NS-xV24 Maunal

Version History

(1) Rev 0.1   2007-06-05
      1) GUI First Release

(2) Rev 0.2   2007-06-11
      1) Revised UI image.

(3) Rev 0.3   2007-06-13
      1) Revised Menus for Music Library and Settings

(4) Rev 0.5   2007-06-20
      1) Revised Settings Menu and Image

1.Basic Specification

(1)Key
- Total 12 Key
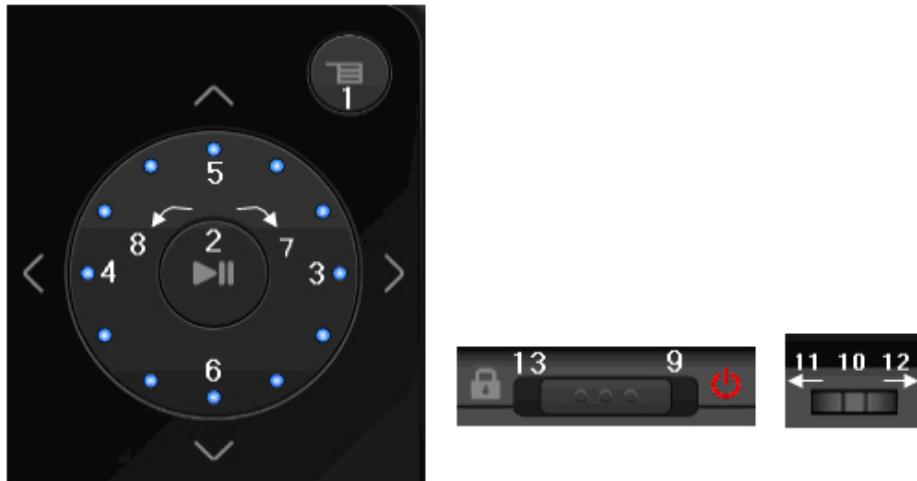
Main KEY　　　　　　　　　　**Power KEY**　　　　**Rating KEY**

| No.	Key Name	Basic Function	
		Short	**Long**
1	Menu	Main Menu	Menu(Resume)
2	Play(OK)	Play, Pause	
3	FF(Next) >	FF	Fast Skip
4	REW(Previous) <	REW	Backward Skip
5	UP ∧	Contents List	
6	DOWN ∨		
7	Right Wheel	Volume(List) Up	
8	Left Wheel	Volume(List) Down	
9	Power	Power On/Off	Reset
10	Special Function	Popup Menu	
11	Rating Up	Rating Up	
12	Rating Down	Rating Down	

13. Hold Key

(2) Design

(3) LCD

1) Color
- 320 × 240 Dot 262K QVGA Color TFT LCD

2) UI

(4)Supported Contents

	Contents	Format	Specification
1	Music	MP3	MPEG1/MPEG2/MPEG2.5-LAYER3, 8kHz~48kHz, 8kbps~320kbps
		WMA	WMA8/WMA9, 8kbps~160kbps
		OGG	Q0 ~ Q10
		WAV	PCM 48KHz, 16bit
		WMA Ext	WMA Pro, Lossless
2	Video	MPEG4	Simple Profile (512kbps, 30fps)
		WMV9	512kbps, 30fps
3	Audible Books	Format2	ACELP.net (8.5kbps, 8KHz)
		Format3	ACELP.net (16kbps, 16KHz)
		Format4	MP3 (32kbps, 22.05KHz)
4	Rhapsody Channel	WMA	
5	Photo	JPEG	without Progress JPEG
6	Recording	FM	WMA 128kbps, 44.1KHz
		Line IN	WMA(160kbps, 44.1KHz), PCM(48KHz)
7	FM	USA	87.5MHz~108MHz, 100KHz Step
8	Text	txt	ANSI, Unicode text

(5)New Features

	Function		Remarks
1	SDHC Support		Supports Class 2 only
2	Delete File		Deletion of files in the Library at the following levels: Track, Album and Artist
3	Text Viewer		Can open through Folder Browser.
4	Bookmark		Bookmarks for Audio. Video and Audible Bookmarks are still pending.
5	Recording Volume Level		Added to Settings Menu.
6	Photo Slide Show		
7	RBDS		PS, RT, PTY Display
8	TV Out		

2.Menu Tree

Main Menu				
1	Now Playing			
2	Music Library			
3	Folder Browser			
4	Rhapsody			
5	Audible Books			
6	Video			
7	Photo			
8	FM Radio			
9	Recording			
10	Settings	Audio	Repeat		Off/1/Shuffle/All/All Shuffle
			Equalizer		Off/Rock/Jazz/Classic/Pops/Custom
			A-B Repeat		Off/On
			Video Scan Mute		Off/On
			Resume		Off/On
		Bluetooth	Enable		Off/On
			Search		
			Device List	Connect	
				Disconnect	
				Delete	
		Display	Menu Style		Circle Style/ Matrix Style
			Background		Navy Blue/ Yellow Green/Deep Magenta/Dark Gray/ Blue Mist
			Brightness		Level 1~8
			Rotation		Right-Hand/Left-Hand
			Backlight		Off/2/5/10/30Sec/1/3Min/Always On
			LCD		Off/On
		FM & RBDS	FM Preset Add		
			FM Preset Delete		
			FM Auto Scan		
			FM Stereo		Mono/Stereo
			RBDS Enable		Off/On
		Information			Firmware/Memory/System/License
		Recording	Encoder		PCM/WMA
			Quality		Highest/High/Middle/Low
			LINE-IN REC Volume		1~20
		System	Language		English/French/Spanish
			Erase Internal Memory		Yes/No
			Erase External Memory		Yes/No
			Initialize		Yes/No
		Time	Auto Power Off		Off/30Sec/1/3/5/10Min

