Distributed exclusively by Harbor Freight Tools®.
3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our website at: http://www.harborfreight.com

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

For technical questions or replacement parts, please call 1-800-444-3353.
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.

General Tool Safety Warnings

WARNING Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

1. Work area safety
   a. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
   b. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2. Personal safety
   a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
   b. Use personal protective equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
   c. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
   d. Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
   e. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.
**Unpacking**

When unpacking, make sure that the items shown below are intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown throughout the manual as soon as possible.

**PARTS LIST AND ASSEMBLY DIAGRAM**

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Steel Bar</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Handle</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Miter Body</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Nut</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Miter Slot Bolt</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Handle Threaded Rod</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Pin</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Angle Pointer</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Screw</td>
<td>1</td>
</tr>
</tbody>
</table>

No replacement parts are available.

**ASSEMBLY**

1. Place the Steel Bar (1) on a flat, hard surface. Thread the Handle Threaded Rod (6) into the Steel Rod. Thread the Nut (4) onto the Threaded Rod (6). Tighten the Nut (4) onto the Threaded Rod (6) so that the Threaded Rod (6) is locked into place. See Figure A below.

2. **NOTE**: Do not extend the Threaded Bolt (6) beyond the bottom surface of the Steel Bar. It must be flush with the bottom of the Steel Bar (1).

3. Thread the Miter Slot Bolt (5) into the Steel Bar (6). Attach the Angle Pointer (8) onto the Miter Slot Bolt (5), secure it using the Screw (9). See Figure A below.

![Figure A](image-url)
ASSEMBLY CONTINUED

4. Turn the Miter Body (3) upside-down on a flat, hard surface.
5. Place the Pin (7) inside the pivot hole as shown in Figure B below.
6. Tap the pin all the way into the hole using a hammer. See Figure B.
7. **NOTE:** Be sure to hit the pin straight down to avoid bending it.

8. Place the Miter Body (3) onto the Steel Bar. Make sure the Pin (7) goes into the hole in the Steel Bar (6). See Figure A and Figure C.
9. Thread the Handle (2) onto the Threaded Rod (6).
10. Square up the Miter Body (3) to the Steel Bar (1) using a steel square (not supplied). Tighten the Handle down.
11. Adjust the Angle Pointer (8) to zero then tighten the Screw (9) to secure it in place. When completed, the Right Angled Miter Gauge should look like the photo below. See Figure C below.
I. Zeroing Angle Indicator To Tablesaw

METHOD #1.
Lay a machinist square against the saw blade and miter square. Fig.1
Tighten the handle, then loosen the screw that secures the angle indicator. Align the pointer to 0° mark.

Slide the miter square up and down the slot (or “channel”) and make sure the machinist square is in contact with the front and back of the blade body at the same time, not touching any saw teeth.
Remember, it’s important that both guide slots in your saw table (if so equipped) are perfectly parallel to your saw blade. (If this is not the case, refer to your saw’s owner’s manual to find out how to align your blade parallel to the slots.)

METHOD #2.
Most saw tables are usually precision-machined and fairly square; slots are parallel and square to the outside edge.
Place the miter square upside down to the saw table (see Fig.2), inserting the guide bar into the slot. Loosen the lock handle and square-up the miter square’s base to the table top, and align the angle pointer to zero as previously mentioned.

II. How To Cut Perfect 90° Joints
Your Perfect Miter Square is precision-machined, and will always give you a perfect 90° joint, due to its design of using two faces simultaneously, regardless of the angle set on the pointer. Fig. 3.
To cut most miters with standard table saw miter gauges, you have to set the gauge to exact angles in both left-handed and right-handed directions, and in most cases, the cut angles never add up to exactly 90° (i.e. first side at 44°, the second also at 44°, doesn’t equal a true 90°).
While you’re at it, you should verify that your saw blade is set to cut 90° to the saw table. Otherwise your miters will have a gap in them causing them to buckle. Fig. 4.

This surface pushes away from the blade.

TIP: Always use adhesive-backed sandpaper on the faces of your miter square. This will prevent your workpieces from creeping or moving during cutting. Fig. 5

Medium-grit sandpaper grabs the workpiece, and, with only fairly light finger pressure, keeps the workpiece from moving in either direction.

III. Perfect Miters With Stock Of Unequal Thickness Or Width.

When using stock of unequal thickness or width, the hypotenuse must be adjusted. Here’s how. Fig. 6.

UNEQUAL WIDTH. The hypotenuse can be aligned by adjusting off of the usual 45° position. Some trial-and-error may be necessary, depending on differences in material thickness. Swing off of 45° position to a lesser angle. Fig. 7. This will adjust the length of the hypotenuse. A drastic example is shown here. Fig. 8.

Remember, your exterior and interior angle will still be a perfect 90°, but what you want to do is to adjust the length of the hypotenuse for a properly mated joint.

A unique feature of Right Angle Miter Gauge is that you will always have a true 90° exterior/interior angle, regardless of the angle set on your miter square.
IV. If The Square’s Slide Bar Is Slightly Loose In The Table Slot

Because different manufacturers’ use different machine tolerances, it’s possible that the square’s slide bar will fit loosely into the table slot. If yours is loose, you can tighten the fit by using a metal punch to swage or peen the edge. Remember, do only one side, not both.

Swage every 2" to average-out the entire length. Fig.9 (Don’t swage in just one or two places--that could cause an angle misalignment.)

NOTE: No replacement parts are available for this product.

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.

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