

**M305A**  
**IN-DASH MP3/CD AM/FM RECEIVER**

01.2010

***User's Manual***



**SOUND STORM<sup>®</sup>**  
L A B O R A T O R I E S

3451 LUNAR COURT, OXNARD CA 93030

PHONE: 888.38.STORM

805.983.8008

FAX: 805.983.7068

TECHNICAL SUPPORT:

[www.soundstormlab.com](http://www.soundstormlab.com)



iPod is a trademark of Apple, Inc.,  
registered in the U.S. and other countries.



**M305A**  
**IN-DASH MP3/CD AM/FM RECEIVER**



M305A

## Contents

*In-Dash AM/FM  
CD/MP3 Receiver With  
Large LCD With Power Level Meter*

Installation.....	2
Install and remove the front panel.....	4
Wiring diagram.....	5
Control panel layout.....	6
General operation.....	7
Radio operation.....	10
CD/MP3 Operations.....	12
MP3 Operations.....	13
Remote control layout.....	14
Specifcation.....	16
Before playing discs.....	17
Trouble shooting.....	18

## TROUBLE SHOOTING

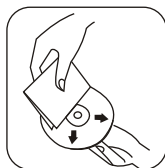
Before going through the check list, check wiring connection. If any of the problems persist after checklist has been made, consult your nearest service dealer.

Symptom	Causes	Solution
No Power	The car ignition key has not been switched on	If the power supply is properly connected to the car accessory terminal, switch the ignition key to ACC
	The fuse is blown	Replace with a new fuse
CD Cannot Be Loaded or Ejected	A CD is already inside the player slot	Remove the CD from the player and insert the new one
	Inserting the CD in reverse direction	Insert the CD with the label facing up
	The CD is extremely dirty or defected	Clean the CD or try to play a new one
	Temperature inside the car is too high	Cool off until the ambient temperature return to normal
	Condensation	Leave the player off for an hour or so and try again
No Sound	Volume is at minimum	Adjust volume to desired level
	Wiring is not properly connected	Check wiring connection
Sound Skipping	The installation angle is more than 30°	Adjust the installation angle to less than 30°
	CD is extremely dirty or Defected	Clean the CD or try to play a new one
The Operation Keys Do Not Work	The built-in microcomputer is not operating properly due to Interference	Press the RESET button or reinstall the front panel properly
The Radio or Automatic Selection Does Not Work	The antenna cable is not connected correctly	Connect the antenna cable correctly
	The signals are too weak	Select the station manually

## BEFORE PLAYING DISCS

### CLEANING THE CD

Before playing a CD, wipe it off with a clean, dust-free cleaning cloth. Wipe the disc in the direction of the arrow.



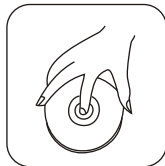
Always insert the CD with the label side facing upwards.

If the CD is inserted with the printed side facing downwards, the device may be damaged.



**Note:** If there is already a CD in the CD slot, do not try to insert a second CD. This may damage the device.

Always hold CDs by the edge. In order to keep the CD clean do not touch the surface. Pull out the CD as follows.



Do not attach any sticker or adhesive tape on the CD.

Do not expose the CD to direct sunlight or sources of heating.

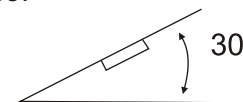
Do not leave CDs in a car if it parked in direct sunlight as that will lead to a considerable rise in the temperature inside the car.

**Note:** Do not use any solvents such as petrol or thinning agents. Commercially available cleaning substances of antistatic spray will damage the device.

## INSTALLATION

### NOTES ON INSTALLATION

- Choose the mounting location where the unit will not interfere with the normal driving function of the driver.
- Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and the system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- If installation angle exceeds 30 degrees horizontally, the unit might not give its optimum performance.



- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration. Do not expose the equipment to rain or moisture.

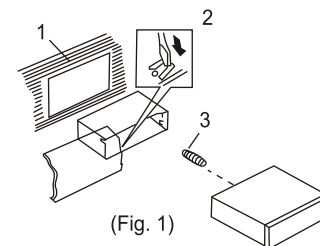
### DIN FRONT-MOUNT (Method A)

#### Installing the unit

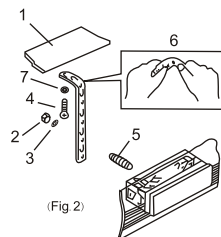
1. Dashboard
2. Holder

After inserting the holder into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the holder in place.

