

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.

21e

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

58147

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.

⚠ WARNING

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

Copyright© 2021 by Harbor Freight Tools®. All rights reserved.
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.

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. Hand tighten wing nuts, starting with wing nut closest to tubing, until tubing cannot slip from 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.

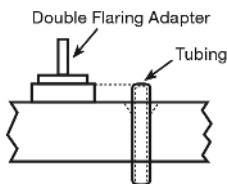


Figure A

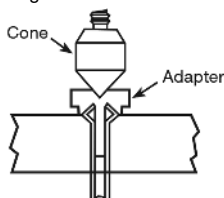


Figure B

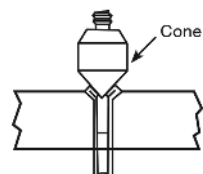


Figure C

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. Hand tighten wing nuts, starting with wing nut closest to tubing, until tubing cannot slip through clamping bar.
5. Remove cone from Yoke. Thread correct sized bubble flaring adapter into onto Yoke screw.

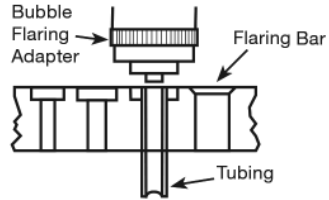


Figure D

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 193175432902 when ordering parts.



PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS DOCUMENT AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

MADDOX™
SUPERIOR AUTOMOTIVE TOOLS

26541 Agoura Road • Calabasas, CA 91302 • 1-888-866-5797