			Sleep		Off/10/20/30/60/90/120Min
			Set Time		
			Slide Show		Off/2/5/10/30/60Sec
		TV Out	Enable		
			Format		NTSC-M / NTSC-J / PAL / PAL-M / PAL-N
			Aspect		4:3 / 16:9
			Quality		Soft / Natural / Sharp
		USB	Connection Type		Automatic/MSC
			Charger Option		Pause on Disconnect/Always Pause/Roll-over

3.Music Mode
(1)Now Playing
- Now Playing : Displays current Contents being played.
- Now Playing Contents are:
  1) Music
  2) Video
  3) Audible Books
  4) Rhapsody Channel

(2)Idle(Pause) Mode
1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode(Resume)	
2	Play(OK)	Play Mode	Searching mode	
3	FF(Next) >	Next Track	Fast Next Track	
4	REW(Previous) <	Previous Track	Fast Previous Track	
5	UP ∧	UI Change & Now Playing List		*
6	DOWN ∨			
7	Right Wheel	Volume Up		
8	Left Wheel	Volume Down		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up	Rating Up		Except audible, video files
12	Rating Down	Rating Down		

* UI Change & Now Playing List : Toggle Now Playing Screen(Pause, Play) => Full Screen Album Art(when album art is present) => Artist Information(Only Rhapsody Channel) => Now Playing List

2)Timer Function
- Idle Auto Power Off
- Track or Artist or Album title scroll
- Back Light Off : Two level

3)UI
① Mode Icon
② Track Name
③ Artist Name
④ Album Name
⑤ Current Track Number
⑥ Total Track Number
⑦ Play Time
⑧ Total Time
⑨ Battery Level
⑩ Repeat
⑪ Progress Bar
⑫ Album jacket
⑬ Current Time
⑭ Rating (Music, Rhapsody Channel)
⑮ Bluetooth Status Icon
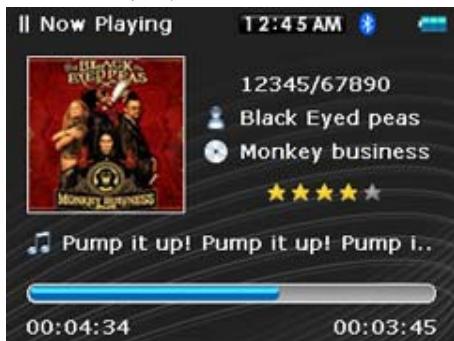
4)**Popup Menu**
① Resume Play
② Save Bookmark
③ Load Bookmark
④ Delete Now Playing

(3)Play Mode
1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode(Resume)	
2	Play(OK)	Pause Mode	Search Mode	
3	FF(Next) >	Next Track	Fast Next Track	
4	REW(Previous) <	Previous Track (within 5Sec) Start of this track(after 5Sec)	Fast Previous Track	
5	UP ∧	UI Change & Now Playing List		
6	DOWN ∨	A - B Repeat A/B/Off		
7	Right Wheel	Volume Up		
8	Left Wheel	Volume Down		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up	Rating Up		Except audible, video files
12	Rating Down	Rating Down		

2)Timer Function
- Track or Artist or Album title scroll
- Back Light Off : Two level

3)UI
① Mode Icon
② Track Name
③ Artist Name
④ Album Name
⑤ Current Track Number
⑥ Total Track Number
⑦ Play Time
⑧ Total Time
⑨ Battery Level
⑩ Repeat
⑪ Progress Bar
⑫ Album jacket
⑬ Current Time
⑭ Rating (Music, Rhapsody Channel)
⑮ Bluetooth Status Icon

* Play Screen

4)Popup Menu
① Resume Play
② Save Bookmark
③ Load Bookmark
④ Delete Now Playing

* Rating Key : Pressing Rating Key Up / Down will change Ratings (excluding Audible Contents)

* Special Function Key : Popup Menu

* Supports up to 20 bookmarks.

* Search Mode : Entering Search Mode pauses the unit.
                           Navigate with Wheel Key to FF/REW to wanted time.

(4)Now Playing List
1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode(Resume)	
2	Play(OK)	Play Current Select Track		
3	FF(Next) >			
4	REW(Previous) <			
5	UP ∧	Exit Now Playing List		
6	DOWN ∨			
7	Right Wheel	Down List Item		
8	Left Wheel	Up List Item		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up			
12	Rating Down			

2)Timer Function
- Track or Artist or Album title scroll
- Back Light Off : Two level

3)UI
① Mode Icon
② Battery Level
③ Current Time
④ Repeat
⑤ Now Playing List
⑥ Bluetooth Status Icon

* Now Playing List is not made an array of Alphabet.

