

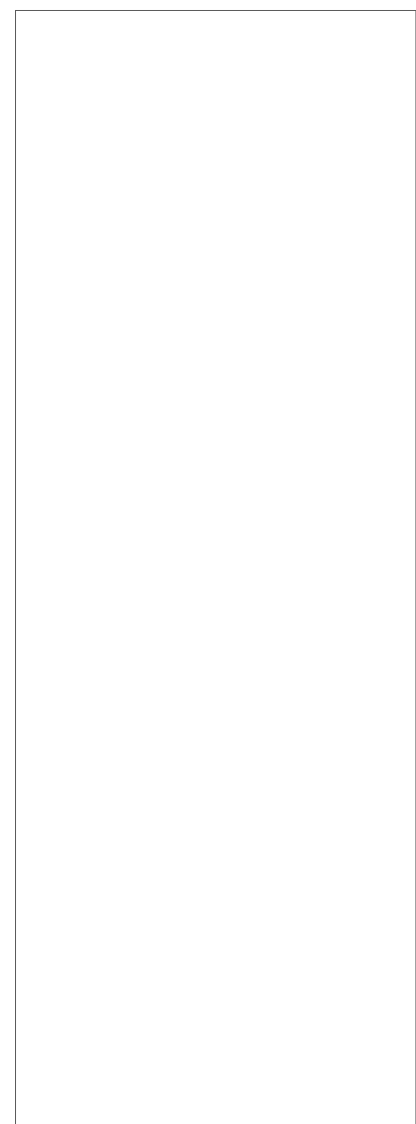




381QA0S-A

WARNING:
TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

 <small>THE LIGHTNING FLASH AND ARROW-HEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF "DANGEROUS VOLTAGE" INSIDE THE RACK.</small>	<p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p> <small>CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE BACK HOUSING SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</small>	 <small>THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THIS RACK.</small>
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SANGEAN

HD Radio®

HDT-1

HD Radio™ Component Tuner

User Manual



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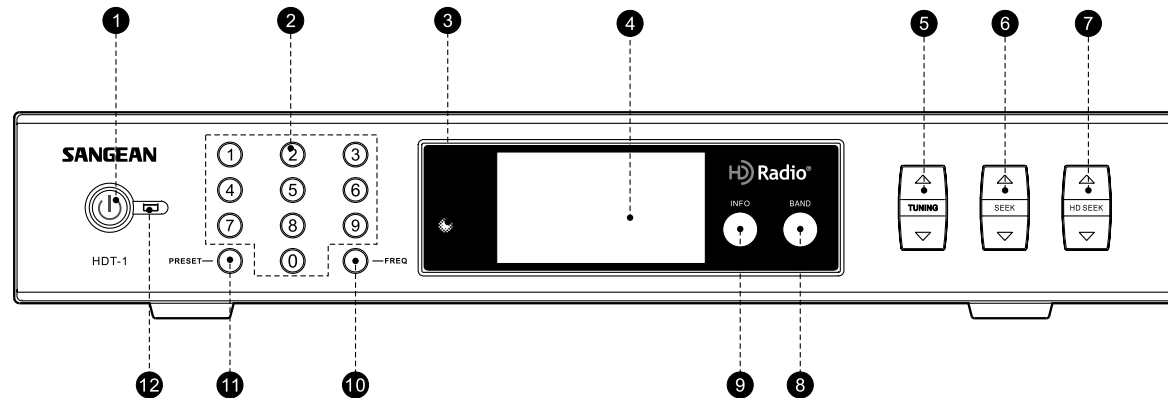


IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
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. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. 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.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. 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.
14. To Reduce the Risk of Fire or Electric Shock, Do not Expose This Appliance To Rain or Moisture.
15. The Shock Hazard Marking and Associated Graphical Symbol is provided on the bottom panel of unit.
16. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, shall not be placed on the apparatus.

