

Public Address System



DIGITAL MULTI MEDIA PLAYER

ER-1

ER-3

ER-4

Warning: Before attempting to connect, operate or adjust this Amplifier, please read these instructions completely and carefully and save this Manual

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions - All the safety and operating instructions should be read before this product is operated.
2. Keep these instructions - The safety and operating instructions should be retained for future reference.
3. Heed all warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow all instructions - All operating and use instructions should be followed.
5. Do not use this apparatus near water - The appliance should not be used near water or moisture - for example, in a wet basement or near a swimming pool, and the like.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and at the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug the apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when



- the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Please keep the unit in a good ventilation environment.
 16. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall not be placed on apparatus.
 17. **WARNING:** The mains plug or appliance inlet is used as disconnect device, the disconnect device shall remain readily operable.
 18. **Power Sources** – This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer the operating instructions.
 19. **Safety Check** – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
 20. Don't touch conductive parts of output terminals to prevent hazardous electrical shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.
 21. This equipment is for commercial & professional use only.
 22. This product is in compliance with EU WEEE regulations. Disposal of end of life product should not be treated as municipal waste. Please refer to your local regulations for instructions on proper disposal of this product.
 23. To prevent hazardous electrical shock, do not touch the conductive parts of the output terminals. The external wiring connected to the terminals requires installation by an qualified technician or the use of ready made leads or cords.
 24. Please locate the apparatus at places nearby power socket for quick power disconnection in emergency.



Protective earthing terminal. The apparatus should be connected to a mains socket outlet with a protective earthing connection.



This lightning flash is intended to alert the user to the presence of non-insulated "dangerous voltage" on the output terminals that may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION: To reduce the risk of electric shock, do not remove any cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.

CAUTION: To prevent electric shock, do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

1. CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

2. Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

3. WARNING

Do not ingest the battery, Chemical Burn Hazard(The remote control supplied with) This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children.

If the battery compartment does not close securely, stop using the product and keep it away from children.

If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

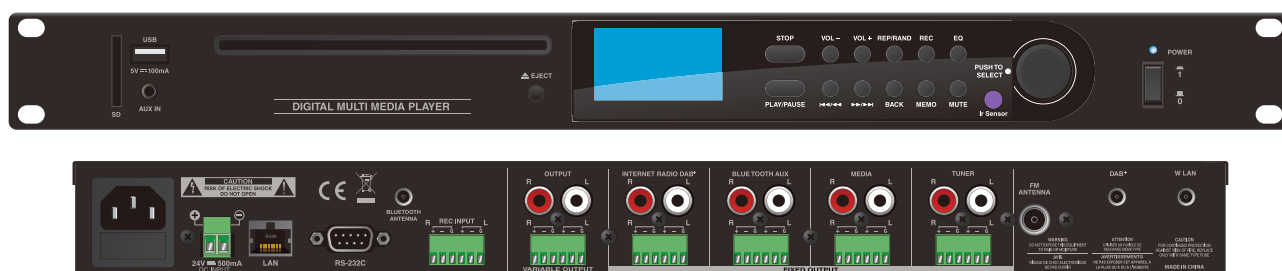
4. No naked flame sources, such as lighted candles, should be placed on the apparatus.

5. The use of apparatus in tropical climate.

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Introductions



FM TUNER/CD/USB/SD/BT/DAB+ /INTERNET RADIO

The ER-1 is an All-In-One audio source device with intergrated FM RDS tuner,Internet Radio, UPNP and USB,SD media player,compatible with MP3,WMA,FLAC and WAV audio files.

