Outdoor Navigation MN710

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FCC notice to users and product statements
This device complies with part15 of the FCC Rules.
Operation is subject to the following two conditions;
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received,
including interference that may cause undesired operation.

CAUTION : Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to
            operate the equipment.

NOTE: 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.

Modifications not expressly approved by the manufacturer could void the user's authority to operated the equipment under FCC rules.

This Device has been evaluated to comply with RF exposure requirement for general use limit in portable condition.

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Cautions

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Cautions

Warning
- For correct and safe use of this product, users should be fully aware of the following.

Cautions on product
1. Use the product at the proper temperature.
    This device works properly at 0℃~60℃. Do not use it above or below the proper temperature.
2. Do not leave the product exposed to direct sunlight for a long time.
    The device works at 0℃~60℃.
    Long exposure to direct sunlight causes temperature rise, possibly resulting in malfunctioning of the device.
    Do not leave the device in the car particularly in summer.
3. Keep the device away from unfavorable substances.
    Do not leave water or drinks around the device.
4. Do not disassemble or alter the device.
    Do not disassemble or add impact to the device.
    Also, every wiring of this device requires technical expertise or experience, so never try any arbitrary alteration.
    Arbitrary alteration or modification can cause malfunction, fire and other accidents.
5. Install the device in a safe place.
    Do not install the device in a place where there is lots of water, moisture, dust, steam, oil and smoke and in any
    other place inside the car obstructing your vision or where the airbag is installed. It can cause accidents, fire,
    electric shock and malfunction.
6. Do not apply excessive force or pressure with a sharp object to the LCD screen, reset button and other buttons on
    the device. Also, do not drop the main unit or give it a shock.
7. Do not scrub the main unit with chemicals or detergents. Use a soft piece of fabric or cloth to clean the device.
8. Keep the device out of reach of children or pets.

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Cautions on power supply
1.　Use the power supply with capacity, thermal resistance and durability required for the system.
　　Improper power sources other than pre-defined one can cause fire or malfunction of the device.
2.　Do not touch the electric plug with wet hands.
3.　Put the plug into the socket fully and firmly.
4.　Connect the device to the power supply after starting the car.
5.　Turn the power off first before attaching or detaching the device.

Cautions on driving
1.　Do not operate the device or do not watch movies while driving. It can cause accidents.
2.　Operate the device while the car is stopped.
3.　Information on safe driving for drivers is included.
　　The information included may differ from actual driving situation. Follow actual road safety when driving.
4.　Do not keep the voice info too loud. It can cause accidents.

Cautions on GPS
1.　GPS may not work properly in CBD area, tunnels, underground parking lots and closed spaces. Install the GPS antenna from a place with a good view of sky on the outer part of the car.
2.　Avoid installing products emitting strong electronic waves such as radio wave transmitter around the GPS antenna. It can cause trouble in receiving radio waves.(Install such products at least more than 30Cm away.)
3.　Car windows coated with metal-containing substances can cause trouble in GPS reception.
4.　Leaving the GPS in the car at too high or low temperature for a long time can cause fatal damage to the GPS.

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Cautions on battery
1. Battery works at 0℃~45℃.
2. Do not leave any heat-generating equipment or chemicals around the battery.
3. Do not attach any wet and soaked battery to the product.
4. Do not keep the battery in the car or in the place which is exposed to the sunlight for a long time.
   Particularly, after kept in the car in summer, the battery need cooling down by using the air conditioner or opening the car window before connection to the power supply.
5. Use pre-defined battery only.
6. Connect the battery to the cigar jack cable provided with this product for recharge.

Other cautions
1. The routes searched and route information may differ from actual road situation.
   Users have to follow actual road situation and traffic information for safe driving.
2. On purchasing the device, do not forget to have it registered on the home page. Only registered customers can get data information and service upgrade.
3. Do not damage or lose the SD card. Lost or damaged SD cards caused by user's carelessness are not exchanged or replaced with another SD card.
4. Be careful not to lose the serial number given when you purchase the product.
   Serial numbers are not re-issued in case of loss.
5. Start the car first and then use the product. The battery can be discharged when used for a long time with the engine off.
6. The place on which the holder cradle is mounted should be cleaned first before it is mounted.
   Unfavorable substances and moisture can cause the holder cradle to fall off, which can be dangerous.
   Also, the holder cradle may fall off due to the vibration of the car while driving or due to weakened adhesiveness after a long use. For a longer and durable use of the holder cradle, keep it detached while not in use.