Main Unit Controls

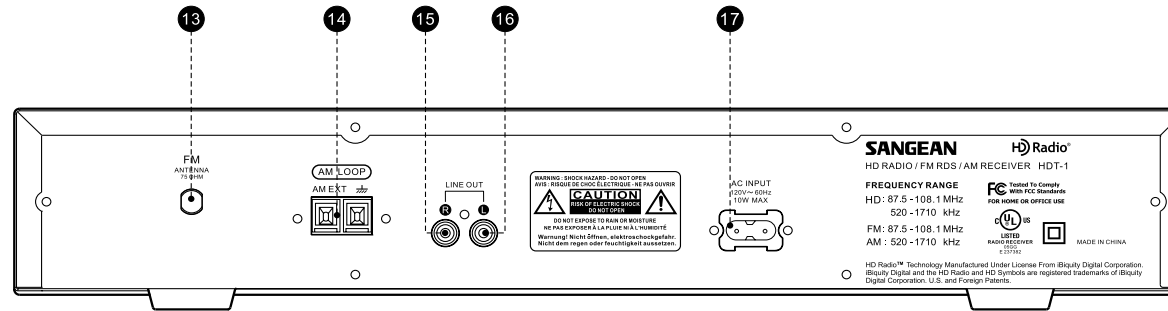
(Front)



- | | |
|--------------------------|-------------------------------------|
| 1. Standby on/off button | 7. HD Radio seek button |
| 2. Number keys | 8. Band button |
| 3. Remote Control sensor | 9. Information button |
| 4. LCD display | 10. Direct frequency station recall |
| 5. Tuning Control button | 11. Preset button |
| 6. Seek button | 12. Standby LED indicator |

Main Unit Controls

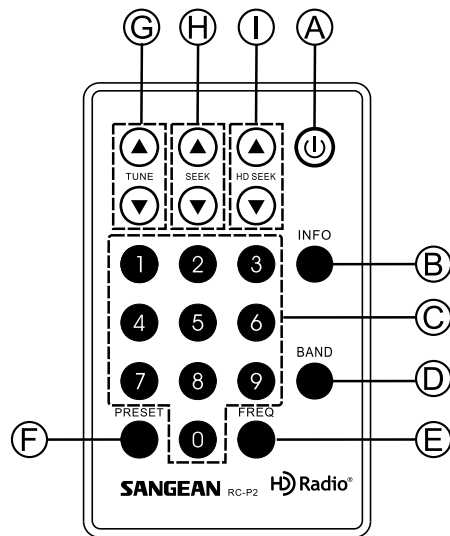
(Rear)



13. External FM antenna socket
14. External AM loop antenna socket

15. 16. Line Out socket
17. AC power cord socket

Remote Control

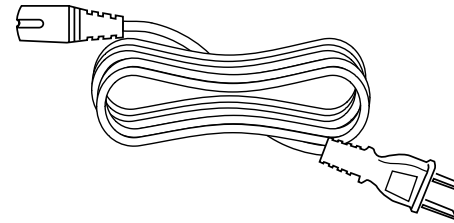


- A. Standby on/off button
- B. Information button
- C. Mode selection
- D. Band button
- E. Direct frequency station recall

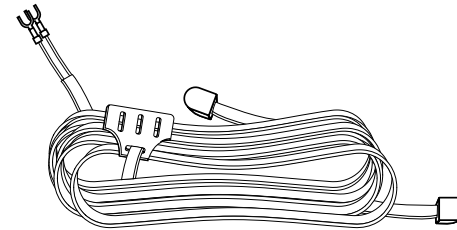
- F. Preset button
- G. Tuning Control
- H. Seek button
- I. HD Radio Seek button

