



GPS Director GD-101 User Manual

Version 1.1



DUCK BRUCKEN

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Chapter 1_Functions and Specifications

Functions and Features:

- Up to 5 Destination Points
- Display directions with Digital Arrow (Can display 16 directions)
- Magnetic North Direction Indication
- Manual Destination Coordinate Settings
- Maximum Destination Distance Showing (0~999.99)
- GPS Fix Status Indication
- 3 Kinds of Distance Units: km/mi/nm
- Time Zone Setting/ Date
- Uses (2) AAA Batteries
- Battery Life Can Last Up To 18 Hours In Ideal Conditions. Battery life can be Lengthened Using Power-Save Mode.
- Illuminated Screen

Specifications

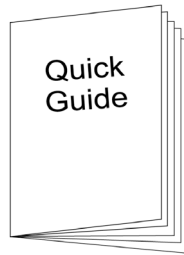
Power	
GPS chipset	High sensitivity single chip solution
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	48 channel all-in-view tracking
Sensitivity	Tracking:-161dBm
Display	
Pixel H*W	96x65 dot Matrix
Backlight Type	White
Electricity	
Battery Type	AAA X 2
Operation Time	9 hours
Buttons	
Power/Backlight Button	<p>Short-click: Turn on backlight.</p> <p>Long-click:</p> <ol style="list-style-type: none"> 1. Power off device under main screen. 2. Return to last page under each setting screen._
Selection/ Setting Button	<p>Short-click: To select.</p> <p>Long-click: To set.</p> <p>Make GD-101 enter main screen by long clicking Power/Backlight Button and Selection/ Setting Button at the same time.</p>
Appearance	
Dimension	60 X 60 X 28 (mm)
Weight	45g, (Not including batteries)
COORDINATES SYSTEM	
Coordinates System	Default_WGS-84
DYNAMIC CONDITION	
Accelerate Speed	Less than 4G
Height Limit	18,000 Meter
Speed Limit	515 m/sec
Vibration Limit	20 m/sec**3
GPS FIX TIME	
Hot Start	Average 1 second
Warm Start	Average 38 second
Cold Start	Average 42 second
Get GPS fix Again	Average 0.1 second
Antenna	
GPS antenna	12 X 12 mm, Patch Antenna

ACCURACY	
Horizontal Position	10 meters, 2D RMS 1-5 meters 2D RMS, WAAS corrected
Speed Accuracy	0.1 m/sec
Time Accuracy	1 micro-second synchronized to GPS time
Temperature	
Operation Temperature	0°C ~ 50°C
Storage Temperature	-20°C ~ 70°C
Humidity Range	Operational up to 95% non-condensing
Certification	
FCC	USA (Covers requirements for CANADA ICES-003)
CE	Europe
TAIWAN	BSMI

Accessories



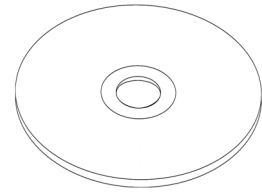
GD-101 Main Unit



Quick Start Guide



Lanyard



CD

NOTE_

If any accessory is not included or damaged, please contact your local dealer.

Appearance



Front view and Back view

1	Display	Shows the GPS fix status, power level, heading and distance
2	Battery Cover	Open the battery cover by rotating it according to the arrow (counter clock-wise to open/ clock-wise to close).
3	Power/ Illumination Button	Press: Turn on backlight. Hold (2sec): 1. Turns the device off. 2. Returns to the last page under each setting screen.
4	Selection/ Setting Button	Press: To select. Hold (2sec): To set. By holding The Power/Illumination Button and the Selection/ Setting Button at the same time the GD-101 will enter the main settings screen.

Chapter 2

Using The Device For The First Time

Battery Installation



Opening the battery cover:

With the GD-101 face down, holding the GD-101 with both hands turn the back cover counter clock-wise till the cover can no longer turn.



Closing the battery cover:

With the GD-101 face down, holding the GD-101 with both hands turn the back cover clock-wise till the cover can no longer turn.

