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1. Feature

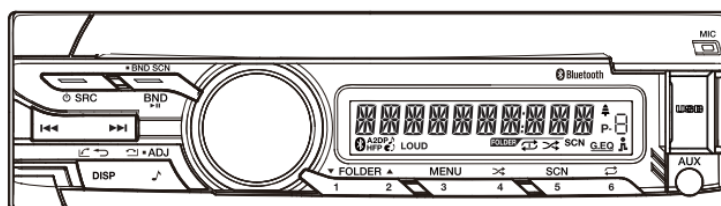


- Built in Bluetooth ® handsfree (HFP) and audio streaming (A2DP & AVRCP)

1.1. Expanding Systems

4 Chanel Amplifier (Expanding audio features)

USB Memory



Bluetooth Device



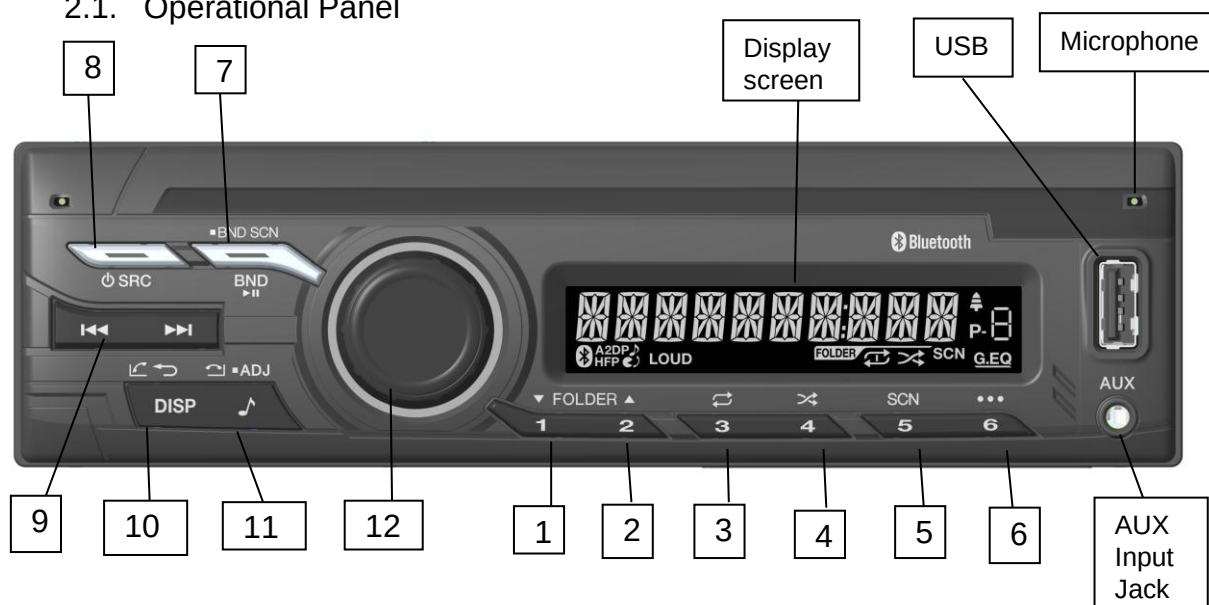
Portable Player (AUX IN Jack)

Note:

- The items listed only show connectivity options and are not included with the unit.

2. Controls

2.1. Operational Panel



2.2. Names of Buttons

No.	Name	Functions	
1~6	1~6	Short Press	Radio-Preset station 1~6
		Long Press	Radio-Store stations in memory
1~2	1~2	Short Press	MP3/WMA/AAC/USB-Folder up/ Folder down
3	3	Short Press	MP3/WMA/AAC/USB-Repeat play
4	4	Short Press	MP3/WMA/AAC/USB-Random play
5	5	Short Press	MP3/WMA/AAC/USB-Scan play
6	6	Short Press	Traffic information
7	BND ▶	Short Press	Radio-Change bands. MP3/WMA/ACC/USB/BT Audio-Play/pause
		Long Press	Radio-Band scan
8	SRC	Short Press	Switch source mode
		Long Press	Power off
9	◀◀ or ▶▶	Short Press	Items switching Radio-Tune up/down MP3/WMA/AAC/USB/BT Audio-Track up/down
		Long Press	Items switching Radio-Auto seek up/down MP3/WMA/AAC/USB/ BT Audio-Fast-forward/fast-reverse
10	DISP	Short Press	Back to the previous layer MP3/WMA/AAC/USB/ BT Audio-Switch display TEL interrupt -Answer a call
11	🎵	Short Press	Sound setup TEL interrupt -Reject a call

		Long Press	System setup
12	ROTARY	Rotate	Adjust volume Items switching
		Short Press	Mute on/off
		Long Press	Confirm selection

3. Operations

3.1. Basic Operations

3.1.1. Power On/Off

1. Press any button to turn on the power.
2. Long press **SRC** button to turn off the power.

Notes:

- Start the engine before using this unit.
- Be careful about using this unit for a long time without running the engine. If you drain the battery too far, you may not be able to start the engine and this can reduce the service life of the battery.

3.1.2. Selecting a Source Mode

Press **SRC** button to change the operation mode.

TUNER→USB*→BT AUDIO→BT-TEL*→AUX→TUNER

Note: When USB device is not connected or Bluetooth device is not paired, the related source mode will be skipped.