3. Screw



# INSTALLATION

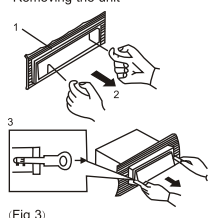


1. Dashboard
2. Nut (5mm)
3. Spring Washer
4. Screw (5 x 25mm)
5. Screw
6. Strap

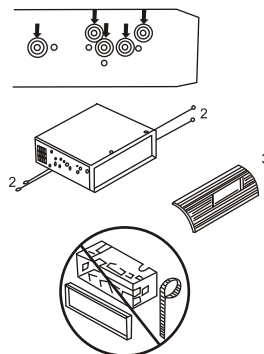
Be sure to use the strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.

7. Plain Washer

Removing the unit



1. Frame
  2. Insert fingers into the groove in the front of frame and pull out to remove the frame. (When reattaching the frame, point the side with a groove downwards and attach it.)
  3. Lever
- Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers makes possible to remove the unit from the dashboard.



## Fastening the unit to the factory radio mounting bracket:

1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side. Use either truss screws (5 x 5mm) or flush surface screws (4 x 5mm)
2. Screw
3. Dashboard or Console

## DIN REAR-MOUNT (Method B)

Installation using the screw holes on the sides of the unit.

# SPECIFICATION

## GENERAL

Power Supply Requirements:	DC 14.4V“—”, Negative Ground
Load impedance:	4 ohms
Maximum Output Power:	70W x 4(CH)
Chassis Dimensions:	178x163x50mm(WxDxH)
Current Drain:	5A

## TONE CONTROLS

Bass (at 100Hz):	+10dB/-10dB
Treble (at 10K):	+10dB/-10dB
CD Player	
Signal to Noise Ratio:	More than 60dB
Channel Separation:	More than 60dB
Frequency Response:	20Hz-20KHz

## FM RADIO

Frequency Coverage(MHz):	87.5-107.9MHz(U.S.A.)
IF:	10.7MHz
Sensitivity (S/N-30dB):	12dBu
Stereo Separation:	>30dB

## AM RADIO

Frequency Coverage (KHz ):	530-1710KHz(U.S.A.)
IF:	450KHz
Sensitivity(S/N-20dB):	<42dBu

## REMARKS:

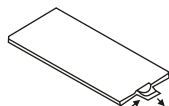
Specification subject to change without notice

## REMOTE CONTROL LAYOUT

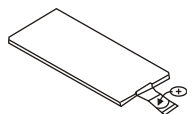
### REPLACING THE BATTERY

When the operational range of the remote control becomes short or non functions while operating. Replace a new CR2025 battery. Make sure you use the correct Battery polarity before replacing

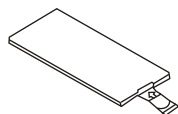
1.Pull out Battery Holder while pressing the stopper



2.Put the button type battery(+)mark upward into the Battery Holder.



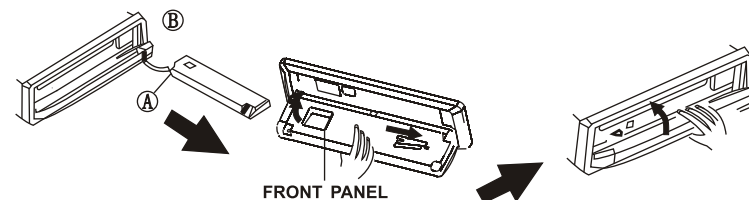
3.Insert the Battery Holder into the Remote control



## INSTALL AND REMOVE THE FRONT PANEL

### INSTALLING THE FRONT PANEL

To install the front panel, insert the panel into the housing and make sure the panel is properly installed, otherwise, abnormalities occurs on the display or some keys will not function properly.

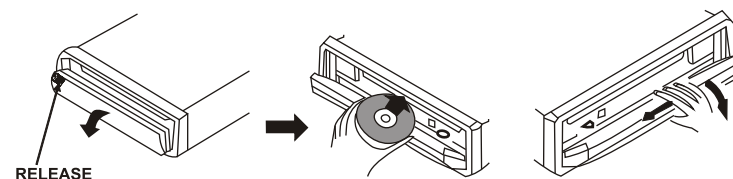


### DETACHING THE FRONT PANEL

Press REL button in the upper left corner, and then front panel will not function properly.