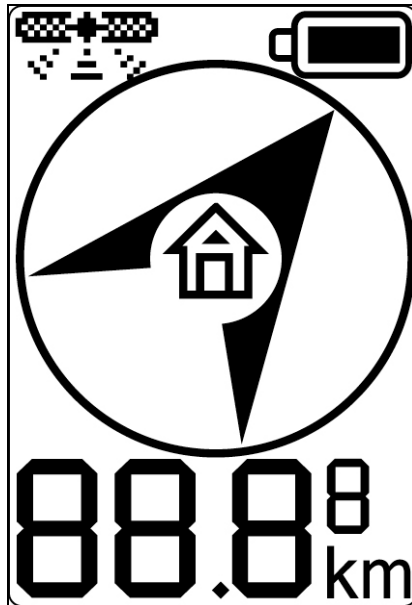
Magnetic North Adjustment

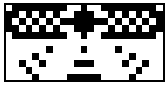









1. When using the GD-101 for the first time, the GD-101 will automatically perform the magnetic-north adjustment as seen in the screenshot to the left.
2. To make adjustments, please refer to Chapter 3-2.
3. If the GD-101 shows an incorrect or inaccurate heading, please perform the magnetic North adjustment.







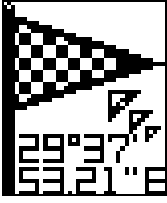
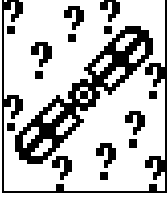
Chapter 3 Using The GD-101

3-1 The E-Compass Screen



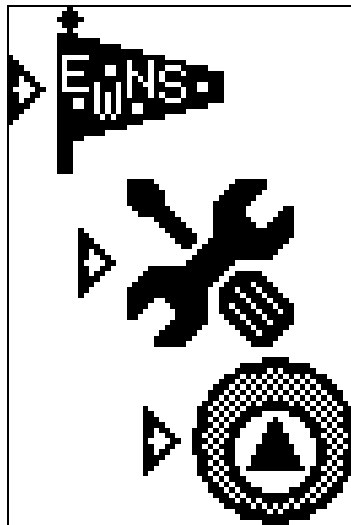
Indication	Description
	The GPS fix indication icon (🚩) will stay SOLID when the GD-101 gets a GPS fix. The GPS fix icon (🚩) will FLASH when the GD-101 does not have a GPS fix.
	The distance between the GD-101 and your destination will only be shown/ displayed when the GD-101 has a GPS fix.
	The E-Compass screen will began to direct you to your destination after the GD-101 has a GPS fix and has performed the magnetic-north adjustment.
	Battery power level:  75%~100%  50%~75%  25%~50%  Battery Is Low, Please Change/ Charge Your Batteries

3-1-1 Setting the Destination

	Description
	<p>1. While in the E-Compass mode, press the Selection/Setting button to select and set the following 5 destination coordinates.</p> <div style="display: flex; justify-content: space-around; align-items: center;">      </div> <p>2. After the GD-101 has a GPS fix, hold the Selection/ Setting button to save your present coordinates as the selected destination's coordinates.</p>
	<p>While The GD-101 is saving your coordinates, the GD-101 will display the graphic shown to the left and then return to E-Compass mode.</p>
	<p>If you try to save your present coordinates with no GPS fix, the GD-101 will display a graphic similar to the image seen in the screenshot to the left and then return to E-Compass mode.</p>

3-2 Main Setting Screen

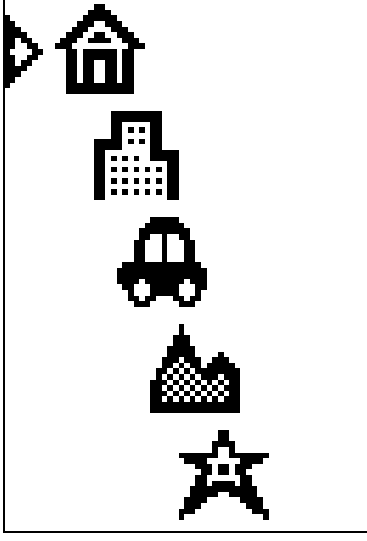










While in E-Compass mode, you can make the GD-101 enter the main screen by holding the Power/Illumination Button and the Selection/ Setting Button at the same time.