3.1.3. Adjusting the Volume

Turning **ROTARY** knob to adjust the volume, volume level is from 0 to 40.

3.1.4. Mute

Press **ROTARY** knob to turn mute on or off.

3.1.5. Title Scroll

Long press **DISP** button while in title display.

The title will scroll 1 time.

3.1.6. Back Function

You can press **DISP** button to return to the previous layer while in menu operations.

3.1.7. Clock Setup

1. Press **DISP** button to switch to the clock display.
2. Press and hold **DISP** button.
3. Turn **ROTARY** knob to select the item "SET CLOCK", and press **ROTARY** knob.
SET CLOCK ⇄ SET ALARM
4. Press **◀◀** or **▶▶** button to select hour or minute.
5. Turn **ROTARY** knob to set the correct time.

Note: The clock is displayed in 12-hour format (AM/PM)

6. Press **ROTARY** knob to complete setting.

Note: You cannot set the clock when it is displayed with only the ignition on. If you drain or remove the car's battery or take out this unit, the clock is reset. While setting the clock, if another button or operation is selected, the clock setup mode is canceled.

3.1.8. Alarm Setup

1. Press DISP button to switch to the clock display.
2. Press and hold **DISP** button.
3. Then press **◀◀** or **▶▶** button to select the item "SET ALARM", and press **ROTARY** knob.

SET CLOCK ↔ SET ALARM

4. Turn **ROTARY** knob to switch between "ON" and "OFF".
ON: Turn on the alarm.
OFF: Turn off the alarm.

If you want to set alarm, you should switch to "ON" and press **ROTARY** knob. Then do the next operations.

5. Press **◀◀** or **▶▶** button to select hour or minute.
6. Turn **ROTARY** knob to set the correct time.

Note: The clock is displayed in 12-hour format (AM/PM)

7. Press **ROTARY** knob to complete setting.

3.2. Sound Setup

You can adjust a sound effect or tone quality to your preference.

3.2.1. Sound Control

1. Press  button.
2. Then press  or  button to select the sound setup item:

G-EQ *1 ※ ⇐ BASS *2 ⇐ TREB *2 ⇐ BAL ⇐ FAD ⇐ LOUD

Notes:

- This item can be performed only when the system item “EQ-SELECT” is set to G-EQ”.
(Ref.3.3.1).
- These items can be performed only when the system item “EQ-SELECT” is set to “BASS/TREB” (page 3.3.1).

※ You should press  knob to adjust the setting for these items.

- G-EQ (Graphic Equalizer): select the desired audio effect in preset memory
 - BAL (Balance): balance of the right and left speakers
 - FAD (Fader): balance of the rear and front speakers
 - LOUD (Loudness): bass or treble emphasized
3. Turn  knob to adjust the value.
 - G-EQ: detailed operations are below
 - BASS / TREB: -15 ~ +15 (default: 0)
 - BAL: L7 ~ R7 (default: 0)
 - FAD: R7 ~ F7 (default: 0)
 - LOUD : ON/OFF (default: OFF)
 4. After completing settings, press  button to return to the previous mode.

Notes: During “BASS/TREB/BAL/FAD” setup, if no operation is performed for more than 10 seconds, this mode can be stored in memory and return to the previous mode.

3.2.2. Setting Graphic Equalizer

This unit is provided with 9 types of sound quality effects stored in memory. Select the one you prefer.

Note: The factory default setting is “OFF”.

1. Select “G-EQ” in audio items, and press  knob.
2. Turn  knob, select a tone effect.

OFF ⇐ CUSTOM ⇐ BASS BOOST ⇐ HIGH BOOST ⇐ VOCAL ⇐
IMPACT ⇐ NATURAL ⇐ USER 1 ⇐ USER 2 ⇐ USER 3

- OFF: flat
- CUSTOM: user custom temporarily
- BASS BOOST: bass emphasized
- HIGH BOOST: mid and treble emphasized
- VOCAL: mid emphasized
- IMPACT: bass and treble emphasized
- NATURAL: calm and moist
- USER 1/2/3: user custom

Setting preferred sound quality effects

1. Select "BASS BOOST/HIGH BOOST/VOCAL/IMPACT/NATURAL/USER 1/USER 2/USER 3", and press **ROTARY** knob.
2. Press **◀◀** or **▶▶** button to select a frequency.
3. Turn **ROTARY** knob to change the setting: -6 ~ +6
4. Long press **1~3** button to store the setting into "USER 1" ~ "USER 3" memory.

Note:

- If you do not perform storing as step 4 when you select "BASS BOOST/HIGH BOOST/VOCAL/IMPACT/NATURAL", the setting will be stored in "CUSTOM" temporarily.

3.3. System Setup

3.3.1. System Control

1. Long press  button
2. Then press  or  button to select the system setup items:

AUTO STORE * ⇐ AUX SENS * ⇐ BT SELECT ⇐ BT DELETE ⇐ BT DISCON ⇐ A-ANSWER ⇐ PIN CODE ⇐ DIMMER ⇐ BEEP ⇐ EQ-SELECT ⇐ RESET

- BT SELECT: select paired device to connect
- BT DELETE: delete paired device
- BT DISCON: disconnect device
- A-ANSWER: auto answer
- PIN Code: used for pairing
- DIMMER: dimmer control
- BEEP: button beep sound
- EQ-SELECT: select rear or subwoofer
- RESET: memory reset

Note: These items are setting for the different source mode. The detailed operations please follow the following source mode operations chapter.