Accessories

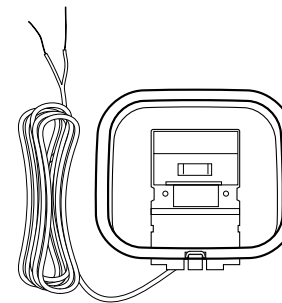
Detachable power cord x 1



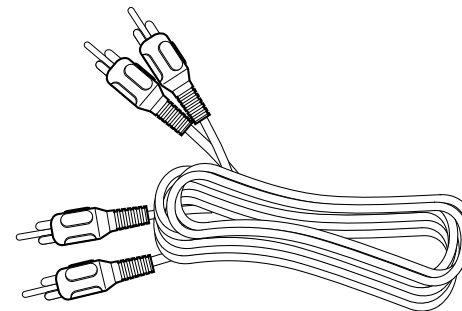
FM Dipole antenna x 1



AM loop antenna x 1



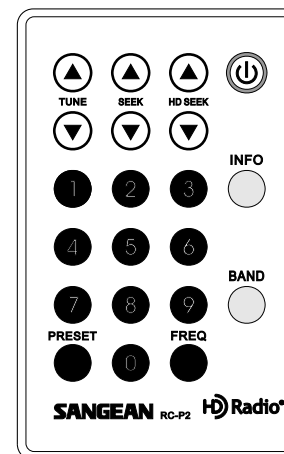
RCA type audio cable x 1



Remote control unit x 1

Instruction manual x 1

Warranty card x 1



Getting started

First find a location for your new HD Radio component tuner.

1. Plug the AC power cord into the socket located on the rear, ensuring that the plug is pushed fully into the socket. Plug the other end of the AC power cord into a wall socket and switch on the wall socket if needed.
2. Connect the FM Dipole into FM antenna terminal.

3. Connect the AM loop antenna into AM antenna terminal.

4. Connect the LINE OUT socket of tuner and LINE IN socket of the AV system with supplied RCA type audio cable. Make sure channels (R and L) are correctly connected.

Important:

The AM loop antenna should be located at least 50 cm away from the tuner to avoid possible interference.

Setting the clock

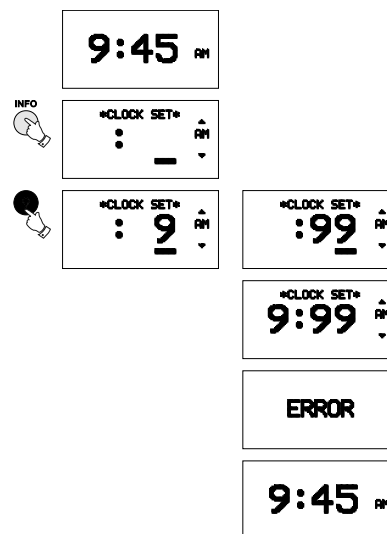
Clock setting can be done when the tuner is in Standby (power off)

1. Press and hold INFO button for approx. 2 seconds until display flashes "clock set " to enter Clock Set mode.
2. Press Tuning UP or Down button to select AM or PM.
3. Press number keys to set required clock time.
4. Press INFO button again to complete clock time set.

e.g. to set 9.45 AM

- a. press INFO to enter clock set mode.
- b. press Tuning UP to get AM.
- c. Press 0,9,4,5.
- d. Press INFO again to complete clock time set.

Display will appear ERROR if the input is incorrect.

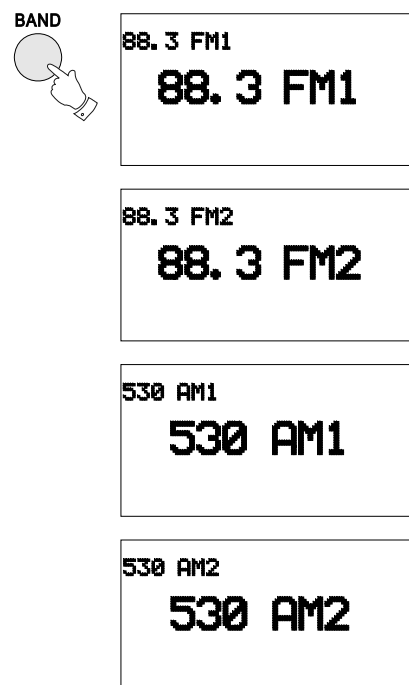


Radio Controls

To turn the radio on, press the Standby button. Pressing the Standby button again will put the unit into standby. In standby, the tuner will display the time, dim the backlight and standby LED will be on.

Selecting the radio band

Press the BAND button to select the appropriate band. At each press of the BAND button, the band switches from AM1⇒AM2⇒FM1⇒FM2. When you switch from one band to another, the radio will return to the last tuned station used in the band.