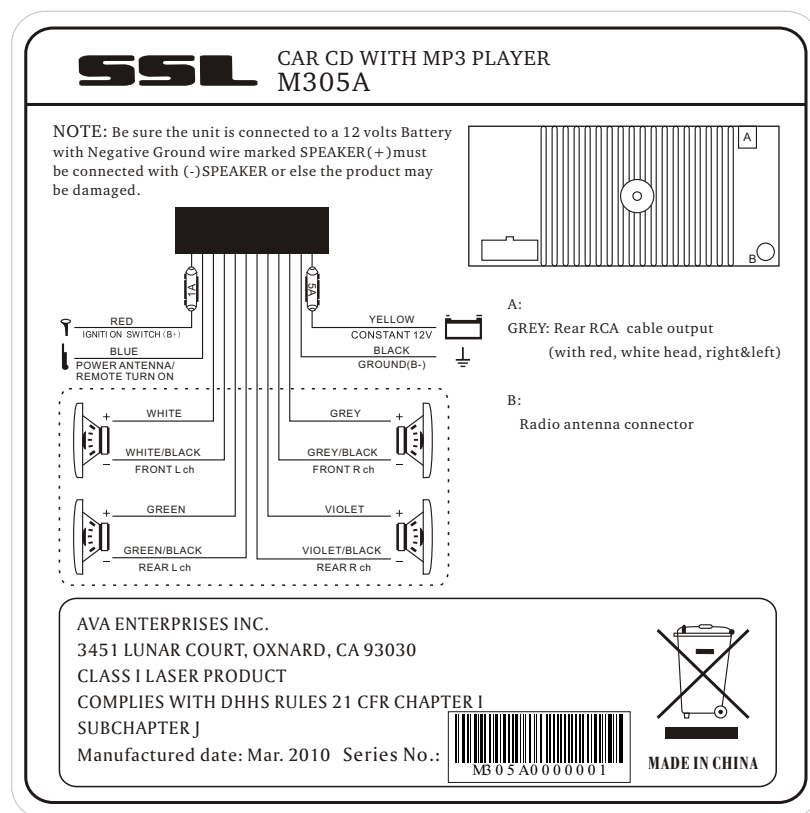
### REMOVING THE FRONT PANEL

When the front panel was turned down to a position of 90°, hold and slide the front panel to left, and then pull it out.



# WIRING DIAGRAM

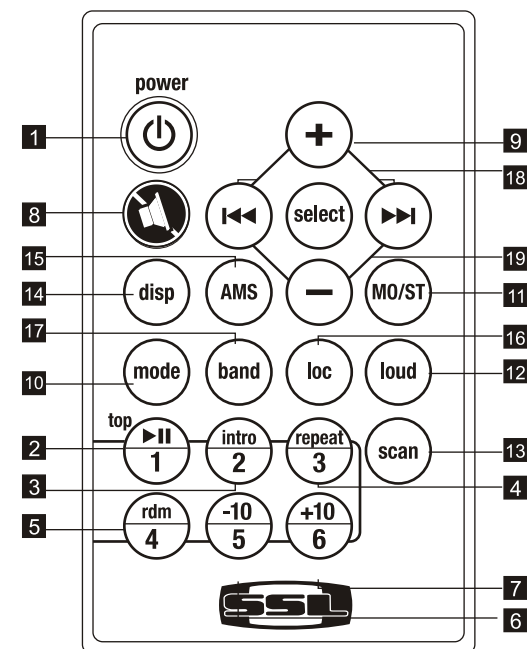
## WIRE CONNECTION



### ▲ NOTE

BE SURE THE UNIT IS CONNECTED TO A 12 VOLTS BATTERY WITH NEGATIVE GROUND . THE POSITIVE (+) CABLES MUST BE CONNECTED TO THE POSITIVE (+) BATTERY TERMINAL. THE NEGATIVE CABLE (-) MUST BE CONNECTED TO GROUND/CHASSIS. SPEAKERS SHOULD BE CONNECTED CORRECTLY (+) WITH (+) AND (-) WITH (-). FAILURE TO DO SO WILL DAMAGE THE UNIT.

