

# EasyHear

Hearing Device

## User Manual



### BF (Beamformer Standard)

Powered by Logital Co. Limited

EasyHear \_\_\_\_\_ BF

### EasyHear\* Brand Name

**EasyHear** (EH) Beamformer Standard (BF) is an assistive hearing device developed by Logital Co. Limited.

The Chinese brand name of EH is “清晰聽” in Hong Kong, “易耳通” in Taiwan and “易耳聽” in China.

\* In United States, it is called SuperHear (SH).

EasyHear \_\_\_\_\_ BF

### Contents

#### Introduction ----- P.5

- Welcome
- Environment Information
- Notes on Copyright

#### Caution: Please Read ----- P.6 – P.11

##### FOR EASYHEAR MAIN UNIT \_\_\_ P.6 – P.7

- Safety Information
- Notes on Children (3 years or under)
- Declaration on the Supplied Accessories
- Loudness Warning

##### FOR EARPHONES \_\_\_\_\_ P.8 – P.11

- (1) Safety Information \_\_\_\_\_ P.8 – P.9
- (2) How to Use \_\_\_\_\_ P.9 – P.10
  - a. Wearing the Earphones \_\_\_\_\_ P.9 – P.10
  - b. Ear Buds \_\_\_\_\_ P.10
- (3) Maintenance of the Earphones \_\_\_\_\_ P.11
- (4) Optional Accessories \_\_\_\_\_ P.11

#### Specifications ----- P.12 – P.13

- In the Box
- Operation and Charging Time
- Operating and Storage Temperatures

EasyHear \_\_\_\_\_ BF

#### Functional Overview ----- P.14 – P.15

- Front and Side Panels \_\_\_\_\_ P.14
- Tables of Functions \_\_\_\_\_ P.15

#### LCD Icon Description ----- P.16

#### Special Advice to User ----- P.17

#### Operation Procedure ----- P.18

#### Display & Key Functions ----- P.19 – P.33

##### (1) Main Menu \_\_\_\_\_ P.19

- i. Cable Detection \_\_\_\_\_ P.20
- ii. Battery Indication \_\_\_\_\_ P.20
- iii. Charging Indication \_\_\_\_\_ P.21

##### (2) Main Menu > EasyHear Setting \_\_\_\_\_ P.22

- i. BF/NC Mode Change \_\_\_\_\_ P.22
- ii. Dual Volume Control \_\_\_\_\_ P.23
- iii. Left/Right Volume Control \_\_\_\_\_ P.24
- iv. Equalizer \_\_\_\_\_ P.25 – P.30

General Settings \_\_\_\_\_ P.25 – P.27

Storage / Recall \_\_\_\_\_ P.28 – P.30

##### (3) Main Menu > AGC Setting \_\_\_ P.31 – P.32

##### (4) Main Menu > Language Setting \_\_\_\_\_ P.33

**Troubleshooting**----- P.34 – P.35

**Warning** ----- P.36 – P.37

**Disclaimer** ----- P.38

## Introduction

### Welcome

Thank you for purchasing EasyHear Beamformer Standard (BF). We are sure that you can enjoy the convenience and reliability of using this hearing device. This manual will offer you guidance on the operation and information about safety and troubleshooting, etc.

### Environmental Information

This product has been designed to comply with international directives on the Restriction of Hazardous Substances (RoHS), FCC and CE certification.

### Notes on Copyright

This product incorporates copyright protection technology and intellectual property rights (patent pending) owned by Logital Co. Limited. Brand name(s) mentioned in this manual is/are trademark(s) of Logital Co. Limited.

## Caution: Please Read

### FOR EASYHEAR MAIN UNIT:-

#### Safety Information

- In order to save power, remember to power off EasyHear (EH) when it is not in use.
- Always supervise children using EH.
- As a matter of auditory training, increase EH's volume level gradually over time, such as in 2 months.
- Listening at uncomfortably high volume levels, particularly over extended periods of time, may damage your hearing.
- Should you notice an abnormality in the AC power adapter, disconnect it from the AC outlet immediately.
- Keep EH dry and away from direct sunlight.
- Do not expose EH to excess liquid, moisture or humidity.
- Do not expose the battery to temperatures above + 40°C or below -10°C.
- Do not expose EH to open flames.
- Do not disassemble EH.

