

MW12

“EAR II” Examination Simulator

⚠ Caution | Do not mark on the model and other components with pen nor leave printed materials contacted on surface.
Ink marks on the models cannot be removed.



Table of Contents

- Introduction
 - Manufacturer’s Note P. 1
- Before You Start
 - DOs and DON’Ts P. 2
 - Set Includes P. 3
- Preparation P. 4
- Training Sessions P. 5
- Training Sessions P. 6
 - After Training

Manufacturer's Note

Please read the instruction carefully before use.

● Before Use

MW12 EAR Examination II has been developed for the training of medical professionals only. Any other use, or any use not in accordance with the enclosed instructions, is strongly discouraged. The manufacturer assumes no responsibility for any accident or damage resulting from such use. Should you have any questions regarding this simulator, please feel free to contact our distributor in your area or KYOTO KAGAKU at any time. (Our contact address is on the back cover of this manual)

● Product Features

The New Ear Examination Simulator II is designed to acquire safe and reliable skills in the examination of the external acoustic meatus and tympanic membrane with a direct otoscope. The model warns against painful insertion.

Skills to be learned include: safe use of an otoscope, differentiation of typical ear problems and earwax/foreign body removal.

-Warning against painful insertion with or without beep

- self-learning mode (with a beep and light)

- instructor mode (silent, light only)

-Major 9 cases are prepared (includes 1 normal)

-Quick switching between cases

-2 sizes of ear canals (normal and stenosis)

-Anatomically correct soft ear model that allows training in straightening the auditory canal by pulling the auricle

-Training with a real otoscope

-The manikin neck can be tilted

-Training is possible with both left and right ears

DOs and DON'Ts

DOs

Handle with Care

- The materials for the product are a special composition of soft resin. Please handle with the utmost care.
- Use a speculum of recommended size: Size 4.
- Ensure the direction of the batteries.
- Store the simulator in the case at room temperature. Keep away from heat, moisture, and direct sunlight.
- For cleaning, wipe the mannequin with a soft cloth which has been moistened with water or alcohol. After drying the manikin, please dust the head with baby powder.

DON'Ts

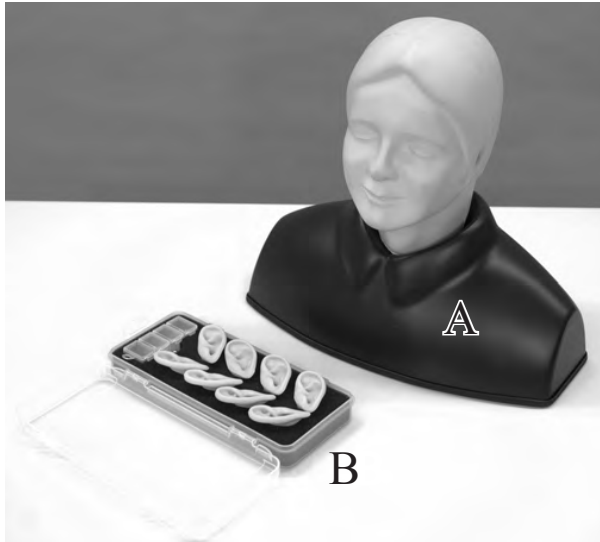
- Do not insert an otoscope too deep, as this may cause damage to the eardrum.
- Do not rotate the switch dial too quickly, as this may cause mechanical trouble in the system.
- Do not ever wipe the simulator with thinner or organic solvent.
- Do not mark on the simulator models with pen or leave any printed materials in contact with the surface. Ink marks on the models will not be removable.

Before You Start

Set includes

Set Includes

Before your first use, ensure all components listed below are included in the unit.



● Set includes

- 1 manikin head and shoulder
- 4 types of ear units – 1 pair each
 - Exam Ear (normal)
 - Exam Ear (stenosis)
 - FB Ear (normal)
 - FB Ear (stenosis)
- 1 set of foreign body removal kit
 - simulated ear wax, small toy, small sponge fragments and a spoon
- 2 AA batteries
 - AA Batteries included are to test if the system works correctly.

Specifications

manikin size: approx. 42×21×38cm, 1.5kg

*Type of the ear is marked on the rear surface of each ear lobe.