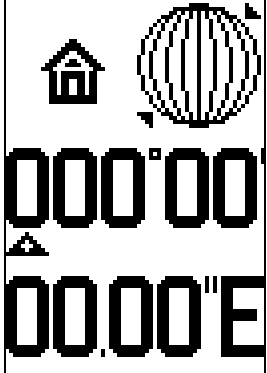
Screen and Operation Explanation:

Indication	Function	Operation
	Manually Set Destination Coordinates	<p>Hold the Selection/Setting button to enter the setting screen.</p> <p>You could set the following 5 destination coordinates.</p>
	Function Settings	<p>Hold the Selection/Setting button to enter the setting screen.</p> <p>You could set the following items.</p> Time Zone Distance Unit Illumination Setting Automatic Sleep Time
	Data Setting	<p>Hold the Selection/Setting button to enter setting screen.</p> <p>You could set the following items.</p> Date GPS Cold Start Delete Memory

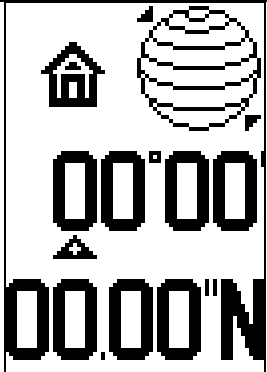
3-2-1 Manually Setting Your Destination's Coordinates

	icon	Explanation
		Set Home's coordinates. The indication  will be ON when the destination's coordinates are set.
		Set Building's coordinates. The indication  will be ON when the destination's coordinates are set.
		Set Car's coordinates. The indication  will be ON when the destination's coordinates are set.
		Set Travel's coordinates. The indication  will be ON when the destination's coordinates are set.
		Set My Favorite's coordinates. The indication  will be ON when the destination's coordinates are set.

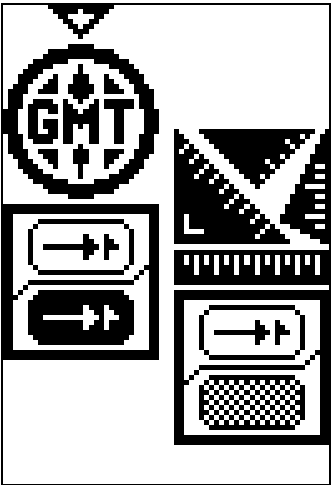




Setting Destination's Longitude

	<ol style="list-style-type: none"> 1. The upper left corner is the selected destination. The number is the setting longitude (East or West). An arrow will be indicated to the number on the initial screen. 2. Press the Selection/Setting button to select the number. Hold the Selection/Setting button to enter the selected value and move to the next digit for setting. 3. The maximum setting is 180 ° 00 '00 . 00 "
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Setting Destination's Latitude

	<ol style="list-style-type: none"> 1. The upper left corner is the selected destination. The number is the setting longitude (North or South). An arrow will be indicated to the number on the initial screen. 2. Press the Selection/Setting button to select the number. Hold the Selection/Setting button to enter the selected value and move to the next digit for setting. 3. The maximum setting is 90 ° 00 '00 . 00 "
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3-2-2 Function Setting

	Icon	Explanation
		Set Your Time Zone
		Set the unit for displayed distance, KM, mile, and nm.
		Set illumination timeout
		


Setting Time Zone

 	Explanation
	<ol style="list-style-type: none"> 1. You could set your time zone in this screen. The value on the lower screen represents the GMT time. 2. Press the Selection/Setting button to select the time zone. 3. Hold the Selection/Setting button to save the time zone. 4. Hold the Power button to return to the last screen.

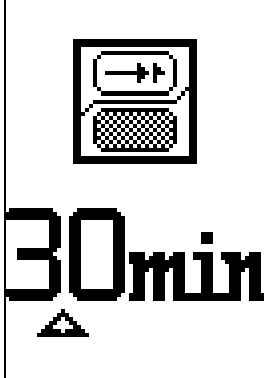
Setting Unit of Displayed Distance

 	Explanation
	<ol style="list-style-type: none"> 1. You could select the unit of displayed distance in this screen. The default setting is km. 2. Press the Selection/Setting button to select the unit. 3. Hold the Selection/Setting button to save your option. 4. Hold the Power button to return to the last screen.