3. Turn  knob to adjust the setting.
 - BT SELECT/BT DELETE/BT DISCON/A-ANSWER: detailed operations are below
 - DIMMER: ON/OFF (default: ON)
 - BEEP: TYPE-A/TYPE-B/OFF (default: TYPE-A)
 - EQ-SELECT: G-EQ, BASS/TREBLE (default: G-EQ)
 - RESET: detailed operations are below
4. After completing settings, press  button to return to the previous mode.

Note: You can press [DISP] button to return to the previous layer during operations.

3.3.2. Select Paired Device

This is a setting for user to select one of the paired mobile phones to connect.

1. Select “BT SELECT” in system setup items.
2. Turn the  knob to choose one of the paired devices.
3. Press the ROTARY knob to connect.

3.3.3. Delete Paired Device

This is a setting for user to delete one of the paired device from the list.

1. Select “BT DELETE” in system setup items.
2. The paired device appears in the display, then turn  knob to choose one of the paired devices.
3. Press  knob.
4. Turn  knob to select “CANCEL” or “ARE U SURE”, and press

ROTARY knob.

ARE U SURE: confirm to delete the paired device.

CANCEL: cancel deleting the paired device.

Notes:

- Deleted the paired device will not automatically rearrange in the paired device list.

3.3.4. Disconnect Device

This option is used to disconnect the currently connected device.

1. Select "BT DISCON" in system setup items, and press **ROTARY** knob.
2. Press and turn the **ROTARY** knob to select "ARE U SURE" or "CANCEL".

ARE U SURE: confirm to disconnect the paired device.

CANCEL: cancel disconnecting the paired device.

3. Press the **ROTARY** knob to confirm.

3.3.5. Auto Answer

This is a setting to determine whether any incoming call will be automatically or manually answered.

Note: The factory default setting is "OFF".

1. Select "A-ANSWER" in system setup items.
2. Turn **ROTARY** knob to select "ON" or "OFF".

ON: Any incoming call is automatically answered in 5 seconds.

OFF: User needs to manually answer the call.

3.3.6. Pin Code Setting

This pin code is used during pairing. A maximum of 10 digits can be changed through this unit.

Note: The factory default pass key is "1234".

1. Select "PIN CODE" in system setup items.
2. Press **ROTARY** knob.
3. Press **◀◀** or **▶▶** button to move the cursor.
4. Turn **ROTARY** knob to select the desired digits.
5. Long press **ROTARY** knob to store in memory.

3.3.7. Preforming Memory Reset

Reset various settings in the memory.

Note: The settings will remain in the memory even if you turn the power off .

1. Select "RESET" in system setup items, and press **ROTARY** knob.
2. Turn **ROTARY** knob to select "CANCLE" or "ARE U SURE", and press **ROTARY** knob.

CANCEL: cancel resetting

ARE U SURE: "CLEARED" appears in the display, and the memory will be cleared.

3.4. Radio Operations

3.4.1. Radio Control

1. Press **SRC** button and select the radio mode.
2. Press **BND** button and select the radio band in the following order:
FM1→FM2→FM3→AM1→AM2→FM1

3.4.2. Switching display

Press the **DISP** button to change the display.

3.4.3. Manual tuning

Press **◀◀** or **▶▶** button to manually tune a station.

3.4.4. Recalling a preset station

Preset positions (FM1, FM2, FM3, AM1, AM2) exists to store individual radio stations in memory.

Press the corresponding **1~5** button to recall the stored radio frequency automatically, **6** button for the traffic information, T-Info1620/T-Info1629. (25 preset positions)

3.4.5. Manual store

Long press **1~5** button to store the current station into preset memory.

3.4.6. Band scan

Band scan is searching for good reception stations from current frequency to higher frequency repeatedly. When a good reception stations is searched, it will be listened in 7s. And then it continues scan.

1. Press **BND** button to select a band.
2. Long press **BND** button.

3.4.7. Auto store

Auto store is a function for storing up to 5 stations that are automatically tuned in sequentially.

1. Select "AUTO STORE" in system setup items (Ref.3.3.1)
2. Long press **ROTARY** knob. The stations with good reception are stored automatically to the preset channels.

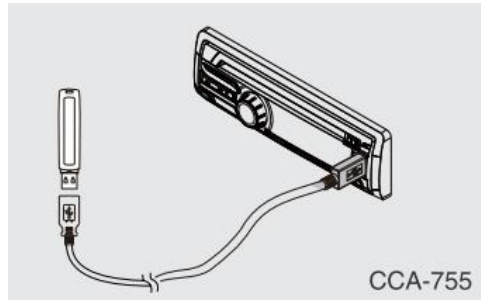
Note: If auto store is performed in the FM bands, the stations are stored in FM3.

If auto store is performed in the AM bands, the stations are stored in AM2.

3.5. USB Operations

3.5.1.USB Control

1. Open the cover of the USB connector on the right. Insert a USB device into the USB connector. If 1m extension is necessary, please purchase the optional CCA-755. When connecting a USB device, the unit will read the files automatically.