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Product Components

- Check out if the product consists of the parts and accessories below.
- If there is any missing part, contact the re-sellers or the customer center.

Main unit

Holder cradle

Handlebar bike mount

Car mount

USB cable

Micro SD Card (Option)

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Name & function of each part
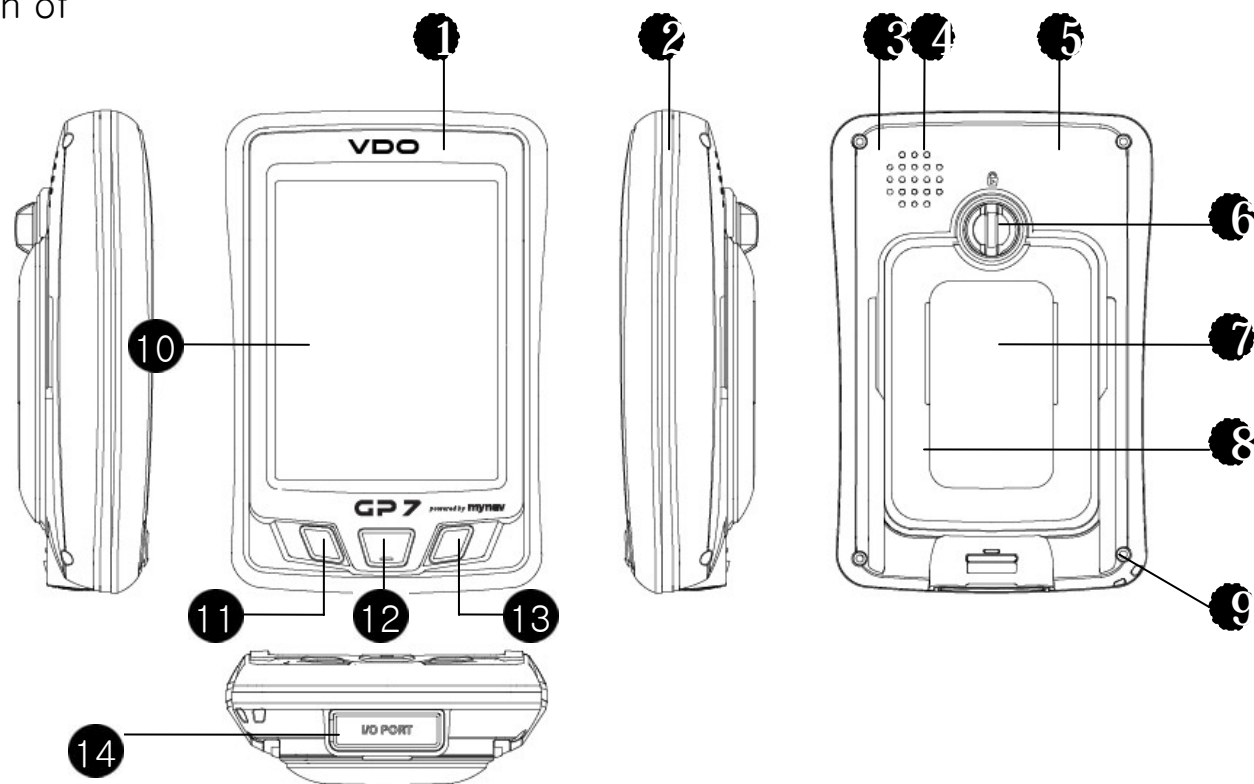
1	DEVICE-FRONTVIEW	2	RUBBER RING	3	DEVICE-REARVIEW	4	SPEAKER
5	GPS SENSOR-SIRFIII	6	BATTERY SCREW	7	LI-ION BATTERY	8	MICRO SD SLOT
9	LANYARD HOLE	10	3.5" TFT TOUCHSCREEN DISPLAY	11	(A) KEY	12	(B) ON / OFF KEY
13	(C) KEY	14	24 PIN CONECTOR I/O				

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Copying and deleting data on SD card

Copying data
1.   Put the micro SD card into the micro SD adapter.
2.   Put the adapter into the SD card reader.
3.   Connect the SD card reader to the computer. (The card reader is available separately.)
4.   Run My Computer in My PC. (Alternatively, run Windows Search.)
5.   The SD card is read into the portable disk.
6.   Select the file to copy and drag and drop it to the portable disk.
     (Alternatively, choose the file and use the keyboard shortcuts CTRL+C(to copy) and CTRL+V(to paste)
     or press the right-side button on the mouse and choose Copy and move to the portable disk to paste
     it.)