4)Popup Menu
① Resume Play
② Delete from list

(5)Rhapsody Channel UI
1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode(Resume)	
2	Play(OK)	Pause Mode		
3	FF(Next) >	Next Track	Fast Next Track	
4	REW(Previous) <			
5	UP ∧	UI Change & Now Playing List		
6	DOWN ∨			
7	Right Wheel	Volume Up		
8	Left Wheel	Volume Down		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up	Rating Up		Except audible, video files
12	Rating Down	Rating Down		

2)Timer Function
- Track or Artist or Album title scroll
- Back Light Off : Two level

3)UI
① Mode Icon
② Track Name
③ Artist Name
④ Album Name
⑤ Play Time
⑥ Total Time
⑦ Battery Level
⑧ Progress Bar
⑨ Album jacket
⑩ Current Time
⑪ Rhapsody Channel Information
⑫ Volume Level
⑬ Rating (Music, Rhapsody Channel)
⑭ Bluetooth Status Icon

* Rhapsody Channel Screen

4)Popup Menu
① Add to Library
② Buy Track

5)Artist Information

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode(Resume)	
2	Play(OK)	Pause Mode		
3	FF(Next) >	Next Track	Fast Next Track	
4	REW(Previous) <			
5	UP ∧	UI Change & Now Playing List		
6	DOWN ∨			
7	Right Wheel	Artist information Scroll		
8	Left Wheel	Artist information Scroll		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up			
12	Rating Down			

6)Add to Library
- Current track will be added to the Music Library.

7) Buy Track
- Current track will be purchased after a Resync.

4.FM Mode

1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode(Resume)	
2	Play(OK)	Preset Add	FM Recording	
3	FF(Next) >	Frequency Up	Search FM Station (Up)	
4	REW(Previous) <	Frequency Down	Search FM Station (Down)	
5	UP ∧	Preset Up	Fast Preset Up	
6	DOWN ∨	Preset Down	Fast Preset Down	
7	Right Wheel	Volume Up		
8	Left Wheel	Volume Down		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up			
12	Rating Down			

2)Timer Function
- Key Check
- Back Light Off : Two level

3)UI
① Mode Icon
② Battery Level
③ FM Frequency
④ Preset Frequency
⑤ Preset
⑥ FM Stereo
⑦ Frequency Bar
⑧ Current Time
⑨ RBDS Logo
⑩ RBDS PS(Program Service)
⑪ RBDS RT(Radio Text)
⑫ RBDS PTY(Program Type)

4)Popup Menu
① Stereo/Mono
② Auto Scanning

5)Operation Description

5.**FM Recording**

1)Key Function

No.	Key Name	Basic Function		
		Short	**Long**	
1	Menu	Recording Stop	Backlight On	
2	Play(OK)	Recording Pause / Continue	Recording Stop	
3	FF(Next) >	Backlight On	Backlight On	
4	REW(Previous) <	Backlight On	Backlight On	
5	UP ∧	Backlight On	Backlight On	
6	DOWN ∨	Backlight On	Backlight On	
7	Right Wheel	Backlight On	Backlight On	
8	Left Wheel	Backlight On	Backlight On	
9	Power	Power On/Off	Reset	
10	Special Function			
11	Rating Up			
12	Rating Down			

2)Timer Function
- Key Check
- Back Light Off : Two level

3)UI
① Mode Icon
② Battery Level
③ FM Frequency
④ Preset
⑤ FM Stereo
⑥ Recording Time
⑦ Remain Time
⑧ Scroll Bar
⑨ Encoder Information
⑩ RBDS Logo
⑪ RBDS PS(Program Service)

6.Main Menu Mode
* Graphical Menu will be called as Main Menu
1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Exit Main Menu Mode		
2	Play(OK)	Select Menu Item		
3	FF(Next) >			
4	REW(Previous) <			
5	UP ∧			
6	DOWN ∨			
7	Right Wheel	Menu Item Right Move		
8	Left Wheel	Menu Item Left Move		
9	Power	Power On/Off	Reset	
10	Special Function	Toggle Main Menu Mode		
11	Rating Up			
12	Rating Down			

2)Timer Function
- Key Check
- Back Light Off
- Exit Menu Mode

3)UI

① Circle Graphical Main Menu   ② Matrix Graphical Main Menu

- Special Function key toggles through different Main Menu screens.