2. To remove the USB device, you should first select another source or turn off the power, in order to avoid damaging the USB device. Then take off the USB device. Close the cover to the left.

3.5.2.USB File System Recognition Limits

1. Total Files and Folders
The entire drive supports a maximum of 999 total folders. All content is capped at 65,535 total files.
2. Files per Folder
Any single folder is strictly limited to 999 files. Files exceeding this count will be ignored and cannot be played.
3. Folder Depth
The file hierarchy is limited to a nesting depth of only 8 levels. Content placed deeper than the eighth subfolder will not be recognized.
4. Sorting Method
The device sorts unreliably by only caching the first 6 bytes of the file name. The default playback order is the file's logical placement in the FAT structure.

3.5.3.Precautions when creating MP3/WMA/AAC file

3.5.3.1. Usable sampling rates and bit rates

1. MP3: Sampling rate 8 kHz-48 kHz, Bit rate 32 kbps-320 kbps/VBR
2. WMA: Sampling rate 22.05 kHz-48 kHz, Bit rate 32 kbps-320 kbps/VBR
3. AAC: Sampling rate 8 kHz-48 kHz, Bit rate 16 kbps-320 kbps / VBR

3.5.3.2. File extensions

1. Always add a file extension “.mp3”, “.wma” or “.m4a” to MP3,WMA,AAC file by using single byte letters. If you add a file extension other than specified or forget to add the file extension, the file cannot be played.

2. Files without MP3/WMA/AAC data will extension “.mp3”, “.wma” or “.m4a” will not play.

*Note: When MP3/WMA/AAC files are played, a little no sound part is caused between tunes.
JP ver. device not show the play time information.*

3.5.3.3. Logical format (File system)

1. The folder name and file name can be displayed as the title during MP3/WMA/AAC play but the title must be within 64 single byte alphabetical letters and numerals (including an extension).
2. Do not affix a name to a file inside a folder having the same name.

3.5.4. USB Audio Operations

3.5.4.1. Switching display

Press the  button to change the display, the unit can display title data.
Folder No./Track No. → Clock

Note: Characters can be displayed: ISO8859-1, ISO646/ASCII, UTF-16 (BOM/BE/LE), UTF-8, Shift_JIS.

3.5.4.2. Pause Play

Press the  button to pause play.

3.5.4.3. Track up/down

1. Press  button to the next track.
2. Press  button to the previous track if the playtime is within 1s; otherwise it will move ahead to the beginning of the current track.

3.5.4.4. Fast-forward/Fast-reverse

1. Long press the  button to fast-forward.
2. Long press the  button to fast-reverse.

3.5.4.5. Folder up/down

This function allows you to select a folder containing MP3/WMA/AAC files and start playing from the first track in the folder.

1. Press  button to previous folder.
2. Press  button to next folder.

3.5.5. Play mode setting

3.5.5.1. Repeat mode

Each time you press  button will playing the repeat mode
Repeat one → Repeat folder → Repeat all

- Repeat one: Play the current track repeatedly.
- Repeat folder: Play all the tracks of the current folder repeatedly.

- Repeat all: Play all the tracks of the disc repeatedly.

3.5.5.2. Random mode

Each time you press **4** button will playing the random mode

Random folder→Random all→Random off

- Random all : Play all the tracks of an disc in a random order.
- Random folder : Play all the tracks of the current folders in a random order.

3.5.5.3. Scan mode

Each time you press **5** button will playing the random mode,

Play the first 10 seconds of the first track of all the folders

Scan disc→Scan off

3.5.5.4. Traffic information mode

Press **6** button to Traffic information mode (T-info 1620/T-info1629)

3.6. Bluetooth Operations

Mobile phones and audio devices that support Bluetooth can be connected for use on the unit. Long press  button then select "BT SELECT" to set for user to select one of the paired the Bluetooth device to connect. (Ref.3.3.2 Select Paired Device)

Check Status: **Connecting→Connected** (Show the connected device name)

Connecting→Connection Fail→Disconnect(Check Bluetooth device)

Notes:

- This system will not operate or may operate improperly with some Bluetooth audio players and Bluetooth mobile phones.
- Browse the Clarion website to confirm mobile phone compatibility list.

3.6.1. Bluetooth Devices Pairing

Please pair this unit from your Bluetooth device. Up to a maximum of 5 Bluetooth devices can be paired.

1. Search for this unit on your device Bluetooth setup menu.
2. Select "BT-SELECT" from the pairing list on your Bluetooth device.

For the Device

Please do operation to pair this unit on your Bluetooth device.

3.6.2. Bluetooth Audio Operations

Press the  button to switch to "BT--AUDIO" mode.

3.6.2.1. Switching Display

Each time you press the  button to change the display.

BT Device name→Clock→BT Device name

3.6.2.2. Pause Play

Press the  button to pause play.

3.6.2.3. Track up/down

1. Pre  button to the next track.
2. Pre  button to the previous track if the playtime is within 1s; otherwise it will move ahead to the beginning of the current track.

3.6.2.4. Fast-forward/Fast-reverse

1. Long press t  button to fast-forward.
2. Long press t  button to fast-reverse.

3.6.3. Bluetooth Telephone Operations

Press the  button to switch to Bluetooth Telephone Mode ("BT --TEL" mode).

