



Owner's Manual Silver Box / Display

Please read these instructions carefully before using this product and keep this manual for future reference.

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Notes on Use

Wireless

- When a smartphone is connected via Wireless and close to an electronic toll collection (ETC) checkpoint, the Display Audio and the smartphone may be temporarily disconnected due to interference.

About FM Radio Reception

- When listening to FM broadcasts in a moving vehicle, the reception conditions constantly change due to buildings, terrain, distance from the transmitter and noise from other vehicles. The phenomena of FM reception shown in Notes are normal and do not indicate a problem with the radio itself.

Notes

- **Fading and drifting:** The range of FM is about 25 miles (40 km), except for some high-power stations. If the vehicle moves away from the transmitter, the signal tends to fade out and/or drift. This is common to FM broadcasting and might be accompanied by distortion. Fading and drifting can be minimized by tuning to a stronger signal.
- **Static and flutter:** When the line-of-sight link between the transmitter and vehicle is blocked by large buildings or the like, the broadcast sound may be accompanied by static or flutter. You may also experience fluttering while driving along a tree-lined road. The effects of static and fluttering on the sound can be reduced by decreasing treble.
- **Multipath:** Due to the reflection characteristics of FM signals, direct and reflected signals may reach the antenna simultaneously (this is called multipath) and cancel each other. As the vehicle moves through such a spot, a momentary flutter or loss of reception may occur.
- **Station swapping:** When two FM stations are located close to each other in the frequency spectrum and the current signal is interrupted by an electronic dead spot caused by static or multipath, the stronger signal may automatically be selected until the original signal returns. Station swapping can also occur as the vehicle moves away from a station and towards another with a stronger signal.

Before Using a Portable Audio Device

- Do not place the connected portable audio device or connection cable in a location where it will prevent the SRS airbag from deploying. The SRS airbag may not operate correctly or the portable audio device may be thrown outward by the deploying airbag, which may result in serious injury or death.
- * Refer to the owner's manual for your vehicle regarding the position from which the SRS airbag deploys.
- Place or temporarily secure the portable audio device and connection cable where they will not interfere with the driver when driving. Otherwise, they may interfere with driving or cause a traffic accident.

Maintenance

Cleaning this unit:

This product is designed and manufactured to ensure a minimum of maintenance. Use a dry soft cloth for routine exterior cleaning. Never use benzine, thinner or other solvents. To clean the screen, use a dry microfiber type cloth to clean. Do not use ammonia, window cleaner, or any other type of household chemicals to clean the screen. Do not use any solvent (for example, thinner, benzine, etc.), detergent, or insecticide. This may damage the monitor or the unit.

Safety Information

- Read the operating instructions for the unit and all other components of your truck audio system carefully before using the system. They contain instructions about how to use the system in a safe and effective manner. We assume no responsibility for any problems resulting from failure to observe the instructions given in this manual.



Warning

This pictograph intends to alert you to the presence of important operating instructions and installation instructions. Failure to heed the instructions may result in severe injury or death.

Warning

Observe the following warnings when using this unit.

- The driver should not operate this system while driving.**
Operating the system will distract the driver from looking ahead of the vehicle and can cause accidents. Always stop the vehicle in a safe location and use the parking brake before operating the system.
- DO NOT raise the volume level too much, as this will make driving dangerous by blocking outside sounds, and may cause hearing loss.**
- Do not disassemble or modify the unit.**
Do not disassemble, modify the unit or attempt to repair the product yourself. If the product needs to be repaired, consult your dealer or an authorized service center.
- Do not use the unit when it is out of order.**
If the unit is out of order (no power, no sound) or in an abnormal state (has foreign objects in it, is exposed to water, is smoking, or smells), turn it off immediately and consult your dealer or an authorized service center.
- Any NOAA broadcast weather report, including current and forecasts, may not reflect your actual weather conditions at your exact time and location. You should always pay attention to your actual weather conditions to make safe decisions accordingly.

- This manual uses pictographs to show you how to use the product safely and to alert you to potential dangers resulting from improper connections and operations. The meanings of the pictographs are explained below. It is important that you fully understand the meanings of the pictographs in order to use this manual and the system properly.



Caution

This pictograph intends to alert you to the presence of important operating instructions and installation instructions. Failure to heed the instructions may result in injury or material damage.

Caution

Observe the following cautions when using this unit.

- Keep the sound volume at an appropriate level.**
Keep the volume level low enough to be aware of road and traffic conditions while driving.
- To care for this unit**
If you have parked the vehicle for a long time in hot or cold weather, wait until the temperature in the vehicle becomes normal before operating this unit.
- Do not operate the unit for a prolonged period with the engine turned off.**
Operating the audio system for a long period of time with the engine turned off will drain the battery.
- Do not expose the unit to direct sunlight or excessive heat.**
To avoid raising the internal temperature of the unit which could lead to smoke, fire, or damage of the unit.
- Do not use the product where it will be exposed to water, moisture, or dust.**
Exposure of the unit to water, moisture, or dust may lead to smoke, fire, or other damage to the unit. Make sure that the unit does not get wet in truck washes or on rainy days.
- To ensure safety, never attempt to preset stations while you are driving.**
- Depending upon the transmission condition of electro-magnetic waves, the geographical reasons and/or the weather conditions, you may not receive the NOAA radio partially or at all.**
- Make sure that your weather radio can properly receive broadcasts before driving, especially, before use in a critical condition.**
- Set the volume level low enough before the AUX-IN connection is completed.**
Failure to observe this, the loud noise may come out and damage your speakers and your hearing. Direct connection of the speaker/headphone output of an external device without any attenuator may distort sound or damage the connected external device.

Safety Information

FCC Compliance

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.

This equipment has been tested and found to comply with the limits for 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:

- (1) Reorient or relocate the receiving antenna.
- (2) Increase the separation between the equipment and receiver.
- (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- (4) Consult the Panasonic Service Center or an experienced radio/TV technician for help.

Environmental Considerations

To dispose of your product, please recycle in accordance with local environmental regulations. For further recycling please visit <https://shop.panasonic.com/recycle>

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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and a human body.

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.

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.

L'émetteur 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:

- (1) L'appareil ne doit pas produire de brouillage;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and a human body.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et un corps humain.

La operación de este equipo está sujeta a las siguientes dos condiciones:

- (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y
- (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Controls Layout

Touch Panel Screen



Button operation

① PWR (Power) / VOL (Volume) rotary knob

Short push to turn the unit power on/off.

Push and hold more than 10 seconds to reset the unit.

Rotate the volume knob to increase or decrease the volume level.

Continuous rotation the volume knob to increase or decrease the volume level continuously.

② HOME []

Press to display HOME screen.

③ VOICE ACTIVATION []

Short press to activate Siri (This function is available only when Apple CarPlay® is activated).

Long press to enter to the device list screen (Page 20).

*This function is not available when Apple CarPlay® is activated.