7.Menu Mode

1)Key Function

No.	Key Name	Basic Function		
		Short		Long
		Extensible Menu	End Menu	
1	Menu	Main Menu	Main Menu	Main Menu
2	Play(OK)	List Extension	Popup List	
3	FF(Next) >	Next Items	Next Items	
4	REW(Previous) <	Previous Items	Previous Items	
5	UP ∧	List Reduction	List Reduction	
6	DOWN ∨	List Extension	List Extension	
7	Right Wheel	Menu Item Up	Menu Item Up	
8	Left Wheel	Menu Item Down	Menu Item Down	
9	Power	Power On/Off		Reset
10	Special Function	Popup Menu	Popup Menu	
11	Rating Up			
12	Rating Down			

2) Timer Function
- Key Check
- Back Light Off
- Exit Menu Mode

3) UI

≪ Menu Key

≫ OK Key
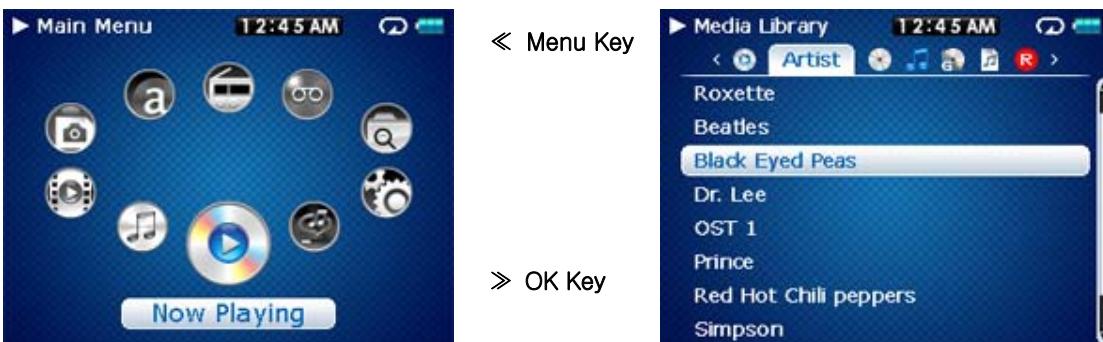
* Next Items: All Track => Artist => Album => Track =>
  Previous Items: Track => Album => Artist => All Track =>

8.Library Mode
 - Basic Key Function

No.	Key Name	Basic Function	
		Short	Long
1	Menu	Exit Menu	Main Menu
2	Play(OK)	Play Track	
3	FF(Next) >	Next Items	
4	REW(Previous) <	Previous Items	
5	UP ∧	List Reduction	
6	DOWN ∨	List Extension	
7	Right Wheel	Item Up	
8	Left Wheel	Item Down	
9	Power	Power On/Off	Reset
10	Special Function	Popup Menu	
11	Rating Up		
12	Rating Down		

* Popup Menu
① Play
② Resume Play
③ Add Now Playing
④ Play All
⑤ Add All Now playing
⑥ Delete

- Basic Library Mode

▶ Media Library 12:45 AM	▶ Media Library 12:45 AM	▶ Media Library 12:45 AM
‹ Play All ›	‹ Artist ›	‹ Album ›
Play All Audio Tracks (253566)	Roxette	12 Memories
	Beatles	Absolution
	Black Eyed Peas	Amazing Grace
	Dr. Lee	Apocalypso
	OST 1	Careful What You Wish for
	Prince	Cheers
	Red Hot Chili peppers	Chicken N Beer
	Simpson	Chihuahua

▶ Media Library 12:45 AM	▶ Media Library 12:45 AM	▶ Media Library 12:45 AM
‹ Track ›	‹ Genre ›	‹ Playlist ›
Addicted	Alternative	Addicted
Against All Odds (With Manah C...)	Blues	Alone In my Room
Alone In My Room	Christian	As Long As You Love Me
American Girl	Classical	Baby Got Back
Anyone Of Us	Country	Beep (Feat. Will.I.Am)
As Long As You Love Me	Dance / Electronic	Buttons (Album Version)
Baby Got Back	Easy Listening	Can't Flight The moonlight
Baby One More Time	Folk	Life is Cool

▶ Media Library 12:45 AM	▶ Media Library 12:45 AM	▶ Media Library 12:45 AM
‹ Record ›	‹ Play All ›	‹ Artist ›
FMREC001_060703.pcm	Play All Audio Tracks (253566)	Roxette
FMREC002_060712.wma		Beatles
LINEREC001_060723.wma		Black Eyed Peas
		Dr. Lee
		OST 1
		Prince
		Red Hot Chili peppers
		Simpson

▶ Media Library 12:45 AM	▶ Media Library 12:45 AM	▶ Media Library 12:45 AM
‹ Artist ›	‹ Artist ›	‹ Artist ›
Roxette	Roxette	Roxette
Beatles	Beatles	Beatles
Black Eyed Peas	Black Eyed Peas	Black Eyed Peas — Play
Dr. Lee	Dr. Lee	Dr. Lee — **Add**
OST 1	OST 1	OST 1 — Play All
Prince	Prince	Prince — Add All
Red Hot Chili peppers	Red Hot Chili peppers	Red Hot Chili peppers — Delete
Simpson	Simpson	Simpson

▶ Media Library 12:45 AM	▶ Media Library 12:45 AM	▶ Media Library 12:45 AM
‹ Artist ›	‹ Artist ›	‹ Artist ›
Roxette	Roxette	Roxette
Beatles	Beatles	Beatles
Black Eyed Peas	Abbey Road	Abbey Road
Dr. Lee	Let It Be	Come Together
OST 1	Revolver	Something
Prince	Sgt. Pepper's Lonely Hearts Club..	Maxwell's Silver Hammer
Red Hot Chili peppers	Yellow Submarine	Oh! Darling
Simpson		Octopus's Garden

(1)Artist Library

- If you press FF key at the item which has extensible list, the top item at the extended list will be selected as list is extended.
- If you press Special Function key, Popup Menu will be displayed.

