



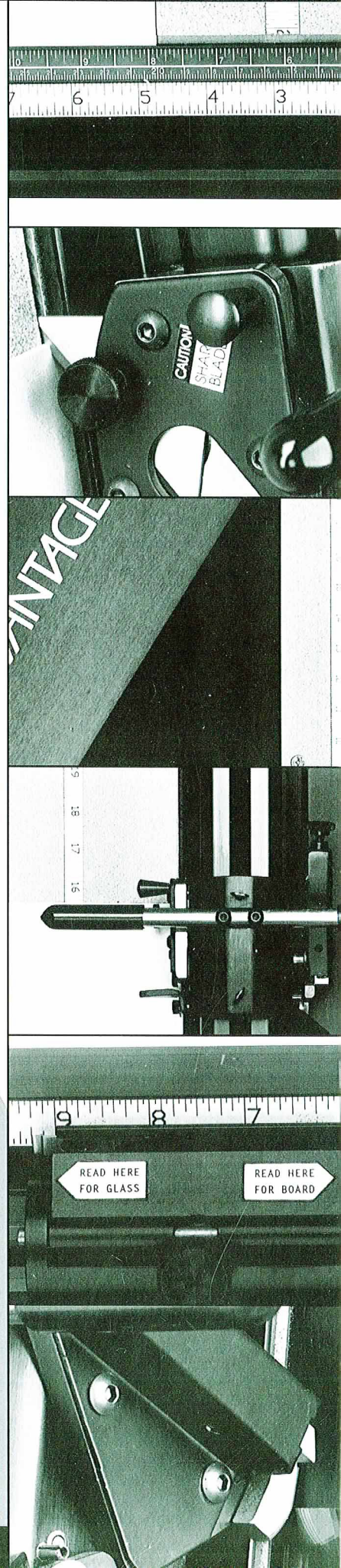
Atscott Mfg, Inc

OPERATING MANUAL AND PARTS LISTING

BG6100™

**Board and
Glass Cutter**

MAT/MOUNT/FOAM BOARD • GLASS • PLEXI



I N T R O D U C T I O N

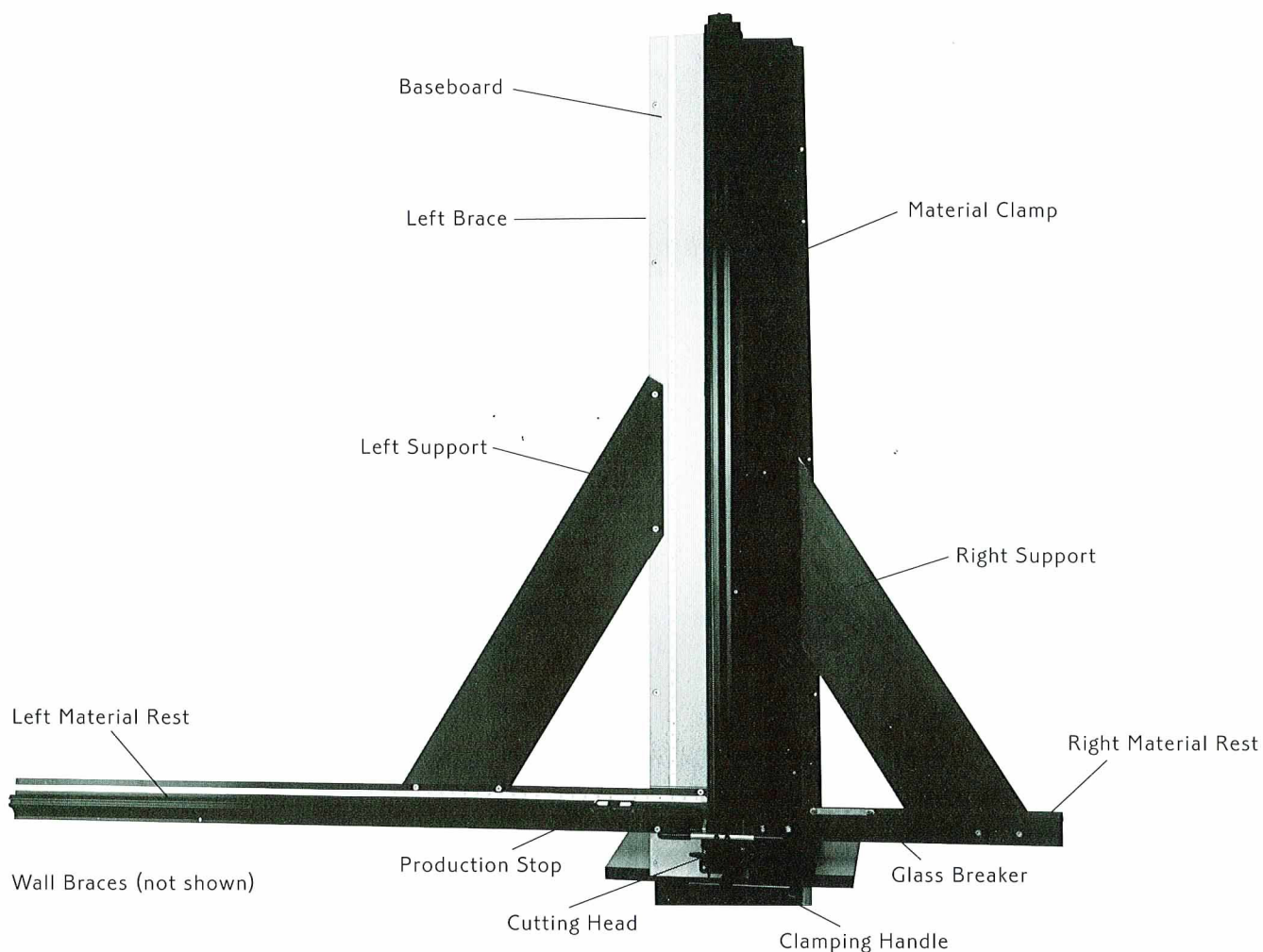
Congratulations! The BG-6100 is the finest combination matboard, glass and plexi-glass cutter available. With proper use and maintenance, this cutter will provide you with years of top quality service. Continue to read through the entire manual to familiarize yourself with the BG-6100's numerous features and advancements. In addition to this Operating Manual, the technical service staff is available to answer any questions you may have regarding the operation or set-up of your BG-6100.