Note: When using the voice function to speak, please make sure that there is no interfering sound in the surrounding environment (for example: passenger talking/loud noise/music)

Make sure voice commands can be correctly received and recognized.

④ DAY/NIGHT MODE DISPLAY []

Press to toggle day (light) or night (dark) display.

HOME Screen Operation

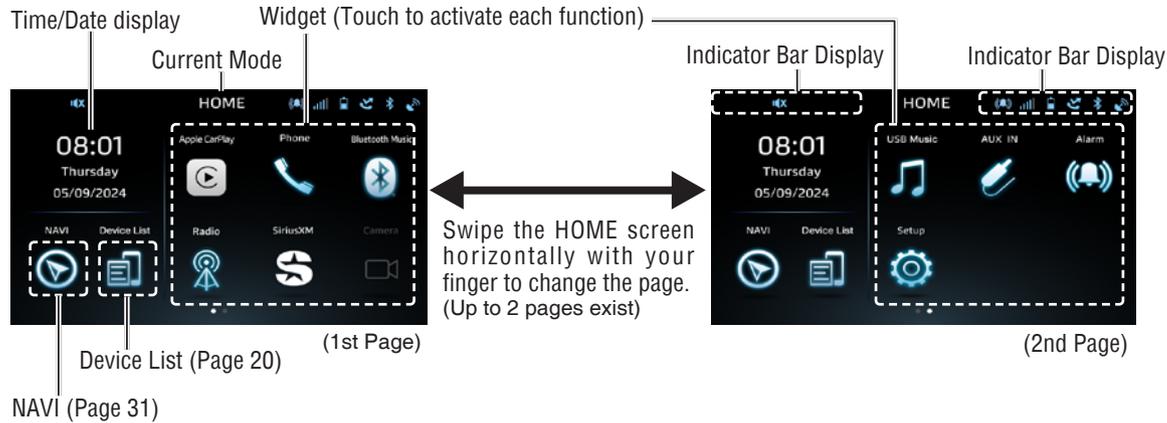
About the HOME Screen

In the HOME screen, select a widget to perform various settings and operations of the function.

Touch [](HOME) button.

The HOME screen is displayed.

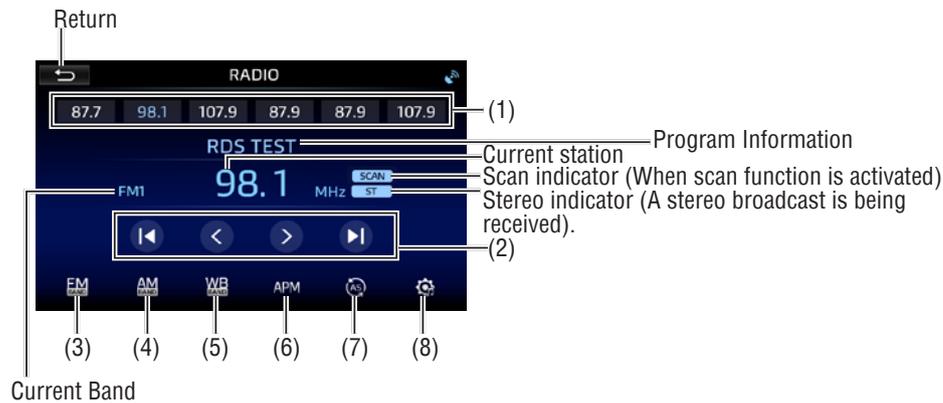
HOME Screen (example)



Indicator Bar Display

Icon	Meaning
	Displays the cellular phone signal strength when connected to Bluetooth® with this unit.
	Displays when there are missed calls.
	Displays the battery capacity of the connected Bluetooth® phone.
	Lights up when connected to a Bluetooth® compatible device.
	Mute.
	Lights up when Bluetooth® audio mode is connected/used.
	Lights up when Apple CarPlay® is connected/activated.
	Lights up when radio mode is used.
	Lights up when AUX-IN mode is used.
	Lights up when phone mode is used.
	Lights up when voice recognition mode is activated.
	Lights up when USB music mode is used.
	Lights up when Alarm is set to ON.
	Return.
	Lights up when system temperature is too high.

Radio Operation



(1) Preset Buttons

Press and hold any preset button [1] to [6] to save the current station as a preset. Press the desired preset button to begin playback of the corresponding preset channel.

(2) Station Tuning

◀ : Press to automatically tune to a lower frequency.

▶ : Press to automatically tune to a higher frequency.

< > : Select previous/next station.

(3) FM BAND

Press to toggle between FM1, FM2 and FM3.

(4) AM BAND

Press to toggle between AM1 and AM2.

(5) WD BAND (Weather Band)

Press to toggle between weather band (7 channels).

*This function is USA only.

(6) Auto Preset

Press to automatically stores the six strongest broadcast frequencies in the order of their signal strength under the preset buttons [1] to [6].

Notes:

- Storing broadcast frequencies with SCAN may replace those you have already saved.
- Previously stored broadcast frequencies may remain stored if the number of frequencies stored has not reached the limit.

(7) SCAN

Press to scan through all tunable presets in the current band and play them for 10 seconds each.

(8) Equalizer

Press to switch to equalizer setting screen (Page 19).

SiriusXM® Satellite Radio Operation

SiriusXM® Radio

SiriusXM® Satellite Radio brings you more of what you love to listen to, all in one place. Get over 140 channels, including commercial-free music plus the best sports, news, talk, comedy and entertainment. A SiriusXM Vehicle Tuner and subscription are required. For more information, visit www.siriusxm.com.

To take full advantage of all the SiriusXM capabilities, such as TuneMix™, SportsFlash™ and Traffic & Weather Now, please use the SXV300 tuner or one of the newer SiriusXM tuners (sold separately). Other tuners are compatible but may limit the features.

Activating SiriusXM® Radio

After installing your SiriusXM Connect Vehicle Tuner and antenna, power on your radio and select SiriusXM mode. You should be able to hear the SiriusXM preview channel on Channel 1. After you can hear the Preview channel, tune to Channel 0 to find the Radio ID of your tuner. In addition, the Radio ID is located on the bottom of the SiriusXM Connect Vehicle Tuner and its packaging.

Note: SiriusXM Radio ID does not include the letters I, O, S or F.