> 1) If you select Play All at Popup Menu, all the Content will be registered on the Now Playing list and pass to the Play screen.
> 2) If you select Add Now Playing at Popup Menu, the selected Content will be additionally registered on the Now Playing list and back to the previous List.
> 3) If you select Play at Popup Menu, Selected Content will be registered on the Now Playing list and pass to the Play screen.
> 4) If you select Exit at Popup Menu, just back to the previous List.

No.	Key Name	Basic Function		Long
		Short		
		Track	Non Track	
1	Menu	Cancel & Exit Popup Menu		Main Menu
2	Play(OK)	OK & Exit Popup Menu	OK & Exit Popup Menu	
3	FF(Next) >			
4	REW(Previous) <			
5	UP ∧	Cancel & Exit Popup Menu		
6	DOWN ∨			
7	Right Wheel	Item Up		
8	Left Wheel	Item Down		
9	Power	Power On/Off		Reset
10	Special Function	Exit Popup Menu		
11	Rating Up			
12	Rating Down			

9.Photo View

(1)Photo List

1)Key Function

No.	Key Name	Basic Function	
		Short	Long
1	Menu	Main Menu	Menu Mode
2	Play(OK)	Decoding select photo file	
3	FF(Next) >		
4	REW(Previous) <		
5	UP ∧		
6	DOWN ∨		
7	Right Wheel	List Down	
8	Left Wheel	List Up	
9	Power	Power On/Off	Reset
10	Special Function	Popup Menu	
11	Rating Up		
12	Rating Down		

2)UI

3)Popup Menu
① Background
② Preview mode

(2)Photo View
1)Key Function

No.	Key Name	Basic Function	
		Short	**Long**
1	Menu	Main Menu	Menu Mode
2	Play(OK)	Toggle between zoom in and zoom out	
3	FF(Next) >	Zoom out : Display the next JPEG file file on the selected JPEG file list. zoom in : move right	
4	REW(Previous) <	Zoom out : Display the previous JPEG file on the selected JPEG file list. Zoom in : move left	
5	UP ∧	Zoom in : move up Default : Photo List	
6	DOWN ∨	Zoom in : move down	
7	Right Wheel	Volume +	
8	Left Wheel	Volume −	
9	Power	Power On/Off	Reset
10	Special Function	Popup Menu	
11	Rating Up		
12	Rating Down		

2)UI
- Horizontal view : Default screen

- Vertical view : Picture rotated screen by Popup Menu – vertical image viewing
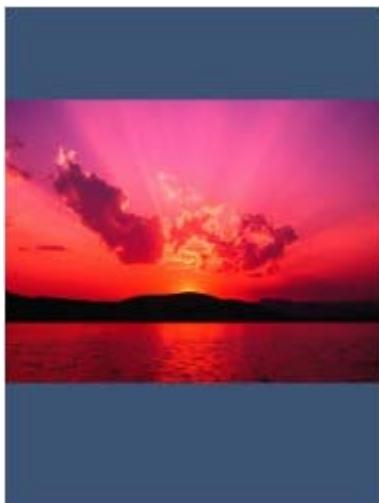
- Zoom In : Zoom in mode by pressing Play Key

- Screen will move if you press FF, REW, Up, Down key at Zoom Mode, presently shown position is displayed at the position icon below.

3)**Popup Menu**
① Rotation Photo
② Slide Show
③ Background

10.**Video Play**
(1)Video List

(2)Video Play
1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode	
2	Play(OK)	Pause	Searching mode	
3	FF(Next) >	Next Movie	Fast Forward Skip	
4	REW(Previous) <	Previous Movie	Fast Backward Skip	
5	UP ∧	Now Playing List		
6	DOWN ∨			
7	Right Wheel	Volume +		
8	Left Wheel	Volume −		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up			
12	Rating Down			

2)UI

3)Popup Menu
① Save Bookmark
② Load Bookmark
③ Delete Now Playing

11.**Audible**

1)Key Function

No.	Key Name	Basic Function		
		Short		Long
1	Menu	Main Menu		Menu Mode(Resume)
2	Play(OK)	Play/Pause		
3	FF(Next) >	Next Track	Next Section	Fast Forward Skip
4	REW(Previous) <	Previous Track (within 5Sec) Start of this track(after 5Sec)	Previous Section	Fast Backward Skip
5	UP ∧	Now Playing List		
6	DOWN ∨	A−B Repeat A/B/Off		
7	Right Wheel	Volume +		
8	Left Wheel	Volume −		
9	Power	Power On/Off		Reset
10	Special Function	Popup Menu		
11	Rating Up			
12	Rating Down			

2)Timer Function
- Track or Artist or Album title scroll
- Back Light Off : Two level

3)UI
① Mode Icon
② Track Name
③ Author Name
④ Current Track Number
⑤ Total Track Number
⑥ Section Information
⑦ Play Time
⑧ Total Time
⑨ Battery Level
⑩ Repeat
⑪ Progress Bar
⑫ Book Title
⑬ Current Time
⑭ Next Track Information
⑮ Volume Level
　Bluetooth Status Icon

4)Popup Menu
① Section/Track Mode
② Save Bookmark
③ Load Bookmark

Track Mode

Section Mode

* If you press FF, REW Key at Track Mode, Next or Previous Audible File will be played.
* If you press FF, REW Key at Chapter Mode, Chapter will be changed.