# REMOTE CONTROL LAYOUT



- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 1 Power Button                  | 10 Mode Switch                        |
| 2 Pause/play/ Preset Button1    | 11 ST/MO Button                       |
| 3 Intro/Preset Button2          | 12 Loudness Button                    |
| 4 Repeat Playing/Preset Button3 | 13 Scan Button                        |
| 5 Random/Preset Button4         | 14 Display Button                     |
| 6 Preset Button5                | 15 APS/AMS Button                     |
| 7 Preset Button6                | 16 LOC/DX Button                      |
| 8 Mute Button                   | 17 Band Switch                        |
| 9 Volume Control                | 18 Tuning/Selecting Tracks/ F.F / F.R |
|                                 | 19 Select Button                      |

Remote Control Optional

## MP3 OPERATIONS

2. press VOL/SEL button(3)select the second number “3”, and adjust VOL/SEL button(3), number “032” will show on the display.
3. Press VOL/SEL button(3)select the third number “1”, and adjust VOL/SEL button(3), number “132” will show on the display. Then press the VOL/SEL button(3) long for 0.5seconds, play the song.

**NOTE:** number will be from right to left.

### FILE SEARCH MODE:

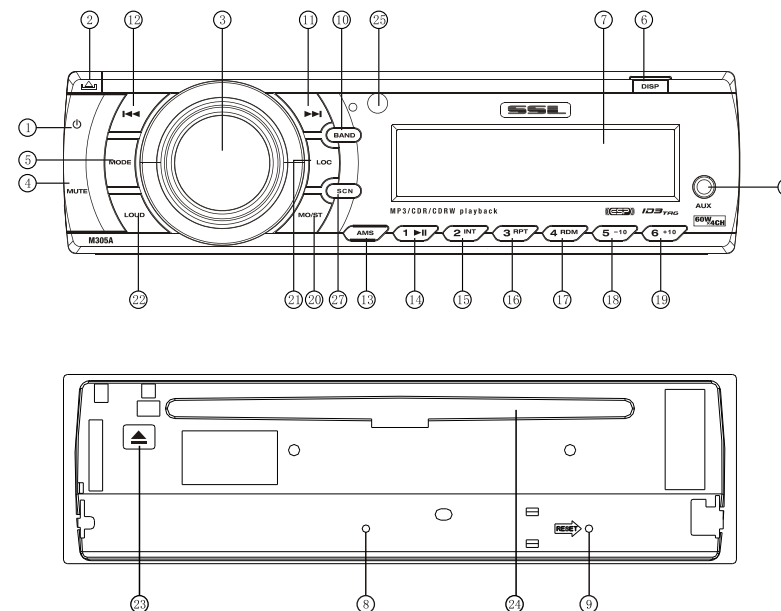
1. Press AMS (13) button twice, " FILE SCH " will show on the display.
2. Press VOL/SEL button (3) once to enter " FILE SCH " mode. Then the LCD displays first track number "001". Rotate the VOL/SEL button (3) to select the 1st digit.
3. Then press the VOL/SEL button (3) once to enter your choice. To select the 2nd digit, rotate the VOL/SEL button (3) to select the desired number. Then press once to enter your choice. Press VOL/SEL once again to find and enter your 3rd number.
4. Finally, press and hold VOL/SEL button (3) for more than 1 second, and the track number you have entered will begin to play.

### CHARACTER SEARCH MODE:

1. Press AMS(13) button 3 times, "CHAR SCH" will show on the display.
2. Press VOL/SEL button (3) once to enter "CHAR SCH" mode.
3. When in " CHAR SCH " mode,
  - Turning the VOL/SEL button(3) shows characters and numbers.
  - Pressing the VOL/SEL button(3) shows characters and numbers.
4. When characters or numbers are selected, the song will show on the display when you press and hold the VOL/SEL button. Press again to play the song.

## CONTROL PANEL LAYOUT

### FRONT PANEL LAYOUT



- |                                    |                              |
|------------------------------------|------------------------------|
| 1. Power Button                    | 15. Intro & Preset Button 2  |
| 2. Release Button                  | 16. Repeat & Preset Button 3 |
| 3. Volume/ Sel Button              | 17. Random & Preset Button 4 |
| 4. Mute Button                     | 18. Preset Button 5          |
| 5. Mode switch                     | 19. Preset Button 6          |
| 6. Display Button                  | 20. ST/MO Button             |
| 7. LCD Display                     | 21. LOC/DX Button            |
| 8. Flashing LED                    | 22. Loudness Button          |
| 9. Reset Button                    | 23. Eject knob               |
| 10. Band switch                    | 24. CD Slot                  |
| 11. Tune Seek&Track forward Button | 25. Remote Control Sensor    |
| 12. Tune Seek&Track reverse Button | 26. AUX IN JACK              |
| 13. Automatically memory storing   | 27. SCN Button               |
| 14. Play / Pause & Preset Button 1 |                              |

## GENERAL OPERATIONS

### ON/OFF

Press POWER button (1) to turn on the unit. Press it again to turn off.