In the USA, activate online or by calling SiriusXM Listener care:

- Visit www.siriusxm.com/activatenow
- Call SiriusXM Listener Care at 1-866-635-2349

For Canadian Subscriptions, please contact:

- Visit www.siriusxm.ca/activatexm
- Call SiriusXM customer Care at 1-888-539-7474

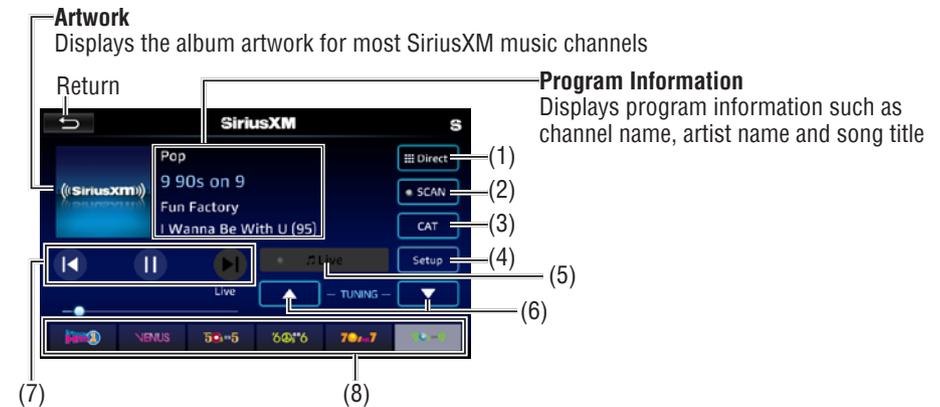
Activation typically takes 10-15 minutes, but may take up to one hour.

It is recommended to leave your vehicle on until the “Subscription Updated” message appears. Your radio will need to be powered on and receiving the SiriusXM signal to receive the activation message.

Once activated, you can tune to channels in your subscription plan.

Accessing SiriusXM® Radio

From the HOME screen, touch the SiriusXM icon to access SiriusXM mode and begin operation.



(1) Direct (Direct Tuning)

Press to display screen for direct channel access. Press the desired channel number, then press Go or Enter. Playback of desired channel will begin.

(2) SCAN

Press to scan stations within category list.

(3) CAT (Category)

Press to display Category search screen.

You can specify the desired category and select a channel.

(4) SiriusXM Settings

Switch to the SiriusXM setting screen.

(5) Go to Live

Press to resume play of live broadcast while in Replay mode.

(6) Channel Up / Channel Down

Press to advance to the next channel/go back to the previous channel.

SiriusXM[®] Satellite Radio Operation (continued)

(7) Replay Control

Play / Pause

Press to pause and replay content from the active channel.

Tune / Track Down

Press to enter Replay mode. Once in Replay mode, press to skip to the previous track or press and hold to fast reverse.

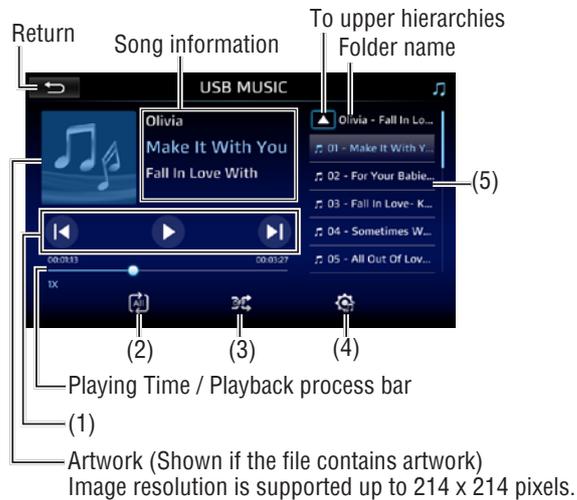
Tune / Track Up

Press to skip to the next track. Press and hold to fast forward. Press repeatedly to "catch up" and resume live play. Selecting Go to Live under Additional Options will also resume live play.

(8) Preset Buttons

Press and hold any preset button (1-6) to save the current station as a preset. Press the desired preset button to begin playback of the corresponding preset channel.

USB Music Operation



Notes on using a USB device:

- Insert the USB device in the place where it will not affect safe driving.
- You cannot connect a USB device via a USB hub and Multi Card Reader.
- Make backups of the audio files used with this unit. The files can be erased depending on the operating conditions of the USB device.
- There is no compensation for any damage arising from erased data.
- Firmly secure the USB storage device when driving. Do not let the USB storage device fall onto the ground, where it may become jammed under the brake or gas pedal.
- Do not leave the USB storage device in any location with high temperatures.
- Depending on the kind of the USB storage device you use, this product may not recognize the storage device or files may not be played back properly.
- The text information of some audio files may not be correctly displayed.
- File extensions must be used properly.
- There may be a slight delay when starting playback of files on an USB storage device with complex folder hierarchies.
- Operations may vary depending on the kind of an USB storage device.
- It may not be possible to play some music files from USB because of file characteristics, file format, recorded application, playback environment, storage conditions, and so on.
- Partitioned USB storage devices are not compatible with this product.
- For USB storage devices, the sequence might be displayed differently on screen than on the USB storage device.

(1) Operation Buttons

Press [◀] to return to the beginning of the current (or previous) file.

Press and hold [◀] to fast reverse.

During playback, press and hold [◀] to fast reversing at 2x speed. Continue to hold to switch the speed to 4x, 8x and 16x.

Press [▶]/[⏸] to pause or resume playback.

Press [▶] to advance to the beginning of the next file.

Press and hold [▶] to fast forward.

During playback, press and hold [▶] to fast forwarding at 2x speed. Keep touching to switch the speed to 4x, 8x and 16x.

(2) Repeat play

Press to select repeat play mode as follows.

(repeat play for all files/the current folder/the current file)

(3) Random play

Press to select random play mode (random play for all files) ON or OFF.

(4) Equalizer

Press to switch to equalizer setting screen (Page 19).

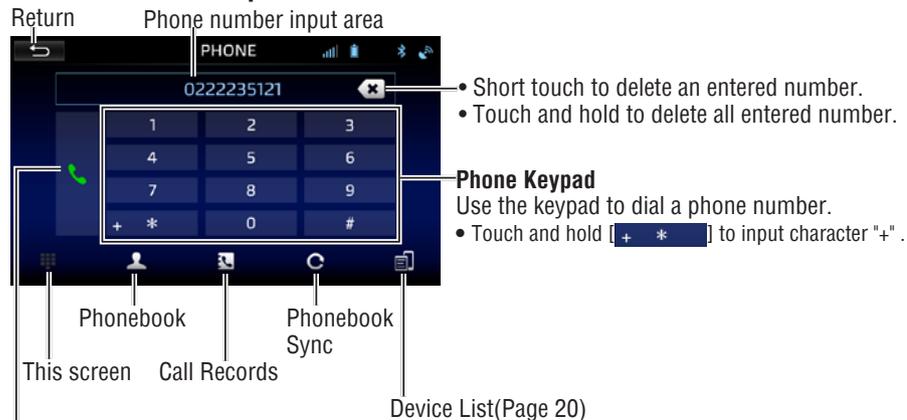
(5) Files List

Select the desired file from the files list for direct playback.

Phone Operation

Before using the Bluetooth® Hands-free phone, register (pair) and connect the device to this head unit.

Phone screen example



Call
Dial a number.