No Book Jacket Cover Art

Track Mode

Section Mode

12. **Recording (Line IN)**

(1)Recording Ready

1)Key Function

No.	Key Name	Basic Function	
		Short	Long
1	Menu	Main Menu	Menu Mode(Resume)
2	Play(OK)	Recording Start	
3	FF(Next) >		
4	REW(Previous) <		
5	UP ∧		
6	DOWN ∨		
7	Right Wheel	Volume +	
8	Left Wheel	Volume −	
9	Power	Power On/Off	Reset
10	Special Function	Popup Menu	
11	Rating Up		
12	Rating Down		

2)UI
① Mode Icon
② Battery Level
③ Recording Time
④ Remain Time
⑤ Scroll Bar
⑥ Encoder Information
⑦ REC Level Meter

(2)Recording
1)Key Function

No.	Key Name	Basic Function	
		Short	**Long**
1	Menu	Recording Stop	Backlight On
2	Play(OK)	Recording Stop	Backlight On
3	FF(Next) >	Backlight On	Backlight On
4	REW(Previous) <	Backlight On	Backlight On
5	UP ∧	Backlight On	Backlight On
6	DOWN ∨	Backlight On	Backlight On
7	Right Wheel	Backlight On	Backlight On
8	Left Wheel	Backlight On	Backlight On
9	Power	Power On/Off	Reset
10	Special Function	Popup Menu	
11	Rating Up		
12	Rating Down		

2)UI
① Mode Icon
② Battery Level
③ Recording Time
④ Remain Time
⑤ Scroll Bar
⑥ Encoder Information
⑦ REC Level Meter

13. Settings Mode

- Basic Key Function

No.	Key Name	Basic Function		Long
		Short		**Long**
		Main, Sub Setting	End Setting	
1	Menu	Main Menu	Main Menu	Main Menu
2	Play(OK)	List Extension	Save Setting (High Setting)	
3	FF(Next) >	Next Items		
4	REW(Previous) <	Previous Items		
5	UP ∧	List Reduction	List (Don't save setting)	Fast Up
6	DOWN ∨	List Extension		Fast Down
7	Right Wheel	Item Up		
8	Left Wheel	Item Down		
9	Power	Power On/Off		Reset
10	Special Function	Popup Menu		
11	Rating Up			
12	Rating Down			

- Settings Structure

10	Settings				
		Audio	Repeat		Off/1/Shuffle/All/All Shuffle
			Equalizer		Off/Rock/Jazz/Classic/Pops/Custom
			A-B Repeat		Off/On
			Video Scan Mute		Off/On
			Resume		Off/On
		Bluetooth	Enable		Off/On
			Search		
			Device List	Connect	
				Disconnect	
				Delete	
		Display	Menu Style		Circle Style/ Matrix Style
			Background		Navy Blue/ Yellow Green/ Deep Magenta/Dark Gray/ Blue Mist
			Brightness		Level 1~8
			Rotation		Right-Hand/Left-Hand
			Backlight		Off/2/5/10/30Sec/1/3Min/Always On
			LCD		Off/On
		FM & RBDS	FM Preset Add		
			FM Preset Delete		
			FM Auto Scan		
			FM Stereo		Mono/Stereo
			RBDS Enable		Off/On
		Information			Firmware/Memory/System/License
		Recording	Encoder		PCM/WMA
			Quality		Highest/High/Middle/Low

			LINE-IN REC Volume		1~20
		System	Language		English/French/Spanish
			Erase Internal Memory		Yes/No
			Erase External Memory		Yes/No
			Initialize		Yes/No
		Time	Auto Power Off		Off/30Sec/1/3/5/10Min
			Sleep		Off/10/20/30/60/90/120Min
			Set Time		
			Slide Show		Off/2/5/10/30/60Sec
		TV Out	Enable		
			Format		NTSC-M / NTSC-J / PAL / PAL-M / PAL-N
			Aspect		4:3 / 16:9
			Quality		Soft / Natural / Sharp
		USB	Connection Type		Automatic/MSC
			Charger Option		Pause on Disconnect/Always Pause/Roll-over

- Timer Function
– Key Check
– Back Light Off
– Exit settings menu

(1) **Settings**
1)**Audio Settings**

①Repeat

a)   Repeat Off, Shuffle Off
b) Repeat 1
c) Repeat Off, Shuffle On
d) Repeat All, Shuffle Off
e) Repeat All, Shuffle On

②Equalizer

– If you change EQ, properly set amount will be shown at Graphic Level part.
– If you select FF(Play) Key at Custom EQ Menu, Graphic Level part will be selected.

