

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

23c

MADDOX™

SUPERIOR AUTOMOTIVE TOOLS

1721C-B

Flaring Tool Kit



Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

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When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.

Specifications

Double SAE	3/16", 1/4", 5/16", 3/8", and 1/2"
Double Metric	4mm, 4.75mm, 6mm, 8mm, and 10mm
Bubble Flare	4.75mm, 6mm, 8mm, 10mm

IMPORTANT SAFETY INFORMATION

Assembly Precautions

1. Assemble and use only according to these instructions. Improper assembly or use can create hazards.
2. Wear ANSI-approved safety goggles and heavy-duty work gloves during assembly and use.
3. Keep assembly and use area clean and well lit.
4. Keep bystanders out of the area during assembly or use.
5. Do not assemble or use when tired or when under the influence of drugs or medication.
6. This product is not a toy. Do not allow children to play with or near this item.
7. Use for intended purpose(s) only.
8. Inspect before use; do not use if parts are damaged.
9. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
10. The quality of flares produced by this tool is largely dependent on the quality and preparation of the workpiece and also the care of the user.

Operating Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document including all text under subheadings therein before set up or use of this product.

Double Flaring

1. This tool is used to create a double flared end on Copper, Aluminum, Soft Steel, and Brass tubing.
2. Straighten tubing as much as possible, and then be sure to make a clean cut straight across the tube to avoid a crooked flare. Deburr inner and outer edges. The tube cannot be crushed.
3. Insert tubing into correct sized hole on Flaring Bar.
4. Place the same sized Flaring Adapter on surface of Flaring Bar next to tubing, flat side down.
5. Adjust height of tubing so end of tubing aligns with step on Flaring Adapter. See Figure A.
6. To ensure maximum leverage in clamping the tubing, first tighten the wing nut closest to the tubing being flared. Then tighten the second wing nut until the tubing is sufficiently clamped in the Flaring Bar.
7. Insert stem of Flaring Adapter into end of tubing.
8. Position Flaring Yoke over Flaring Bar so Cone enters depression in end of Flaring Adapter. See Figure B.
9. Turn handle of Flaring Yoke to force cone down until Flaring Adapter rests flat against Flaring Bar.
10. Back off the Yoke and remove Flaring Adapter.
11. Reposition Flaring Cone over tubing and screw the Yoke down on tubing until tubing folds back on itself, forming a 45 degree double flare. See Figure C.
12. Loosen the Yoke, and the wing nuts. Remove the Yoke and Flaring Bar from the tube.

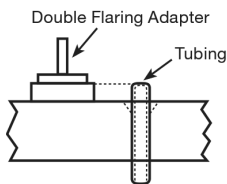


Figure A

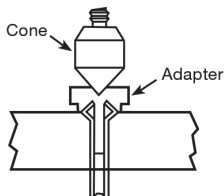


Figure B

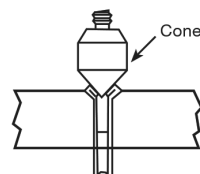


Figure C

Bubble Flaring

1. This tool is used to create a bubble flared end on Copper, Aluminum, Soft Steel, and Brass tubing.
2. Straighten tubing as much as possible, and then be sure to make a clean cut straight across the tube to avoid a crooked flare. Deburr inner and outer edges. The tube cannot be crushed.
3. Insert tubing into correct sized hole on Flaring Bar until tubing is flush with top of bar. See Figure D.
6. Position Yoke over Flaring Bar so stem of adapter enters tubing.
7. Turn handle of Yoke to force adapter down until adapter rests flat against clamping assembly.
8. Back off the Yoke and remove the Adapter.
9. Loosen the Yoke, and the wing nuts. Remove the Yoke and Flaring Bar from the tube.

NOTICE: To prevent equipment damage, do not attempt to form a bubble flare using tampered holes in clamping bar. Only use countersunk holes for bubble flares.

4. To ensure maximum leverage in clamping the tubing, first tighten the wing nut closest to the tubing being flared. Then tighten the second wing nut until the tubing is sufficiently clamped in the Flaring Bar.
5. Remove cone from Yoke. Thread correct sized bubble flaring adapter into onto Yoke screw.

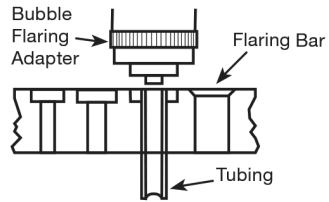


Figure D

Maintenance and Servicing

1. **Before each use**, inspect general condition of tool. Check for misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation. **Do not use damaged equipment.**
2. **After use**, clean external surfaces. Then dry and lubricate all moving parts. Do not use solvents.
3. **When storing**, keep Flaring Tool and its accessories in its Carrying Case and store in a clean, dry, safe location.
4. **CAUTION!** All maintenance, service, and repairs not mentioned in this manual must only be performed by a qualified service technician.

Parts List and Diagram

Part	Description	Qty
1	Double Flare Adapters	10
2	Bubble Flare Adapters	4
3	Flaring Bar	1
4	Tube Cutter	1
5	Yoke	1
6	Tube Reamer	1

Record Serial Number Here:

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175508133 when ordering parts.



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