Deleting data
1.   Put the micro SD card into the micro SD adapter.
2.   Put the SD adapter into the SD card reader.
3.   Connect the SD card reader to the computer. (The card reader is available separately.)
4.   Run My Computer in My PC. (Alternatively, run Windows Search.)
5.   The SD card is read into the disk.
6.   Select the file to delete and use the Delete key , or CTRL+D on the keyboard or click the right button
     on the mouse.

•   The SD card can be damaged if the computer power supply is off or the SD card reader is separated
     while data is being copied, moved and deleted.
•   Data cannot be copied or deleted if the stick on the upper left corner of the SD card is set to Lock.
•   It is recommended to separate the SD card from the computer by clicking on the portable disk,
     pressing the CTRL+J or clicking the right-side button on the mouse.

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Main Menu

Battery
indicator

Main menu includes Navi, Movie, Music, Bluetooth and Setting features.

NAVI
-It is an automatic indicator of the location of the car based on the GPS technology.

MOVIE
-A service features fast browsing several frames of moving pictures with voice and music.
　(Formats supported : AVI, ASF, WMA, MPG and mp4)

Music
-Plays music files.
　(Format supported : MP3, OGG and WMA)

Photo
-

Set
-sets volume, backlights, screen revision and horizontal Navi screen.

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Movie Player

How to use
1. Click on the Movie Player button on the main screen.
2. Click on the List on the default screen of the Movie Player.
3. Select the file you want to see from the List window.(Selected file is tick-marked on its right side.)
4. Selected file is played by clicking on the OK button on the upper right corner of screen.
5. To see a full screen, click on [↻] at the bottom side of screen or click on the screen to make a horizontal full screen.
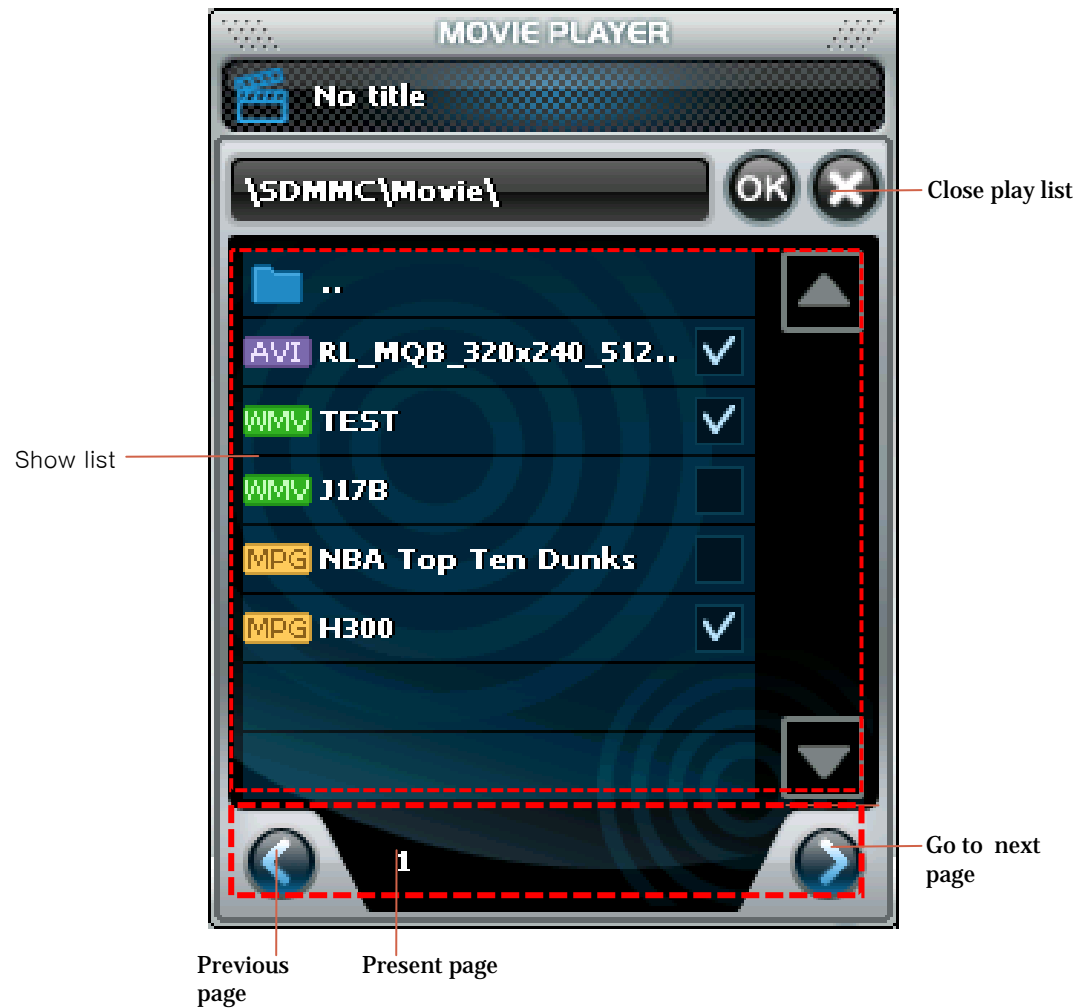6. Click on the screen to go back to the default screen.