3.6.3.1. Switching Display

Press the  button to switch

Redials→Received→SSD ADJ

- Redials: Get the latest dialed & missed call list
- Received: Get the latest received call history.
- SSD ADJ: Contacts information

3.6.3.2. Contact**Save contact**

1. Press the **BND** button.
2. Press **◀◀** or **▶▶** button to select “REDIALS” or “RECEIVED”
3. Long Press **1 ~ 5** to save the phone number from redials call list or received call list.(Max to save 5 information)

Edit/Clear for each contact

1. Press the **BND** button.
2. Press **◀◀** or **▶▶** button to select “SSD ADJ”
3. Press **ROTARY** knob to enter the “CONTACTS”.
4. Turn **ROTARY** knob to select the contact which need to edit the information.
5. Press **ROTARY** knob to “EDIT NAME” or “CLEAR”
6. After edit contact name, press **ROTARY** knob. Then show “MEMORY” to save the contact information.

Clear all contact

1. Press the **BND** button.
2. Press **◀◀** or **▶▶** button to select “SSD ADJ”
3. Press **ROTARY** knob to enter the “CLEAR ALL”.
4. Turn **ROTARY** knob to select “CANCLE” or “ARE U SURE”, and press **ROTARY** knob.

ARE U SURE: confirm to clear all contact.

CANCEL: cancel to clear all contact.

3.6.3.3. Make Outgoing Call

There are 3 ways to make outgoing call.

- You can press **📞** button to hang up during calling.
- You can press **ROTARY** knob during calling, the mic will be muted. Press it again will cancel mute.

Dialed & Missed Call History

You can search the latest 10 dialed & missed call history.

1. Press the **BND** button.
2. Press **◀◀** or **▶▶** button to select “REDIALS”
3. Press **ROTARY** knob to enter the dialed & missed call list.

4. Turn **ROTARY** knob to select a call history.
5. Press **ROTARY** knob to call the mobile phone Number.

Received Call History

You can search the latest 10 received call history.

1. Press the **BND** button
2. Press **◀◀** or **▶▶** button to select to select "RECEIVED".
3. Press **ROTARY** knob to enter the received call list.
4. Turn **ROTARY** knob to select a call history.
5. Press **ROTARY** knob to call the mobile phone Number.

SSD ADJ-Call from Contact

1. Press the **BND** button
2. Press **◀◀** or **▶▶** button to select to select "SSD ADJ".
3. Press **ROTARY** knob to enter the "CONTACTS"
4. Turn **ROTARY** knob to select a contact number (max 5 numbers).
5. Long Press **DISP** to call the contact number.

3.6.3.4. Answering a call

You can answer an incoming call by pressing **DISP** button, and press the  button to reject an incoming call.

3.6.3.5. Switch to the secret call

Can press the **BND** button to switch to the secret call mode, show "PRIVATE" then the sound will output by your phone.

Note: When you switch to the secret call mode, you will not hear the call from this unit and only can hear it from your mobile phone.

3.7. AUX Operations

This system has an external input jack on the front panel so you can listen to sounds and music from external devices connected to this unit.

Selecting AUX IN sensitivity

Make the following settings to select the sensitivity when sounds from external devices connected to this unit are difficult to hear even after adjusting the volume.

** The default setting is "MID".*

1. Long press **BND** to Select "AUX SENS" in system setup items. (Ref.3.3.1System setup)
2. Turn the **ROTARY** knob to select "HIGH", "MID" or "LOW".

3.8. Factory Mode Operations

1. Long press **BND**+**6** button into Factory mode, and press **ROTARY** knob.
2. Then press **◀◀** or **▶▶** button to select the factory information.

AP VERSION ⇌ **BL VERSION** ⇌ **BT VERSION** ⇌ **USB MODE** ⇌ **ST GUI**

- **AP VERSION**: App Version
- **BL VERSION**: SBL Version
- **BT VERSION**: BT Version
- **USB MODE**: Press **ROTARY** knob and turn **ROTARY** knob can switch the mode

USB HOST ⇌ **CDC**

- **ST GUI**: Press **ROTARY** knob and turn **ROTARY** knob to select "ON" or "OFF"
ON: Tuner set to the MCU control mode
OFF: Tuner set to the PC ST Tool

3.8.1.USB Mode

1. Turn **ROTARY** knob and press to the USB mode
2. Turn **ROTARY** knob to select "CANCEL" or "ARE U SURE", and press **ROTARY** knob.

ARE U SURE: confirm to USB mode.

CANCEL: cancel USB mode.

3.8.2.CDC mode (Shoko App)

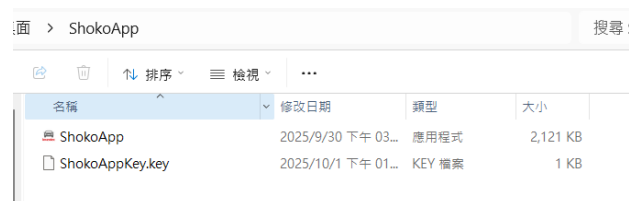
1. Turn **ROTARY** knob and press to the CDC mode.
2. Turn **ROTARY** knob to select "CANCEL" or "ARE U SURE", and press **ROTARY** knob.

ARE U SURE: Confirm to CDC mode.