- Do not drop EH or subject it to strong shock.
- No user serviceable parts inside.
- Only use power adapter with output DC 5V, 800mA for battery charging.

### Notes on Children (3 years or under)

Keep out of children's reach other than child users of EH. Do not allow children to play with your EH or its accessories. They could hurt themselves or others. The children could accidentally damage the product or accessories. EH or its accessories may contain small parts that could become detached and create a choking hazard.

### Declaration on the Supplied Accessories

Please use original Logital accessories. Use of third-party accessories may decrease product performance and/or pose a risk to personal safety.

### Loudness Warning

Improper use may be harmful to your hearing. On first time of use, please turn down the volume level before listening to EH after its power is on. When you are accustomed to EH's volume, gradually increase it over time.

**FOR EARPHONES:-**

**(1) Safety Information**

- Do not use the earphones in other ways than described in this manual.
- Keep the earphones and their accessories out of reach of children. Handling or use by children may pose a threat of death or serious injury. The earphones contain small parts and a cord that may pose a risk of choking or strangulation.
- If an ear bud becomes lodged in your ear, seek medical assistance to remove the ear bud. If removal is performed without proper medical assistance, the ear may be damaged.
- Before inserting the earphones, make sure that the ear buds are attached firmly to the earphones.
- If the earphones cause discomfort or irritation, stop using them. Consult a physician or audiologist if needed.
- Handle the earphones with care and store them in the provided carrying case.
- Do not expose the earphones to extreme temperatures or to strong magnetic fields. Do not immerse them in liquid. Avoid sharp blows to the earphones.

- Keep these instructions and recommendations so you can review them in the future.

**CAUTION**

Risk of explosion if battery is replaced by an incorrect type.

Dispose of used batteries according to the instructions.

Use only with BL-5J Lithium Battery.

**(2) How to Use**

Only use the earphones with EH and its original parts. Never use accessories from other manufacturers. They are not compatible with EH and can modify the frequency response of your earphones and/or the EH main unit, damage them or even cause injury.

Original accessories can be purchased from authorized EH dealer(s).

**a. Wearing the Earphones**

The earphones can deliver the best performance if correctly inserted in the ears and if absolute sealing is achieved. To achieve the best performance, proceed as follows:

1. Identify the left and right earphones.
2. Hold the earphones with the cable pointing down, and the ear buds towards your head.
3. Insert the ear buds into your ear canals with a gentle push. Do not force the earphones into the ears. If you feel that the ear buds are too loose (insufficient sealing) or too tight (discomfort), try using another size.
4. The ear buds should seal the ear canal and fit without any discomfort.

To remove the earphones from the ears, hold them by the bud and pull them out gently with a small rotation in order to break the sealing.

Do not pull on the cable to remove the earphones from your ears!

**b. Ear Buds**

The earphones come with ear buds and are washable. To change the ear buds, grab each ear bud in the middle and pull it slowly until it comes loose. Do not use your fingernails or any other sharp object to remove the ear buds, as otherwise they could be damaged.

**(3) Maintenance of the Earphones**

To extend the lifetime of your earphones, keep them clean and follow the recommendations below.

- The ear buds should be cleaned regularly with water and mild soap, or with an antiseptic wipe. Always make sure that the ear buds are dry before reusing.

**(4) Optional Accessories**

To enhance your listening experience with the earphones and EH, we recommend that you opt for a pair of custom-made earmolds, to be attached to the earphones and replace the standard ear buds. For the severely to profoundly hearing-impaired users i.e., those with hearing loss of 70dB or worse in their better ears, this recommendation is particularly relevant. For further information on how to acquire custom earmolds, please contact authorized EH dealer(s).