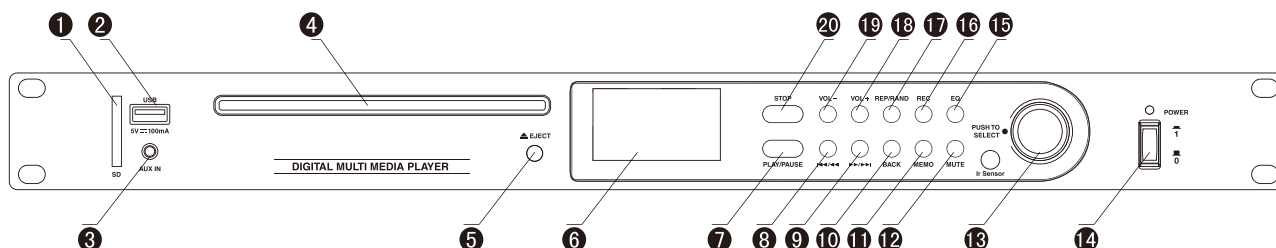
It combines a FM tuner, CD-player, Media-player and Internet Radio into one single rack space 19'' housing.On the front side,a CD slot, an USB slot provided. This makes it possible to play regular audio CD's as well as MP3 files from CD, USB,SD memory sticks.

On the rear side of the device, four stereo outputs is provided. Three of them are dedicated to the tuner, CD/MEDIA and Internet Radio function.

This feature can be useful for applications such as Multi-Zone systems where multiple audio sources are required at the same time.

The variable output has a volume control function and carries the signal selected by BACK button among FM tuner,CD-player,Media-player by USB/SD,DAB/Internet Radio, Bluetooth and Aux input signal.

Front Panel



1. SD connection port:

An USB storage device can be inserted to this slot. Tracks stored on here can be played through the ER-1 and it will start to play when the media is inserted and selected SD function by BACK button.

2. USB connection port:

An USB storage device can be inserted to this slot. Tracks stored on here can be played through the ER-1 and it will start to play when the media is inserted and selected USB function by BACK button.

3. AUX IN

Line level Aux input jack. It will start to play when you select AUX function by BACK button.

4. CD Slot

Audio CD shall be inserted into this drive. The drive will load the CD automatically when it is inserted into this slot. Only use CD with normal round shape and with normal size (12 cm). Always check if the CD slot is empty before inserting a CD and don't force the CD into the slot when it doesn't accept the CD automatically. When a CD is inserted, the device will automatically start playing it at CD.

5. CD Eject button (EJECT)

This button shall be pressed to remove the CD from the drive. After this button is pressed, the CD will be ejected from the drive and can be taken out by user. If the CD is not taken within ~5 minutes, the CD will be automatically inserted to the drive again.

6. LCD Display

The LCD Display shows the current operation mode of the unit. It shows which radio station is playing, which audio track is playing, which functions are enabled, ...

- Standby mode
Press the button, the device can be turned on.

7. Play / Pause button (PLAY/PAUSE)

- CD, USB, SD mode
Press: The music from the CD, USB or SD can be started and paused with this button. When a track currently is playing, it will be paused after pressing this button and the current position (Track no and time) will be shown on the display. It will resume to play after pressing this button again.

- Bluetooth mode:

Press: The music from the Bluetooth feature is activated on your Bluetooth device and paused with this button. It will resume to play after pressing this button again.

- Standby mode

Press the button, the device can be turn on.

8. Tuning down / CD-Mp3 Track selection down (⏮/⏪)

- CD, USB, SD mode

In CD, USB or SD mode, the playing track and position in the track can be selected with this button. Press: Pressing this button for a short term, the previous track will be selected.

- Tuner mode

In tuner mode, the desired radio station can be selected with this button. Press: Pressing this button one single time, the previous radio station will be searched in manual seek mode, and when used in manual seek mode the selected frequency will decrease one step.

Press & Hold: Pressing and holding this button, the selection mode for the tuner will be switched to auto seek mode and the frequency can be decreased by holding / pressing this button.

9. Tuning up / CD-Mp3 Track selection up (⏭/⏩)

- CD, USB, SD mode

In CD, USB or SD mode, the playing track and position in the track can be selected with this button. Press: Pressing this button for a short term, the next track will be selected

- Tuner mode

In tuner mode, the desired radio station can be selected with this button. Press: Pressing this button one single time, the next radio station will be searched in manual seek mode, and when used in manual seek mode the selected frequency will increase one step.

Press & Hold: Pressing and holding this button, the selection mode for the tuner will be switched to auto seek mode and the frequency can be increased by holding / pressing this button.

- Internet radio mode

In internet radio mode, press this button to confirm the menu.

10. BACK

In function mode, you can scroll menu backward by push this button. In tuner(FM) mode, pressing this button long term, you can see MCU version for main.