### FRONT PANEL RELEASE

Press REL button (2) to detach the removable front panel.

### SOUND ADJUSTMENT

Turn on (3) can adjust the desired volume quality.

A).Press SEL button (3)will change in the following order.

Option:



### VOLUME

Adjust volume level by using VOL/SEL (3) knob.

**Note:** The unit is initially set to volume mode.

### BASS

Press VOL/SEL button(3) one time. Adjust bass level by using VOL/SEL(3) Knob.

### TREBLE

Press VOL/SEL button(3) two times. Adjust treble level by using VOL/SEL(3) Knob.

### BALANCE

Press VOL/SEL button(3) three times. Adjust sound balance between left and right speakers by using VOL/SEL(3)Knob.

### FADER

Press SEL button(3) four times. Adjust sound balance between front and rear speakers by using VOL/SEL(3)Knob.

### MUTE

Press MUTE button(4) mute down the sound. Press it again to release this mode and recover previous volume level.

## CD/MP3 OPERATIONS

### RPT

Press preset button (16): CDP mode : REPEAT ON / OFF is activated.

When REPEAT ON, RPT INDICATOR comes on and repeats the existing track. During a REPEAT, DISC- RPT INDICATOR comes on and repeats the current CD.

### RDM

Press preset button (17): During RANDOM ON, RDM INDICATOR is turned on.

### D-UP / D-DOWN

Press preset button (18-19):

- MP3 MODE : 10 TRACK UP / DOWN is activated.

When the total track is 10 or less, KEY is inactive.

### SELECT TRACKS

During CD operation, press TUNE/SEEK/TRACK REVERSE button (12) or TUNE/SEEK/TRACK FORWARD button (11) to move to the previous track or the following track, Track number shows on display. During CD operation, hold TUNE/SEEK/TRACK REVERSE button (12) or TUNE/SEEK/TRACK FORWARD button (11) to fast reverse or fast forward. CD play starts from when you release the button.

### EJECT

Press EJECT button (23) to stop CD play and eject the disc from the slot (24).

### TRACK SEARCH MODE:

1. Press AMS(13) button once, the " TRK SCH " will show on the display.
2. Press VOL/SEL button (3) once to enter the " TRK SCH " mode.
3. When in the " TRK SCH " mode, (please note in TRK SCH mode will show numbers only !)
  - By turning the VOL/SEL button (3) to show numbers.
  - By pressing the VOL/SEL button(3) to select number.

*Example:*

Searching song no. 132

1.press AMS button(13) to search, in track search mode, press VOL/SEL button(3) to select the first number "2", and adjust VOL/SEL button(3), number "002" will show on the display.



## RADIO OPERATION

### AUTOMATIC MEMORY STORING & PROGRAM SCANNING

- Automatically Store Memory

Press AMS(MP3) button (13) for several seconds, the radio searches from the current frequency and checks the signal strength until one cycle search is finished.

And then 6 strongest stations are stored into the corresponding preset number buttons.

- Program Scanning

Press AMS(MP3) button (13) shortly to scan preset stations. When the field strength level is more than the threshold level, the radio will stop at that preset number for several seconds, release mute and then search again.

### STATION STORING

Press preset button (14~19)

1) RADIO MODE.

M1 ~ M6

- PRESET MEMORY is loaded when key is pressed for less than 1 second.

- PRESET MEMORY is saved when key is pressed for longer than 1 sec.

2) CD/ MP3 / FLASH Mp3

PLAY / PAUSE

Press preset button (14) is activated. During a PAUSE, DISC INDICATOR flashes.

TOP

First song will play when Top key is pressed for longer than 0.5sec during play.

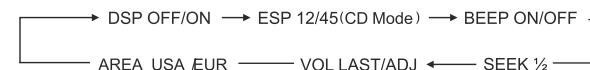
INT

Press preset button (15): During INTRO ON, INT indicator comes on and begins playing the first 10sec of each song, until the last song is played. It begins playing the entire track from where INT started.