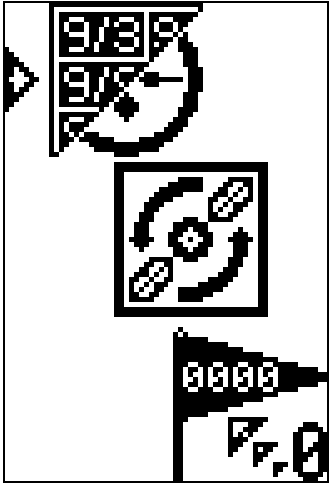



Setting The Illumination Timeout

	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="592 192 1394 241">Explanation</th> </tr> </thead> <tbody> <tr> <td data-bbox="592 241 608 609">1.</td> <td data-bbox="608 241 1394 389">The value in the lower portion of the image to the left is the illumination time-out time. The screen will be on for the selected amount of time after you press the power/backlight button.</td> </tr> <tr> <td data-bbox="592 389 608 461">2.</td> <td data-bbox="608 389 1394 461">Press the Selection/Setting button to select the illumination timeout.</td> </tr> <tr> <td data-bbox="592 461 608 533">3.</td> <td data-bbox="608 461 1394 533">Hold the Selection/Setting button to save the illumination timeout</td> </tr> <tr> <td data-bbox="592 533 608 609">4.</td> <td data-bbox="608 533 1394 609">Hold the Power button to return to the last screen.</td> </tr> </tbody> </table>	Explanation		1.	The value in the lower portion of the image to the left is the illumination time-out time. The screen will be on for the selected amount of time after you press the power/backlight button.	2.	Press the Selection/Setting button to select the illumination timeout.	3.	Hold the Selection/Setting button to save the illumination timeout	4.	Hold the Power button to return to the last screen.
Explanation											
1.	The value in the lower portion of the image to the left is the illumination time-out time. The screen will be on for the selected amount of time after you press the power/backlight button.										
2.	Press the Selection/Setting button to select the illumination timeout.										
3.	Hold the Selection/Setting button to save the illumination timeout										
4.	Hold the Power button to return to the last screen.										


Set Idle-timeout Time for Going to Sleep Mode

	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="592 694 1394 743">Explanation</th> </tr> </thead> <tbody> <tr> <td data-bbox="592 743 608 1081">1.</td> <td data-bbox="608 743 1394 853">Set idle-timeout time for going to sleep mode in this screen. The value in the lower screen represents the idle-timeout time.</td> </tr> <tr> <td data-bbox="592 853 608 925">2.</td> <td data-bbox="608 853 1394 925">Press the Selection/Setting button to select idle-timeout-time.</td> </tr> <tr> <td data-bbox="592 925 608 996">3.</td> <td data-bbox="608 925 1394 996">Hold the Selection/Setting button to save idle-timeout-time.</td> </tr> <tr> <td data-bbox="592 996 608 1081">4.</td> <td data-bbox="608 996 1394 1081">Hold the Power button to return to the last screen.</td> </tr> </tbody> </table>	Explanation		1.	Set idle-timeout time for going to sleep mode in this screen. The value in the lower screen represents the idle-timeout time.	2.	Press the Selection/Setting button to select idle-timeout-time.	3.	Hold the Selection/Setting button to save idle-timeout-time.	4.	Hold the Power button to return to the last screen.
Explanation											
1.	Set idle-timeout time for going to sleep mode in this screen. The value in the lower screen represents the idle-timeout time.										
2.	Press the Selection/Setting button to select idle-timeout-time.										
3.	Hold the Selection/Setting button to save idle-timeout-time.										
4.	Hold the Power button to return to the last screen.										

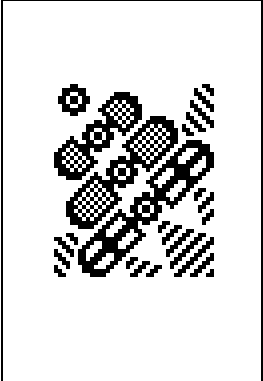
3-2-3 Setting Data

	Icon	Explanation
		Displays the present time of the set time zone.
		Forces the GD-101 to do a cold start.
		Deletes the setting coordinate of a destination in the GD-101

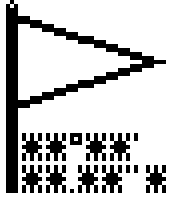
Showing Date and Time

	Explanation
	<ol style="list-style-type: none"> 1. Displayed date and time is from satellite data. It is not user-defined. 2. Press the Power button to return to the last screen. 3. Hold the Selection/Setting button to go to the main screen.