Notes:

- When performing relevant operations, please be sure to park the vehicle in a safe place before proceeding.
- Connection to all cellular phones featuring Bluetooth® wireless technology is not guaranteed.
- Close the vehicle's windows while calling to reduce background noise.
- If both calling parties are using hands-free devices, or the call is made in a noisy location, difficulty hearing the other person's voice is normal.
- When using a microphone, speak as directly as you can into the microphone to obtain the best sound quality.
- Depending on the cellular phone, phonebook transfer may not be available.

Phonebook (screen example)



Call records (screen example)



Phonebook refresh (screen example)



[SYNC]
Synchronizing
Phone Book

Calling from the Phonebook:

Touch one of the name or number of the contact which you want to call, and then the phone call is started.

Making a phone call from the Recent Call Records list:

1. Select a category from [ALL], [Missed], [Received] or [Dialed] on the screen.
2. Touch one of the name or number of the list which you want to call, and then the phone call is started.

Synchronizing the Phonebook

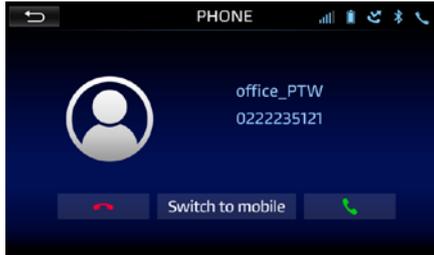
You can synchronize this system's phonebook with the mobile phone's phonebook.

1. Touch [SYNC] on the screen.
Synchronization of the phonebooks starts.
 - You can store up to 2,000 registered name in the phonebook.
 - You can store up to 5 phone numbers by one person's name.

Phone Operation (continued)

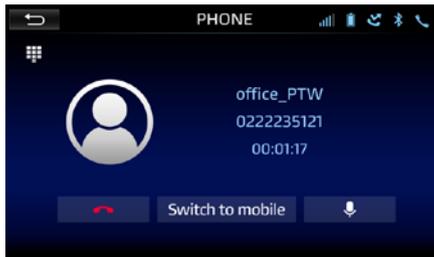
Answering a Call (screen example)

1. An incoming call triggers the ringtone and an incoming call display.



2. Touch [Answer].

The call starts.



- Touch [Decline] (Decline) to reject an incoming call.
- Changing the Voice Output:
The voice output for calls is switchable between vehicle speakers and the mobile phone speaker.
Touch [Switch to car] or [Switch to mobile].
Note: Depending on the mobile phone, this operation may not be possible.
- Mute your voice:
Touch [Mute] to mute or not to mute your voice.
- Keypad:
Touch [Keypad] to return to the Keypad screen.

Bluetooth® Music Operation

Before using the Bluetooth® audio player, register (pair) and connect the device to this head unit.



Notes:

- Operations and display indications may differ according to their availability on the connected Bluetooth® device.
- Depending on the Bluetooth® audio player connected to this product, the available operations with this product may be limited to the following two levels:
 - A2DP (Advanced Audio Distribution Profile): Only playing back songs on your audio player is possible.
 - A2DP and AVRCP (Audio/Video Remote Control Profile): Playing back, pausing, selecting songs, etc., are possible.
- Depending on the Bluetooth® device connected to this product, the available operations with this product may be limited or differ from the descriptions in this manual.
- While you are listening to songs on your Bluetooth® device, refrain from operating the phone function as much as possible. If you try operating, the signal may cause noise for song playback.
- When you are talking on the Bluetooth device connected to this product via Bluetooth®, it may pause playback.
- Depending on the connected device, some features may not work with your device.

(1) Operation Buttons

Press [] to return to the beginning of the current (or previous) file.

Press []/[] to pause or resume playback.

(2) Device List

Press to switch to Bluetooth® device list screen (Page 20).

(3) Equalizer

Press to switch to equalizer setting screen (Page 19).

(4) Files List (if connected Bluetooth® device is supported)

Select the desired file from the files list for direct playback.

Note: Depending on the connected device, some features above may not work with your device.

AUX-IN Operation

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

Start listening

Connect a portable audio player (commercially available) with Rear cable.



Screen example

Apple CarPlay® Operation

Apple CarPlay® Operation

Apple CarPlay is a smart interface for iPhone, allowing you to voice-control (via Siri) music, navigation, phone and messaging apps - significantly reducing driver distraction.

Phone - Use Siri to make calls, return missed calls, listen to voicemail messages, and view the caller ID on the receiver's screen.

Messages - Ask Siri to send, read, and reply to text messages. This hands free operation minimizes distraction and allows you to keep hands on the wheel and eyes on the road.

Music - Access music by artist, song, playlist, and more through the receiver's touchscreen or via Siri. The receiver will mirror the iPhone screen with artist and track information.

Maps - Use Siri to request turn-by-turn directions – search by address or points of interest. Apple Maps will be mirrored on the screen, including traffic information and estimated time to destination.

Starting Apple CarPlay

You can connect an Apple CarPlay compatible device to this head unit via USB (wired) or wireless.

Wired connection

Connect an Apple CarPlay compatible device to this head unit via USB. The application screen appears.

Notes:

- When using wired connection, plug in your iPhone using USB Cable (Supplied with iPhone) to this head unit.
- Some functions may not be available while driving.
- Compatible Apple models please refer to page 28.

Wireless CarPlay Connection

Connect an Apple CarPlay compatible device to this head unit via Bluetooth® connection. see page 21 for instructions, after wireless connection is successful, the application screen appears.

Notes:

- Turn on the Bluetooth® function and Wi-Fi function of an iPhone when using wireless connection.
- Hands-free phoning via Bluetooth wireless technology is not available while Apple CarPlay is on. If Apple CarPlay is turned on during a call on a cellular phone other than an Apple CarPlay compatible device, the Bluetooth connection will be terminated after the call ends.
- For safety reasons, CarPlay features are limited while driving and will vary with each CarPlay-enabled app. Available functions are determined by each individual app provider. For more information, visit www.apple.com/ios/carplay.
- Certain iPhone functions may be illegal while driving in your location. Be sure to familiarize yourself with local and state laws regarding mobile devices. When in doubt, stop and park your vehicle before using any devices.

Operation keys on the home screen of Apple CarPlay



Application keys
Starts the application.

- Touch to display the home screen of Apple CarPlay.
- Touch and hold to activate Siri.

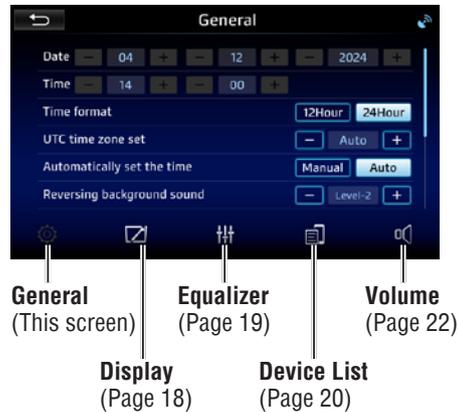
Note:

- The quality of the connection and function of 3rd-party applications (ex: WhatsApp, Messenger) is not guaranteed.