- Custom Equalizer

- Play key : Save & Exit custom equalizer menu
- Menu Key : Don't save & Exit custom equalizer menu
- FF, REW Key : Frequency change (60~14KHz)
- Up, Down Key : Level Change (+12 ~ -12dB)
- Wheel Key : Level Change (+12 ~ -12dB)

③A-B Repeat

④Video Scan Mute

⑤Resume

2) **Bluetooth Settings**

①Enable

②Search

Searching for Bluetooth device pop-up window

List of found BT device(s)

No devices found.

③Device List

List of found BT device(s)

3)**Display Settings**

①Main Menu

②Menu Style

③Background

④Brightness

Level 1 : The darkest
Level 8 : The brightest

⑤Rotation

⑥Backlight

- In case 10 Second is set up :
If there is not any Key input, Backlight will be fade out getting darker to Brightness Level1

LCD (Dim Backlight)

- Off : Backlight Turns Off after time out.
- On : Backlight dims to Level 1 after time out.

4) **FM**

①Preset Add

②Preset Delete

* You can check if currently stored channel is properly operating by moving to the actual frequency after you change Preset channel by Up Down key.

③Auto Scan

* if you enter Auto Scanning Mode, you will enter FM Mode from Menu Mode.
* Current Frequency status of Frequency Bar is on going and increased Preset channel status is marked.
* Once Scanning is completed, make Preset Channel 1 move to Default Frequency if there is not Preset Channel you are looking for.

④ Stereo

⑤ RBDS Enable

⑥ PTY Search

5) **Information**

6) **Record**

①Encoder
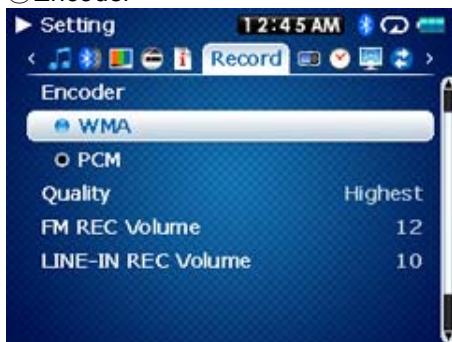
②Quality

* WMA
Highest : 44.1KHz, 128Kbps
High : 44.1KHz, 96Kbps
Middle: 44.1KHz, 80Kbps
Low : 44.1KHz, 64Kbps

* PCM
Highest : 48KHz, 1536Kbps
High : 44.1KHz, 1410Kbps
Medium: 32KHz, 1024Kbps
Low : 22KHz, 704Kbps

③FM REC Volume
④LINE-IN REC Volume

7) **System**
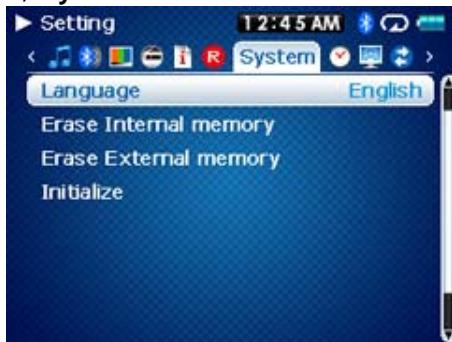
①Language
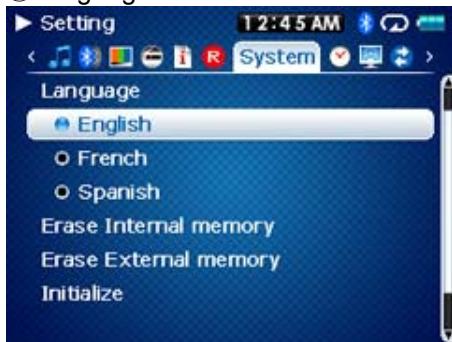
②Erase Internal Memory
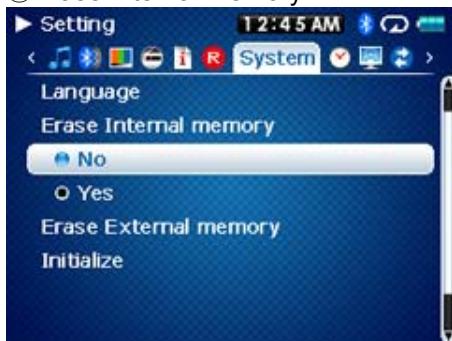
③Erase External Memory

④Initialize

8)**Time**

①Auto Power Off

* Auto Power Off : Automatically Power Off when there is no key pressing on Idle(pause) Mode

