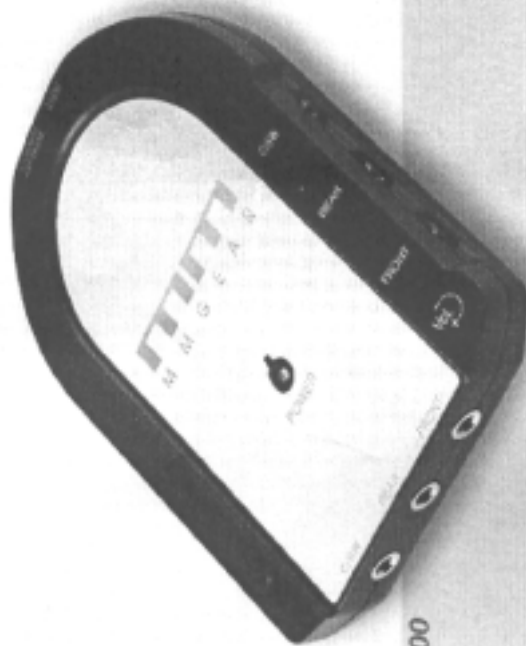## *Appendix 6. User Manual*

Refer to the following pages

External 5.1Ch.
USB Sound Card

USER MANUAL
取扱説明書
취급설명서

MM-USC100

This product is a 5.1 channel support external sound card that can be conveniently used with PCs without a sound card or only a stereo sound card, or notebook computers in which a multi-channel sound card or only a stereo sound card cannot be installed. This sound card can be used together with multi-channel headphones or a 5.1 channel speaker system according to the needs of the user.

1 Key Features

- **Slim, Mini Type**
  This product is small, slim and conveniently portable.

- **Easy-To-Install**
  This product can be easily installed since it is automatically recognized as a USB audio device in a Windows environment.

- **Digital & Analog Output**
  This product supports both optical and coaxial types in case of digital outputs along with analog 5.1 channel outputs. Therefore, it can be connected to various speaker systems and multi-channel headphones.

- **Separated Volume Control**
  A volume control that can adjust output volume, is provided for each channel, and thus you can adjust a volume level that is suitable for you. In case of digital outputs, however, the volume control is carried out only through a volume device on a speaker.

- **Amplifier included**
  In addition, a built-in amplifier of this product allows you to enjoy rich sound quality even in outputs of headphones.

2 System requirements

SOFTWARE
OS: Windows 98SE, Windows ME, Windows 2000, Windows XP

HARDWARE
Notebook: Pentium III 700MHz or higher (1GHz or higher recommended)

Desktop: Pentium III 600MHz or higher (800MHz or higher recommended) or Celeron 1GHz or higher

Memory: 256MB or more

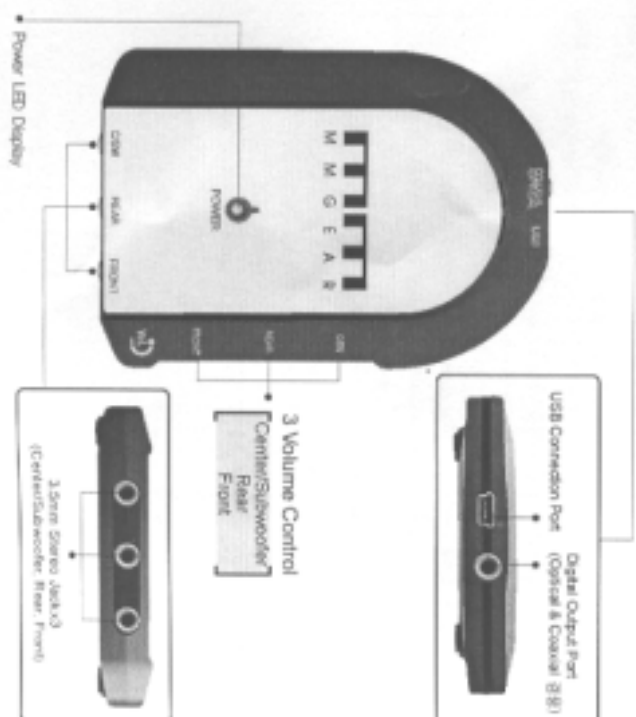Extra USB port (compatible with USB 1.1/2.0)