## Specifications

### In the box

- ◆ EasyHear Beamformer Standard x 1
- ◆ Rechargeable BL-5J 3.7V 1250mAh Battery x 1
- ◆ EasyHear Stereo Earphone Cable x 1 with S size Ear Buds fitted
- ◆ L and M size Ear Buds x 1 pair each
- ◆ USB Charging Cable x 1
- ◆ User Manual x 1

### Operation and Charging Time

- ◆ Normal battery duration: about 8 – 9 hours.
- ◆ Normal charging time:
  - about 2 – 3 hours when using 5V 800mA power adapter
  - about 4.5 hours via PC USB port

### Operating and Storage Temperatures

- ◆ Operating : +40°C to -10°C
- ◆ Storage : +40°C to -10°C

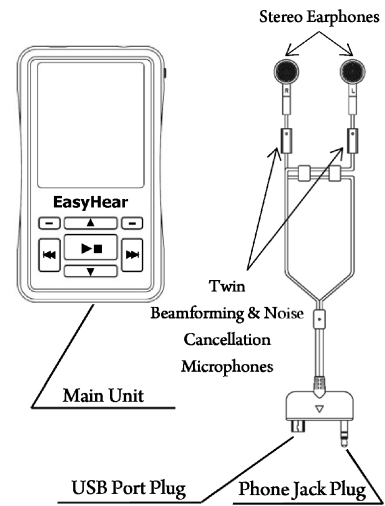


Figure 1: EasyHear-BF and its Stereo Earphone Cable

## Functional Overview

### Front and Side Panels

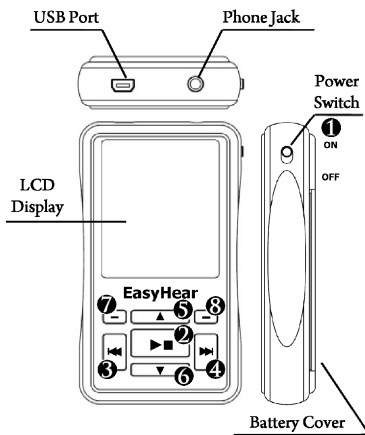


Figure 2

### Tables of Functions

Switch / Button	EasyHear Main Functions	
1	Power On / Off Switch	
2	“ENTER” key	
3	BF / NC Mode Change or AGC Mode Change	Volume Down
4		Volume Up
5	Select Up	
6	Select Down	
7	AGC	
8	Key Pre-unlock and Unlock / Language / Exit	

Table 1

### LCD Icon Description

Icon	Description
<b>BF</b>	Beamforming Mode
<b>NC</b>	Noise Cancellation Mode
	Left Channel Volume (1 to 20)
	Right Channel Volume (1 to 20)
	Earphone cable being connected
<b>Lang</b>	Language Setting (by pressing <b>8</b> )
<b>AGC</b>	Automatic Gain Control (by pressing <b>7</b> )
<b>Unlock</b>	To pre-unlock (by pressing <b>8</b> )
<b>OK</b>	To unlock (by pressing <b>8</b> )
	Battery Level (0 to 4)
	Battery Charging Level (0 to 4)

**Table 2**

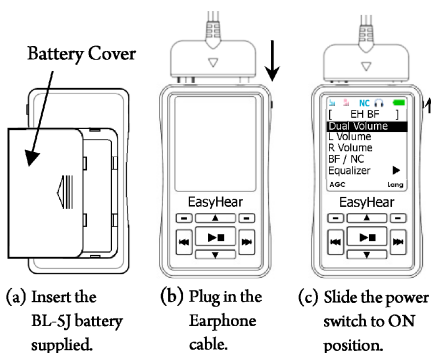
Notes:

- EH will lock the LCD screen after it is lit for approximately 30 seconds, in order to save power.
- Hold **8** button for 3 seconds, LCD screen will be locked.

### Special Advice to User

- It is better for the Twin Beamforming & Noise Cancellation Microphones to point straight forward.
- You are recommended to use BF mode for directionality, and use NC mode to listen to music. Try switch among BF / NC modes for optimal listening in different environments.

### Operation Procedure



- Insert the BL-5J battery supplied.
  - Plug in the Earphone cable.
  - Slide the power switch to ON position.
- (d) sign is shown when Earphone connection is okay.
- (e) Put on the Earphones.
- (f) Enter the EH Setting and adjust the volume.