Call **1 320-629-2501** , from **8:00 AM to 3:00 PM CST**.

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CUTTER COMPONENTS



BG 6100 SPECIFICATIONS

| CUTTING CAPACITY | | | |
|-------------------|--------------|--------------|-------------|
| | Mat Board | Glass | Plexi-Glass |
| Length | 60" | 60" | 60" |
| Thickness | 1/2" | 1/4" | 1/4" |
| CUTTER DIMENSIONS | | | |
| | Clamp Closed | Clamp Opened | |
| Height | 77" | 69" | |
| Width | 87" | 87" | |
| Depth | 19" | 22 1/2" | |
| Weight | 97 lbs | | |

U N P A C K I N G T H E B G 6 1 0 0

Check your mat cutter for any visible signs of damage. If the package is damaged, examine the adjacent portion of the mat cutter with special care. *Report any signs of damage to the shipper immediately.*

CARTON CONTENTS:

The carton should contain the following items:

- Main Assembly
- Material Rest (Left & Right)
- Material Support (Left & Right)
- Production Stop
- Operating Manual
- Parts Bag (includes plexi-holder w/blade, assembly hardware, (5) utility blades, allen wrenches)
- Dust Brush
- Wall Braces
- Wall Bracket (Top)
- Glass wheel holder

A S S E M B L Y A N D S E T U P

Tools and Hardware required:

- Tape Measure
- Large #2 Philips Head Screw Driver
- Adjustable Wrench
- Carpenter's Square (at least 18")
- Drill

ASSEMBLY PROCEDURE

It is helpful to refer to either the Exploded Parts Diagram (pg. 10 & 11) or Cutter Components (pg. 3) when setting up the cutter.

Step One

Locate two studs at either 16" or 24" centers. Level and bolt the top wall bracket to the wall, with the lag bolts provided, at approximately 92" from the floor. (If studs cannot be located, use the toggle bolts that have been provided.)

Step Two

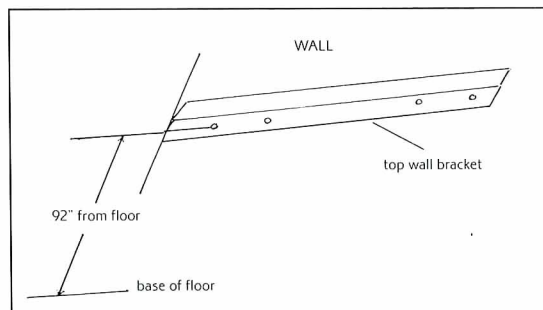
After the top wall bracket has been secured, hang the cutter on the bracket by the notches in the top of the BG6100's metal side panels.

Step Three

Slowly pull the bottom of the BG6100 from the wall while pulling the metal tray down. Secure the tray to the wall with the bolts that have been provided.

Step Four

Verify that all of the hardware is secure to this point before continuing.



Level and bolt the top wall bracket to the wall with lag bolts approximately 92" from the floor.

Attaching the Clamping Handle

Remove one "E" clip from the end of the pin that goes through the clamping handle. Remove the pin. Line the hole in the plate up with the hole in the handle. Push the pin all of the way through the two parts. Replace the "E" clip around the groove in the pin (see diagram top right).

ADDING SUPPORTS

1. Left Material Support

Secure the left material support onto the left side of the baseboard with two 1/4 - 20 x 1 1/2" screws and 1/4" nuts which have been provided with the assembly hardware.

2. Right Material Support

Secure the right material support onto the side of the right brace with two 1/4 - 20 hex head bolts.

3. Left Material Rest

Loosely fasten the left material rest onto the baseboard with two 1/4 - 20 x 1/2" flat head philips screws and 1/4" nuts. Loosely secure the left material rest to the left material support with the two 1/4 - 20 x 1/2" flat head philips screws and 1/4" nuts.