How to save data on SD card
1. Connect computer with SD-connected card reader. (The card reader is available separately.)
2. Make a 'Movie' folder in the SD card folder.
3. Copy the movie file you want to see into the 'Movie' folder.
          (Files supported : wmv, mp4, asf, mpg and avi files)

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Movie Player –default screen features

File name to play

Play screen

Progress bar

Present play time status/ running time

Play icon

Call List

Finish

Screen ratio

MOVIE PLAYER

H300

0:00:02/0:02:28

LIST 4:3 16:9

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Movie Player - selecting play list

MOVIE PLAYER

No title

\SDMMC\Movie\   OK   X — Close play list

..

AVI RL_MQB_320x240_512.. ✓

WMV TEST ✓

WMV J17B

MPG NBA Top Ten Dunks

MPG H300 ✓

Show list

Go to next page

1

Previous page   Present page

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Movie Player – how to use

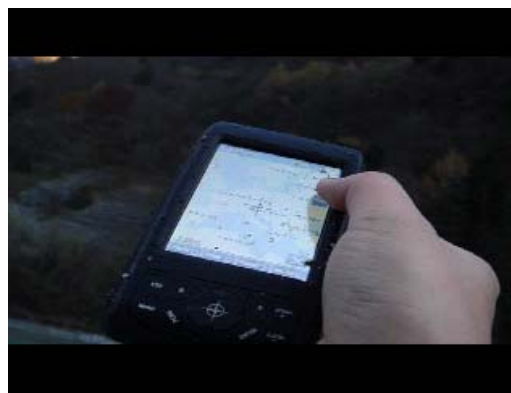Double click on the Movie icon on main screen.

Select the file to play from the list and click on the OK button.

Selected file is played.

To see the full screen, touch the screen or choose the button above and the screen changes into a horizontal full version.

On touching the screen it will return to the default vertical screen.

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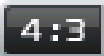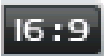## Movie Player - Play and Screen icons

	Previous file		Pause		Play
	Stop		Next file		

4:3	16:9	↻
Screen ratio of 4:3.	Screen ratio of 16:9.	**Selected file rotates in horizontal direction.**

Music Player

How to use
To play all music
1.Click on the Music Player icon on the main menu.
2.It converts into the Music Player mode and a window pops up for playing all music.
Click on the Confirm button.

How to play the music selected
1.Click on the Music Player icon on the main menu.
2.It converts into the Music Player mode and a window for playing all music pops up.
Click on the Cancel button.
3.Select the music to play.
        -> Selected music is indicated with a blue icon before the file name.
        -> Unselected music is indicated with gray icon before the file name.

How to store data on SD card
1.Connect computer with SD card-mounted card reader (The SD card reader is available separately.)
2. Make a 'Media' folder in the SD card folder.
3. Copy the music to play into the "Meida" folder.