## GENERAL OPERATIONS

### OTHERS ADJUSTMENT

If you press the Vol/SEL button (3) for several seconds, it will activate a cycling mode of the following functions for user's selection.



Press and hold this button to go to DSP Mode. By turning this function button, you will cycle thru Flat, Classic, Pop and Rock. Press the function button to select your favorite DSP mode.

When in DSP mode, pressing the function button once will take you to ESP Mode. Turning the function button will allow you to choose 12 seconds or 45 seconds ESP. Press the function button to select your desired ESP setting.

When in the DSP mode, pressing the function button twice will take you to Beep Mode, (the key pad tone). Turning the function button will allow you to choose ON or OFF. Press the function button to select.

### VOL LAST/ADJUST

This function allows the user to set the volume level of the unit after it was turned off and then turned on again. Choose VOL LAST if you want the volume level Knob the same as it was before turning off. VOL ADJUST allows to choose volume level.

### SEEK MODE

SEEK 1: When SEEK 1 mode is activated, AUTO SEEK SCAN is stopped when station is detected even user still push SEEK button.

SEEK 1: When SEEK 1 mode is activated, AUTO SEEK SCAN is stopped when station is detected even user still push SEEK button.

SEEK 2: Auto SEEK SCAN is not stopped even if station is detected if user pushes SEEK button. When releases SEEK button, then stop when station is detected.

### SELECT MODE

Press button (5) to go to different functions

## GENERAL OPERATIONS

- Tuner (radio)
- CD (MP3 CD)
  - to go to this mode must be have a CD in.
- Memory Card
  - to go to this mode must be have a Memory Card in.
- USB
  - to go to this mode USB device must be connected.
- AUX in put

### DISPLAY

Press DISP button (6) to operate each display mode as follow:

#### MP3 MODE

- Time is displayed for 5sec when DISP key is pressed, it will return to its previous display ( Folder, File name...) unless DISP key is pressed again. From the clock mode, when DISP Key is pressed for longer than 1sec, clock mode switches to clock Adjusting mode and the clock display begins flashing. At this time clock can be changed by pressing (+/-), or the ENCODER VOLUME.

#### LIQUID CRYSTAL DISPLAY

Exhibit current frequency and activated functions on the display (7).

#### FLASHING LED

If the front panel is not correctly installed on the main unit, the LED (8) will be flashing.

#### RESET

RESET button (9) is placed on the housing and must be activated with either a ball point pen or thin metal object. (Do not use sharp object to avoid damaging the unit.) The RESET button (9) is to be activated for the following reasons:

- Initial installation of the unit when all wiring is completed.
- All the function buttons do not operate.
- Error symbol on the display.

**NOTE:** If press RESET button (9), the unit can't work yet. please use a cotton swab soaked in isopropyl alcohol to clean the socket on the back of the front panel.

## RADIO OPERATION

### MO/ST SELECTOR

Press ST(20) button to select MONO or STEREO mode.

When "ST" appears in the LCD display. During the Fm receiver mode, press the button to switch mono or stereo.

### LOC/DX SELECTOR

Press LOC(21) button to select strong or weak station reception. It is set to LOC mode when LOC(21) button is first pressed. "LOC" appears and only local station is available. It is switched to DX mode when LOC(21) button is pressed again. Both distance and local stations can be received.

### LOUDNESS ON/OFF

Press LOU(22) button to increase the low frequency. This can improve the sensitivity of your ears. And "LOUD" appears in the LCD when the loudness mode is activated.

### SCAN

Press scan button (27) to search radio stations. When a station signal strength level is good, the radio will play that station for 5 seconds.

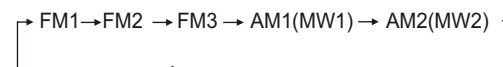
The Frequency will blink on the LCD during this process.

Press and hold scan button(27) more than 3 seconds to select the station which you desired. The radio will stop scanning and play that station.

## RADIO OPERATION

### BAND SELECTION

At tuner mode, press BAND button (10) to select the desired band. The reception band will change in the following order:



### STATION SELECTION

Press TUNE/SEEK/TRACK FORWARD button (11) or TUNE/SEEK/TRACK REVERSE button (12) shortly for manual tuning function.

When pressed for several seconds, the automatic tuning mode (SEEK mode) is activated.