4. Squaring Adjustment

Make sure the clamp is closed by pushing down on the clamping handle. Using a large, accurate carpenter's square, place the short edge of the square along the edge of the material clamp, and the long edge along the left material rest (see diagram bottom right).

Adjust the material rest up or down until it is square to the material clamp. At this point, tighten all of the loose screws down.

5. Right Material Rest

Open the material clamp by lifting up on the material clamp handle.

Loosely attach the right material rest to the baseboard and right material support with the 1/4 - 20 hex head bolts, nuts and washers.

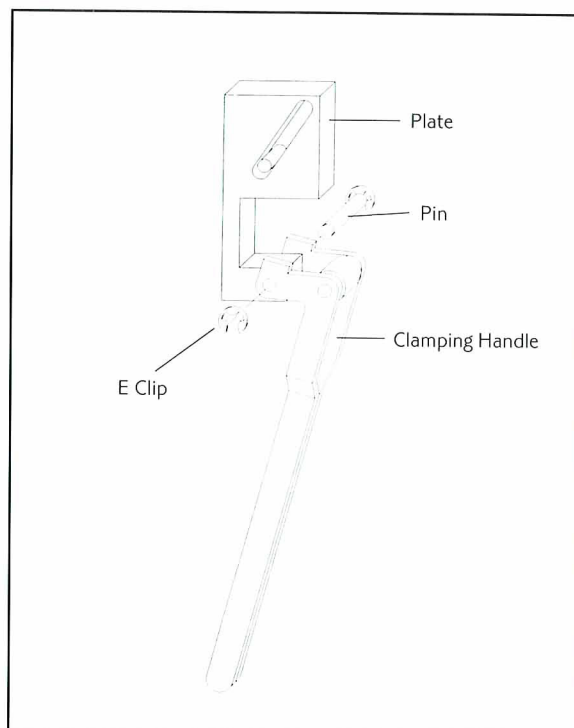
Place a long straightedge along the left material rest, and underneath the material clamp to the right side. Adjust the right material rest up or down until it is in line with the left material rest. At this point, tighten all of the 1/4 - 20 hex head bolts in place.

6. Wall Braces

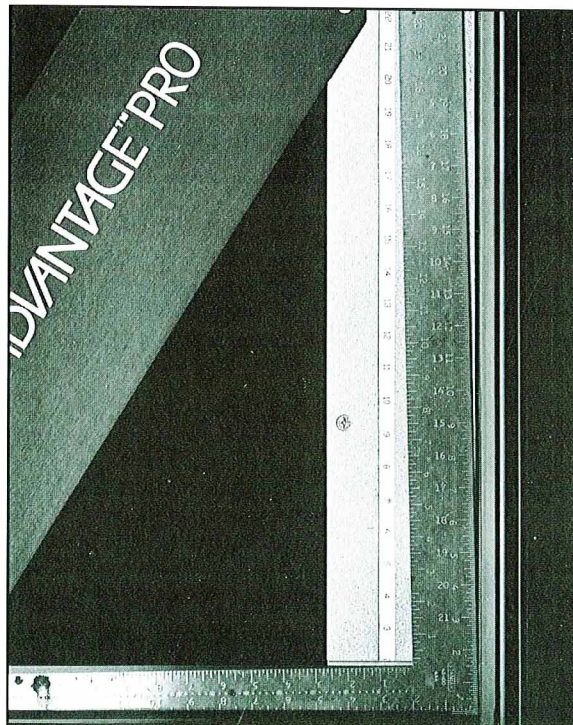
After the machine is secured to the wall, you may use the wall supports, which are included, to provide extra support between the wall and the material rests.

Use two 1/4 - 20 x 1/2" flat head philips screws with 1/4" nuts to attach the wall supports to each end of the material rests.

Use the 1" flat head philips wood screws to fasten the wall braces to the wall.



Parts breakdown of clamping handle assembly



Squaring Example – Adjust the end of the left material rest up until the carpenter square is in line with the material clamp.

R U L E R S

The rulers have been pre-applied at the factory. However, during assembly it is necessary to line up the two sections of the vertical ruler when attaching and squaring the left material rest (see photo top right).

Some fine tuning of the left and right material rest will be necessary during set-up to ensure that the rulers are in the proper position.

Using The Production Stops

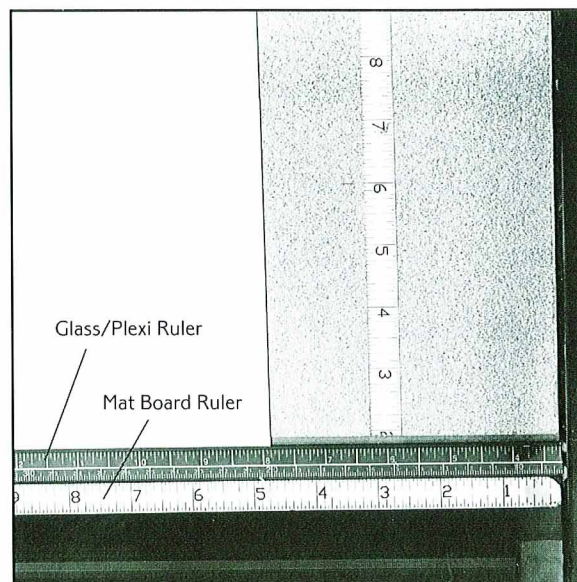
Glass/Plexi-Glass

The stop which is included with the machine can be used when cutting glass. The stop slides in the track on the left material rest. Place the lug inside the track. Place the stop in front of the lug, and lock the two together by tightening on the knurled knob.