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Music Player – default screen menu

MP3 PLAYER

File to play — **Nobody**

Play time
File status in play

`07:30` STEREO MONO
128 KBPS
44 KHz

Attributes of the file being played

Progress bar — `12:11/32:30` — Play time status/running time

MP3 Because Of You	
OGG Honey Honey	← File being played
WMA Nobody	
MP3 Because Of You	
OGG Honey Honey	

Play list

Play icons

Call List — **LIST**

Repeat entire list

Random play

equalizer

Return to main screen

Finish

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Music Player – selecting play list

File path

Close play list

List

Next page

Previous page

Present page

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Music Player – equalizer screen

EQ On / Off

EQ Ok

close

EQ Reset

Setting EQ

EQ type
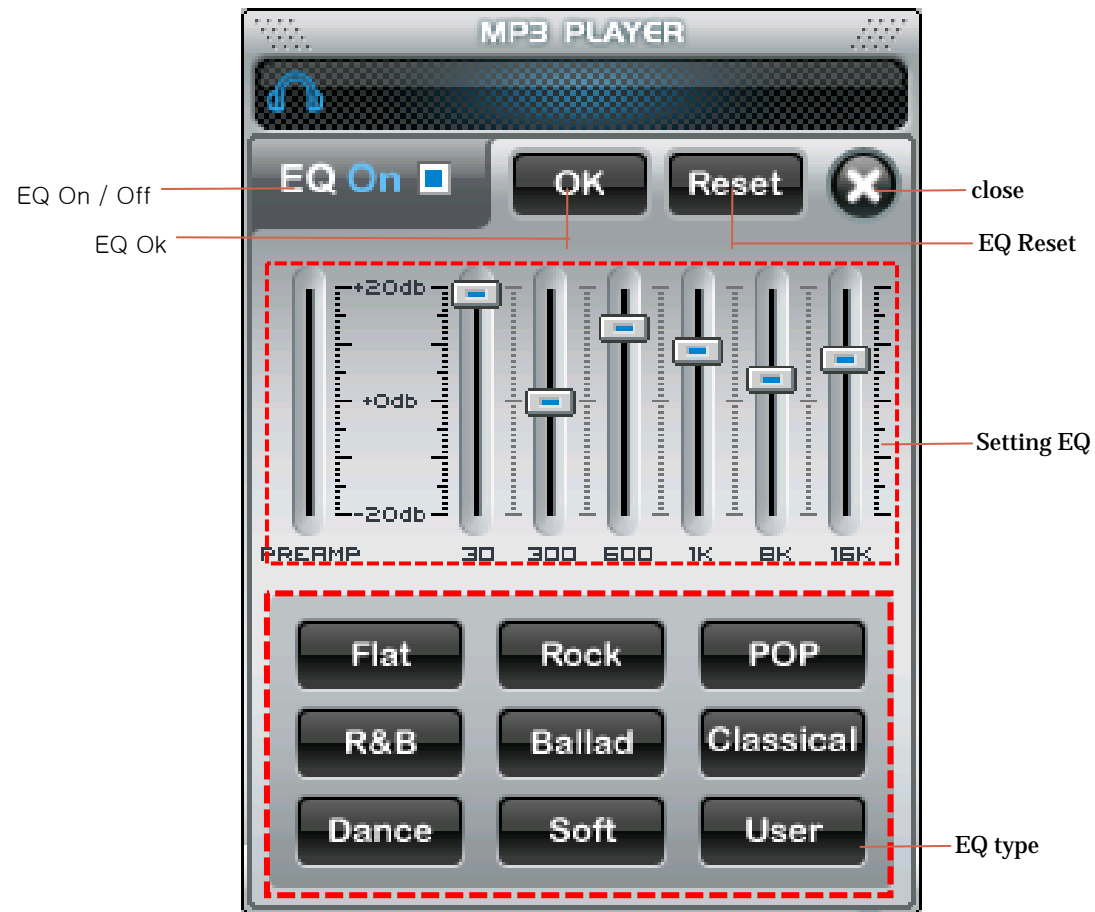
Music Player – How to use

Double click on Music Player icon on the main screen.
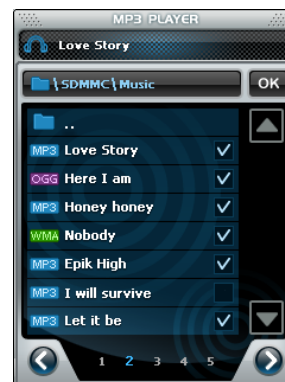
Select a file to play from the list and click on OK.
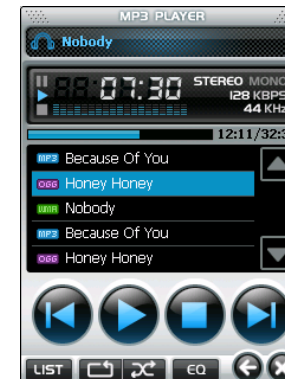
Selected file is played.
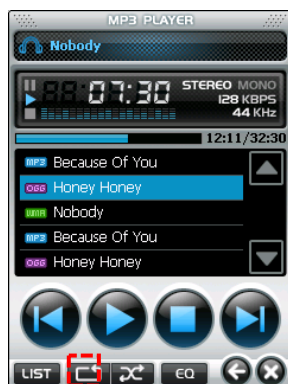
Repeat playing entire music.

Random play.

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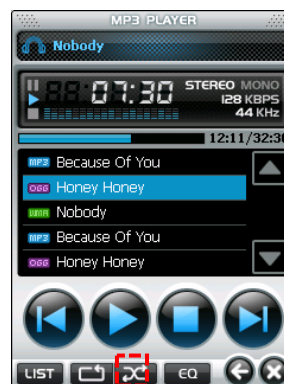
Setting

The Setting Menu features volume up, down and on/off; backlight brightness up, down and on/off; screen revision and horizontal version of Navi screen.

Setting – screen menu

Setting

battery

Volume On / Off — Volume | On | Off

Backlight — Backlight | On | Off — Backlight On / Off

Screen rotation