3 Components

Sound Card Main Board 1 EA

USB Cable 1 EA

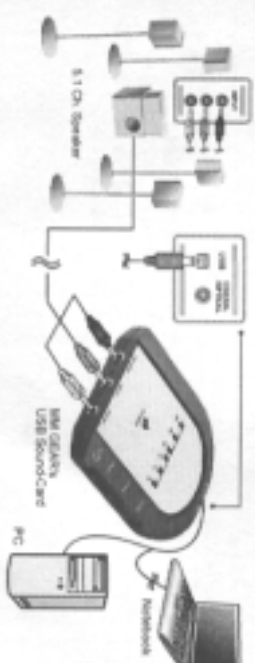User Manual (including a Warranty) 1 EA

4 Parts List

MM-USC100

- Power LED Display

M M G E A R

POWER

BACK bit

CTR

REAR

FRONT

3 Volume Control
[Center/Subwoofer]
Rear
Front

3.5mm Stereo Jack x3
(Center/Subwoofer, Rear, Front)

USB Connection Port

Digital Output Port
(Optical & Coaxial 포함)

5 How to Connect

▶ Multi-channel headphones

MM GEAR's
Headphone

MM GEAR's
USB Sound-Card

PC

Notebook

▶ 5.1 Channel speaker system

5.1 Ch. Speaker

MM GEAR's
USB Sound-Card

PC

Notebook

※ A mini stereo cable is a speaker accessory or a separately purchased item.

6 How to Install Software

This product is automatically recognized as a audio device when installing at a USB port, however you need to change audio settings to a standard USB audio device driver that is supported in Windows for some products (i.e. a speaker system having a Creative Sound Card Driver)

▶ Setting up control panel

<Windows XP>

- Select Control Panel 'Sound and Audio Devices' 'USB Audio' as a primary audio device on the audio tap

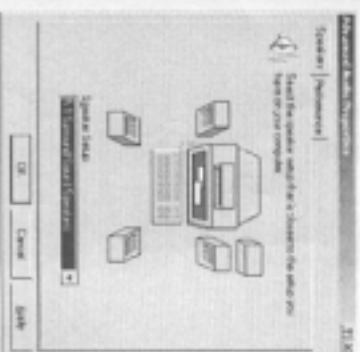- Select Control Panel 'Sound and Audio Devices' "Audio '5.1 Surround Sound Speaker' on the advanced tap

<Windows Me/2000>

- Select Control Panel 'Sound and Multimedia', 'USB Audio' as a primary audio device' on the audio tap
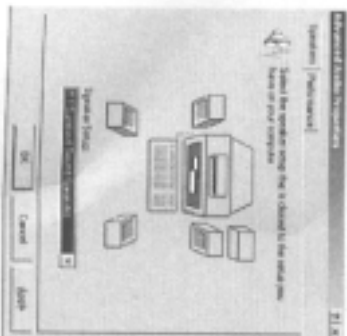
- Select Control Panel 'Sound and Multimedia' '5.1 Surround Sound Speaker' on the advanced tap
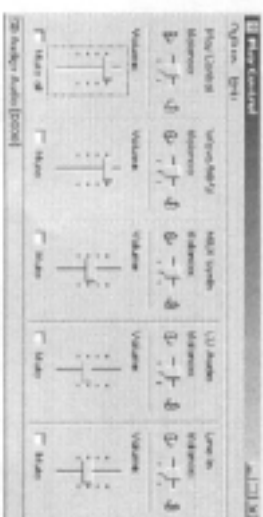
<Windows 98>

- Select Control Panel
- "Multimedia"
- "USB Audio' as a primary audio device on the audio tap

- Select Control Panel
- "Multimedia"
- Audio '5.1 Surround Sound Speaker' on the advanced tap

▶Adjusting volume

- Go to Start' Accessories → Entertainment → Volume Control

※ Note: 'Mute all' should not be checked.

7 How to Use

1) Headphones

Once a computer, a sound card, and multi-channel headphones are all connected (Refer to 4. and 5.), wear headphones and adjust volume of the sound card at a reasonable level.