When you use the production stop for sizing your glass, it is not necessary to use the green ruler - this is used in place of the green ruler (see diagram on bottom of page).

To use, line up the pointer on the left side of the production stop with the desired setting on the white ruler. Lock the stop in place. Open the clamp and slide the glass over until it touches the right side of the stop. Close the clamp, and execute the cut.

If the cut is bigger or smaller than desired, simply loosen the philips head screw that holds the pointer in place, and adjust the pointer until you achieve an accurate setting.



Mat/Board

Slide the production stop along the front of the left material rest until the right edge of the production stop is in line with the desired setting on the white ruler (see photo bottom right). Tighten the production stop in place at this point. Open the clamp, and slide the board up until it hits the edge of the stop. Execute the cut.

O P E R A T I O N

Your new BG6100 can cut matboard, mounting board, foam board, glass and plexi-glass. The blade holder on the left is for trimming all of the matting and mounting material, while the blade holder on the right holds the cartridge for cutting glass and plexi-glass.

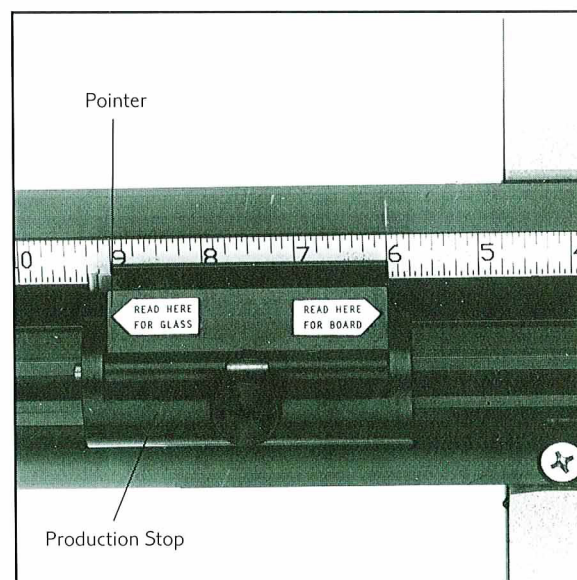
When the cutting head is at the bottom of the rail, both blade holders will always be in the retracted or neutral position.

Note: Please refer to photo at bottom of page 8 for diagram of mat board blade holder position.

CUTTING BOARD/FOAM

Changing The Blade

The board blade holder on the left side of the cutting head holds the standard utility blade (#1992 provides the best results). To change the blade, simply loosen the knurled knob that holds the blade in place and either turn the blade around to the unused portion, or replace with a new blade. Retighten the knurled knob.



Cutting Board

1. Open the rail/clamp by pulling up on the clamping handle.
2. Place the material to be cut on the left material rest with the good side of the board facing out.
3. Line up the left edge of the material with the desired ruler increment as indicated on the white ruler.
4. Close the clamp by pushing down on the clamping handle.
5. Lift the cutting head up above the material. Push forward on the blade holder until the hooked edge of the latch catches on the bottom of the board cutting blade holder.
6. Pull straight down by placing one hand on each of the pulldown handle grips.

Cutting Foam Board

Note: There are two blade cutting positions. When cutting any board up to 1/4" thick, use the first setting. When cutting foam board thicker than 1/4", continue to push the blade holder forward until the latch catches into the second position. This should only be used for foam board thicker than 1/4", as the blade edge is better utilized when in the first setting.

As mentioned before, the blade holder will automatically retract at the end of each cut (see photo on right).

Trimming

To size down or trim premounted artwork, simply line up the edge of the artwork under the left edge of the material clamp. Close the clamp and cut. The weight of the clamp will prevent the board from slipping during the cut.

CUTTING GLASS

WARNING: Always wear gloves and safety goggles when handling glass. When carrying glass grasp it with two hands on the top. Never carry the glass with one hand on the top and one on the bottom, as this could cause the glass to buckle and break towards you. Note: See photo at top of page 8 for diagram of glass/blade holder position.

Changing The Glass Wheel

The glass cartridge is held in the blade holder on the right side of the cutting head. The cartridge is held in place with a knurled knob which protrudes out of the side of the blade holder.

Loosen the knurled knob that protrudes out of the side of the glass blade holder. Pull the silver cartridge out of the front of the blade holder. Use a pliers to grab the glass wheel and pull it out of the cartridge. Replace with a new wheel.

Note: The wheel comes with an axle and a "v" shaped clip. This clip creates the tension which holds the wheel in the cartridge.

