



Owner's Manual & Safety Instructions

**Model
HA23-21**



13 Piece Hole Saw Set

⚠WARNING: To prevent serious injury, User must read and understand Owner's Manual. **SAVE THIS MANUAL.**

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. Reference 63761.

IMPORTANT SAFETY INFORMATION

1. Wear ANSI-approved safety goggles and heavy-duty work gloves during setup and use.
2. Set contains sharp blades. Keep away from children.
3. Use correct size Mandrel for selected Hole Saw.
4. Verify drill's chuck is in good condition and fits securely.
5. Do not use excessive pressure when cutting a hole.
6. Use as intended only; do not modify tools.
7. Inspect before every use; do not use if parts are loose or damaged.
8. Use both hands when drilling and keep blade at 90° to workpiece.
9. Store saw blades in Case in secure location away from children.
10. Read and adhere to all safety warnings and operating instructions of drill used with Set.
11. The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.



SAVE THESE INSTRUCTIONS

Record Product's Serial Number Here: _____

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

Note: Replacement parts are not available.

Note: Reference UPC 792363637619.

SPECIFICATIONS

Saw Sizes	3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/8", 2-1/2"
Other Pieces	Large Mandrel Small Mandrel 2 Pilot Bits 1 Hex Key

SETUP



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

CAUTION

TO PREVENT INJURY:

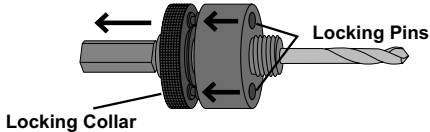
Wear heavy-duty work gloves and ANSI-approved safety goggles during setup and whenever handling the saws.

SMALL MANDREL SETUP

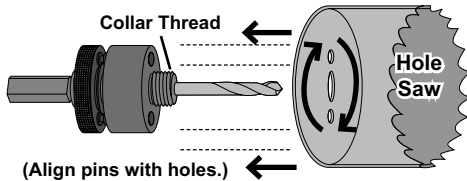
1. Insert Pilot Bit into Small Mandrel with the flat strip along the bottom of the bit facing the Hex Key hole on the Mandrel.
 2. Insert Hex Key into hole and twist clockwise to secure the Pilot Bit.
 3. Select the desired size Hole Saw for the Small Mandrel.
- Note:** Only the 3/4", 7/8", and 1-1/8" Hole Saws can be used for the Small Mandrel.
4. Thread Hole Saw onto Collar Thread until secure.
 5. Open Jaws of Drill Chuck (sold separately).
 6. Place the Mandrel Shaft completely into the Chuck and securely tighten the Chuck.

LARGE MANDREL SETUP

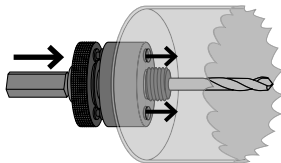
1. Insert Pilot Bit into Small Mandrel with the flat strip along the bottom of the bit facing the Hex Key hole on the Mandrel.
2. Insert Hex Key into hole and twist clockwise to secure the Pilot Bit.
3. Pull down the knurled Locking Collar to retract the Locking Pins.



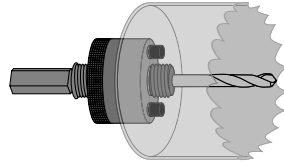
4. Thread Hole Saw onto Collar Thread until the Locking Pins align with the Holes in the Saw. Make sure Saw is threaded tightly and holes are properly aligned.



5. Push up the knurled Locking Collar to extend the Locking Pins through the holes in the Hole Saw.



6. Hole Saw should be secure. If loose, repeat Step 5 and make tighter while keeping holes aligned.



7. Open Jaws of Drill Chuck (sold separately).
8. Place the Mandrel Shaft completely into the Chuck and securely tighten the Chuck.

OPERATION

1. Holding the drill at 90° to the workpiece, set the Hole Saw on the workpiece.
2. Press the drill's trigger to turn it on.
3. If the drill is a variable speed type, cut the workpiece slowly until a circle groove is made in the workpiece. Then cut faster.
4. When the hole is cut, release the trigger and wait for Hole Saw to come to a complete stop before removing it from the workpiece.
5. When finished, remove Hole Saw from drill's chuck.
6. Remove Hole Saw and Mandrel from Locking Collar and clean off with a cloth. Place Hole Saw, Locking Collar and Mandrel back in carrying case.
7. Store Hole Saws inside case, out of reach of children.
8. Replace the pilot drill bit if dull or broken. Make sure the bit is securely held in place after being reinstalled.

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.

**Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com
For technical questions, please call 1-888-866-5797**

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