Instruction manual

for UNIT ASSY DA

AH2001

Ver1.0

Panasonic Corporation
Automotive & Industrial
Systems Company

Descriptions and Precautions on the use of the device

FCC ID: ACJ932AH2001

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.

Caution: The user is cautioned that 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 minimum distance 20cm between the radiator & your body. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Class B: (Section 15.105)

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT
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.

Descriptions and Precautions on the use of the device

ICID: 216J-AH2001

This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) This device may not cause interference, and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie 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, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

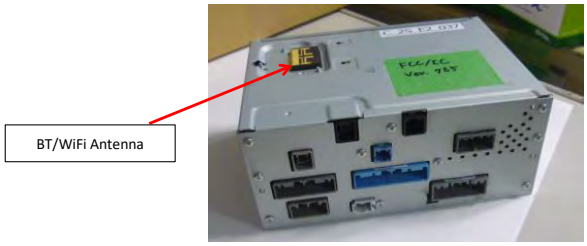
IC Radiation Exposure Statement:
This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

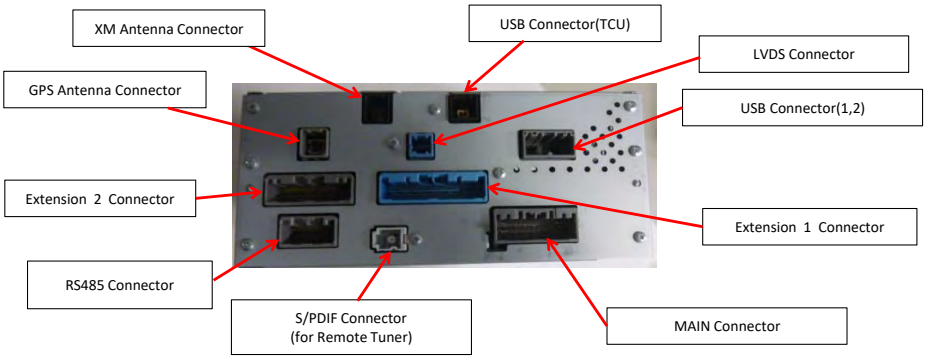
Declaration d'exposition aux radiations:
Cet equipement est conforme aux limites d'exposition aux rayonnements ISEDetablies pour un environnement non controle. Cet equipement doit etre installe et utilise avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

-The maximum antenna gain permitted (for devices in the 5250-5350 MHz and 5470-5725 MHz bands) to comply with the e.i.r.p. limit; and
-The maximum antenna gain permitted (for devices in the 5725-5825 MHz band) to comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate, as stated in RSS-210 Annex 9 A9.2(3).
-Users should also be cautioned to take note that high power radars are allocated as primary users (meaning they have priority) of 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

■The name of the connectors and the operating devices

UNIT ASSY DA (AH2001)