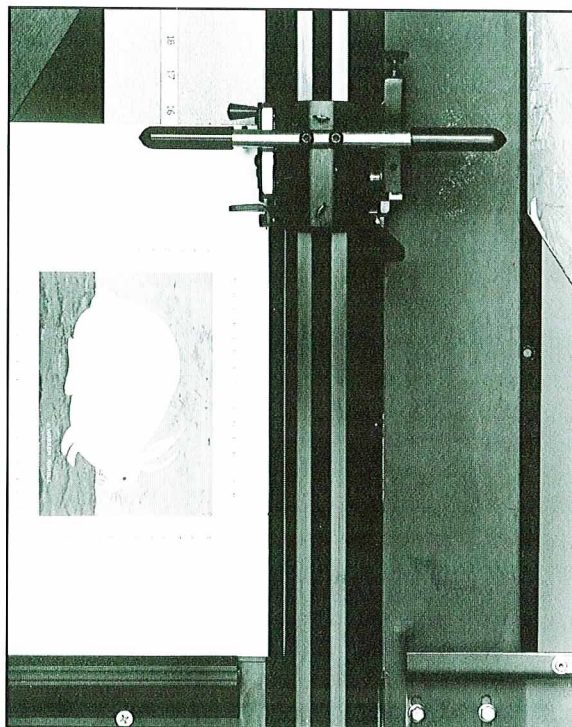
Glass Scoring and Breaking

1. Open the clamp and position the glass at the desired setting along the **green** ruler.
2. Close the clamp.
3. Pull the cutting head up above the material.
4. Pull down on the spring tension knob until the latch catches against the blade holder, locking it into position.
5. Quickly pull straight down on the handle with steady even movement.

Note: The best score is one that is light and even. If little shards of glass pop outward after the score, the score is too heavy; and the spring tension knob should be turned counter-clockwise. If the score skips or is too light, then turn the spring tension screw clockwise to increase the tension. A score that skips can also be caused by a dull glass wheel. Replace it when necessary.

WARNING: Never attempt to break the glass if you are not sure about the quality of the score. If the score skipped or if you are not sure if it scored, do not attempt to break it. Change the wheel and try again.

6. To break the score, open the clamp and then simply push back with your right hand on the top or bottom of the glass (not in the center), while holding the left piece in place with your left hand. This will cause the score to break.



Trimming premounted artwork

A glass breaker is fastened to the right material rest. This can be used to push on the bottom of the glass instead of using hand pressure.

On pieces narrower than 1/2", the glass should be removed from the cutter, and the score should be broken with a pair of glass breakout pliers (available from your glass or framing supplier).

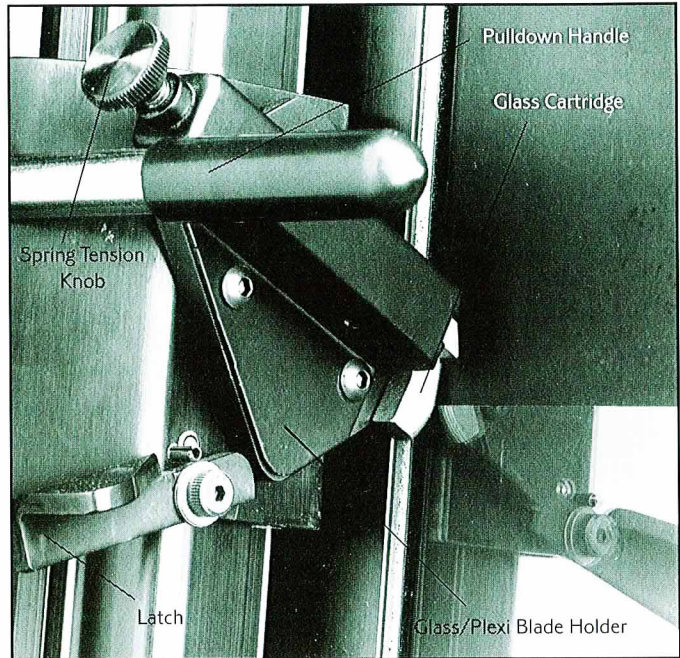
CUTTING PLEXI-GLASS

Changing The Plexi Blade

Loosen the screw that holds the plexi blade onto the plexi cartridge. Slide the plexi blade out from around the screw. Replace with a new blade, and retighten the screw.

Plexi-Glass Scoring and Breaking

1. Remove the glass cartridge by loosening the knurled knob on the side of the right blade holder, and pull it straight out.
2. Push in the plexi cartridge, and lock it in place by tightening the knurled knob.
3. Pull the cutting head up to the top of the material.
4. Push down on the blade holder with the glass tension screw until the latch locks against the blade holder, pivoting the blade into cutting position.
5. Line up the blade until it is 1/16" below the top of the plexi-glass.
6. Pull the cutting head down. This will create little curls of plexi-glass, which you may have to remove from the tip of the blade if it builds up. Thinner plexi (1/16") will require one or two passes, while thicker plexi (1/8"–1/4") will require three to four passes.
7. The score does not go all the way through the plexi. Remove it and break the score along the edge of a table.