②Sleep

③Set Time

Play key : Save & Exit set time menu
Menu Key : Don't save & Exit set time menu

④Slide Show

9)TV Out

①Enable
②Format
③Aspect
④Quality

10) USB Mode

①Connection Type

②Charger Option

14.**Warring & Error Message**
(1)**USB Connect**

(2)Sync Notice
1)Sync Notice
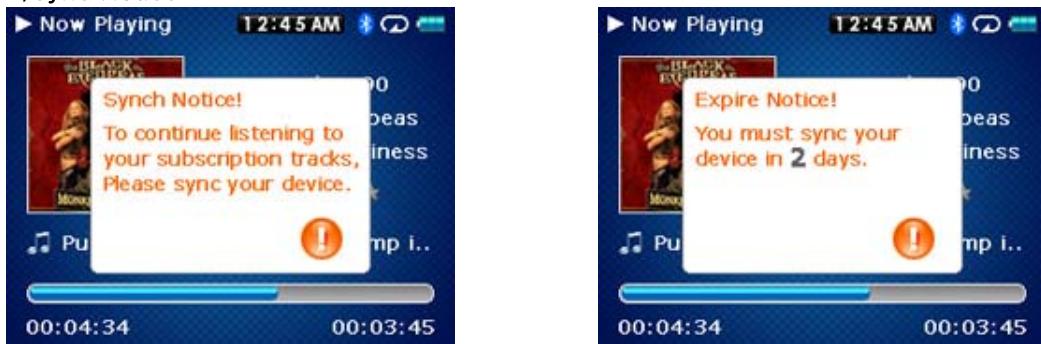
* A-B Repeat
- If you press ▼ Minus Key during music play, A-B Repeat Mode starts.
1) A-B Repeat Start)   When you press ▼ key once, icon of side picture will be shown..
2) A-B Repeat Repeat) If you press ▼ key once again, it will repeat playing the section between A and B.
3) If you press ▼ key once again, A-B Repeat mode is over and back to Repeat Icon as it was.

(3)Etc
1)Key Lock
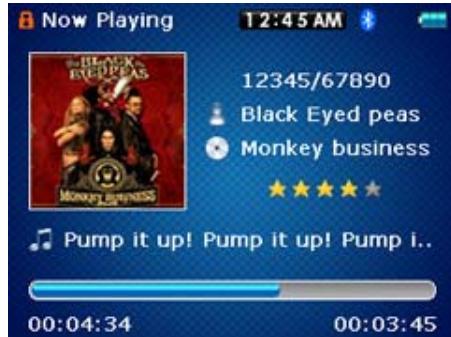
2)Booting Logo

3)Charging indicator
- While charging, battery icon is scrolled as white color.
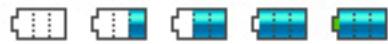
- After completion of charging, battery icon is filled with light green color.

## 4)Power Off
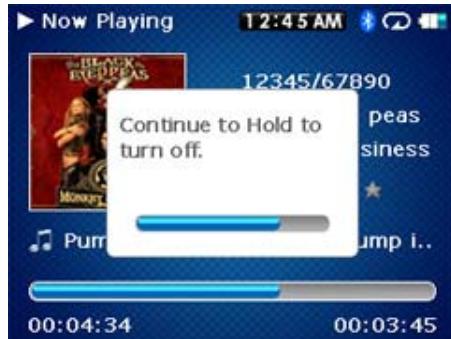
Scroll Bar processing time is within 2 seconds.

15.Text Viewer

- Text Viewer : Did not include in Main Menu, Can open text file through the Folder Browser.

1)Key Function

No.	Key Name	Basic Function		
		Short	Long	
1	Menu	Main Menu	Menu Mode(Resume)	
2	Play(OK)			
3	FF(Next) ▶▶	Text Page Up		
4	REW(Previous) ◀◀	Text Page Down		
5	UP ▲	Text File List		
6	DOWN ▼			
7	Right Wheel	Text Line Down		
8	Left Wheel	Text Line Up		
9	Power	Power On/Off	Reset	
10	Special Function	Popup Menu		
11	Rating Up			
12	Rating Down			

2)UI
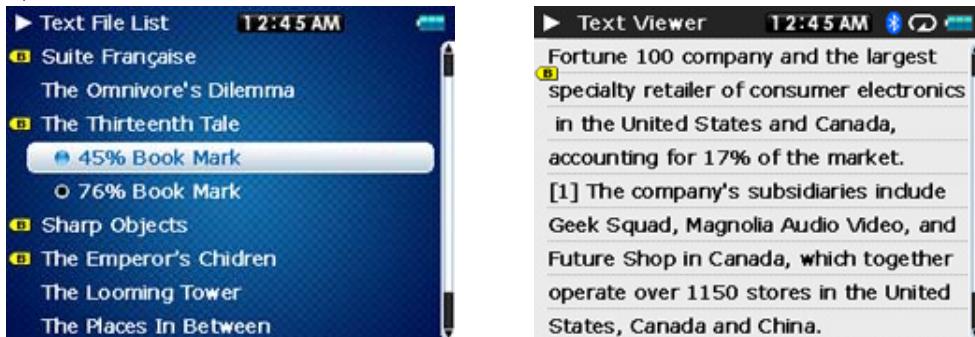
3)Popup Menu

① Save Book Mark
② Load Book Mark
③ Move to Page

ATTACHED PAGE

Cautions

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance Information

This device complies with part 15 of 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.

Information to User

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.