11. BACK

- Tuner mode: (Memory for the tuner frequency)

When pressing and holding this button, current radio stations displayed in LCD will be stored, and you can adjust preset number among P1~P50 press this button again. The radio stations are stored by pressing this button for a short term, you can see stored stations in order of preset from P1 to P50 total 50 presets.

- CD, USB, SD mode

In the CD, USB, or SD mode, you can adjust the number of preset preferences P1 ~ P17 through the selection between press this button again.

- Bluetooth mode

In Bluetooth mode, pressing this button long term, you can see MCU version for Bluetooth.

12. Mute (MUTE)

Pressing this button, all variable output and fixed output can be muted/unmuted. When the outputs are muted, the message 'MUTE' will display on the LCD. In CD(USB) mode, by pressing this button long term, you can see MCU version for CD(USB).

13. Function selection button (PUSH TO SELECT)

Combination menu button, turn to scroll through the items in the display, push to select the high lighted item or to confirm your selection.

In the function mode, turn the button on the left, reduce the volume, turn the button on the right, and increase the volume, only control main output.

14. Power switch

Press the power switch, the device can be turned on, the blue LED above the power button will illuminate, the message 'STANDBY' will display on the LCD.

15. Equalizer select (Bypass/Pop/Rock/Classic/JAZZ) (EQ)

Press this button to switch between different equalizer presets: Bypass / Classic / Pop / Rock / Off. They will be selected in this sequence and enhanced sound can be sent out only main output jack.

16. Recording(REC)

You can record a various sound source to USB or SD.

Menu ==> System Step ==> Recording

==> Main Out to USB *

==> Main Out to SD

==> REC IN to SD

==> REC IN to USB

17. Repeat (REP/RAND)

- CD, USB, SD mode

Pressing this button, the repeat mode can be selected among Repeat One (Repeats currently playing track), Repeat All (Repeats all tracks on inserted data carrier) and Random play.

18. Volume up(VOL+)

Volume up button for main output jack.

19. Volume down(VOL-)

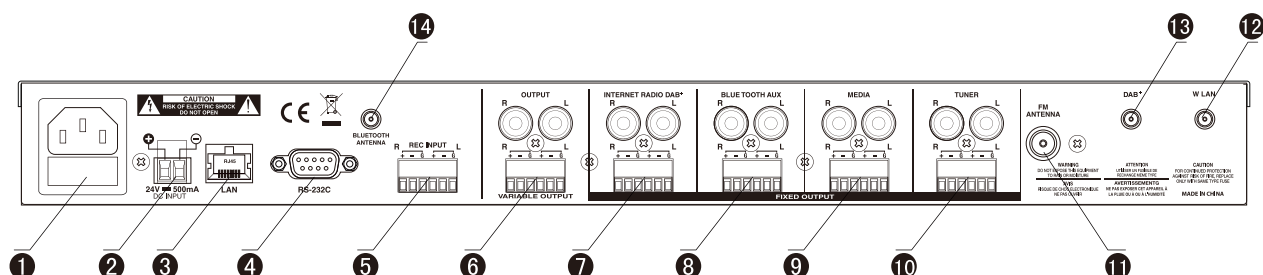
Volume down button for main output jack.

20. Stop button (STOP)

- CD, USB, SD and Bluetooth mode

The currently playing track will be stopped when pressing this button. After pressing "Play" again, it will resume to play at the absolute beginning of the inserted data carrier.

Rear Panel



1. Power inlet

The main power supply (100~240VAC, 50/60 Hz) has to be applied to this AC power inlet. The connection is made by an IEC C14 power connector which is fitted with a fuse. When replacing the fuse, make sure that the value of the replacement fuse matches the value of the original fuse. (T0.5AL/250V)

2. DC+24V Input connection

The back-up power supply (DC+24V) has to be applied to this connector.

3. Network cable connector(LAN)

Connect to a normal computer network. For internet radio playback, the network must have an accessible broadband internet connection.

4. RS232 control port

The RS232 control port can be used for controlling the device through external hardware such as audiovisual installations, home & industrial automation systems, computers, ...

5. REC INPUT

This Euroblock connector is to record the input of the external balance signal.