M A I N T E N A N C E

Slide Block

Periodically check the cutting head for looseness along the rail. To adjust, loosen the lock nuts securing the two thumbscrews in the front of the slide block. Adjust the thumbscrews until there is no play in the cutting head. Retighten the locking nuts.

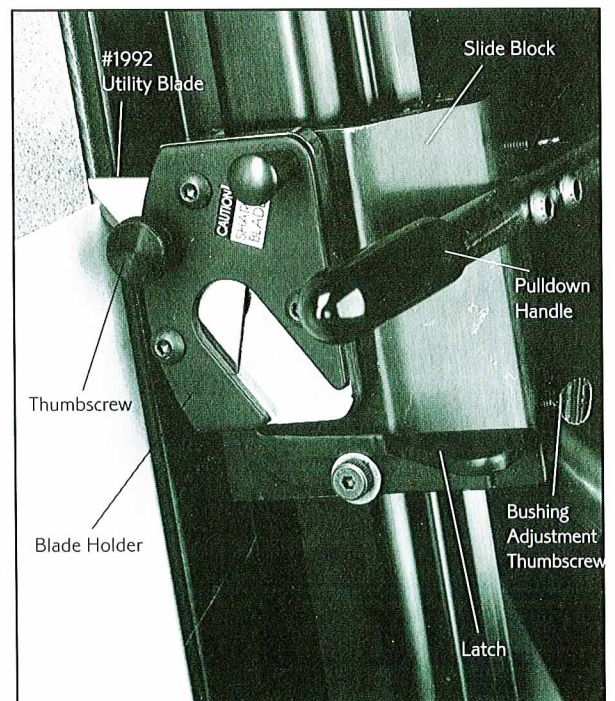
If the gray bushings in the head assembly start to show signs of wear, replace all six with a new set.

Cleaning

1. To prolong the life of the cutter, clean it regularly by applying a solvent onto a rag and wiping it along the rail.
2. Lightly spray some WD-40 to the rail and wipe excess with a cloth.

Dust Brush

A dust brush has been provided to remove any debris which may collect in the left or right material rest, and around the cutting head.



T R O U B L E S H O O T I N G

P r o b l e m

S o l u t i o n

Ragged cut.

1. Dull blade needs changing.
2. Bushings may need to be tightened (see "Maintenance").
3. Wrong blade, use #1992 blade.

Blade does not cut through board.

1. Make sure blade is properly inserted in holder.
2. Check to see if blade holder is latching into position.
3. Dull blade needs changing.
4. Bushings may need to be tightened (see "Maintenance").
5. Wrong blade, use #1992 blade.

Glass does not break evenly along score.
Uneven glass score.

1. Dull wheel, replace.
2. Not enough tension, tighten spring tension knob.
3. Bushings may need to be tightened (see "Maintenance").
4. Right material rest is improperly aligned. Recheck alignment.

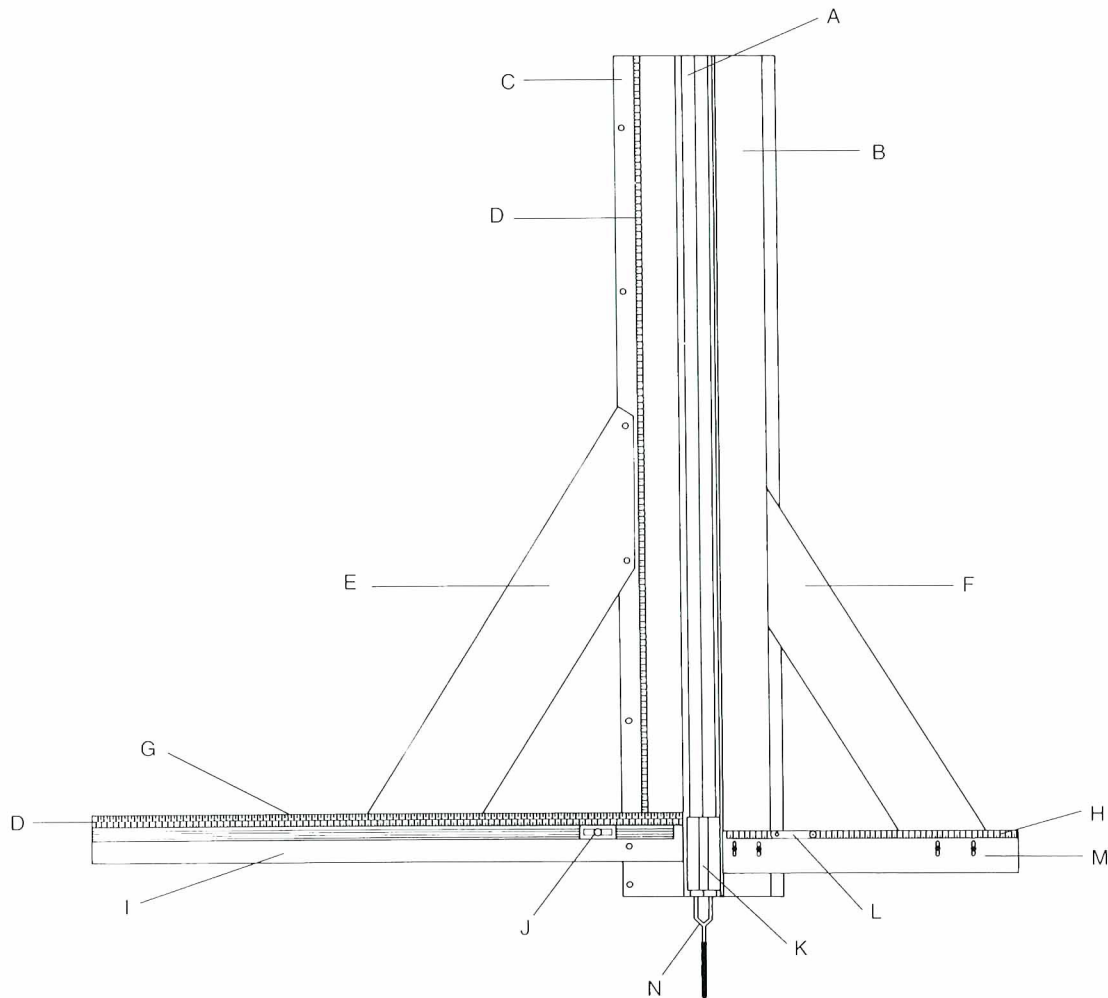
Top or bottom edge of glass chips. Shards of glass pop out after score.