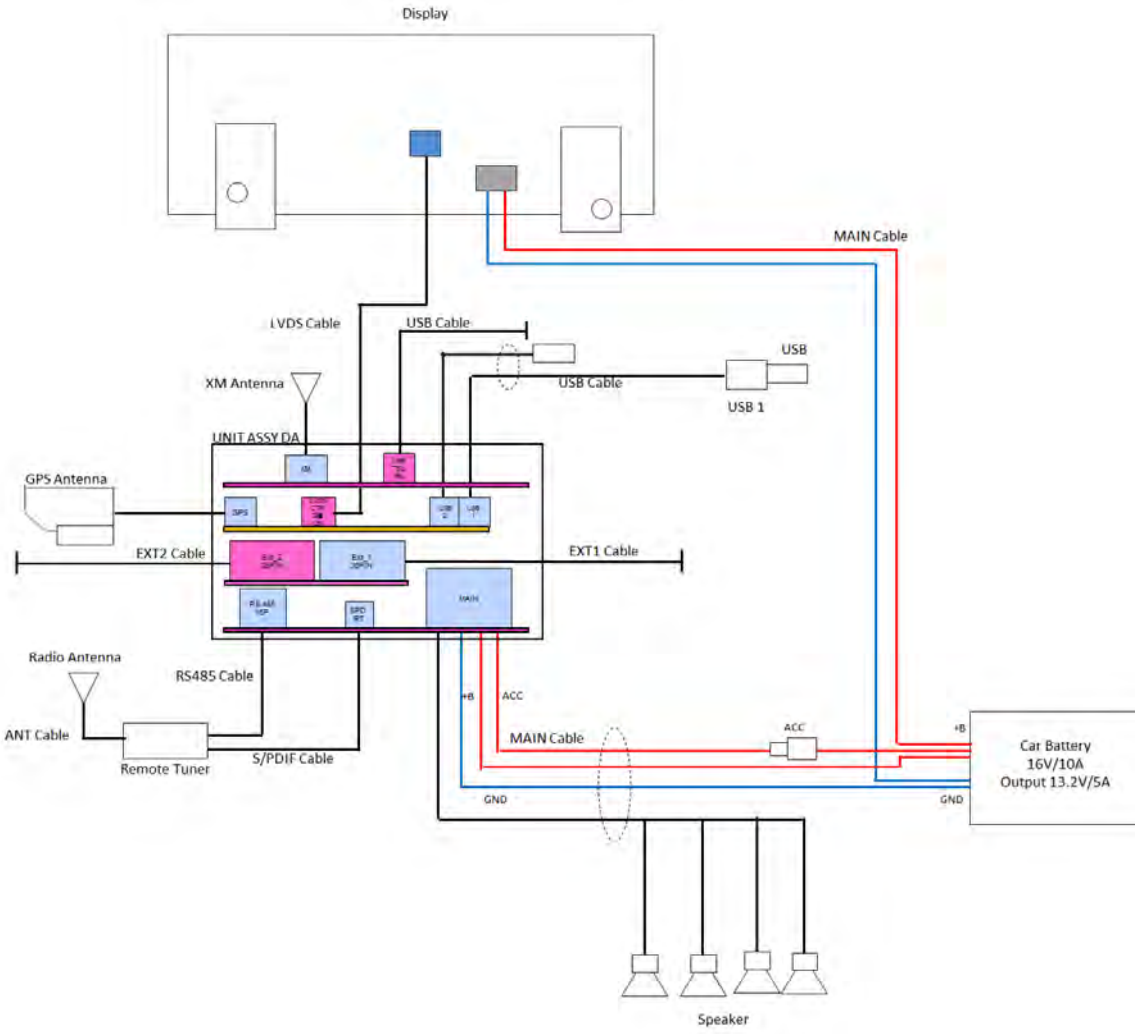


DISPLAY

REMOTE TUNER(Radio Tuner)

Note. Display and REMOTE TUNER are not included in the configuration of the AH2001

■ Connection between the units



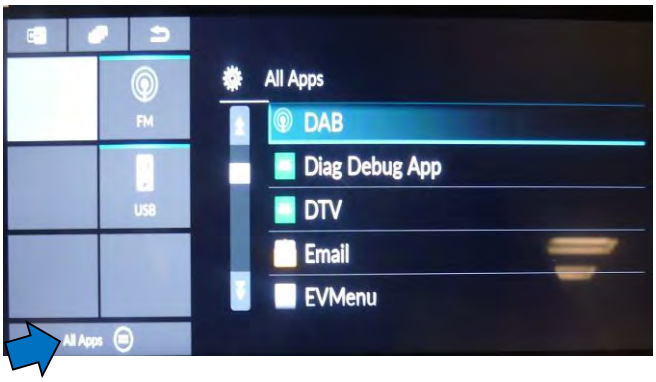
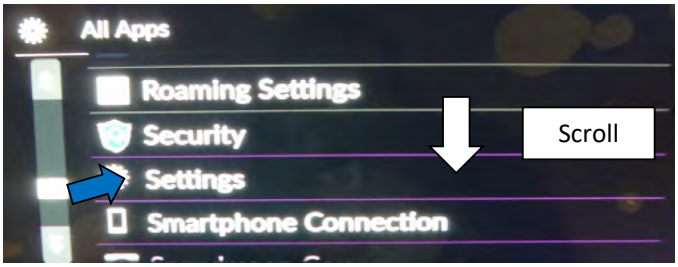
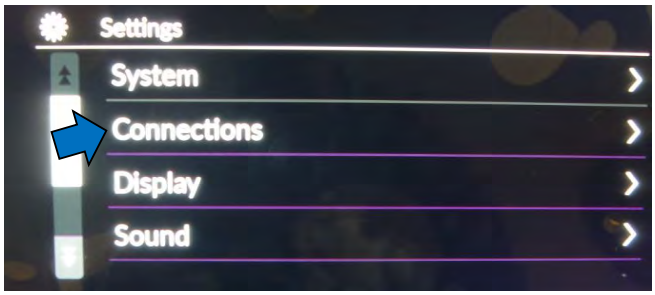
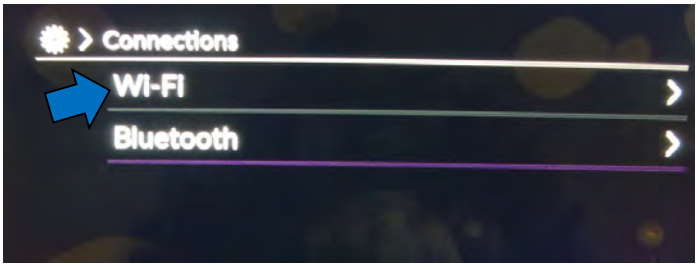
UNIT ASSY DA