–Navi screen rotates in left or right direction. — Rotate Navi Display | Left Hand | Normal | Right Hand

USB Type — USB Type | GPS | Card Reader — USB Type
 – When connected to PC, users can select Storage or GPS Data Reception.

Touch calibration — Touch Calibration

Back — Returning to the previous screen

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Setting- How to use

Double click on the Setting icon on main screen.

Change main unit setting.

Volume Off/On

Selecting Off on Volume leads to Mute.

Selecting On button on Volume menu leads to releasing Mute status and clicking on '+' or '-' button adjusts the volume.

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Backlight Off/On

Selecting Off button on Backlight
item turns off the Backlight.

Pressing on '-' or'+' button on Backlight
item adjusts the brightness of Backlight.

Rotate Navi Display

Navi screen rotates left or right.

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ANT description

ANT
ANT is a proprietary wireless sensor network technology featuring a wireless communications protocol stack that
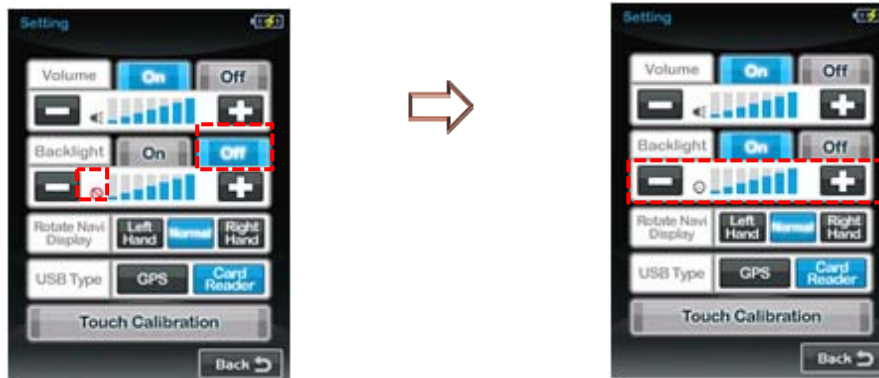   enables semiconductor radios operating in the 2.4 GHz Industrial.

ANT+
ANT+ represents the interoperability function that can be added to the base ANT protocol.
The ANT+ managed networks are designed to promote interoperability of a new generation of sports and health devices.
They combine the global 2.4GHz ANT RF products with common branding and an interface specification to allow
    manufacturers to build interoperable communicating sports and health equipment.