1. Too much tension, loosen spring tension knob.

Final product is not square.

1. Read "Squaring Adjustments" section
2. Check cutting head adjustments and tighten if necessary.
3. A Carpenter's square may not be square enough for this adjustment. Find a square accurate within 1/32".
4. Original material was not square initially. Cut all 4 sides to achieve a square finished product.

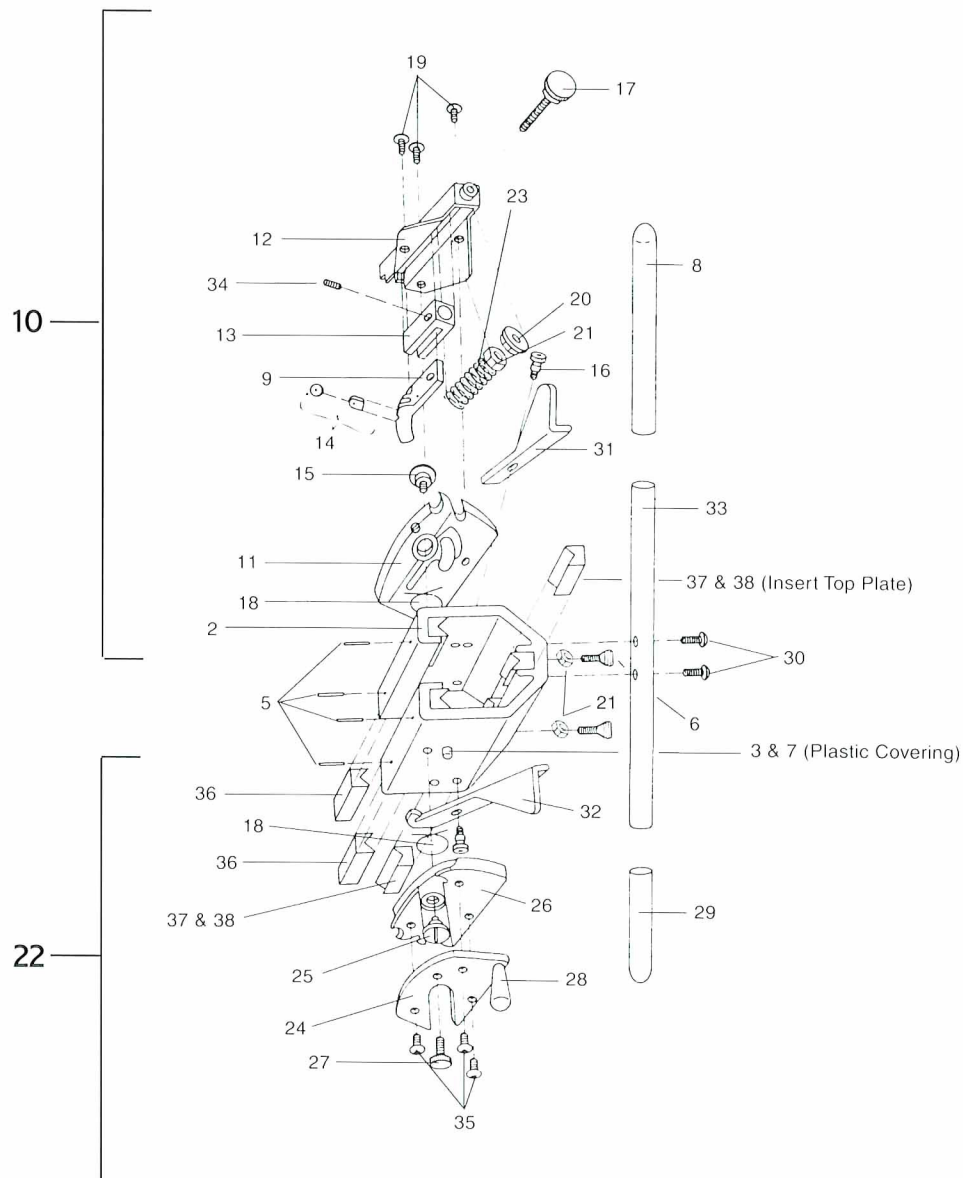
BG6100 PARTS DIAGRAM - MAIN ASSEMBLY



| REF. # | PART CODE | DESCRIPTION | REF. # | PART CODE | DESCRIPTION |
|--------|-----------|---|-----------|-----------|---------------------------------------|
| A. | G0369 | CLAMPING ASS'Y, BG6100 | L. | G0365 | GLASS BREAKER ASS'Y |
| A-01 | 4795 | WASHER, 1/4 | L-01 | G0375 | SPRING STEEL |
| A-02 | G0294 | ANGLE BLOCK, LOWER | L-02 | 378 | KNOB |
| A-03 | 5290 | SCREW, 1/4-20x1 | L-03 | M0319 | BUMPER, GLASS BREAKER |
| A-04 | G0293 | ANGLE BLOCK, UPPER | L-04 | M0318 | SCREW 8-32x1/2 |
| A-05 | G0335 | FOAM TAPE, 3/4x63x1/8 | L-05 | G0176 | SHOULDER SCREW, 10-24x1/4 |
| A-06 | G0397 | STOP PLATE & LEVER RELEASE, BOTTOM | L-06 | 5848 | O-RING 1/16x1/4 |
| A-07 | G0321 | SCREW, 10-24x3/4, FOR BOTTOM STOP PLATE | L-07 | G0160 | SPACER |
| A-08 | TNP009 | SHOULDER BOLT, 10-24x1/4, FOR BUSHING | L-08 | M0526 | WASHER, .265x.505 |
| B. | G0443 | BRACE - RIGHT | L-09 | G0470 | RIGHT WALL SUPPORT |
| C. | G0354 | LEFT BASEBOARD ASS'Y, BG6100 | M. | G0371 | RIGHT MATERIAL REST ASS'Y |
| C-01 | G0401 | MATERIAL REST CENTER PLATE | M-01 | G0351 | RIGHT MATERIAL REST |