6. Selected Variable audio output

The selected variable audio output can be switched between TUNER or CD/USB/SD(MEDIA) or BLUETOOTH/AUX or DAB+/INTERNET RADIO mode and the output level (volume) can be adjusted. Volume adjustment should be done using the rotary function dial of 15. In most basic audio application where only one simultaneous source is required (either TUNER or CD/USB/SD or BLUETOOTH/AUX or DAB+ /INTERNET RADIO), the variable audio output will be used. Two types analog signal output from RCA(unbalance) and Euroblock(balance).

7. Internet radio/DAB+ output

The output terminal has output connection for two analog signals. Internet radio and DAB+. Their output levels are fixed and not controlled.

Two types of analog signal output can be from RCA(unbalance) and Euroblock (balance) at the same.

8. Bluetooth/AUX output

The output terminal has output connection for two analog signals, bluetooth and AUX. Their output levels are fixed and not controlled.

Two types of analog signal output can be from RCA(unbalance) and Euroblock (balance) at the same.

9. Media output

The output terminal has output connection for two analog signals, CD,USB and SD. Their output levels are fixed and not controlled.

Two types of analog signal output can be from RCA(unbalance) and Euroblock (balance) at the same.

10. Tuner output

This output is a independent output tuner analog signal, and its output level is fixed and uncontrolled.

Two types of analog signal output can be from RCA(unbalance) and Euroblock (balance) at the same.

11. FM Antenna connection

Connect the supplied FM antenna to those connectors to ensure a good FM reception. In case of bad reception, the connection of an external outdoor antenna or cable distribution can significantly improve the audio reception.

12. Wi-Fi antenna

Connect the wi-fi antenna here.

13. DAB+ Antenna

Connect the DAB antenna here.

14. Bluetooth antenna

Connect the bluetooth antenna here.

Accessories

Please check and identify the supplied accessories.

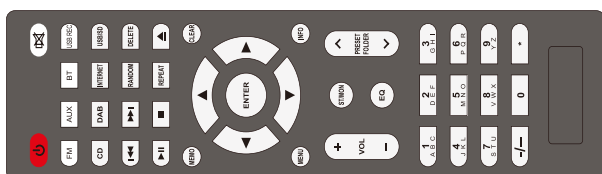


FM Antenna x 1



WiFi Antenna x 2 (M5 MODEL)

WiFi Antenna x 1 (M4/M3 MODEL)



Remote Control x 1



Power Cord x 1

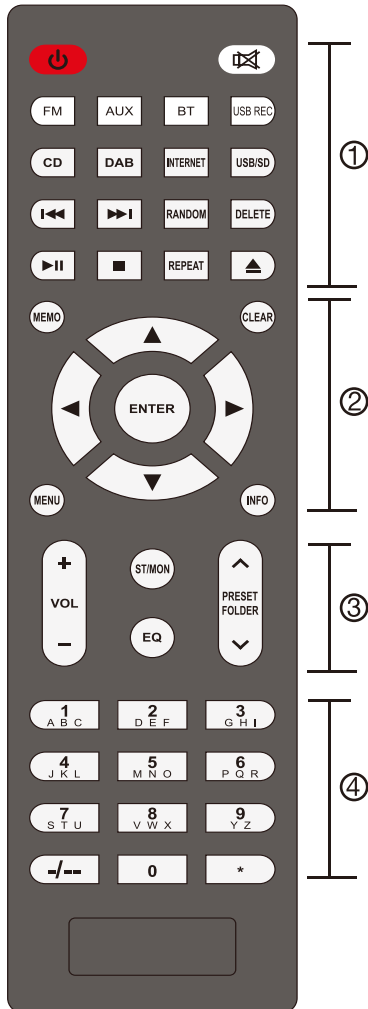


Euroblock Connector

ER-1 MODEL : 2PIN,5.08 x 1
6PIN,3.5 x 6

ER-3/ER-4 MODEL : 2PIN,5.08 x 1
6PIN,3.5 x 5

Remote Control



①

⏻ (Power): When the device is in standby mode, you can press this key to turn on the power. Once again, the device switches to the standby mode.

🔇 (Mute): Mutes the sound.

USB REC: USB direct recording.