Operational Description

Heart rate

MN710/MN700

Heart rate
 – fastened around the upper body.
 – must be in contact with the skin

receiver
 – start ANT+ receiver
 – search sensor for 5min.
 – if find the sensor, it display the sensor type
 – display heart rate

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Specifications – H/W & S/W

Items		Descriptions
CPU		S3C2442 – 400MHz(ARM9 Core)
Memory		NAND Flash – 128MB SDRAM – 64MB SDRAM
GPS		SIRF star III Smart Type Patch 10 x 10(mm) Internal Antenna
Speaker		1Watt Mono(4/8 Ω)
SD/MMC		Micro SD Card (Up to 16GB)
Display		3.5 inch TFT–LCD with Touch Screen 240x320
Barometer (Option)		10 ~ 1100 mbar
ANT+		Dynastream ANT + Sport wireless communication protocol
ANT	Channel	78
	Frequency range	2402MHz ~ 2479MHz
	Communication mode	Two–way communication
	Oscillation mode	Crystal
	Modulation mode	GFSK
Power Souse		DC 5.00 V from USB port of host computer
		Power supply from battery DC 3.60 V or DC 4.50 V (DC 1.20 V or DC 1.50 V 'AAA' type battery 3 EA)
Operating Temp		–20℃ ~ +55℃
Operating Humidity		0 ~ 90 %RH
OS		Windows CE. Net 5.0
Multimedia	Music player	Mp3, wma, ogg
	Movie Player	Avi, asf, wma, mpg, mp4

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GPS Terminology
Altitude (Height above sea level)
The height above sea level. Horizontal line.

Bearing (direction degrees to destination)
Represents the direction to destination with degrees.
When destination direction is 60 degrees from the north and present location is 25 degrees from the north, the difference, 35 degrees, to move is called bearing.

Heading
Degrees from the north in a clockwise direction.

MOB (Man Over Board)
In case of a man falling off board in the sea the ship cannot stop immediately to rescue the man, so they mark the point of accident and return to rescue later. MOB refers to the point of accident.

Route
A series of waypoints connected up to the destination.

Track

Waypoint
Location or point selected.

FAQs
1.SD card is not read.
-> Rub the metal part of SD card with soft cloth and insert it again or format the SD card and use it.
2. Pressing buttons will not return any response.
-> Press the Hold button or if it does not work even after pressing the Hold button, press the Reset button to restart.
3. The device does not work at all.
-> Battery power of the car sometimes falls down lower than the available level for the device. In this case deal with the power supply problems of the car first.
4. The power of the device turns off while using it.
-> Check out the battery charge status. If not enough battery capacity is left, connect the main unit to the power supply immediately. If the main unit goes off with all the power connection, check out whether the main unit is properly connected to the power.
5. Screen is not readable.
-> Avoid direct sunlight and check it out again.
Check out the brightness of backlight on the menu set.
6.Movie and music are played without sound.
-> Check out the volume on the menu set whether it is off, minimum or the volume of ear-phone is minimum.
7. Movie and music files are not played.
-> Check out the file formats supported.
8. Data are not copied onto the SD card.
-> Check out if the SD card is locked or if the SD card capability is overused.
In case of the SD card capability is over-used and data cannot be copied, try deleting the files not in use and try copying again.
9.GPS reception is not available.
-> GPS satellite waves can reduce due to the coating materials on the car windows(especially metal- containing substances) or other obstacles in the car, or weather conditions(rain, snow, cloud etc) can hamper flawless reception of signals.
Also, in such places as surrounded by tall buildings, high-level roads and underground parking lots, GPS reception is not possibly seamless. Try moving the car to other obstacle-free places.
10. The device does not function properly including identifying location right after the car is started.
-> It can take a minimum of 30 seconds to a maximum of 5 minutes for the satellite to check out the location after the device is turned on depending on the places where the car parked or stopped or other local conditions. So just wait for a moment and then try using the device.

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Product warranty
This product is manufactured under a thorough product quality management.
This product is covered by 1-year warranty of free repair, so do not forget to fill out the form given and present it when requesting free repair. Without this warranty or with the warranty form not filled out, warranty period begins on the date marked by the factory on the date of delivery of this product, which is saved on the computer. The warranty is valid and applicable only in Korea.

Warranty details
Free service
Free repair service will be applicable to natural breakdown under normal use or resulting from the defects caused by the manufacturer within the warranty period(12 months) which begins on the date of purchase.
Paid service
The following cases are covered by paid services with the costs for repair and parts included.
1. Expiration of warranty period
2. Within the warranty period
     ▶ Malfunction and damages caused by user's misuse, intention, random modification and improper handling of the device.
     ▶ Malfunction resulting from natural disasters.
     ▶ Problems of power supply and failure of connection devices.
     ▶ Damages caused by repair or alteration done by a third party other than the agents or service providers designated by the company.
3. Repair service is possible only when necessary parts are available based on the company rules after expiration date.

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