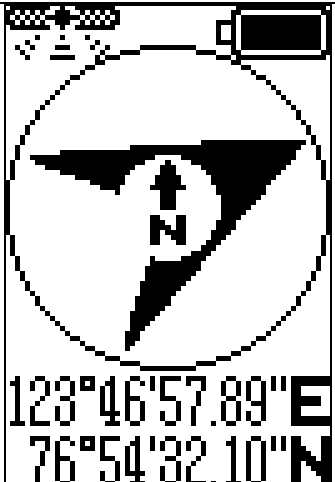
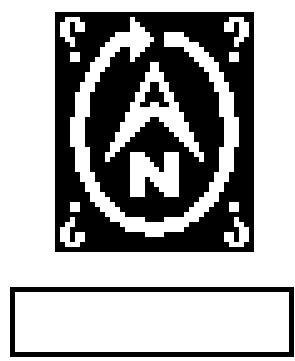
Cold Start

	Explanation
	<ol style="list-style-type: none"> 1. This screen shows the GD-101 is performing a GPS a Cold Start 2. The GD-101 will return to the E-Compass screen after 1 second.


Deleting Coordinates of Destination Screen

	<p style="text-align: center;">Explanation</p> <ol style="list-style-type: none"> 1. This screen shows the GD-101 is deleting the coordinates of the destination. 2. It will return to the E-Compass screen after 1 second.
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3-3 Adjusting E-Compass






	<p style="text-align: center;">Explanation</p> <ol style="list-style-type: none"> 1. The GD-101 will display magnetic north after adjusting the E-Compass. 2. The GD-101 will show the coordinates after getting a GPS fix.
	<p>Adjusting the Electronic Compass</p> <ol style="list-style-type: none"> 1. You can adjust the electronic compass in this screen. 2. To adjust the magnetic North settings Hold the Selection/Setting button and rotate the device in a circular motion 1-2 times. 3. We highly suggest you perform the adjustment outdoors to avoid interference with magnetic anomalies. 4. The GD-101 will automatically return to the E-Compass screen once the adjustments have been completed.

3-4 Turning Off The GD-101

		Explanation
		<ol style="list-style-type: none">1. To turn off the GD-101 press and hold the power button till the GD-101 turns off.2. The GD-101 will turn off 2 seconds after seeing the image to the left.

Chapter 4: Troubleshooting

When GD-101 can not be turned on or does not work properly,
Please check if the battery is installed correctly.

	Why does the GD-101 require more time to get a GPS fix while in motion powering the GD-101 on? In order to shorten the “fix time” please keep the GD-101 stationary while powering it on.
	Keep GD-101 away from excessive moisture and extreme temperatures. Do not leave it in the closed vehicles or put it under direct sunlight for extended periods of time. Excessive moisture and extreme temperatures may damage the GD-101.
	If the date and time is not correct, please select the local time zone in the time zone setting. Ie PST GMT -8 / Taiwan GMT +8
	Do not place the GD-101 near electronic appliances or high-powered magnets. Electronic appliances/ devices may cause the GD-101 to give a wrong heading.
	If the heading being given is inaccurate, this can be corrected by going to the adjustments menu and select the E-Compass option .