⏮ ⏭ (Skip/Search) :

*Skips Fast backward or Forward.

*Searches for a section within a track/file.

RANDOM: Listen to your track / file of random.

DELETE: Deletes MP3/WMA files. (USB/SD only).

⏯ (Play/Pause) : Starts or pauses playback.

■ (Stop) : Stops playback or recording.

REPEAT : Listens to your tracks/files repeatedly.

▲ (Open/Close) : Opens and closes the disc tray.

②

MEMO: *Stores radio stations.

*Creates a programmed list you want to listen to.
only CD/USB/SD model.

CLEAR: *Deletes all the saved stations.

⏮ ⏭ Left/right scroll through items in the display.

▲ ▼ Up/down scroll through items in the display.

ENTER: The highlight item is confirmed by this key.

MENU: The function and mode menu of the device.

INFO: The RDS function of the tuner ON/OFF.

③

VOL +/-: Adjusts VARIABLE OUTPUT volume.

ST/MON: Tuner (FM) mode, stereo and mono switching.

EQ: Switch to a different preset equalizer.

PRESET.FOLDER ▲ / ▼ :

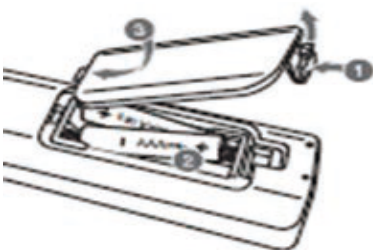
*Searches for a folder of MP3/WMA files. When a CD/USB containing MP3/WMA files in several folders is being played, press the key to select the folder you want to play.

*Chooses a preset radio station.

④

0 to 9 numerical buttons : Selects numbered tracks, or files.
(only CD/USB/SD).

Replacement of battery



Remove the battery cover on the rear of the Remote-Control, and insert two (size AAA) batteries with (+) and (-) matched correctly.

Bluetooth

Bluetooth is wireless communication technology for short range connection.

The sound may be interrupted when the connection is interfered by the other electronic wave or you connect the bluetooth in the other rooms.

Connecting individual devices under Bluetooth wireless technology does not incur any charges. A mobile phone with Bluetooth wireless technology can be operated via the Cascade if the connection was made via Bluetooth wireless technology.

Available Devices : Mobile phone, MP3, Laptop, PDA.

Pairing your unit and Bluetooth device

Before you start the pairing procedure, make sure the Bluetooth feature is activated on your Bluetooth device:

1. Function Select the Bluetooth, "BT READY" appears on the display window.
2. Operate the Bluetooth device and perform the pairing operation. When searching for this unit with the Bluetooth device, a list of the found devices may appear in the Bluetooth device display depending on the type of Bluetooth device. Your unit appears as "ER-1" (ER-3, ER-4).
3. When this unit is successfully connected with your Bluetooth device, "BT PAIRED" will be appear on the display window.
3. Listen to music.
To play a music stored on your Bluetooth device, refer to your Bluetooth device's user guide.

Network Setting for Internet Radio

Before you are able to use your internet radio, you will need the following items:

- A broadband internet connection.
- A wired/wireless access point, or router connected to your broadband internet connection.

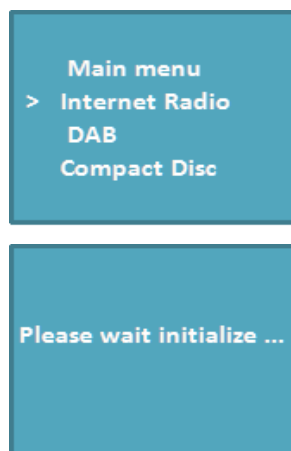
If your wireless network is configured to use Wired Equivalent Privacy (WEP) or Wi-Fi Protected Access (WPA) data encryption, you will need to know the WEP or WPA code so that you can setup your internet radio to communicate with your wireless network. Consult your network administrator for your WEP or WPA codes.

- Before continuing, make sure that your wired/wireless access point or router is powered on, and connected to your broadband internet connection. Consult the manufacturer's guide supplied with your wired/wireless access point or router if you are unsure how to do this.