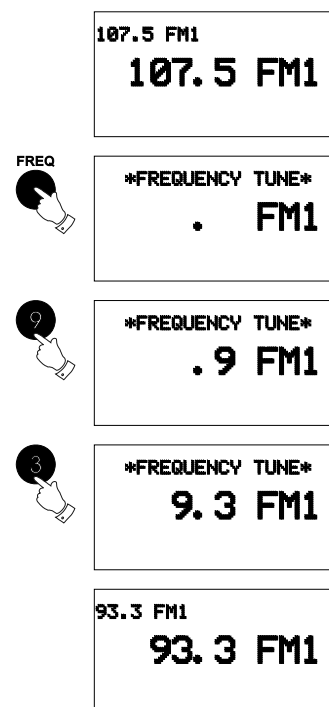


Manual Tuning

Press the TUNING rocker switch UP or DOWN to tune up or down to select a radio station. Tuning step per press for AM band is 10 kHz and 100 kHz for FM band.

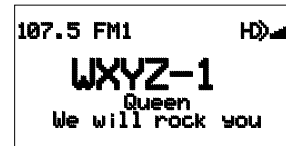
Direct Tuning

By using numbered key pad, you can directly tune to a radio station. For example, to tune to station 93.30 FM, press BAND button to select FM band followed by pressing FREQ button and numbered buttons 9-3-3. To tune to 1120 AM, press BAND button to select AM band, followed by pressing FREQ button and buttons 1-1-2-0. Display will appear ERROR if the input frequency is incorrect or out of coverage.



Receiving HD stations

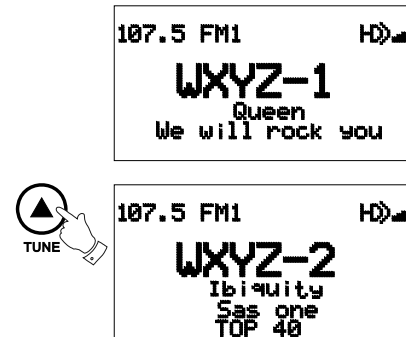
When the radio is tuned to a station broadcasting an HD signal, the LCD will display a blinking “HD” logo. Once the tuner acquires the HD signal, the “HD” logo will stay on and a Signal Strength indication will appear in the top right hand corner.



 : HD RADIO Indicator

Receiving Multicast Stations

When the radio is tuned to an HD compatible station and it determines that one or more Multicast stations are available, the Frequency or the Call Letters will be followed by a “-1” designator, indicating that there is at least one Multicast station available. The TUNE UP button will tune up from a station’s Main Program Service Station to the Multicasting programs.



Seek Function

To seek to another clear station, use the SEEK toggle button. Press and release the SEEK UP or DOWN will go to the next available station with good signal. Press any key to stop SEEK function.

HD SEEK function

Using the HD SEEK button, the tuner will seek to the next available HD Radio station. Press and release HD SEEK UP or DOWN will go to the next available HD Radio station with good signal. Press any key to stop HD SEEK function.

Using AM and FM presets

Preset stations

There are 20 preset stations for FM (10 x FM1, 10 x FM2) and 20 preset stations for AM (10 x AM1, 10 x AM2). First select the AM/FM using the band selection button (AM1, AM2, FM1, FM2), then press and hold for 3 seconds for the number 0-9 of where you would like to store this station until display indicating the station is stored.

Note:

If preset stations are full, display will appear FULL. Press another 5 seconds will replace previous memory station. Display will show PRESET – X stored. To give up the preset, simply release the number button when FULL appears, display will return to frequency status.



