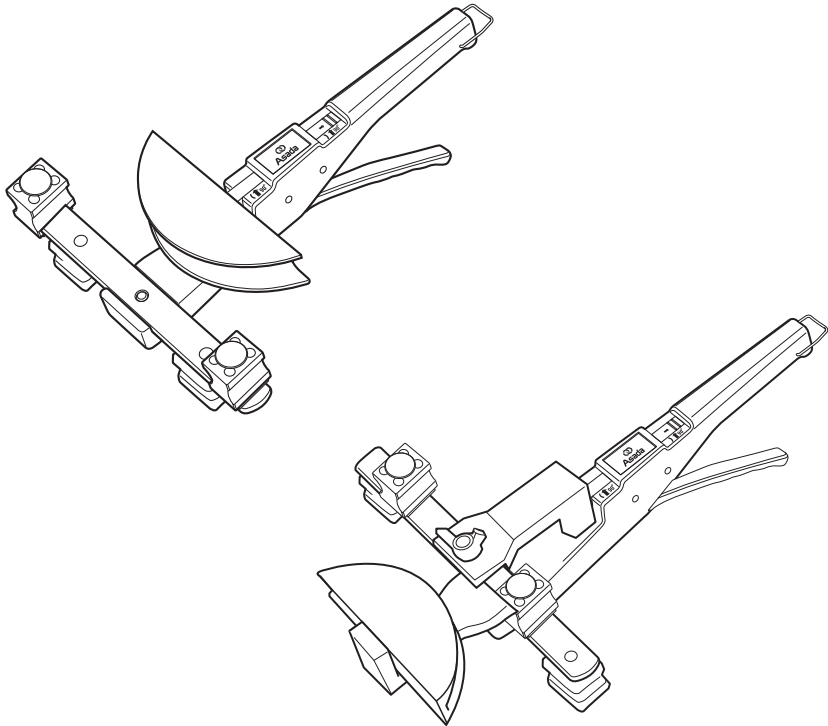


Asada

AC Tools

RATCHET BENDER REVERSIBLE SET

USER'S MANUAL



[Read through this manual carefully before using the tool.]

RATCHET BENDER REVERSIBLE SET

SAFETY PRECAUTIONS

Thank you for choosing our Ratchet Bender Reversible Set.

- This instruction manual must be retained by the user of Ratchet Bender Reversible Set.
- Read this instruction manual carefully and completely before use and thoroughly understand the usage, capacity, cautions and maintenance for correct operation.
- Handle Ratchet Bender Reversible Set properly to make full use of its functions for safe work.
- After reading the instructions, save this manual and read it when necessary.
- Use Ratchet Bender Reversible Set for the intended application only. It will do a better job and be safer at the rate which it was designed for.
- Upon receiving Ratchet Bender Reversible Set, check the following.
 - Check that Ratchet Bender Reversible Set is built conforming to the specifications stated in your order.
 - Check Expander Set for any damage or deformation caused in transit due to accidents or other reasons.
 - Check that all items and accessories delivered.

In case any discrepancy is found, immediately report the fact to the shop you purchased or our sale office.

(The contents of this manual are subject to change without prior notice.)

CLASSIFICATION OF CAUTIONS

Precautionary sign is classified into the following 1 level.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

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RATCHET BENDER REVERSIBLE SET

SAFETY PRECAUTIONS

- Basic cautions to use the tool safety are listed in this section.
- The detailed cautions in operation are described in each chapter.

CAUTION



< Preventing accidents >

- ◆ When the unit is not in use, it should be stored in dry and high or locked-up place where children cannot reach.
- ◆ Keep people away from the unit, except the operator.
- ◆ Keep clean the workplace and space.

This is not only for safety operation, but also to get a high work efficiency.



< Prevent from damaging the unit >

- ◆ Operate only Soft copper tube.

Operating other tubes causes damaging the unit.