* Please minimize the volume level of the sound card before connecting headphones. If the headphones are connected at the maximum volume level, your hearing may be seriously damaged. Please be cautious.

* Please wear headphones only after the headphones have been connected to the sound card. For optimal results, when increasing the volume level of the sound card, please adjust the volume level within a range where the sound quality is not distorted.

2) Speaker system

Once a computer, a sound card, and multi-channel headphones are all connected (Refer to 4. and 5.), turn on the speaker system and adjust volume of the sound card at a reasonable level.

*Please minimize the volume level of the sound card before connecting a speaker system. If the sound card is connected with the maximum volume level, the speaker system and/or your hearing may be seriously damaged. Please be cautious.

*Please turn on the power of a speaker system only after the speaker system has been connected to the sound card. For optimal results, when increasing the volume level of the sound card, please adjust the volume level within a range where the sound quality is not distorted.

▶ Volume control

- If you turn a volume dial clockwise, it gets louder.
  However, if you turn a volume dial counterclockwise, it gets quieter.
- Front: Volume control of front left and front right channel
- Rear: Volume control of rear left and rear right channel
- C/SW: Volume control of center and subwoofer channel

If you want to listen to DVD 5.1 channel sound using this sound card, you need to set up additional settings on DVD player software.

▶ Setting up Power DVD 4.0
  1) Audio outputs
   - Analog outputs

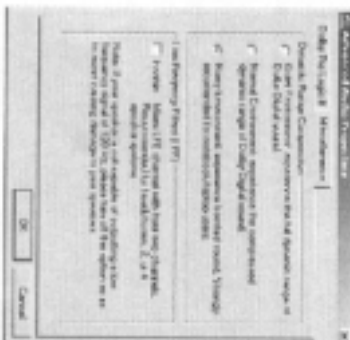Select Settings and '6 speaker' on the audio tap.

- Digital outputs

Select Settings and 'SPDIF use' on the audio tap.

* You can output a 5.1 channel digital signal at an external device using a digital output terminal that is located at the back of this sound card (e.g., an external decoder, decoder internal speaker system, etc.). In this case, an analog output is automatically turned off.

2) Setting up Miscellaneous

- Go to Settings → Audio → Advanced → Miscellaneous

If you are not satisfied with the volume level, select 'noisy environment'. However, select 'quiet environment' in general cases.

※ Recommending DVD Player Software : Power DVD 4.0 or WinDVD 4.0

8　Easy Guide

1) When there is no sound signal

• A UBS controller is activated in CMOS settings of an accessed PC.
• The accessed device and the sound card are turned on.
• Make sure that a play button of a connected device
• Make sure that volume of a connected device
• The accessed device, headphones, and the speaker system are properly connected with the sound card.
• Adjust the volume of a Media Player appropriately
　- There may be some differences in volume control title by title
　- Discrete sound may be less clear if it is not a 5.1 channel title

2) When sound is distorted or noise is generated

• Tone control and volume of the accessed device
• The volume of the sound card.
• Connecting cables are properly connected and if there are any damages or defects on the cables.
• Access terminals of headphones or the speaker system are properly connected for each channel.
• Make sure that your media is not damaged

※ Caution: This is concerned with system compatibility. Some VIA 693 and Intel 440 BX main board that came out when a USB port was beginning to attach to a PC, may not be working properly due to low USB transmission quantity (however, this is not always the case for all VIA 693 and Intel 440 BX main board). In addition, a PC having extremely low power quantity (in case that power consumption is lower than 150 Watts) may have the same problem.

9 Safety Notes

Please read carefully "Safety Notes" before use and correctly use the product. After reading, please keep this manual at a safe place.

Regarding marks
The following marks are to guide a correct use of the product and prevent damage to health or property of equipment.
Please read whole mail text carefully after understanding below.