CANCEL: Cancel CDC mode

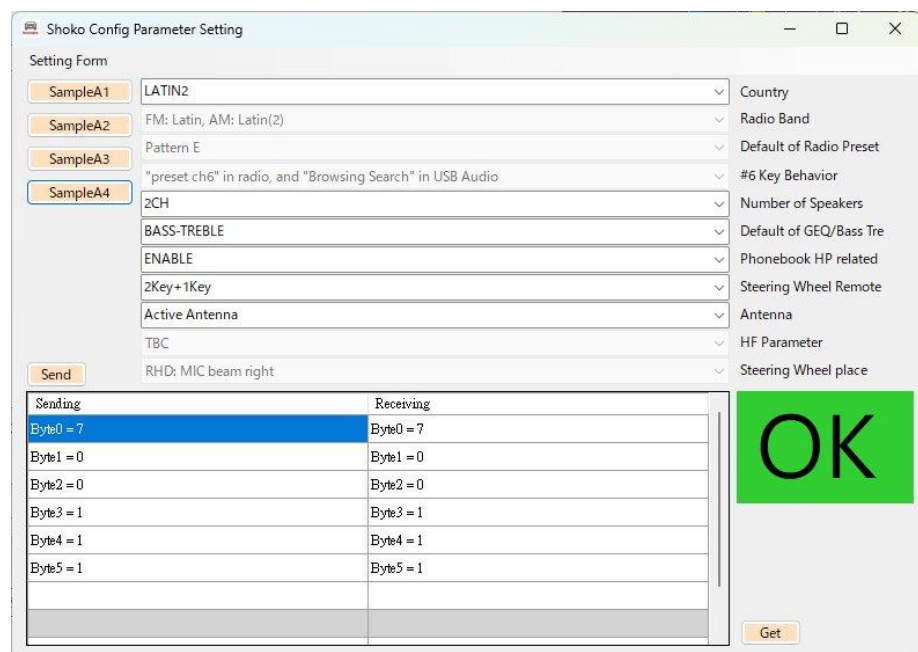
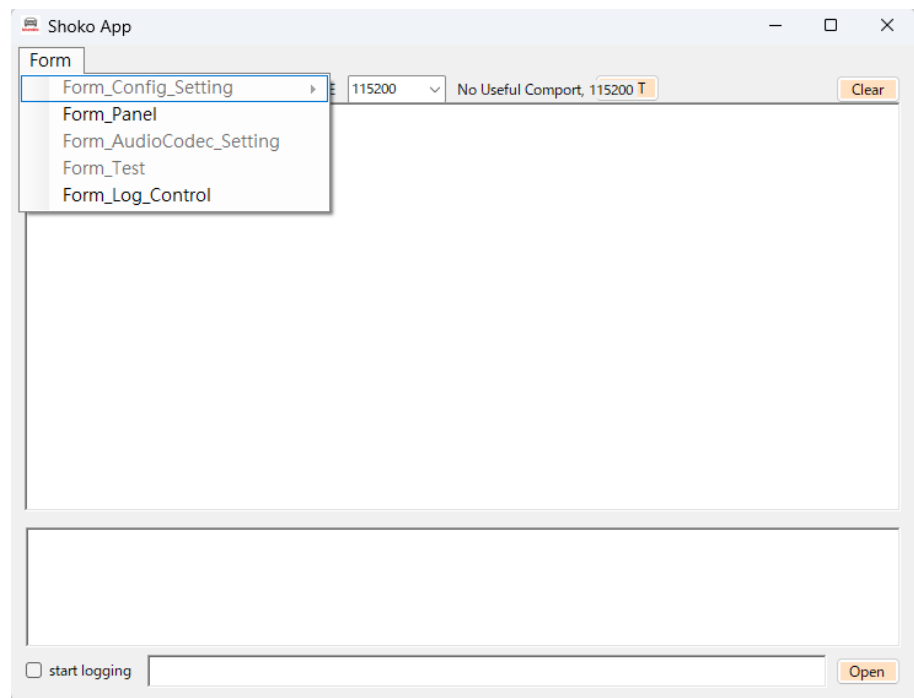
3. Generate the key for Shoko app.

Note: The key will provide the available features for Shoko App(put in the same folder).



4. Connect your device using a USB A to A cable to establish a USB CDC connection, then open the Shoko app.

Note: Click the "Form" to open the "shoko config parameter setting" window.



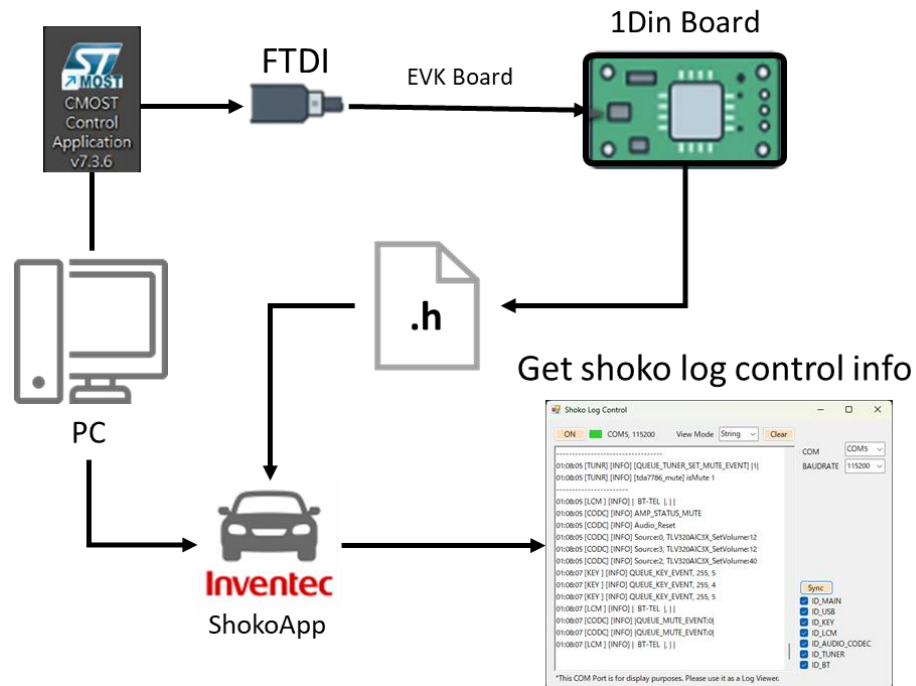
Note: More detail information (Ref. ShokoApp_Mauual_20250905.ppt)