Setup

From the HOME screen, select Setup to access the Settings menu and select from 5 categories represented by the icons on the bottom of the screen: General, Display, Equalizer, Device List and Volume. Select the category, and adjust any of the available options using the touch screen.

General



General:

- Date- Adjust the date with Day, Month and Year.
- Time- Adjust the time with Hour and Minute.
- Time Format- Select between 12-Hour and 24-Hour Time Format.
- Automatically set the time - Select between Manual and Auto (Sync GPS Time) time setting.

Note: If "Auto" is selected for Automatically set the time, the date/time can not be available with manual adjustment.

- Reversing background sound - Select reversing background sound to desired level.
- Language - Select system language.
- Factory Default - To set all the settings to the initial default settings.
- System Version- To confirm system version.
- Open Source License- To review the software open source license.
- Camera Settings*- Turn the "Reverse Auto Camera View", "Right Turn Auto Camera View" and "Left Turn Auto Camera View" ON or OFF.

* Camera settings is option function.

This System activates the Right View in case the right turn signal is activated (if the Right Turn Auto Camera View setting is set to ON).

This System activates the Left view in case the left turn signal is activated (if the Left Turn Auto Camera View setting is set to ON).

This System activates the Reverse View in case the vehicle is put in reverse (if the Reverse Auto Camera View function is activated).



Setup (continued)

Display



Display:

- Display time when Power off- Turn ON or OFF with time display when head unit is in Power off mode.



- (When "Display time when Power off" is set to "ON")
- Beep- Turn the Beep sound ON or OFF when the button is touched or the screen is touched.
 - Day/Night- Press **Day/Night** to select Day or Night mode, then press + or - to adjust to desired level.
(Day: 0 minimum/10 maximum ; Night: 0 minimum/10 maximum).

Setup (continued)

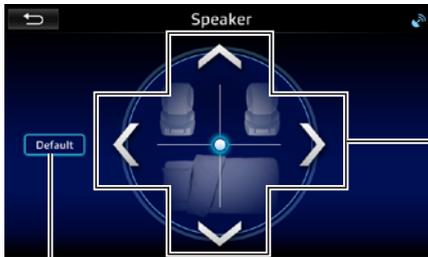
Equalizer

5 Presets EQ



12-Band Tone Control

Speaker



Reset to default settings.

Adjustments:

To properly set the speaker position alignment, you will need measure the distance from each speaker (in ft) to where you want the “center stage” to be. for example, if you want the position to be at the drivers seat, then meausr each speaker side (front & rear) to where your head is located and set the distance accordingly. Each vehicle will vary in distance, so settings will be different in each case.

Equalizer:

- Equalizer-Select between the following EQ presets: Custom1, Custom2, POP, ROCK, JAZZ, CLASSICAL, DANCE (Custom1 and Custom2 allows user to enter custom EQ settings).
- Custom1- Allows user to enter custom EQ settings.
- Custom2- Allows user to enter custom EQ settings.
- Default- To set the Custom1/ Custom2 settings to the initial default settings.
- Speaker- To adjust speaker’s position and distance accordingly.

Speaker:

Allows user to adjust Fader and Balance controls of speakers.

Adjustments:

To properly set the time alignment, you will need measure the distance from each speaker (in ft) to where you want the “center stage” to be. for example, if you want the position to be at the drivers seat, then meausr each speaker side (front & rear) to where your head is located and set the distance accordingly.

Each vehicle will vary in distance, so settings will be different in each case.

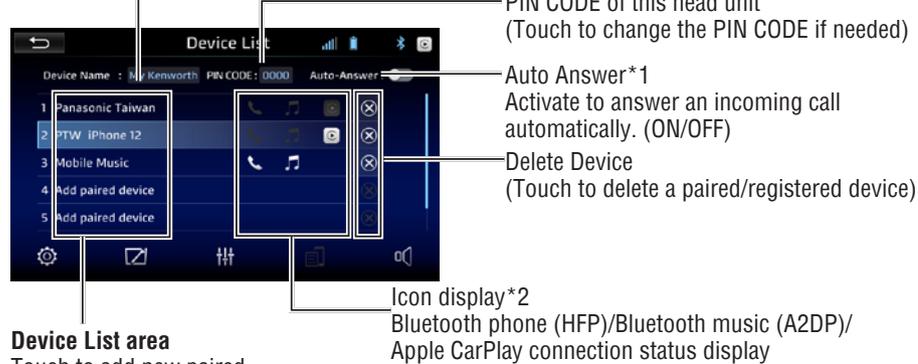
Setup (continued)

Device List

Before using Bluetooth®

Before you can use a Bluetooth device to make hands-free calls or stream audio, it must be paired with this head unit within this "Device List" settings.

(Example) Device name of this head unit*3



Device List area

Touch to add new paired device/temporarily disconnect or restore connection with paired device/switch to the connected device.

*2 Icon touch operation (connection status):
Icon lights up when the function is connected.
Icon lights off (gray color) when the function is paired but not connected.



Bluetooth phone/Bluetooth music connection status: Touch the icon to disconnect or restore the function connection.



CarPlay connection status: When CarPlay is connected (the icon lights up), the Bluetooth phone and Bluetooth music functions will be automatically disconnected. At this time, if you touch the CarPlay icon, you can switch to the CarPlay mode.

Notes:

- Up to 5 Bluetooth devices can be registered. If an attempt is made to register the 6th Bluetooth device, the Bluetooth device connected on the earliest date will be deleted to register the 6th one.
- The currently activated (connected) devices are highlighted on the list.
- Five devices can be displayed on the list; four devices connected by Bluetooth and one by USB.
- If your device supports SSP (Secure Simple Pairing), a six-digit number appears on the display of this product. Touch [Yes] to pair the device.
- Some Bluetooth devices may not be connected to this unit depending on the Bluetooth version of the device.
- This unit may not work for some Bluetooth devices.
- Connecting conditions may vary depending on your environment.
- Some Bluetooth devices are disconnected when this unit is turned off.

Bluetooth Device Connection (Pairing):

Please turn on the Bluetooth function of your smartphone.

1. Touch "Add paired device".
2. Select/Search this unit's device name [My xxxx] on your smartphone's device list screen. A message about the device to be registered is displayed.
3. Touch [Yes] or [OK] to pair with the device.

If you connecting to a smartphone, a message to download the phonebook may displayed.

If the smart phone supports wireless Apple CarPlay® connection:

"Do you want to use CarPlay on "CAR-WIFI-XXXXXX"?" "Do you want to enable Apple CarPlay?" A similar confirmation screen may appear.

After the use is allowed, this head unit will be able to use wireless CarPlay (Page 21).

4. Perform the pairing operation by operating the device.

After the device is successfully registered/paired, a Bluetooth® connection is established by this head unit and the device name is displayed on the list.