< Prevent from injury and damaging the unit >

- ◆ Do not use the pump for purposes other than the original intent.
- ◆ Do not operate more than the unit can perform.
- ◆ Wear proper clothes to prevent injury
- ◆ Keep your feet on the ground and be stable when operating.



< Prevent from transformation or wrinkles of the tube >

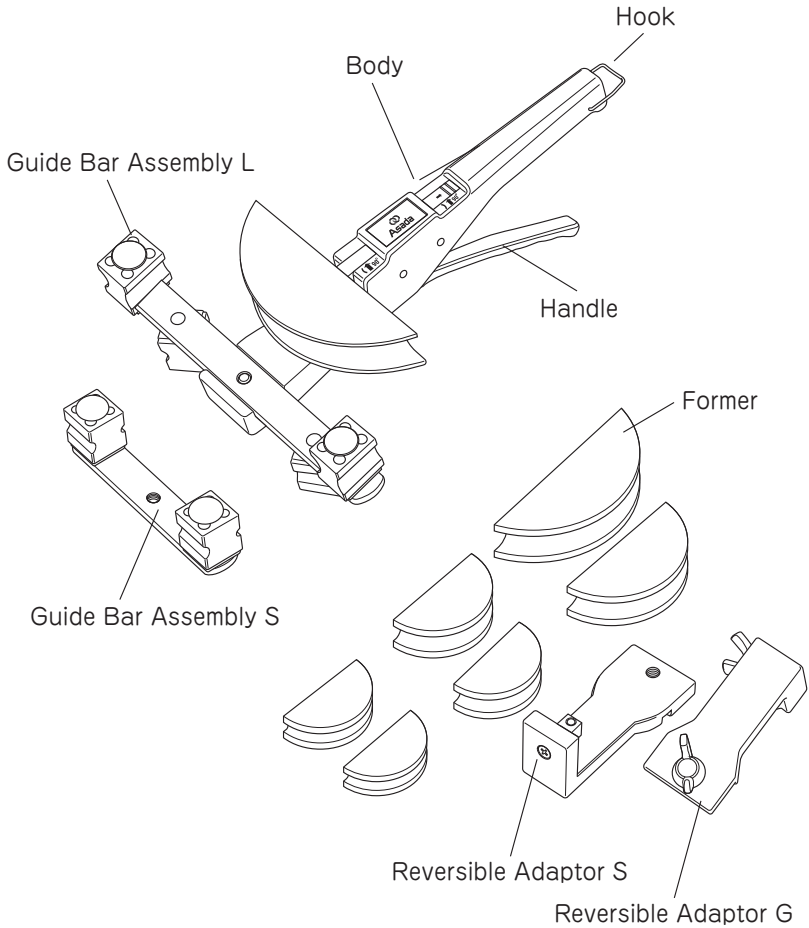
- ◆ Do not operate a tube that has a thickness less than designated in this manual.

Check a thickness of a tube before operating.

RATCHET BENDER REVERSIBLE SET

COMPONENTS OF THE UNIT

Main Parts



RATCHET BENDER REVERSIBLE SET

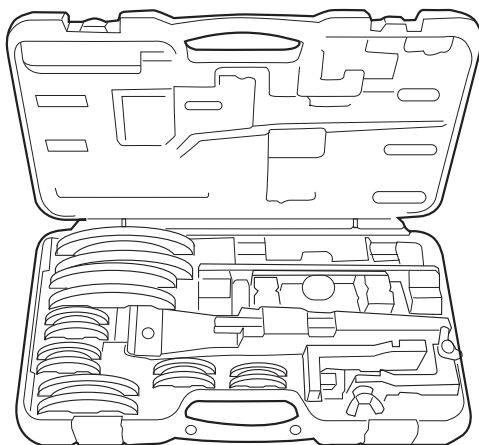
Specification

Item		RATCHET BENDER REVERSIBLE SET						
Code No.		CT202						
Bending Angle		~ 90°						
Capacity	inch	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"
	mm	φ 6.35	φ 8.00	φ 9.52	φ 12.70	φ 15.88	φ 19.05	φ 22.22
Bending Radius		30mm	31mm	32mm	38mm	50mm	74mm	86mm
Weight		4.5kg						