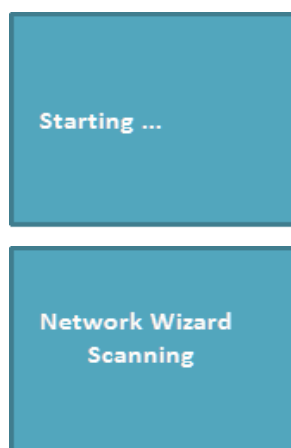
Navigation

Please connect the Internet Radio with Wireless Network, according to below steps.

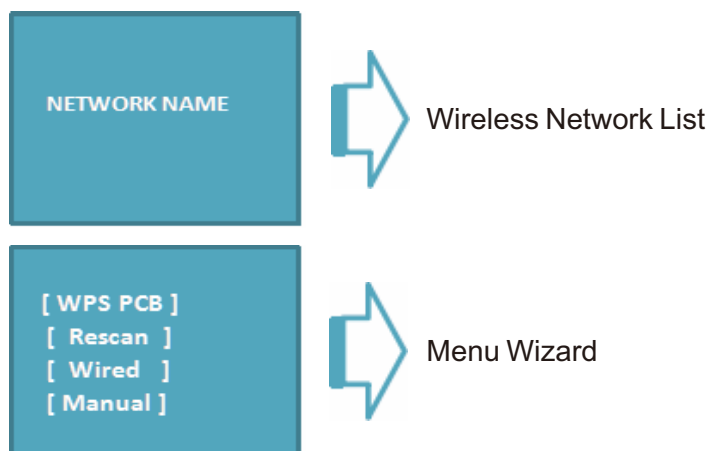
First Step : Power ON, select the function to internet radio.
LCD display Screen will be lighted on and showed same as below:



Second Step : Scan for Network Router



When the Internet Radio search out Wireless Network, names of Networks will be showed on the LCD screen.



*If your wireless network is not found, check that your wireless access point or router is switched on and connected to your broadband internet connection.

The Third Step : Connect to Wireless Network

Choose a wireless network that you can use, press the "press Select" button to confirm the connection and connect successfully.

But,if a password has been set up for the wireless service, then it can be connected after inputting the password.

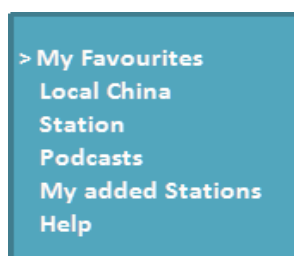
Use " ◀▶▶▶ "button to show the correct character on the display panel, and select"E"to press the "PUSH TO SELECT" button to complete the confirmatin.

Use the remote control " ◀▶ ▲▼ "key and the "ENTER" key can also complete the input.The LCD screen will showed as below:



Remork:
 < Delete single number or character.
 E Complete the input.
 C Clear the input and exit.

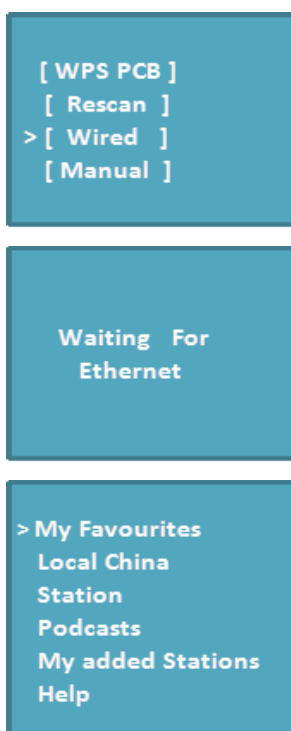
After inputting password,Choose the "E" button to confirm the completion of input and the connection of Internet,The LCD screen will showed as below:



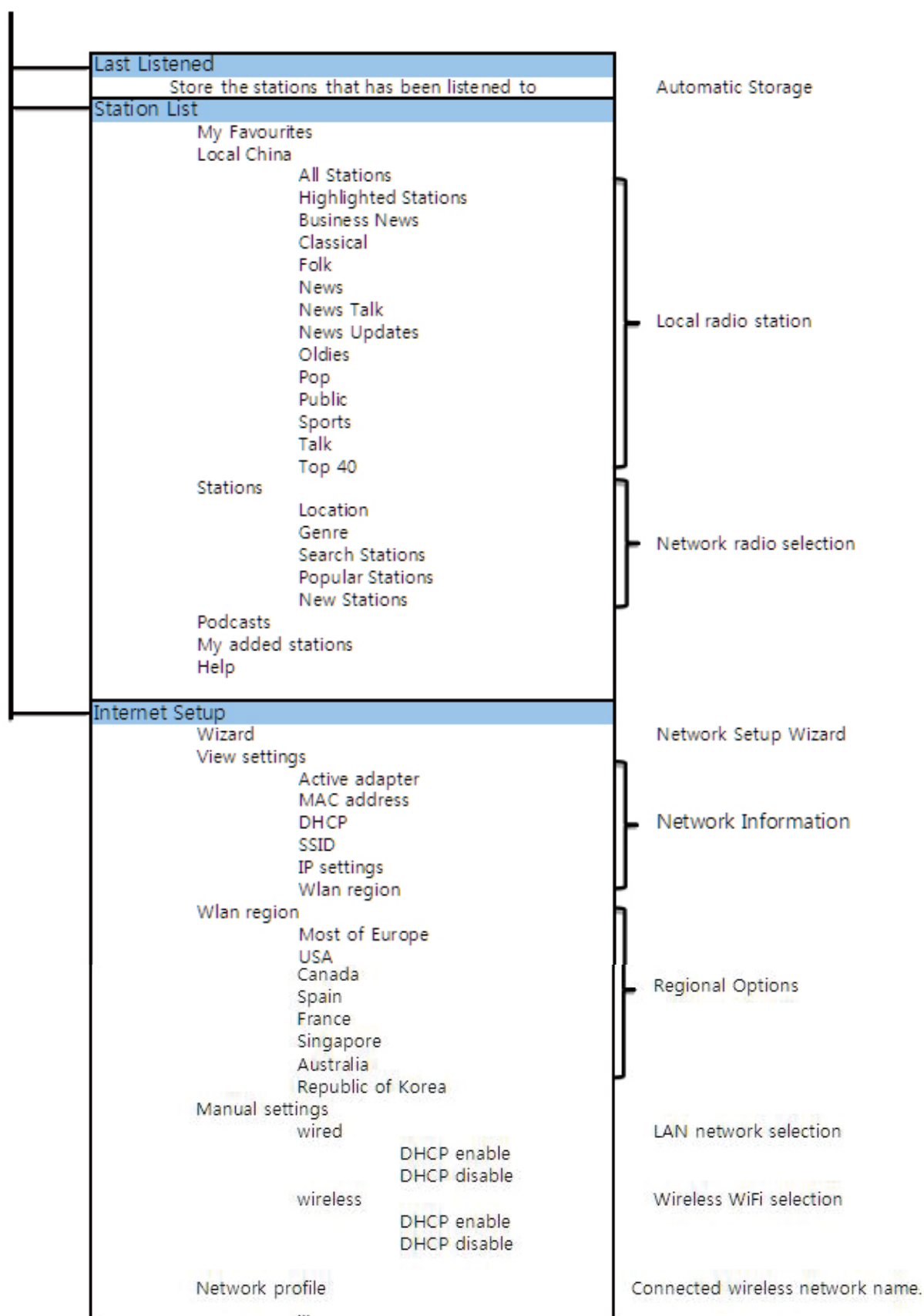
Connecting to a wired network

Use the following procedure to connect the WI-FI radio to a wired router.

- 1.Connect an ethernet cable (not supplied) between the ethernet port on the rear of the WI-FI radio and a wired router.
- 2.Power On the Wi-Fi router.
- 3.The connection between the WI-FI radio and the router will be setup automatically.



Internet Radio Menu



Connecting Station

Notice: If an error occurred, please press the BACK button to return to last stage of the function table.

Choose the Internet Radio you want to listen.

1. Turn the "PUSH TO SELECT" control until the following screen is displayed.



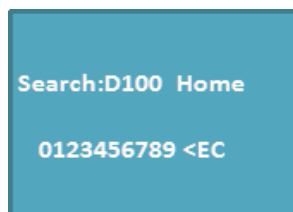
Press down "PUSH TO SELECT" button, to confirm into Internet Radio menu. You can also switch directly on the "INTERNET" button of the remote control.