Type	Mark
-Exam Ear (normal)	L/R 1
-Exam Ear (stenosis)	L/R 2
-FB Ear (normal)	L/R 3
-FB Ear (stenosis)	L/R 4

● Replacement Parts

11391-010 accessories for MW12



4 types of ear units – 1 pair each

- Exam Ear (normal)
- Exam Ear (stenosis)
- FB Ear (normal)
- FB Ear (stenosis)

1 set of foreign body removal kit

- simulated ear wax, small toy, small sponge fragments and a spoon

Preparation

Preparation

Setting of the ears

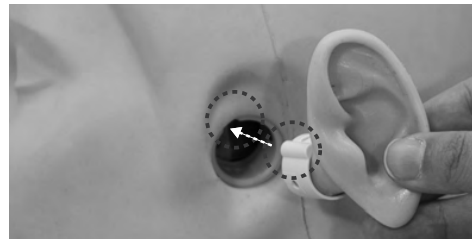
To ensure the procedure of attachment and detachment of the ear, refer to the movie before using the model. The movie address is as follow and you can find the movie with the right QR code.

(<https://youtu.be/2G4MPw1V9qI>)



Insert the ear into the opening as shown in the photo below.
Ensure to orient the ear so that the sliding guides on the ear unit and the wall of the opening match together.

To detach the ear, please grasp gently around the base of the pinna and pull straight out, perpendicularly to the head.



- Please note: Do not mix-up the different types of ears for different trainings:
Examination with an otoscope: Use "Exam Ear"s (mark 1 or 2).
Foreign body removal: Use "FB Ear"s (mark 3 or 4).
- After inserting the ears, turn on power.
In case the ears are inserted while the system is powered, sensors may work and generate the alarm sound. When alarm won't not stop, turn off the power and then turn it back on.
 - Continuous sound --- Turn off the power and then turn on.
 - Intermittent tone --- It is necessary to adjust the position of the ears. Insert your finger into ear canal and push the ear in more deeply.

Setting of the batteries

The battery box is at the back of the shoulder unit.

With pushing the tab at the right side of the lid to the left, pull it to open the lid.

Set two size AA batteries in the box. Ensure the direction of the batteries. The position of positive or negative electrodes is indicated in the box.

After setting the batteries, close the lid as the following procedure. Put the two small tabs at the left side of the lid to the indents at the left side of the battery box then push the lid to close.

Turn on the power switch when the training session begins.



Training Sessions

Training Sessions

Set the case for training



The cases can be switched by turning the switch dial. The number appearing in the window indicates the chosen case. Refer to the table on the quick manual. To practice foreign body removal, set the dial to "FB" and set the "FB Ear" type of external ears. Otherwise, you may damage the ear drum images and permanent alarm goes off.

Warning against painful insertion

The tip of the instrument is localized by sensors and harmful insertion is indicated with a beep (self-learning mode), or lamps (instructor mode).

-When the tip of the instrument passes bony part of the ear canal:
yellow warning lamp and intermittent beeping

-When the tip of the instrument reaches eardrum:
red warning lamp and a continuous beeping

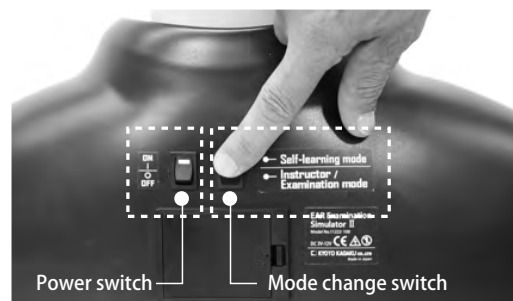
*To stop the continuous beep, turn off the power switch.



Set the training mode

Training mode can be set by the mode change switch on the back of the shoulder part.

1. Self-learning mode: warning with sounds
2. Instructor/examination mode: warning with lamps only



Trouble shooting:

If the tip of the instrument is clearly in the "warning" zone, and no warning indicator works, 1) ensure that the power switch is on, then, if necessary, 2) replace the batteries with new ones.

Training Sessions & After the training

Training Sessions



Flexible neck and ear

The neck can be tilted to simulate positioning of patient's head.

The soft and supple ears allow the training of straightening the canal by pulling the ear lobe.



Be sure to use "FB" type external ears.