※ Former's sizes are for copper tubes for a refrigerator

Standard Accessories

Item	Code No.	Item	Code No.
BODY	CT240	Former A 5/8"	CT245
Guide Bar Assembly S	CT248	Former A 3/4"	CT246
Guide Bar Assembly L	CT249	Former A 7/8"	CT247
Former A 1/4"	CT242	Carrying Case	CT250
Former A 5/16"	CT241	Reversible Adaptor	CT251
Former A 3/8"	CT243	User' s Manual	IM0390
Former A 1/2"	CT244		



RATCHET BENDER REVERSIBLE SET

OPERATION

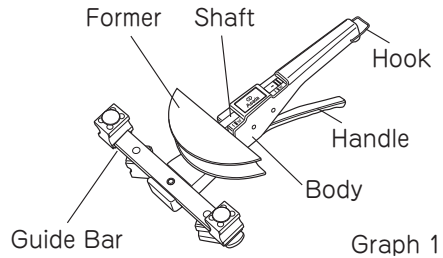
⚠ CAUTION



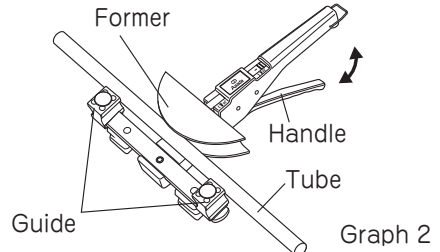
◆ This unit is applicable only to soft copper tube. To avoid damaging the unit or break a tube, do not operate hard or semi-hard copper tube.

Bending

- ① Set the guide bar fits to the tube to be operated, and fix to the body. (Graph 1)
- ② Set the former to the body. (Graph 1)
- ③ Hold the handle and undo the hook. (Graph 1)

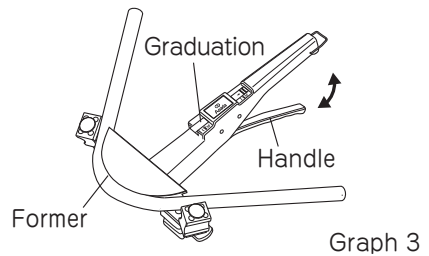


- ④ Fit the guide to the tube size and put the tube on the both sides of the guide bar. Grip the handle and move the former forward to the tube. (Graph 2)



- ⑤ Keep moving the former by gripping until the angle reaches to the desired angle.

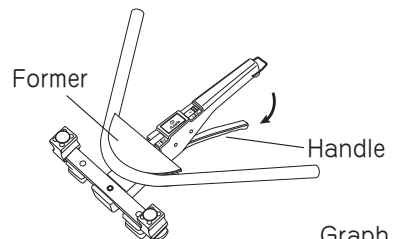
※ You can check a graduation for bending 90 degrees



- ⑥ After finishing bending, pull the former back by lowering the handle to the direction the arrow shows on Graph 4.

- ⑦ Remove the tube from the former.

※ It will be easy to remove the tube by grabbing the tube and body to separate the tube from the body horizontally.