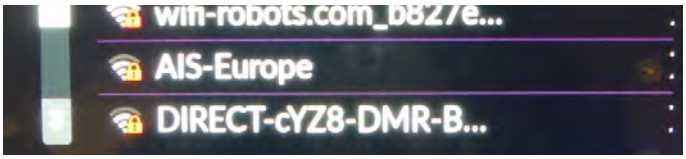
REMOTE TUNER

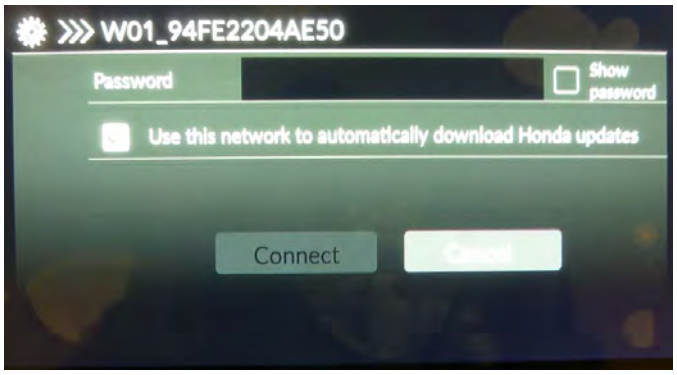
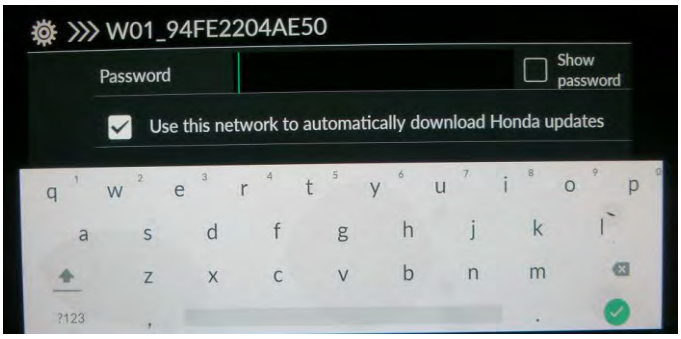
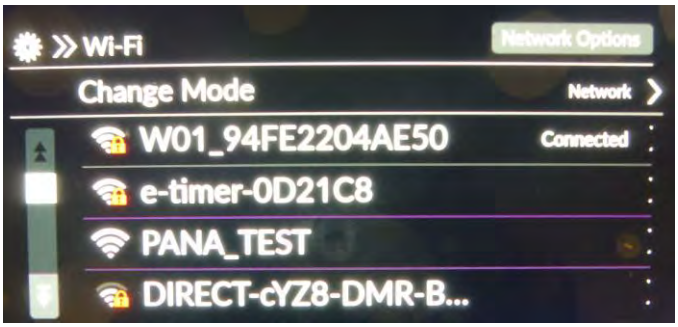
DISPLAY