**Figure 3**

### Display & Key Functions

#### (1) Main Menu



- Press **5** / **1** to select.
- Press **3** / **4** to change mode or volume. Press **2** to enter Equalizer setting after selection.
- Press **7** to enter AGC setting.
- Press **8** to enter Language setting.

**Figure 4**

**i. Cable Detection**

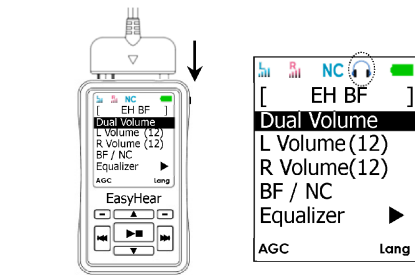


Figure 5

After the power is turned ON, the Earphone icon will appear within 3 seconds after the cable is plugged into the EH BF.

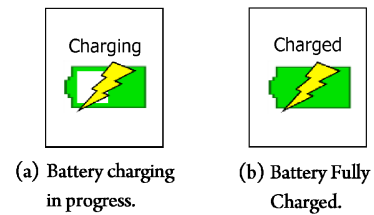
**ii. Battery Indication**

Battery Level (total 5 levels):

Empty	Level 1	Level 2	Level 3	Full
needs recharge	~25%	~50%	~75%	Full

Figure 6: Battery Indicator

**iii. Charging Indication**



(a) Battery charging in progress.

(b) Battery Fully Charged.

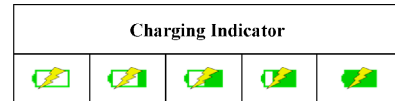


Figure 7

Note:

- (a) The above show up when the power is turned ON.
- (b) EH BF can still be charged with power switch at OFF position.

**(2) Main Menu > EasyHear Setting**

Use 5, 6 and 2 to move cursor up, down and to select.

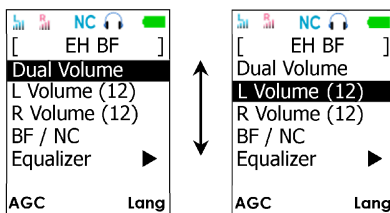


Figure 8: Mode & Volume Control Selection

**i. BF/NC Mode Change**

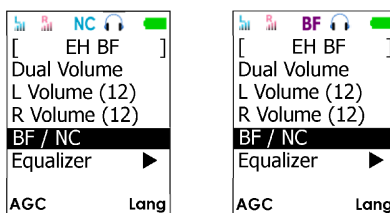


Figure 9: Mode Change between

**BF** Beamforming and **NC** Noise Cancellation

**ii. Dual Volume Control**

In “Dual Volume” Control, the left/right channel volume level can be changed simultaneously by using left 3 / right 4 button. If the volumes of left and right channel are in different levels, they will be increased / decreased correspondingly.

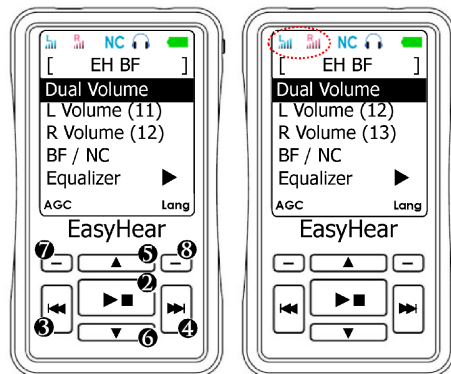


Figure 10: Dual Volume Control

iii. Left/Right Volume Control

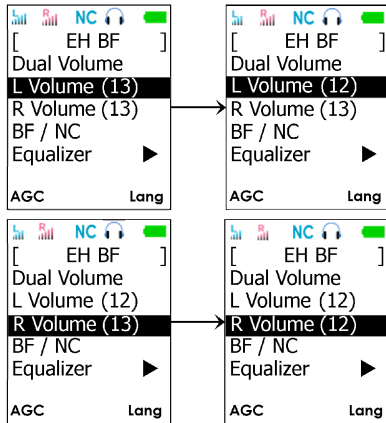


Figure 11: Left / Right Volume Control (separate), volume down or up by left or right button respectively

iv. Equalizer

General Settings

In EH BF, a 4-band equalizer (EQ) is applied in the EH output audio signal, which corresponds to low, medium-low, medium-high and high frequency band respectively. For each EQ band, the EQ gain ranges from +6dB to -6dB in steps of 3dB.