⚠ Warning	⚠ Notice
This mark implies that, if someone incorrectly handles the product, he/she may be seriously injured or be led to death sometime.	This mark implies that, if someone incorrectly handles the product, he/she may be hurt.
• If the following accidents may occur, please stop using. • When accidents may arise, please inform a customer service center - Smoke or extraordinary smell. - Water or metallic stuff intrudes the product. - The headphone is dropped or the part is broken.	• Please note that keeping the product at high temperature place or near a heat source such as a stove, or exposed to sunlight, may cause deformation or deterioration of product.
• Please do not disassemble the headphone by yourself • Please do not disassemble or modify the product • Please do not connect plugs if they are not exclusive ones for this product.	• When the headphone becomes dirty after use, please clean the headphone using a soft gauze dipped in water diluted with small amount of a neutral detergent. • Do not use benzene or thinner.

• At an initial stage of driving source, start from the minimum volume level of the sound card and then gradually adjust the volume level to prevent any damages on your hearing. Prolonged exposure to excessive noise can cause hearing loss. Be sure that the volume level on audio headphones must be kept at a resonable level to avoid hearing loss.
Please do not connect headphone plug to other terminals except an exclusive one for headphones.

10 Specification

• Input: 1 USB Connection Port(USB 1.1 / 2.0 Compatible)
• Output: 3.5mm Stereo Jack x3(Front, Rear, Center/subwoofer)
      1 Digital Port (Both Optical & Coaxial),
      0.6W per channel, capable of outputting 5.1 channels)
• Chipset: Sonix 5.1 Sound
• Sampling Rate: 24bit 96KHz D/A & A/D Converter
• Size(WxHxD): 80x15x108mm
• Power consumption: Minimum 3.3V, 150mA (Standard 5V, 500 mA)

11 Product warranty

1) Please make sure product certificate is included in the product package.

This product includes a limited warranty certificate. Please fill in a predetermined item on warranty where you purchased this product and keep it in a safe place.

2) Warranty period

Warranty period is one year from the date of purchase. You may call for customer service center according to the conditions of the certificate of warranty. About request for a repair, please refer to the certificate of warranty.

3) Repair after warranty period

Please contact our customer service center for a repair after the warranty period has expired. We will provide repair service upon request of a customer only when it is available at the cost of customer.

4) Requesting a repair

Please carefully read the above "Easy Guide" before request.
When you request a repair to customer service center, please provide us following information.

- Model name: MM-USB100
- Your Telephone, address and e-mail.
- Condition of the broken part (in detail)

12 Source of Manufacture(MM Gear) & Customer Service Center

MM Gear Co., Ltd.
2ft, Hyunjin Bldg, 90 Cheongdam-2dong,
Gangnam-gu, Seoul 135-954, Korea
Tel : (+82 2) 511-2763 Fax: (+82 2) 511-2764
http://www.mmgear.com

LIMITED WARRANTY

MM Gear Co.,Ltd. warrants this Product(including any accessories)against defects in material or workmanship as follows:

1. LABOR: For a period of 90 days from the date of purchase, if this Product is determined to be defective, MM Gear Co., Ltd. will repair or replace the Product, at its option, at no charge, or pay the labor charges to any MM Gear Co., Ltd. authorized service facility. After the Warranty Period, you must pay for all labor charges.

2. PARTS: In addition, MM Gear Co., Ltd. will supply, at no charge, new or rebuilt replacements in exchange for defective parts for a period of one(1) year. After 90 days from the date of purchase, labor for removal and installation is available from MM Gear Co., Ltd. authorized service facilities or a MM Gear Co., Ltd. Customer Service Center at your expense.

To obtain warranty service, you must take the Product, or deliver the Product freight prepaid, in either its original packaging or packaging affording an equal degree of protection, to any authorized MM Gear Co., Ltd. service facility. This warranty does not cover customer instruction, installation, set up adjustments or signal reception problems.

This warranty does not cover cosmetic damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification, or to any part of the Product. This warranty does not cover damage due to improper maintenance or attempted repair by anyone other than a facility authorized by MM Gear Co., Ltd. to service the Product. This warranty does not cover Products sold AS IS or WITH ALL FAULTS. This warranty is valid only in the United States.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

This warranty is invalid if the factory applied serial number has been altered or removed from the Product.

NOTICES TO USER

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 WARNING

This equipment generates or uses radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

INFORMATION TO THE 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 generate 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 the 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 to an outlet on a circuit different from that to which the receiver is connected.

· Consult the dealer for technical assistance.