USB

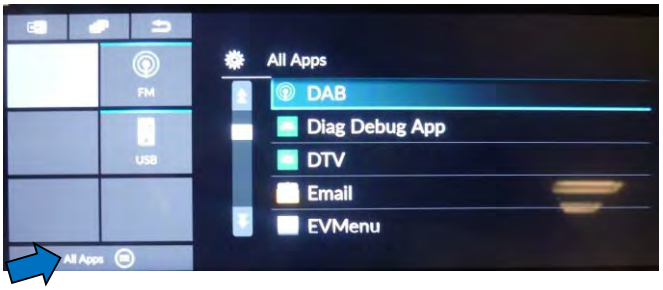
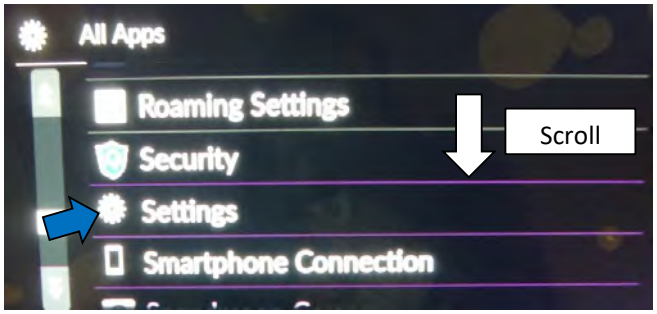
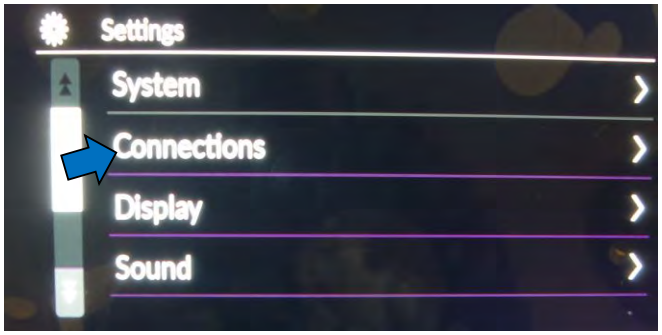
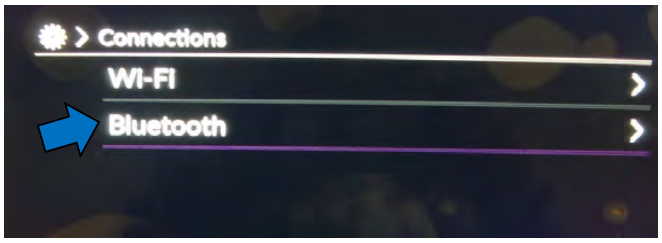
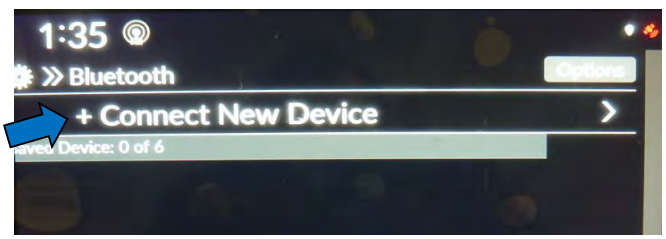
■ Procedure of connection with Wi-Fi Acces Point

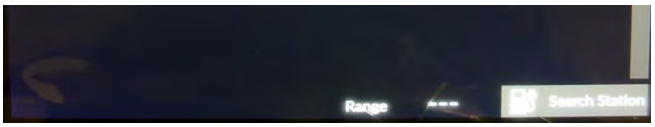
Procedure	Screen display
Tap ALL Apps	
Scroll the screen and tap the Settings.	
Tap the Connections.	
Tap the Wi-Fi. (Note) It can not be set when the Wi-Fi character is gray.	
Tap the SSID of the connection destination.	