3.8.3.ST GUI

1. Turn **ROTARY** knob and press to the ST GUI.
2. Press **ROTARY** knob and turn **ROTARY** knob to select "ON" or "OFF"
ON: Set to the PC ST Tool
OFF: Set to the MCU control mode
3. Connect your device with St tool and using FTDI tool (USB to I2C) to generate the setting file(.h file).

Note. More detail information (Ref. TDA7708LX parameters operations.ppt)

4. Connect your device using a USB A to A cable to establish a USB ST GUI connection.
5. Put the log file to Shoko app to check the log information.



4. Trouble shooting

4.1. General

Problem	Cause	Measure
Power cannot be turned on.	Fuse is blown. Replace with a fuse of the same amperage.	Fuse is blown. Replace with a fuse of the same amperage.
	If the fuse blows again, consult your dealer.	If the fuse blows again, consult your dealer.
No sound output when operating the unit with amplifiers or power antenna attached.	Power antenna lead is shorted to ground or excessive current is required for remote-on the amplifiers or power antenna.	1. Turn the unit off. 2. Remove all wires attached to the power antenna lead. Check each wire for a possible short to ground using an ohm meter. 3. Turn the unit back on. 4. Reconnect each amplifier remote wire to the power antenna lead one by one. If the amplifiers turn off before all wires are attached, use an external relay to provide remote-on voltage (excessive current required).
Nothing happens when buttons are pressed. Display is not accurate.	DCP or main unit connectors are dirty.	Wipe the dirt off with a soft cloth moistened with cleaning alcohol.
No sound heard	The speaker protection circuit is operating.	1. Turn down sound volume. Function can also be restored by turning the power off and on again. (Speaker volume is reduced automatically when the speaker protection circuit operates). 2. If the sound is muted again, consult our service department.

4.2. USB Devices

Problem	Cause	Measure
No sound heard	The device contains no MP3/WMA/AAC files.	Record MP3/WMA files properly to the device.
	The files are not proper MP3/WMA/AAC format.	Use only properly encoded MP3/WMA/AAC files.
Sound is interrupted or has noise.	The MP3/WMA/AAC files are improperly encoded.	Use only properly encoded MP3/WMA/AAC files.
The device isn't recognized.	The device is damaged.	Disconnect the device and reconnect. If the device is still not recognized, try replacing with a different device.
	Connectors are loose.	
Can't insert the device.	The device has been inserted improperly.	Try reversing the connection direction of the device (usually the brand name surface should be facing left).
	The connector is broken.	Replace with a new device.

4.3. Bluetooth

Problem	Cause	Measure
Cannot pair the Bluetooth enabled device with the car audio system.	The device does not support the profiles required for the system.	Use another device to pair.
	The Bluetooth function of the device is not enabled.	Refer to the user manual of the device for how to enable the function.
	The Bluetooth information does not match.	Delete the paired device on your Bluetooth device and the car audio system, and then pair them again.
The Bluetooth hands-free audio quality is not improved after connection with a Bluetooth-enabled device.	The external microphone is not set correctly nor properly positioned.	Adjust the gain and position of the external microphone. For example, stick the microphone onto the dashboard so it is close to the driver.

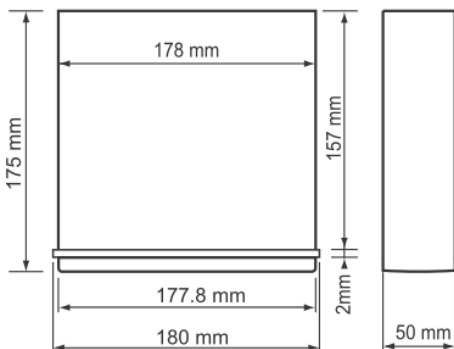
5. Error Displays

If an error occurs, one of the following displays is displayed. Take the measures described below to eliminate the problem.

	Error Display	Cause	Measure
USB	USB DEVICE ERROR	Protocol or File system is not correct.	Remove the USB.
	NO DEVICE	No connection or the connection is loose.	Remove the USB , will jump to TUNER resource after 3 sec.
	NO FILE	No MP3/WMA/AAC file is stored in the device.	Store MP3/WMA/AAC files in the device.
	READ ERROR	Read media resource in OTG device error.	Change the other USB. Choose the other supported media resource.
	USB CURRENT OVER	When an overcurrent exceeding 1A is detected, a Bus Power error occurs.	The system will only reset when the ACC is turned off and then on again.