Put the included ear wax, small toy or a sponge in the ear canal by a small spoon. Then set the ears to the head.

Ensure to switch the case switching dial to "FB".

After Training

After use:

Remove all the simulated ear wax, small toys and sponges from the FB Ear.

Remove the batteries from the box and store them separately.

For cleaning, wipe the surface of the manikin and ear models with soft cloth moistened with water or alcohol. Dry the manikin naturally and dust the surface with talcum powder.

Do not expose the manikin and accessories to high temperature and high humidity.



Caution

Don't mark on the model and other components with pen or leave printed materials contacted on their surface.
Ink marks on the models will be irremovable.

For inquiries and service, please contact your distributor or KYOTO KAGAKU CO., LTD.

■ Nine sets of cases and setting number

■ 9セットの症例と設定番号

1. normal

1. 正常鼓膜



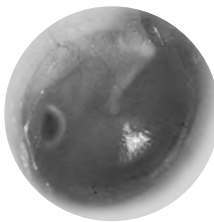
2. serous otitis media(SOM)

2. 中耳炎 (漿液性)



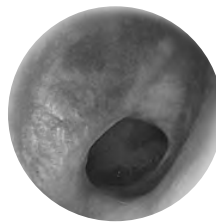
3. mucoid otitis media(MOM)

3. 中耳炎 (粘液性)



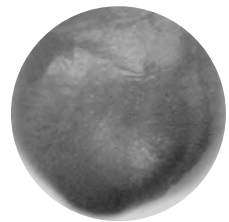
4. chronic otitis media with perforation

4. 中耳炎 (慢性穿孔性)



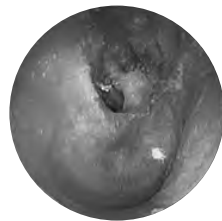
5. acute suppurative otitis media(AOM)

5. 中耳炎 (急性化膿性)



6. cholesteatoma

6. 真珠腫



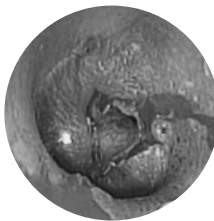
7. tympanosclerosis

7. 鼓室硬化症



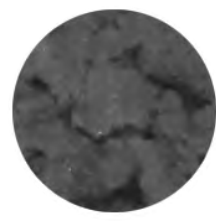
8. traumatic perforations

8. 外傷性鼓膜穿孔



9. cerumen block

9. 耳垢閉塞



The contents of the instruction manual are subject to change without prior notice.

No part of this instruction manual may be reproduced or transmitted in any form without permission from the manufacturer.

Please contact manufacturer for extra copies of this manual which may contain important updates and revisions.

Please contact manufacturer with any discrepancies in this manual or product feedback. Your cooperation is greatly appreciated.

本書の内容は、予告なしに変更することがあります。本書の内容の一部もしくは全部を当社に無断で複写・転載することを禁じます。本書の内容に、万が一不審な点や誤りなど、お気づきの点がございましたら、当社もしくは販売店にご連絡ください。

■ Main Office and Factory (World Wide)

 **KYOTO KAGAKU co.,LTD**

WEB•www.kyotogagaku.com

E-MAIL•rw-kyoto@kyotokagaku.co.jp

15 kitanechoya-cho Fushimi-ku Kyoto 612-8388, Japan

TEL: +81-75-605-2510

FAX: + 81-75-605-2519

■ North and South American regions:

 **KKAmerica**
Kyoto Kagaku America Inc.

WEB•www.kkamerica-inc.com

E-MAIL•info@kkamerica-inc.com

3109 Lomita Boulevard, Torrance, CA 90505-5108, USA

TEL: +1-310-325-8860

(Toll-free in North America: 877-648-8195)

FAX:+1-310-325-8867

 株式会社 **京都科学**

URL•<http://www.kyotokagaku.com>

e-mail•rw-kyoto@kyotokagaku.co.jp

■ 本社・工場

〒612-8388 京都市伏見区北寝小屋町15番地

TEL:075-605-2510 (直通)

FAX:075-605-2519

■ 東京支店

〒113-0033 東京都文京区本郷三丁目26番6号

NREG本郷三丁目ビル2階

TEL:03-3817-8071 (直通)

FAX:03-3817-8075