World Time Zone Table

Time Code	Description	Region	Time Zone
<i>ACDT</i>	Australian Central Daylight Time	Australia	+10:30
<i>ACST</i>	Australian Central Standard Time	Australia	+ 9:30
<i>ADT</i>	Atlantic Daylight Time	North America	- 3:00
<i>AEDT</i>	Australian Eastern Daylight Time	Australia	+ 11:00
<i>AEST</i>	Australian Eastern Standard Time	Australia	+ 10:00
<i>AKDT</i>	Alaska Daylight Time	North America	- 8:00
<i>AKST</i>	Alaska Standard Time	North America	- 9:00
<i>AST</i>	Atlantic Standard Time	North America	- 4:00
<i>AWDT</i>	Australian Western Daylight Time	Australia	+ 9:00
<i>AWST</i>	Australian Western Standard Time	Australia	+ 8:00
<i>BST</i>	British Summer Time	Europe	+ 1:00
<i>CDT</i>	Central Daylight Time	Australia	+10:30
<i>CDT</i>	Central Daylight Time	North America	- 5:00
<i>CEDT</i>	Central European Daylight Time	Europe	+ 2:00
<i>CEST</i>	Central European Summer Time	Europe	+ 2:00
<i>CET</i>	Central European Time	Europe	+ 1:00
<i>CST</i>	Central Summer Time	Australia	+ 10:30
<i>CST</i>	Central Standard Time	Australia	+ 9:30
<i>CST</i>	Central Standard Time	North America	- 6:00
<i>CXT</i>	Christmas Island Time	Australia	+ 7:00
<i>EDT</i>	Eastern Daylight Time	Australia	+ 11:00
<i>EDT</i>	Eastern Daylight Time	North America	- 4:00
<i>EEDT</i>	Eastern European Daylight Time	Europe	+ 3:00
<i>EEST</i>	Eastern European Summer Time	Europe	+ 3:00
<i>EET</i>	Eastern European Time	Europe	+ 2:00
<i>EST</i>	Eastern Summer Time	Australia	+ 11:00
<i>EST</i>	Eastern Standard Time	Australia	+ 10:00
<i>EST</i>	Eastern Standard Time	North America	- 5:00
<i>GMT</i>	Greenwich Mean Time	Europe	0:00
<i>HAA</i>	Heure Avancée de l'Atlantique	North America	- 3:00
<i>HAC</i>	Heure Avancée du Centre	North America	- 5:00
<i>HADT</i>	Hawaii-Aleutian Daylight Time	North America	- 9:00
<i>HAE</i>	Heure Avancée de l'Est	North America	- 4:00
<i>HAP</i>	Heure Avancée du Pacifique	North America	- 7:00
<i>HAR</i>	Heure Avancée des Rocheuses	North America	- 6:00

<i>HAST</i>	Hawaii-Aleutian Standard Time	North America	- 10:00
<i>HAT</i>	Heure Avancée de Terre-Neuve	North America	-2:30
<i>HAY</i>	Heure Avancée du Yukon	North America	- 8:00
<i>HNA</i>	Heure Normale de l'Atlantique	North America	- 4:00
<i>HNC</i>	Heure Normale du Centre	North America	- 6:00
<i>HNE</i>	Heure Normale de l'Est	North America	- 5:00
<i>HNP</i>	Heure Normale du Pacifique	North America	- 8:00
<i>HNR</i>	Heure Normale des Rocheuses	North America	- 7:00
<i>HNT</i>	Heure Normale de Terre-Neuve	North America	- 3:30
<i>HNY</i>	Heure Normale du Yukon	North America	- 9:00
<i>IST</i>	Irish Summer Time	Europe	+ 1:00
<i>MDT</i>	Mountain Daylight Time	North America	- 6:00
<i>MESZ</i>	Mitteleuroäische Sommerzeit	Europe	+ 2:00
<i>MEZ</i>	Mitteleuropäische Zeit	Europe	+ 1:00
<i>MSD</i>	Moscow Daylight Time	Europe	+ 4:00
<i>MSK</i>	Moscow Standard Time	Europe	+ 3:00
<i>MST</i>	Mountain Standard Time	North America	- 7:00
<i>NDT</i>	Newfoundland Daylight Time	North America	- 2:30
<i>NFT</i>	Norfolk (Island) Time	Australia	+ 11:30
<i>NST</i>	Newfoundland Standard Time	North America	- 3:30
<i>PDT</i>	Pacific Daylight Time	North America	- 7:00
<i>PST</i>	Pacific Standard Time	North America	- 8:00
<i>UTC</i>	Coordinated Universal Time	Europe	0:00
<i>WDT</i>	Western Daylight Time	Australia	+ 9:00
<i>WEDT</i>	Western European Daylight Time	Europe	+ 1:00
<i>WEST</i>	Western European Summer Time	Europe	+ 1:00
<i>WET</i>	Western European Time	Europe	0:00
<i>WST</i>	Western Summer Time	Australia	+ 9:00
<i>WST</i>	Western Standard Time	Australia	+ 8:00

FCC Notices

This device complies with part 15 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.

FCC RF Exposure requirements:

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.