Notes:

- This head unit's PIN CODE can be set up to 4 digits (maximum).
- *1 Bluetooth call automatic answering setting is only applicable to Bluetooth hands-free phone mode, Apple CarPlay phone mode cannot be set to automatically answer.
- The wireless CarPlay of this unit is through Wi-Fi connection, so if the connected smart phone is originally using Wi-Fi to connect to the Internet, after wireless CarPlay is connected, it will cause the original Wi-Fi connection to disconnection, which may result in limited utilization of the Wi-Fi network and could disable some functions (such as navigation or network music, etc.), Before connecting, please confirm the network source and connection type of the smart phone to ensure a proper connection with wireless Apple CarPlay.
- *3 Continuous short touch 3 times in the device name field to enter the local Wi-Fi related setting page.

Setup (continued)

Wireless Apple CarPlay connection

(Example) Device name of this head unit



Delete Device
(Touch to delete a paired/registered device)

Icon display
Bluetooth phone (HFP)/Bluetooth music (A2DP)/Apple CarPlay connection status display

Device List area

Touch to add new paired device/ temporarily disconnect or restore connection with paired device/ switch to the connected device.

Wireless Apple CarPlay connection:

Please turn on the Bluetooth function and Wi-Fi function of your smartphone.

1. Touch "Add paired device".
A message about the device to be registered is displayed.
2. Select this unit's device name on your device list screen.
After confirming that the PIN CODE of both sides is matched, and then confirm/allow to enable wireless Apple CarPlay.
3. Touch [Yes] or [OK] to pair with the device.
After pairing is complete, you can start using wireless Apple CarPlay (Page 16).

Notes:

- During pairing process, if you choose not to enable/use wireless CarPlay, the smart phone will act as general bluetooth device to connect.
- When running Apple CarPlay, the Bluetooth function on the connected iPhone cannot be used.
- When an Apple CarPlay compatible iPhone is connected to the USB terminal, the currently connected Bluetooth phone will be disconnected.
- When using CarPlay, the Bluetooth of this head unit is automatically turned off. The hands-free phone function will work through the CarPlay function.

Setup (continued)

Volume



Setting the Volume for Apple CarPlay

When an iPhone is connected, touch [Apple CarPlay] to set the volume for Apple CarPlay mode.

Setting items:

- Multimedia volume- To adjust to desired level of multimedia playback volume.
- Phone volume- To adjust to desired level of phone volume.
- Voice volume- To adjust to desired level of voice assistant service volume.
- Navigation volume- To adjust to desired level of navigation volume.
- Ringtone volume- To adjust to desired level of phone ringtone volume.

Setting the Volume for Headunit

- Phone volume- To adjust to desired level of Bluetooth phone volume.
- Navigation volume- To adjust to desired level of navigation volume.

About MP3/AAC Music

■ Playable audio files on this unit

The following audio files are supported.

Playable audio files	
File	Format
AAC (.aac)	AAC: AAC LC/HE-AAC v1(played back as LC)
MP3(.mp3)	MPEG Audio: MPEG1 Layer3/MPEG2 Layer3/MPEG2.5 Layer3

Notes:

- AAC files with DRM cannot be played.
- Although some audio files comply with the standards listed above, they may not be played depending on the types or conditions of media or device.

■ Limitation on structure of file and folder (USB Device)

Maximum number of folder layers	8
Maximum number of files	2000
Maximum number of files (per folder)	1000
Maximum number of folders (including root folder)	255

Troubleshooting

Check the following points before calling a service center.

For operations with the external components, refer also to the instructions supplied with the adapters used for the connections (as well as the instructions supplied with the external components).

Condition	Checking Items
General	
No sound comes out of the speakers.	=> Adjust the volume to the optimum level. → Check the cords and connections (by professional personnel).
USB	
No USB device.	=> Connect with supported USB device (USB memory/USB storage device).
No playable music file.	=> Check whether the file is a playable format (check that the files in the USB storage device are compatible music files with this head unit).
While playing a file, sound is sometimes interrupted.	=> The files are not properly copied into the USB device. Copy the files again, and try again.
Files are not played back as you have intended them to play.	=> Playback order may differ from the one played back using other players.
Radio	
Radio Reception is not clear.	=> The antenna should be adjusted for best reception.
Cameras	
No picture appears on the screen.	=> Connect the camera correctly (by professional personnel).
No "Camera settings" on settings menu.	=> This is Option function, please contact local dealer.
The "Camera icon" does not light up on Home Screen.	=> "Camera settings" on settings menu.

Troubleshooting (continued)

Condition	Checking Items
Bluetooth® connection	
The Bluetooth® device does not detect this unit.	=> Turn off, then turn on the Bluetooth® device. => Turn off, then turn on this unit.
This unit does not pair with the Bluetooth® device.	=> If the device is connected via USB cable, disconnect it, and retry. => Turn off, then turn on the Bluetooth® device.
The device is disconnected automatically or the device cannot be connected.	=> When iPhone compatible with Apple CarPlay® is connected to the USB terminal, it cannot be connected via Bluetooth®. Use the phone and audio player function on the Apple CarPlay® screen.
Bluetooth® hands-free phone	
Phone is disconnected.	=> When iPhone for Apple CarPlay® device is connected, the currently connected Bluetooth® device is disconnected. Use Apple CarPlay® screen for phone.
Phone sound quality is poor. Echo or noise occurs.	=> Reduce the distance between the unit and the Bluetooth® mobile phone. => Move the vehicle to a place where you can get a better signal reception.
This unit does not respond when you try to copy the phone book to this unit.	=> You may have tried to copy the same entries (as stored) to this unit.
Bluetooth® audio	
Bluetooth® audio played is disconnected.	=> When iPhone for Apple CarPlay® device is connected, the currently connected Bluetooth® device is disconnected.
The sound is interrupted or skipped while using a Bluetooth® audio player.	=> Reduce the distance between the unit and the Bluetooth® audio player. Disconnect the device connected for Bluetooth® phone if any. => Turn off, then turn on this unit. (When the sound is not yet restored) connect the player again.
The connected audio player cannot be controlled.	=> Check whether the connected audio player supports AVRCP (Audio/Video Remote Control Profile).

Troubleshooting (continued)

When related SiriusXM® Radio Advisory Messages appears on screen, please check below recommendations to resolve problems.