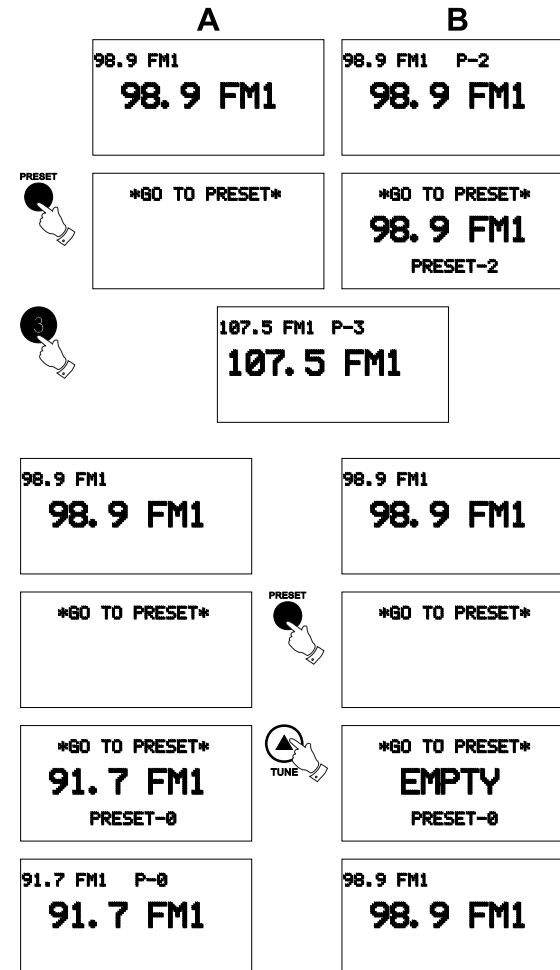
Recall preset stations

To recall preset stations, select required band by pressing BAND selection button. Press PRESET button to enter PRESET recall mode. Display will show "GO TO PRESET". Then followed by using one of the following methods to recall the stations.

1. Press and release the number station you like to recall.
2. Press TUNING UP or DOWN button to select required preset station.

Note:

If the preset station you like to recall has no preset station, display will show EMPTY.



Exchange preset stations position

You may use the Presets exchange function to change the position of the preset stations.

e.g.

preset 1: 93.10 MHz and

preset 2: 100.70 MHz


If you like to exchange preset 1 to be preset 2. First to recall Preset 1 station, then long press number button 2 for more than 2 seconds until display indicating the new preset has been stored.

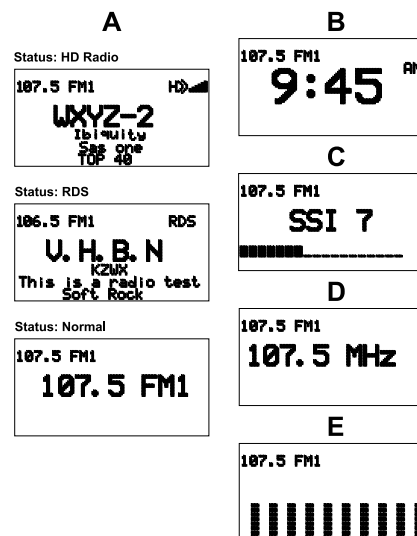
Note:

If memory is full during preset station exchange, display will appear FULL, then press number button 2 for more than 5 seconds until display indicating the new preset has been stored.

Information

To get information from the radio program you are listening to, press INFO button. Repeatedly pressing INFO button will cycle through information of (A)Radio Text, (B)Time, (C)Signal quality, (D)Frequency, and (E)Audio spectrum.

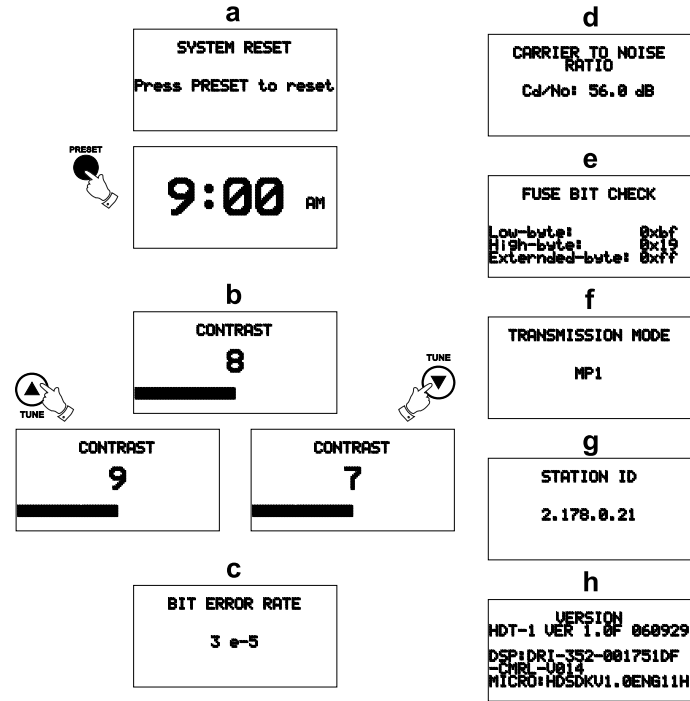
HD : HD RADIO Indicator	
 : Signal Indicator	
WXYZ-2 : Station Name	RDS : RDS Indicator
-MulticastSetIndex	U. H. B. N : Program Station
Ibiquity : Artist	Soft Rock : Program Type
Sas one : Title	KZWX : Callsign
TOP 40 : PTY	This is a radio test : Radio Text