EQ 1 to EQ 4	
EQ Gain [dB]	+6, +3, 0, -3 or -6

Press enter button to enter the equalizer setting mode, in EH main menu page.

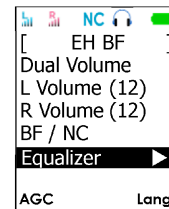
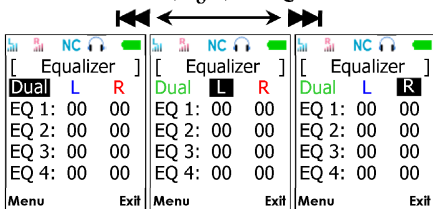


Figure 12: Press enter button to enter Equalizer Setting Mode

In the equalizer page, use left / right button to select dual / left / right EQ channel. And, use the up / down button to enter the corresponding EQ channel and adjust loudness of each EQ for each ear.

(a) Use the left / right button to select dual / right / left EQ channel.



(b) Press up / down button to enter the corresponding EQ channel.

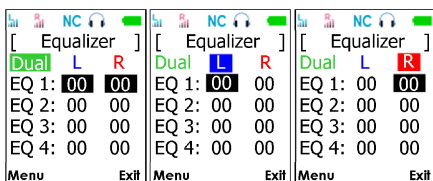
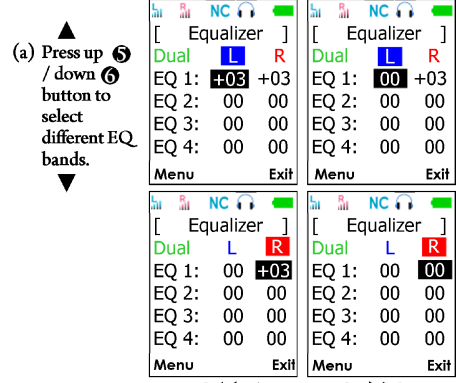


Figure 13: Selection of different EQ channels and EQ bands

(a) Press up / down button to select different EQ bands.



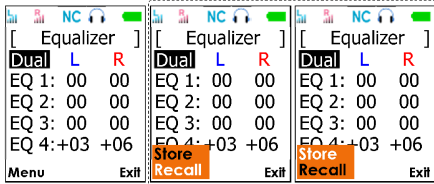
(b) Use the left / right button to decrease / increase the EQ gain

Figure 14: Adjustment of EQ gain for each EQ band

**Storage / Recall**

Up to four EQ settings can be stored in memory and can be recalled.

Press **7** button to open the sub-menu in EQ page. Press up **5** / down **6** button to choose “Store” or “Recall”.



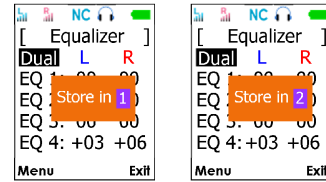
- (a) Press **7** button to open the “store or recall” sub-menu.
- (b) Press up **5** / down **6** button to choose “Store” or “Recall”.

**Figure 15: EQ Store & Recall sub-menu selection**

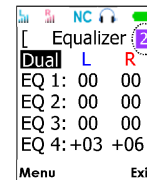
**EQ Setting Storage**

The current EQ setting can be stored in memory (location 1 to 4).

- (a) According to Figure 15, press **7** button to confirm selection of “Store” in EQ sub-menu.



- (b) Press up **5** / down **6** button to choose the memory location (1 to 4).



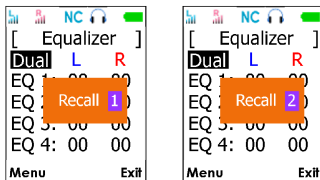
- (c) Press **7** button to confirm selection. The stored EQ memory location index will be displayed in the top right-hand corner.

**Figure 16: EQ Setting Storage**

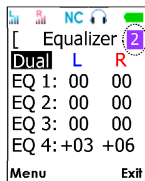
**EQ Setting Recall**

The stored EQ setting can be recalled and applied to the EH sound output immediately.