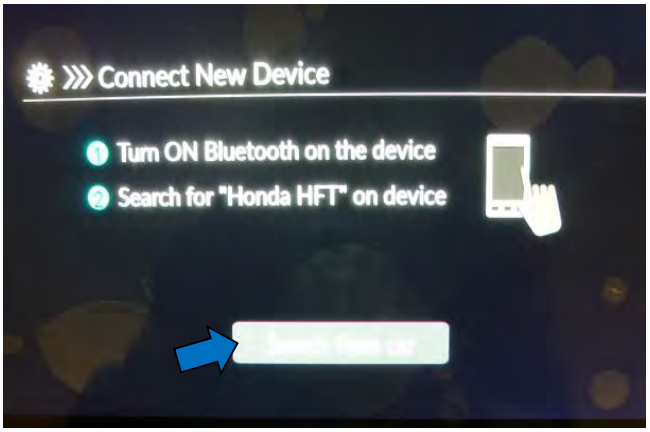
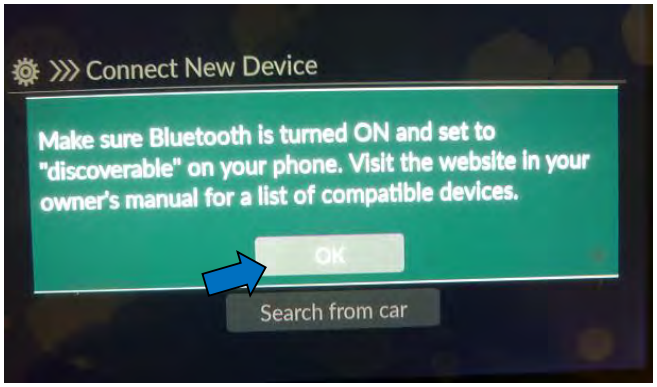
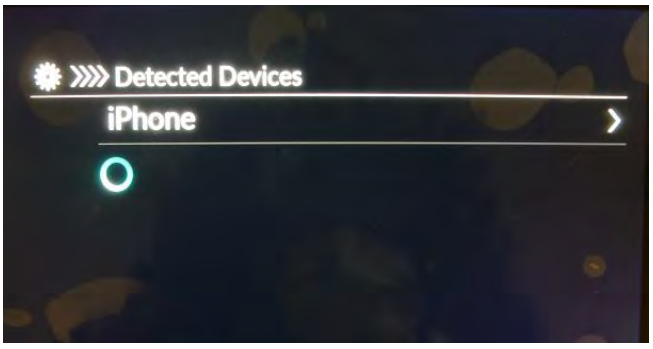
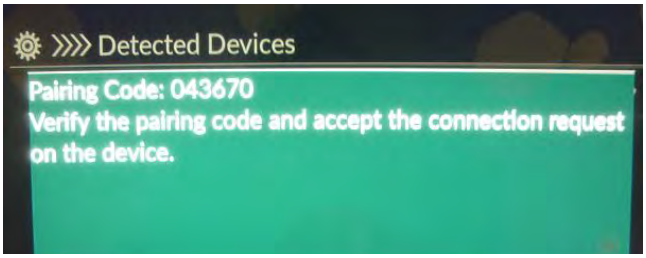
	 wifi-robots.com_b827e... AIS-Europe DIRECT-cYZ8-DMR-B...

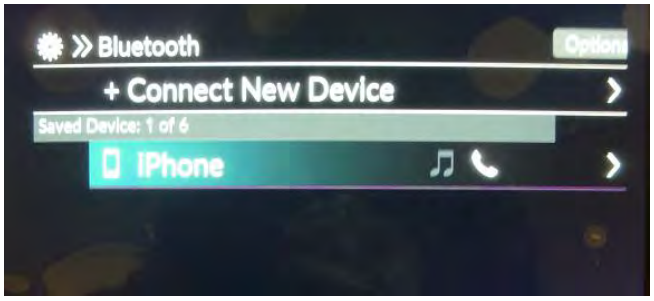
Procedure	Screen display
Password input screen.	
Enter the password and tap Connect.	
Connection completed.	

■ Procedure of connection with Bluetooth device

Procedure	Screen display
Tap ALL Apps	
Scroll the screen and tap the Settings.	
Tap the Connections.	
Tap the Bluetooth	
Tap the Connect New Device	

Procedure	Screen display
Tap the Serch from car.	
Tap OK	
Detected Device	
Enter the pairing code in the device of the connection partner	

Connection completed.	

■ Audio Operation

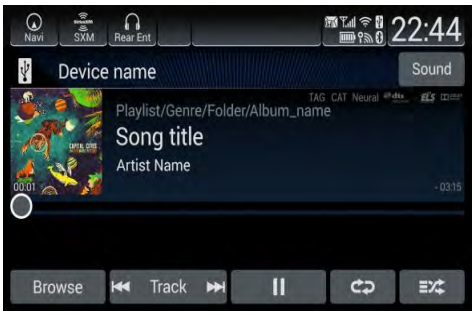
【FM RADIO】

Control key		Function	Display of Screen
Station List	-	Station List screen display	
SCAN	-	SCAN	
>>|	Short push	SEEK UP	
	long push	Continuous SEEK UP	
|<<	Short push	SEEK DOWN	
	long push	Continuous SEEK DOWN	
Tune	-	Direct Tune popup display	
Sound	-	Sound Settings screen display	
PRESET1～12	Short push	PRESET CALL	
	long push	PRESET registration	
PRESET9～12	-	PRESET9～12 display	
PRESET5～8	-	PRESET5～8 display	
PRESET1～4	-	PRESET1～4 display	