2. There are five methods to search the station in the Function table of Internet Radio.

<Location> Station can be search by location.

<Genre> Station can be search, according to types, such as 90s, Classical, Dance or Rock.

<Search> Station can be search by inputting Stations' name directly.



3. Press down "PUSH TO SELECT" button to choose the way you like, such as <Location>, then choose Nation and Region, rotate "PUSH TO SELECT" button to search.

Notice: Station name will be ranked according to Initials.

4. Press down "PUSH TO SELECT" confirm button then you can listen to the station which you choosed. When the station is in the process of downloading buffer, the display screen will showed as <Buffering...>

Specifications

FM Tuner	
Tuning range	87.5 - 108 MHz
Sensitivity (26dB S/N)@ 75Ω unbalanced	2.0 μV
Channel selectivity (67.5KHz)	40 dB
Tuning step size	50 kHz (Option, 100kHz)
Audio S/N ratio FM	60 dB
Audio bandwidth	30 - 15 kHz
Analog out(MODE:75KHz,1kHz)	Fixed Output: 0dB Variable Output(EQ,Bypass,vr,max): 0dB
THD	< 0.3%
Stereo separation	> 40 dB @ 1 kHz
CD player	
Compatible media	CD,CDROM,CDROMXA
Audio format	Audio CD 16 bit PCM, MP3 32-320 kbps and variable bitrate, WMA, Id3,
S/N ratio	>80dB
Analog out(1kHz)	Fixed Output: 0dB Variable Output(EQ,Bypass,vr,max): 0dB
THD	<0.1%
Frequency	20Hz - 20KHz
USB/UPnP	
Supported audio codecs	MP3 32-320 kbps and variable bitrate WMA,FLAC, WAV, ID3 tags support
Memory file system	FAT, FAT32
Memory capacity	up to 16GB
S/N ratio	>80 dB
Analog out(1kHz)	Fixed Output: 0dB Variable Output(EQ,Bypass,vr,max): 0dB
THD	<0.1%
Frequency range	20 Hz - 20 kHz
SD	
Supported audio codecs	MP3 32-320 kbps and variable bitrate WMA,FLAC, WAV, ID3 tags support
Memory file system	FAT, FAT32
Memory capacity	up to 16GB
S/N ratio	>80 dB
Analog out(1kHz)	Fixed Output: 0dB Variable Output(EQ,Bypass,vr,max): 0dB
THD	<0.1%
Frequency range	20 Hz - 20 kHz
Recording Replay	
S/N ratio	>80 dB
THD	<0.3%

Necessary modifications are carried out without notice.

Specifications

AUX(Input 1kHz/-6dBv)	
Frequency range	20 Hz - 20 kHz
S/N ratio	>80 dB
Analog out	Fixed Output: 0dB Variable Output(EQ,Bypass,vr,max): 0dB
THD	<0.3%
Bluetooth	
Frequency range	20 Hz - 20 kHz
S/N ratio	>80 dB
Analog out(1kHz)	Fixed Output: 0dB Variable Output(EQ,Bypass,vr,max): 0dB
THD	<0.3%
Receiving distance	more than 8 meters
Internet radio	
Audio streams	Mp3 / WMA
Customizable favourites	via web portal
Wifi	
2.4 GHz	802.11
Authentication	Open,Pre-shared key (PSK),Wifi protected access (WPA) or WPA2
Channels	selectable per country
Ethernet	
Connector	standard RJ45 network port
DAB+	
Tuning range	BAND III: 174.928MHz - 239.200MHz
	L BAND :1452.960 MHz - 1490.624 MHz
Sensitivity	≤ -90
General	
Power supply	100~240VAC,50Hz/60Hz / DC+24V
Bus Power Supply (USB)	5V $\overline{\text{---}}$ 500mA
Output impedance	less than 1 k Ω at max setting
Operating temperature	10-40 °C
Relative humidity	10 to 80% non-condensing
Dimensions (L x W x H)	482 x 320 x 44 mm
Color	Black
Weight	3.82kg

Remarks:

*ER-4 model has no Internet radio/DAB+ function.

*ER-3 model has no Internet radio/DAB+ and CD function.

Necessary modifications are carried out without notice.