Advisory Messages	Checking Items (Recommendation)
SiriusXM Radio	
Check Antenna	<ol style="list-style-type: none"> 1. The radio has detected a fault with the SiriusXM® antenna. The antenna cable may be either disconnected or damaged. 2. Verify that the antenna cable is connected to the SiriusXM® Connect Vehicle Tuner. 3. Inspect the antenna cable for damage and kinks. Replace the antenna if the cable is damaged. 4. SiriusXM® products are available at your local car audio retailer or online at www.shop.siriusxm.com.
Check Tuner	<ol style="list-style-type: none"> 1. The radio is having difficulty communicating with the SiriusXM® Connect Vehicle Tuner. The tuner may be disconnected or damaged. 2. Verify that the SiriusXM® Connect Vehicle Tuner cable is securely connected to the radio.
No Signal	<ol style="list-style-type: none"> 1. The SiriusXM® Connect Vehicle Tuner is having difficulty receiving the SiriusXM® satellite signal. 2. Verify that your vehicle is outdoors with a clear view of the sky. 3. Verify that the SiriusXM® magnetic mount antenna is mounted on a metal surface on the outside of the vehicle. 4. Move the SiriusXM® antenna away from any obstructions. 5. Inspect the antenna cable for damages and kinks. 6. Consult the SiriusXM® Connect Vehicle tuner installation manual for more information on antenna installation. Replace the antenna if the cable is damaged. <p>SiriusXM® products are available at your local car audio retailer or online at www.shop.siriusxm.com.</p>
Subscription Updated	<p>The radio has detected a change in your SiriusXM® subscription status. Press any key to continue to clear the message. In the USA, visit www.siriusxm.com or call 1-866-635-2349 if you have questions about your subscription. In Canada, visit www.siriusxm.ca or call 1-877-438-9677 if you have questions about your subscription.</p>
Channel Not Available	<ul style="list-style-type: none"> • The active channel is no longer in the SiriusXM® channel lineup or the user has entered an invalid channel number, visit www.siriusxm.com for information on the current channel lineup. • The unit will revert to the previous channel or to channel 1 automatically.
Channel Not Subscribed	<p>The channel that you have requested is not included in your SiriusXM® subscription package or is no longer included in your SiriusXM® subscription package. In the USA, visit www.siriusxm.com or call 1-866-635-2349 if you have questions about your subscription. In Canada, visit www.siriusxm.ca or call 1-888-539-7474 if you have questions about your subscription.</p>
No Content	<p>TuneScan is not available. Please allow the tuner some time to buffer new songs to scan.</p>
Invalid Lock code	<p>If “Invalid Lock code” message displayed on the screen, it will disappear automatically after three seconds. And then user can insert the password again.</p>

Troubleshooting (continued)

Condition	Checking Items
Apple CarPlay®	
Connection failed	<ul style="list-style-type: none"> • Unusual communication between this head unit and your iPhone. => When using wireless connection to Apple CarPlay®, if you encounter a situation where the connection cannot be made, please try to delete both Bluetooth® connection pairing record on this head unit and the iPhone, and then perform Bluetooth® pairing and connection again or restart the iPhone. => Please update the iOS version of iPhone. => Please replace/use the original connecting cable. => Please unplug the connector cable from the USB port and then reconnect it. <p>If the problem still cannot be solved, it is recommended to go to the Apple official website for related inquiries question consultation: https://getsupport.apple.com</p>
[Apple CarPlay] is not highlighted on the HOME screen.	<ul style="list-style-type: none"> => Check the version of the connected iPhone – whether it is compatible with Apple CarPlay®. => Check the iPhone is connected properly for Apple CarPlay®. You can check the connection referring to the <Device List> screen.
Sound is too loud or low while using Apple CarPlay.	<ul style="list-style-type: none"> => Adjust <Multimedia Volume>, <Phone volume>, <Voice volume>, <Navigation volume> or <Ringtone volume> for Apple CarPlay® (Page 22).

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Use of the Apple CarPlay logo means that a vehicle user interface meets Apple performance standards. Apple is not responsible for the operation of this vehicle or its compliance with safety and regulatory standards. Please note that the use of this product with iPhone, iPod, or iPad may affect wireless performance.

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Use of the Made for Apple badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

Please note that the use of this accessory with an Apple product may affect wireless performance.

Compatible Apple models

Made for.

- iPhone 14
- iPhone 14 Plus
- iPhone 14 Pro
- iPhone 14 Pro Max
- iPhone 13 Pro
- iPhone 13 Pro Max
- iPhone 13
- iPhone 13 mini
- iPhone 12 Pro
- iPhone 12 Pro Max
- iPhone 12
- iPhone 12 mini
- iPhone 11 Pro
- iPhone 11 Pro Max
- iPhone 11
- iPhone XS
- iPhone XS Max
- iPhone XR
- iPhone X
- iPhone SE (2nd generation)
- iPhone SE (3rd generation)

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[Contact Address]

Contact Information

Panasonic Taiwan Customer Service Center:

Phone: +886 800-098800

Email: voc.care@tw.panasonic.com

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[Responsible Sales Company]

Panasonic Automotive Systems Company of America.

Contact Number: 1-310-783-4124

Specifications

<General>

Power supply : 12 V DC (10.5 V to 16 V allowable)
Current consumption : Less than 5 A (USB mode, 0.5 W x 4 channels)
Suitable speaker impedance : 4 Ω
Dimension : 189.1 mm(W) x 58.7 mm(H) x 192.4 mm(D)
Weight : 1.0585 Kg

<Front USB>

USB standard compatibility : 2.0 high speed
File system : FAT 16/32
Maximum supply current : 2.1 A
Playable audio format : MP3/AAC
Recommended capacity/partition : Less than 32 GB/Only supported for 1 partition

<Rear aux input>

Input impedance : 10 k Ω
Maximum input level : 2.0 V
Input sensitivity : 200 mVrms

<FM tuner>

Frequency Range : USA : 87.7 MHz to 107.9 MHz (200 kHz/step)
Mexico : 87.5 MHz to 107.9 MHz (100 kHz/step)
Usable sensitivity : 12 dBf (1.1 μ V/ 75 Ω , S/N 30 dB)
Signal-to-noise ratio : 45 dB

<AM tuner>

Received frequency range : 530 kHz to 1710 kHz(10 kHz/step)
Usable sensitivity : 35 dB/ μ V (25 μ V, S/N 20 dB)
Signal-to-noise ratio : 40 dB

<Weather band radio> (USA only)

Frequency range : 162.400 MHz – 162.550 MHz
Usable sensitivity : 6 dB/ μ V (S/N 20 dB)
Signal/Noise Ratio (40 dB/ μ V) : 50 dB

<Bluetooth®>

Technology : Bluetooth® 4.2
Frequency : 2.402 GHz to 2.480 GHz
Output Power : +4 dBm (MAX), Power Class 2
Bluetooth DID : D066209

<Wi-Fi section>

IEEE Standard : Wi-Fi 5 (IEEE 802.11ac) 5 GHz VHT80 or VHT40
Frequency Band(s) : 5150 MHz to 5250 MHz
Security : WPA2-PSK, WPA3 Personal Only, WPA3 Personal Transition Mode
Utility range : Wireless CarPlay®

<Display section>

Screen diagonal : 7.0 inch
Dimension : Dimension:195.6 mm(W) x 135.6 mm(H) x 32.9 mm(D)
Weight : 0.635 Kg
Number of pixels : (800 (H) x 480 (V) x 3 (RGB))

Note: Specifications and the design are subject to modification without notice due to improvements in technology.