6. Specifications

6.1. General

Output Power	19 W X 4 (+B=14.4V)
Power Supply Voltage	12V DC , negative ground
Power Consumption	Less than 15 A
Speaker Impedance	4 Ω
Dimensions of Main unit	180 (W) X 50 (H) X 175 (D) mm 

6.2. Radio section

FM Frequency Range (Step, De-emphasis) + Additional Frequency	Japan	76.00-99.00MHz (100kHz, 50us)
	North America	87.70-107.09MHz (200kHz, 75us) + 87.75MHz
	Europe	-
	China	87.00-108.00MHz (100kHz, 50us)
	Asia	87.50-108.00MHz (50kHz, 50us)
	Latin	87.50-108.00MHz (50kHz, 75us) + 87.75MHz
	Brazil	76.00-108.00MHz (100kHz, 75us)
	Africa GCC	87.50-108.00MHz (50kHz, 50us)
AM Frequency Range	Japan	522-1629kHz (9kHz)
	North America	530-1710kHz (10kHz)
	Europe	-
	China	531-1602kHz(9kHz)
	Asia	531-1602kHz(9kHz)
	Latin(1)/(2)	530-1710kHz (5kHz) /(10kHz)
	Brazil	530-1710kHz (10kHz)
	Africa GCC	531-1629kHz(9kHz)

6.3. MP3/WMA/AAC

MP3	Sampling rate 8 kHz-48 kHz, Bit rate 32 kbps-320 kbps / VBR
WMA	Sampling rate 22.05 kHz-48 kHz, Bit rate 32 kbps-320 kbps / VBR

AAC	Sampling rate 8 kHz-48 kHz, Bit rate 16 kbps-320 kbps / VBR
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6.4. USB

Specification	USB 2.0(Type-A),FAT12/16/32	
Playable audio format	MP3(.mp3)	MPEG 1/2/2.5 Audio Layer-3 MPEG 1/2 Audio Layer-2
	WMA(.wma)	Ver. 9.2
	AAC (.m4a)	MPEG-4 AAC LC MP4FF

6.5. Bluetooth

Specification	Bluetooth Ver. 5.2
Frequency Band	2.402GHz ~ 2.480GHz
RF TX Power	10dBm
HFP (Hands-Free Profile)	Ver.1.8
A2DP (Advanced Audio Distribution Profile)	1.4.1(Sink)
AVRCP (Audio/Video Remote Control Profile)	1.6.2(Controller)
PBAP	1.2.3 (PCE)

6.6. AUX IN

AUX ST Single-End (Cable 3.5mm)

6.7. Equalizer

Graphic Equalizer -Preset 5 Pattern BASS BOOST/ HIGH BOOST/ VOCAL/ IMPACT/ NATURAL -Custom 3 Pattern USER 1/ USER 2/ USER 3		Frequency	60Hz / 250Hz / 620Hz / 1kHz / 4kHz / 8kHz / 16kHz
		Gain	-12dB ~ 12dB
		Boost	±6 steps (2dB/step)
		Q	1: 60Hz / 250Hz / 620Hz 1.5: 1kHz / 4kHz / 8kHz / 16kHz
Bass/Treble Control	Bass Control	Frequency	100Hz
		Gain	-15dB ~ 15dB
		Boost	±15 steps (1dB/step)
		Q	1
	Treble Control	Frequency	10kHz
		Gain	-15dB ~ 15dB
		Boost	±15 steps (1dB/step)
		Q	1

Balance		L7~R7(± 7 Steps)
Fader		R7~F7(± 7 Steps)
Loud	Frequency/Max Gain	80Hz / 12kHz,15dB

6.8. AMP

Power	27 W, 10% THD into 4 Ω at 14.4 V (Drives 4 Ω and 2 Ω loads)
Audio inputs	4 Channel single-ended analog input 10 dB, 16 dB, 22 dB or 28 dB Gain option

7. SGS check list

SGS Project No.	TSSF2512000707L0	
Applicant	Name	Faurecia Clarion Electronics (Xiamen) Co., Ltd.
	Add	6F,NO.40,Guanri Road, Software Park Stage II, 361000 Xiamen, China
	Tel	+86-5922177095
Product name	CV BT 1DIN Radio	
Main Model	P002PIS0	
Series Model	P002QIS0 / P002RIS0 <i>Note: Difference lies in Bluetooth module and USB output; layout remains consistent across both versions</i>	
Operation Temperature	- 40°C ~ 80°C	
Input Power Rating	DC - 12V / 8.2A DC - 24V / 3.9A <i>Note: There is an overcurrent protection device (audio fuse) between the car battery power supply and this product, ensuring that the energy source input to the product will not exceed 100W.</i>	
Output Power Rating	DC - 5V / 0.5A (USB-A)	
Type of report	LVD IEC 62368-1: 2014	

Warning:

Changes or modifications to this unit 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.

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

The device must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC RF Radiation Exposure Statement:

This device must not be co-located or operating in conjunction with any other antenna or transmitter. To maintain compliance with the FCC's RF exposure guidelines.

This equipment should be installed and operated keeping the radiator at least 20cm or more away from the person's body.