successful.	• Use voice calling method in a more quiet environment. • Reduce the distance from the microphone when you speak the name. • Make sure the same voice as the registered voice tag is used.
	Sound is being interrupted or skipped during playback of a Bluetooth audio player.	• Reduce the distance between the unit and the Bluetooth audio player. • Turn off, then turn on the unit and try to connect again. • Other Bluetooth devices might be trying to connect to the unit.
	The connected Bluetooth audio player cannot be controlled.	• Check whether the connected Bluetooth audio player supports Audio/Video Remote Control Profile (AVRCP). (Refer to the instructions of your audio player.) • Disconnect and connect the Bluetooth player again.

Troubleshooting

	Symptom	Remedy
Bluetooth®	"NOT SUPPORT"	The connected phone does not support Voice Recognition feature or phonebook transfer.
	"NO ENTRY"	There is no registered device connected/found via Bluetooth.
	"ERROR"	Try the operation again. If "ERROR" appears again, check if the device supports the function you have tried.
	"NO INFO"/"NO DATA"	Bluetooth device cannot get the contact information.
	"HF ERROR XX"/ "BT ERROR"	Reset the unit and try the operation again. If this does not solve the problem, consult your nearest service center.
	"SWITCHING NG"	The connected phones might not support phone switching feature.
	The Bluetooth connection between the Bluetooth device and the unit is unstable.	Delete the unused registered Bluetooth device from the unit. (Page 17)

Specifications

Tuner	FM	Frequency Range	87.9 MHz — 107.9 MHz (200 kHz step)
		Usable Sensitivity (S/N = 30 dB)	8.2 dBf (0.71 µV/75 Ω)
		Quieting Sensitivity (DIN S/N = 46 dB)	17.2 dBf (2.0 µV/75 Ω)
		Frequency Response (±3 dB)	30 Hz — 15 kHz
		Signal-to-Noise Ratio (MONO)	64 dB
		Stereo Separation (1 kHz)	40 dB
	AM	Frequency Range	530 kHz — 1 700 kHz (10 kHz step)
		Usable Sensitivity (S/N = 20 dB)	29 dBµ (28.2 µV)

CD player	Laser Diode	GaAlAs
	Digital Filter (D/A)	8 times over sampling
	Spindle Speed	500 rpm — 200 rpm (CLV)
	Wow & Flutter	Below measurable limit
	Frequency Response (±1 dB)	20 Hz — 20 kHz
	Total Harmonic Distortion (1 kHz)	0.02 %
	Signal-to-Noise Ratio (1 kHz)	99 dB
	Dynamic Range	92 dB
	Channel Separation	90 dB
	MP3 Decode	Compliant with MPEG-1/2 Audio Layer-3
	WMA Decode	Compliant with Windows Media Audio
	AAC Decode	AAC-LC ".aac" files

Specifications

USB	USB Standard	USB 1.1, USB 2.0 (High speed)
	File System	FAT12/16/32
	Maximum Supply Current	DC 5 V ⎓ 1.5 A
	MP3 Decode	Compliant with MPEG-1/2 Audio Layer-3
	WMA Decode	Compliant with Windows Media Audio
	AAC Decode	AAC-LC ".aac", ".m4a" files
	WAV Decode	Linear-PCM
	FLAC Decode	FLAC file (Up to 96 kHz/24 bit)
Auxiliary	Frequency Response (±3 dB)	20 Hz — 20 kHz
	Input Maximum Voltage	1 000 mV
	Input Impedance	30 kΩ
Bluetooth	Version	Bluetooth 4.2
	Frequency Range	2.402 GHz — 2.480 GHz
	RF Output Power (E.I.R.P.)	+4 dBm (MAX), Power Class 2
	Maximum Communication Range	Line of sight approx. 10 m (32.8 ft)
	Profile	HFP 1.7.1 (Hands-Free Profile) A2DP (Advanced Audio Distribution Profile) AVRCP 1.6.1 (Audio/Video Remote Control Profile) PBAP (Phonebook Access Profile) SPP (Serial Port Profile)

Audio	Maximum Output Power	50 W × 4
	Full Bandwidth Power (at less than 1 % THD)	22 W × 4
	Speaker Impedance	4 Ω — 8 Ω
	Tone Action	Band 1: 62.5 Hz ±9 dB Band 2: 100 Hz ±9 dB Band 3: 160 Hz ±9 dB Band 4: 250 Hz ±9 dB Band 5: 400 Hz ±9 dB Band 6: 630 Hz ±9 dB Band 7: 1 kHz ±9 dB Band 8: 1.6 kHz ±9 dB Band 9: 2.5 kHz ±9 dB Band 10: 4 kHz ±9 dB Band 11: 6.3 kHz ±9 dB Band 12: 10 kHz ±9 dB Band 13: 16 kHz ±9 dB
	Preout Level/Load	2 500 mV/10 kΩ
	Preout Impedance	≤ 600 Ω
General	Operating Voltage	12 V DC battery
	Installation Size (W × H × D)	182 mm × 53 mm × 155.5 mm (7-3/16" × 2-1/16" × 6-1/8")
	Net Weight (includes Trimplate, Mounting Sleeve)	1.2 kg (2.7 lbs)

Subject to change without notice.

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Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

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

Declaration of Conformity

Pana-Pacific, Inc.
838 N. Laverne Avenue
Fresno, CA 93727
(800) 726-2636

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

ISED CAUTION
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

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L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

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Contains Bluetooth Module FCC ID: ZWY88112
IC ID: 12033A-88112

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

CAUTION
This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20 cm or more away from person's body.

ATTENTION
Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition et d'exposition aux fréquences radioélectriques (RF) CNR-102 de ISED. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

Para cumplimiento de la IFT:
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nanopb
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sha2
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