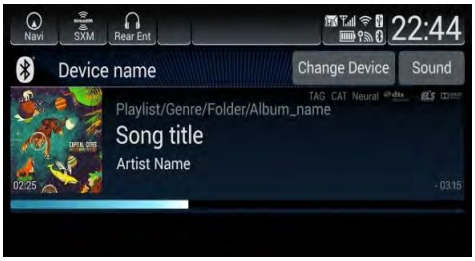
【USB MUSIC】

Control key		Function	Display of Screen
Browse	-	Browse List screen display	
|<<	Short push	FILE DOWN	
	long push	REW	
PLAY/PAUSE	-	Toggle switching of 「PLAY」→「PAUSE」	
>>|	Short push	FILE UP	
	long push	FF	
Repeat	-	Cyclic change of 「File Repeat」→「Folder Repeat」→「Repeat Off」	
Random	-	Cyclic change of 「Folder Random」→「Random All」→「Random Off」	
Time Bar	-	PlaybackJump	
Sound	-	Sound Settings screen display	

【i-POD】

Control key		Function	Display of Screen
Browse	-	Browse List screen display	
|<<	Short push	TRACK DOWN	
	long push	REW	
PLAY/PAUSE	-	Toggle switching of 「PLAY」→「PAUSE」	
>>|	Short push	TRACK UP	
	long push	FF	
Repeat	-	Toggle switching of 「Repeat One」→「Repeat Off」	
Shuffle	-	Toggle switching of 「Shuffle Songs」→「Shuffle Off」	
Time Bar	-	Playback Jump	
Sound	-	Sound Settings screen display	
Browse	-	Browse List screen display	

【Bluethooth Audio】

Control key		Function	Display of Screen
Browse	-	Browse List screen display	
|<<	Short push	TRACK UP	
	long push	FF	
PLAY/PAUSE	-	Toggle switching of 「PLAY」→「PAUSE」	
>>|	Short push	TRACK DOWN	
	long push	REW	
Repeat	-	Toggle switching of 「Repeat On」→「Repeat Off」	
Random	-	Toggle switching of 「Random On」→「Random Off」	

Time Bar	-	Display remaining time / elapsed time
Sound	-	Sound Settings screen display
Change Device	-	Bluetooth Device List screen display

■ Equipment Specifications

Common Specifications

Item	Description
TYPE	AH2001
Rated Input Voltage	DC13.2V (Voltage range10.8V～16V)
Rated Input Current	3A (Max.10A) ※Not include DISPLAY current.
Audio Input	S/PDIF(TUNER), USB, WiFi/BT
Audio Output	S/PDIF
Operating temperature range	-30～70℃
Place of use	Vehicle
External dimensions	W180×D129×H80(mm)
Mass	1.6kg

Audio/Telephone functions

Item	Description
RADIO TUNER Interface	Radio operation and equalizing interface
USB AUDIO Interface	USB, i-POD operation and equalizing interface
WiFi/BT Connection	Music,Hands Free Telephone etc.
MIC Interface	

Human Machine Interface functions

Item	Description
GPS receiver	
USB TCU Interface	*Telematic Control Unit
RR Wide Camera Interface	
Lain Watch Camera Interface	
HDMI Interface	

BT/WiFi Antenna

Constitution	Dual Antenna (Chain0 and Chain1)
Bluetooth Output	Chain0
WiFi 2.4GHz Output	Chain1
WiFi 5GHz Output	Chain0 and Chain1

Bluetooth

Item	Description
Version	V4.2 Support
Corresponding specification	EDR-2Mbps, EDR-3Mbps 1.X, 2.X +EDR AFH
Output level	MAX 1.99 dBm
Frequency of operation	2402-2480MHz
Type of modulation	FHSS GFSK,π/4 DQPSK, 8DPSK
Emission Designation(ITU Code)	F1D, G1D
Bandwidth	Hopping off 1MHz
	Hopping on 79MHz
Channel Spacing	1MHz

Wi-Fi

Item	Description
Corresponding specification	2.4GHz: b, g, n(20/40MHz) not supporting MIMO
	5GHz: a, n(20/40MHz), ac(20/40/80MHz) Supporting MIMO
Output level	2.4GHz: Max.15dBm
	5GHz: Max.13.24dBm
Mode	AP, STA
DFS function	AP: Support
	STA: Not support

Wi-Fi support frequency band and channels

Frequency Band	Channels
2.4GHz	1/2/3/4/5/6/7/8/9/10/11ch
5GHz	W52_HT20(36/40/44/48ch) W52_HT40(38/46ch) W52_HT80(42ch)
	W53_HT20(52/56/60/64ch) W53_HT40(54/62ch) W53_HT80(58ch)
	W56_HT20(100/104/108/112/116/120/124/128/132/136/140/ch) W56_HT40(102/110/118/126/134ch) W56_HT80(106/122ch)
	W58_HT20(149/153/157/161/165ch) W58_HT40(151/159ch) W58_HT80(155ch)