- (a) According to Figure 15, press **7** button to confirm selection of “Recall” in EQ sub-menu.



- (b) Press up **5** / down **6** button to choose the memory location (1 to 4).



- (c) Press **7** to confirm selection. The stored EQ setting will be recalled and applied to the EH sound output immediately.

**Figure 17: EQ Setting Recall**

**(3) Main Menu > AGC Setting**

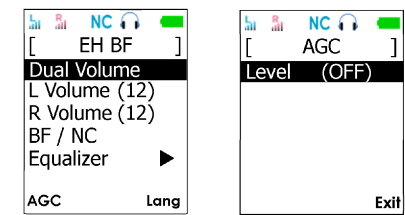
Automatic Gain Control (AGC) is used to automatically adjust the output sound level of EH. It can be enabled or disabled by user manually.

There are three different AGC levels for selection in total (01 to 03); the corresponding recommended environments are listed in the following table:

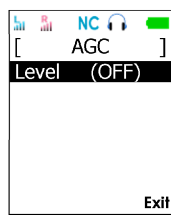
AGC Level	Recommended Environment
01	Quiet / Indoor Place (e.g. office)
02	Noisy / Outdoor Place (e.g. street)
03	Very Noisy Place (e.g. crowd street or restaurant)

**Table 3**

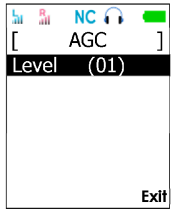
If sound input exceeds the specified level, AGC will automatically decrease the EH output sound level. It is especially good for suppressing close speech (e.g. user’s own voice).



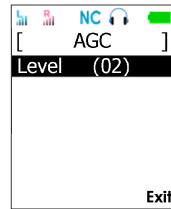
(a) Press 7 button to enter AGC in main page.



(b) Press 5 / 4 button for ON/OFF AGC.



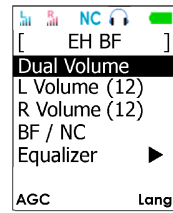
(c) Press 3 / 4 button for setting different AGC levels.



(d) Press 8 button to exit AGC setting page.

Figure 18: Automatic Gain Control

(4) Main Menu > Language Setting



(a) Press 8 to enter Language setting.



(b) Press 5 / 6 to select language.



(c) Press 0 to confirm the selection.



(d) Menu is changed to the selected language.

Figure 19: Language Selection

Troubleshooting

Problem(s)	Suggested Solution(s)
No display is shown when power is on.	(a) Re-insert the battery and power on EH again. (b) Battery is empty, recharge the battery.
EH Earphone cable cannot be detected.	(a) Power off & on the EH and re-plug in the EH cable.
EH powers off automatically.	(a) Battery level is too low. Recharge the battery or replace with a fully charged battery.
No sound output.	(a) Make sure the Earphone cable is plugged in completely. (b) Volume is too low, adjust the volume. (c) Battery is empty, recharge the battery.

Charge indicator is not shown when USB cable is connected.	(a) Check the USB connection between EH and PC / power adapter.
--	---

Note: EH can still be charged with power switch in OFF position, although the charge indicator will not show up in this case.

Please contact your distributor, if problem(s) cannot be fixed by the above-suggested solutions.

## Warning

**Warning:** Changes or modifications to this unit 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.

Page 36

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.

## Additional Safety Information

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

To be completely disconnect the power input, the AC/DC adaptor of apparatus shall be disconnected from the mains.

The disconnect device is the AC/DC adaptor of apparatus. The AC/DC adaptor of apparatus should not be obstructed OR should be easily accessed during intended use.

Battery shall not be exposed to excessive heat such as sunshine, fire or the like.

Excessive sound pressure from earphones or headphones can cause hearing loss.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Page 37

## Disclaimer

Logital Co. Limited does not assume any liability, obligation or legal responsibility for any damage to the hearing or any other bodily harm whatsoever that using EasyHear may have caused to the users. Users are strongly advised to read and are supposed to have read this User Manual with care.

Page 38