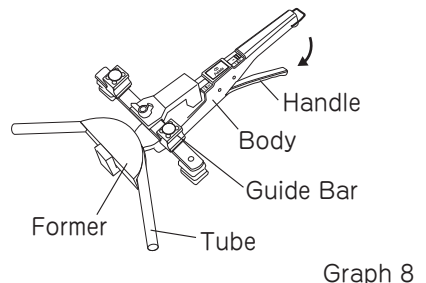
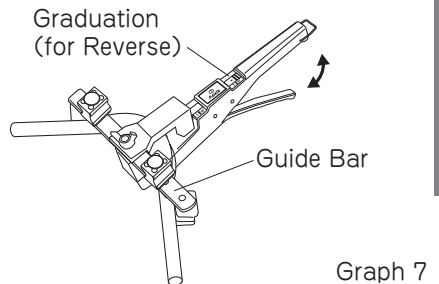
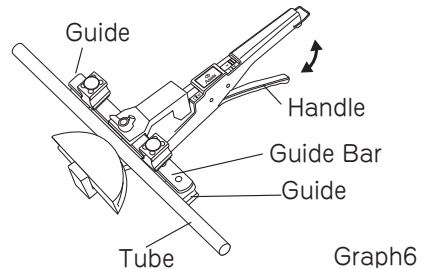
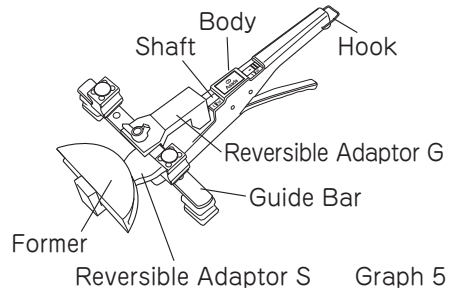


- ⑧ After the operation, close the handle and fix with the hook.

RATCHET BENDER REVERSIBLE SET

Reverse Bending

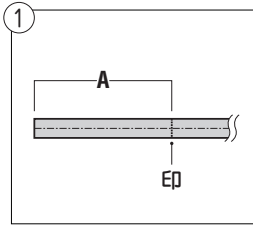
- ① Set Reversible Adaptor G and fix to the body. (Graph 5)
- ② Set Reversible Adaptor S on the edge of the body and fix. (Graph 5)
- ③ Set the guide bar fits to the tube to be operated, and fix to the Reversible Adaptor G. (Graph 5)
- ④ Set the former fits to the tube and place to Reversible Adaptor S. (Graph 5)
- ⑤ Undo the hook (Graph 5)
- ⑥ Fit the guide bar to the tube size and put the tube on the both sides of the guide bar. Grip the handle and move the former forward to the tube. (Graph 6)
- ⑦ Keep moving the former by gripping until the angle reaches to the desired angle. (Graph 7)
- ⑧ After finishing bending, pull the guide bar back by lowering the handle to the direction the arrow shows on Graph 8.
- ⑨ Remove the tube from the former.
※ It will be easy to remove the tube by grabbing the tube and body to separate the tube from the body horizontally.
- ⑩ After the operation, close the handle and fix with the hook.



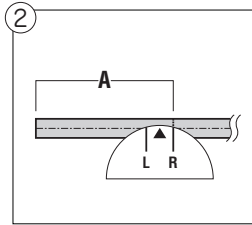
RATCHET BENDER REVERSIBLE SET

How to decide a measure of the tube (90 degrees)

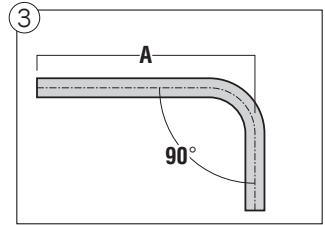
LEFT STANDARD



1 Make a point on the place where the measurement "A" takes from the left side.

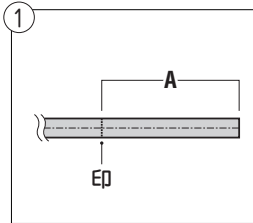


2 Set the point on the tube to "R" on Former.

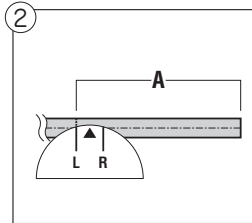


3 Complete 90 degrees bending from the left side of the tube.

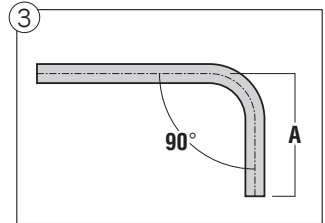
RIGHT STANDARD



1 Make a point on the place where the measurement "A" takes from the right side.



2 Set the point on the tube to "L" on Former.



3 Complete 90 degrees bending from the center of the tube.

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