Advanced Information

Long press INFO button for 2 seconds to enter Advanced Information. Press and release INFO button will cycle through information of RESET, LCD Contrast Adjust, Bit Error Rate, The carrier to noise ratio, FUSE Bit Check, Transmission Mode, Station ID and Software version.

- a. RESET –
in RESET mode, press PRESET button to RESET the tuner.
The tuner setting will be reset to its initialized factory setting.
- b. LCD Contrast –
Using TUNING UP or DOWN button to adjust LCD contrast.
- c. Bit Error Rate
- d. The carrier to noise ratio
- e. Fuse Bit Check
- f. Transmission Mode
- g. Station ID
- h. Software version are for factory and after sales service reference.



Specifications

Power:

Mains: AC 120 Volts 60 Hz only, 10 Watt maximum

Battery (remote control): 3.0V CR 2025

Frequency coverage:

FM 87.50 – 108.10 MHz

AM 520 – 1710 kHz

HD FM 87.50 – 108.10 MHz

HD AM 520 – 1710 kHz

Antenna System:

FM - Dipole type (supplied)

AM - Loop type (supplied)

Dimension (W x H x D): 430 x 70 x 256 mm

Weight: 2.6 kg.

HDT-1 Brief User Interface:

HDT-1 UI KEY function

NO	Button	action	function status	function	Note
1	standby	short	StandBy / PowerOn	PowerOn / StandBy toggle	recall the last station on last band
2	Band	short	PWR ON	FM1 → FM2 → AM1 → AM2	
3	Info	short	PWR ON	RT → CT → SSI → Freq → Spectrum	
		long 2s (To use info key to jump next status)	PWR ON	Reset → LCD Contrast Adjust → Error bit rate → Carrier to noise ratio → Fuse Bit Check → Transmission mode → Station ID → SW version & DSP version & SDK version	
		short (To use number key and tune ↑ ↓ select clock time, then to press Info button finish setting)	PWR OFF	To modify clock time.	
4	Info	long 2s (To use info key to jump next status, when the status is RESET, to press Preset button reset)	PWR ON	Reset	
5	Info	long 2s (To use info key to jump next status, when the status is LCD Contrast Adjust, to press tune ↑ ↓ adjust contrast)	PWR ON	LCD Contrast Adjust	

6	Preset	To press preset button then to press number button finish setting	PWR ON	Recall Preset 0~9	FM1
			PWR ON	Recall Preset 0~9	FM2
			PWR ON	Recall Preset 0~9	AM1
			PWR ON	Recall Preset 0~9	AM2
		1. When preset memory isn't full. To press number button long 2s store channel.	PWR ON	Store to Preset 0~9	FM1
			PWR ON	Store to Preset 0~9	FM2
		2. When preset memory is full. To press number button long 5s store channel.	PWR ON	Store to Preset 0~9	AM1
			PWR ON	Store to Preset 0~9	AM2
7	Tune ↑ ↓	short	PWR ON	"Tune up/down" for services up/down	
		short	PWR ON	Turn up or down to next Freq	
		Push and Hold	PWR ON	"Tune up/down" for services up/down	
		Push and Hold	PWR ON	Fast tuning up or down, 8 steps per sec.	
8	Seek ↑ ↓	short	PWR ON	Auto scan to next strongest station.	
9	HD Seek ↑ ↓	short	PWR ON	Auto scan to next HD Radio station.	
10	Freq	To press Freqt button then to press number button select frequency	PWR ON	Frequency tune	