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Can Opener / KO-1 Operation Manual

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Thank you for purchasing the Iijima Can Opener “model KO-1”.

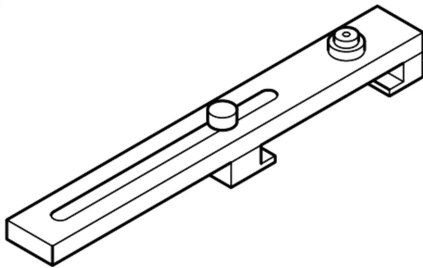





The can opener KO-1 is a hole opening tool designed mainly for metal cans, etc.
Do not apply excessive force using other tools when opening holes. Doing so could result in faults.

Always read and fully understand this manual before starting to ensure correct and safe use. Keep this manual near the tool for quick reference at any time.

1. Confirmation of Package Contents

When unpacking the gas sampling glass tube, confirm that the following items are included and that the contents have not been damaged. If any parts are missing or damaged, contact the dealer which you purchased the product.

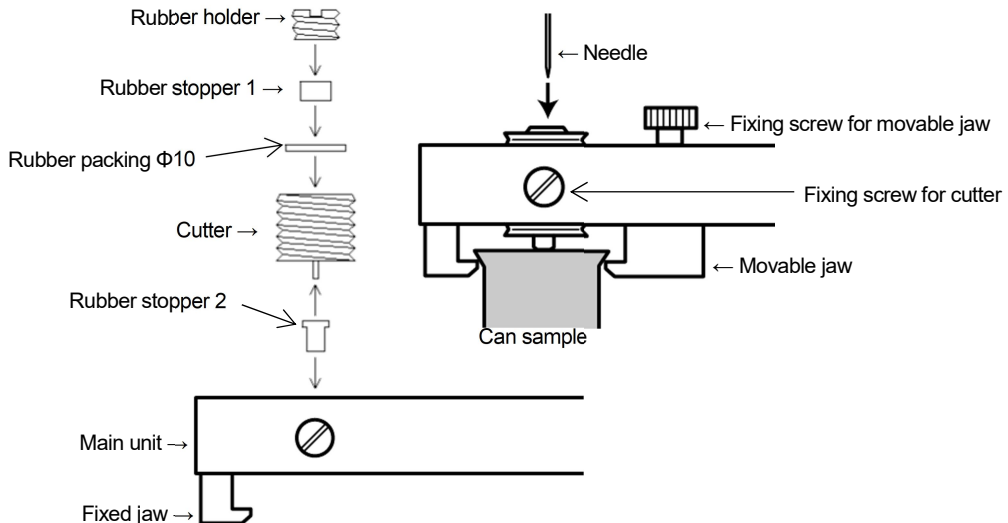
Package contents

	Description	Quantity
1	Can opener (model: KO-1) 	1
2	Needle (for replacement)  Specify "Needle (model: T-20, 12-pc. set)" when ordering additional needles.	2 pcs.
3	Rubber Stopper 1  Specify "Rubber Stopper 1 (model: M-10, 30-pc. set)" when ordering additional rubber stoppers.	10 pcs.
4	Rubber Stopper 2  Specify "Rubber Stopper 2 (model: M-20, 30-pc. set)" when ordering additional rubber stoppers.	10 pcs.
5	Rubber packing (ø10) 	2 pcs.
6	PharMed tube (12 mm)  This tube is required for oxygen meter models RO-105 series, RO-103 series and RO-102 series, but for the earlier models (its sampling adapter model is "SA-1"), the PharMed tube is not required.	1 pc.
7	Operation manual (this document)	1

* The sampling adaptor is not included in the package contents.

2. Names of each part

The Can opener is shipped with all parts set (the cutter is attached to the main unit and fixed with a fixing screw for cutter). Refer to the following drawing when replacing or servicing parts.



3. Preparing for use

Make sure the can sample meets the following conditions.

<Usage conditions> Can diameter : min. $\varnothing 45\text{mm}$ to max. $\varnothing 155\text{mm}$

Step 1. Remove the standard needle attached with the oxygen meter.

- For oxygen meter models RO-105 series, the standard needle is model: NN-2116R.
- For oxygen meter models RO-103 series, the standard needle is model: NN-2138S.



Note

When removing the needle, do not remove the accessories, such as the membrane filter or check valve. Proper measurements may not be possible if these parts are removed.

Step 2. Attach the needle dedicated for the KO-1.



Warning

Take care not to stab the human body with the needle. There is a risk of blindness, puncture wounds, or cuts.

Step 3. Prepare the oxygen meter with state and setting so that it is ready for measurement.

(Refer to the operation manual enclosed with the oxygen meter for details.)

4. Usage methods

Step 1. Adjust the height of the cutter.

Hook the fixed jaw onto the can edge and push down with a hand the opposite end of the fixed jaw of main unit, it opens a hole in the can. Adjust the height of the cutter so that when it opens a hole in the can the hole is plugged with the rubber stopper 2.

Step 2. Push down with a hand the main unit and open a hole.

Step 3. Move the movable jaw to the other side of the can and fix it with the fixing screw for the movable jaw.

Step 4. Insert the enclosed PharMed tube to the base of the needle and insert the needle into the hole on the rubber holder.

The tip of the needle will reach the headspace in the can sample.

PharMed tube is required for oxygen meter models RO-105 series, RO-103 series and RO-102 series, but for the earlier models (its sampling adapter model is "SA-1"), the PharMed tube is not required.

Step 5. Operate the oxygen meter to sample and measure the sample gas.

For details, refer to the measurement methods described in the operation manual enclosed with the oxygen meter.

- If there is less than 10mL of sample gas, or if the sample cannot be used the KO-1 because of the shapes and materials, measure with the Gas Sampling Glass Tube (model: GS-2) option (sold separately).

- A measurement can be taken even if the inside of the sample is pressurized. However, if the inner pressure of the package is higher than +40 kPa, the components could break when the needle is pierced, or a correct measurement value may not be obtained.



Note

<Using oxygen meter RO-105 series >

Do not use the KO-X1 Opener when measuring a sample pressurized above +40 kPa. Instead, measure with the Gass Sampling Glass Tube (model: GS-2) option (sold separately).

<Using oxygen meter RO-103S/103>

Measure with the Compression and Decompression Sampler (model: S-2) option. In this case, repeat the suction operation two to three times to sample the gas and read the value when the sample gas is stabilized.

- If there are any concerning symptoms, refer to the symptoms and actions explained in the Troubleshooting Section of the operation manual enclosed with the oxygen meter.



Note

Replace rubber stopper 1 and rubber stopper 2 with new parts if any degradation is observed.

Please contact the dealer from which you purchased the product if you have any questions or inquiries regarding handling, repairs, or inspections.

You can also watch the video on how to handle the product. <https://www.ijjima-e.co.jp/en/video.html>

<Video page>



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