Above specifications comply with EIA standards.

Power Output:
16 W RMS x 4 Channels at 4 Ω and
 \leq 1% THD+N



Navigation Operation

NNG Truck Navigation

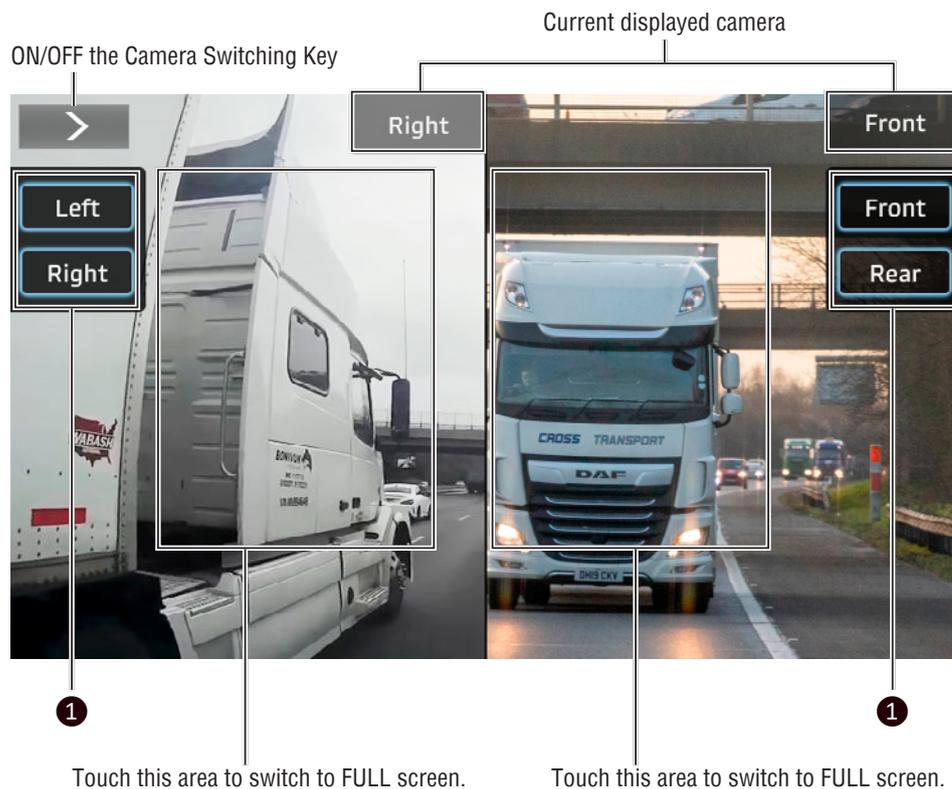
This head unit is equipped with NNG Truck navigation which provides truck-specific routing.

Please refer to the specific website for the complete NNG Truck manual:

<http://apphelp.copilotgps.com/copilottruck/en-gb/>

Camera Operation

(Example) Display the camera screen



1 Camera Switching Key*

Touch the upper left button to show or hide the camera angle switch.

Touch to switch each camera view. It is necessary to set "Camera Settings" beforehand. (Page 17)

* When rear, front, left, and right cameras are connected with this head unit.

* There is only one camera on the front, rear, left or right, or there is no switch on that side.

Camera View display:

Starting procedure

1. Touch [Camera] icon on the HOME screen.
2. The camera image is displayed on the screen. Touch each view angle (Front/Rear/Left/Right) for instant camera image viewing.

About Camera View:

The Camera view presents the view of the 4 cameras installed on the vehicle one at a time, each of the camera views option work as a soft key.

The system displays the camera view corresponding to the soft key selected.

The camera display the next activation soft keys relative to each of the available views as below:

- Reverse (Rear) View.
- Forward (Front) View.
- Right View.
- Left View.

Camera View Reference

The camera view indicates the current activated view.

All camera images are mirrored to provide correct images.

Camera setting

- Setup/General/Camera setting

Automatic Cameras View

The following camera views are activated automatically under certain scenarios:

- Reverse View.
- Right View.
- Left View.

This System activates the Reverse View in case the vehicle is put in reverse (if the Reverse Auto Camera View function is activated). (Page 17)

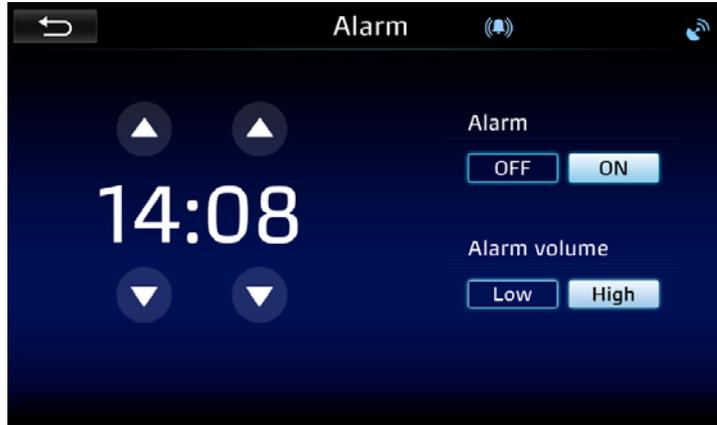
This System activates the Right View in case the right turn signal is activated (if the Right Turn Auto Camera View function is activated). (Page 17)

This System activates the Left view in case the left turn signal is activated (if the Left Turn Auto Camera View function is activated). (Page 17)

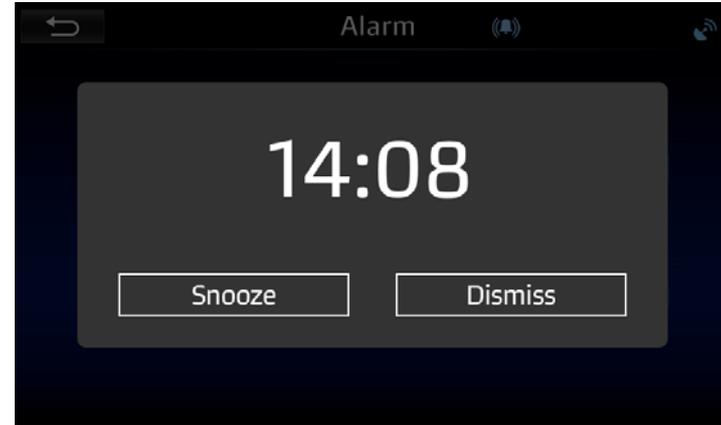
Alarm Operation

Alarm

Alarm clock can be activated or deactivated with Alarm "ON/OFF" setting. You can set alarm clock as you need.



Once the alarm clock is activated, a pop-up screen with the option Snooze or Dismiss appears.



Alarm Setting:

Alarm time: Set the desired alarm time.

Alarm: Set alarm clock ON/OFF.

Alarm Volume: Beep High/Beep Low.