| C-02 | G0441 | BRACE, LEFT "C" CHANNEL | M-02 | G0374 | RIGHT STAINLESS STEEL STRIP |
| D. | G0409 | RULER, 60" TO 0" ENG/MET | M-03 | G0342 | RIGHT STAINLESS STRIP ADHESIVE |
| E. | G0417 | LEFT MATERIAL SUPPORT | N. | N/A | LIFT HANDLE ASS'Y |
| E-01 | 4389 | NUT, FLANGED - 1/4 - 20x1/2 | N-01 | G0304 | PIN, LIFT HANDLE |
| F. | G0353 | RIGHT MATERIAL SUPPORT | N-02 | G0309 | RETAINING RING |
| G. | G0411 | GLASS RULER, 60" TO 0" ENG/MET | N-03 | G0302 | LIFT HANDLE |
| H. | G0408 | GLASS RULER, 0" - 25" ENG/MET | N-04 | G0306 | BUSHING FOR LEFT HANDLE |
| I. | G0370 | LEFT MATERIAL REST ASS'Y | N-05 | G0179 | HANDLE GRIP, BLACK |
| I-01 | G0352 | LEFT MATERIAL REST | N-06 | G0412 | WHEEL, LIFT HANDLE |
| I-02 | G0416 | LEFT STAINLESS STEEL STRIP | NOT SHOWN | BLD1992 | UTILITY REPLACEMENT BLADE |
| I-03 | G0342 | LEFT STAINLESS STRIP ADHESIVE | NOT SHOWN | G0235 | PLEXI REPLACEMENT BLADE (10 PER PACK) |
| I-04 | G0469 | LEFT WALL SUPPORT | NOT SHOWN | G0251 | PLEXI CARTRIDGE SCREW, 6-32x3/8 |
| J. | G0376 | PRODUCTION STOP ASS'Y, BG6100 | NOT SHOWN | G0395 | OWNERS MANUAL |
| J-01 | G0356 | PROD. STOP LUG | NOT SHOWN | G0396 | PLEXI CARTRIDGE |
| J-02 | 4243 | KNOB ASS'Y 3/4 | NOT SHOWN | 7982 | HEX KEY, 1/8" |
| J-03 | G0418 | LABEL, PROD. STOP - GLASS | NOT SHOWN | 7984 | HEX KEY, 5/32" |
| J-04 | G0419 | LABEL, PROD. STOP - BOARD | NOT SHOWN | G0446 | BRACKET-BOTTOM SHELF |
| J-05 | G0393 | POINTER, PROD. STOP | NOT SHOWN | G0462 | TOGGLE BOLT |
| J-06 | M0380 | POINTER SCREW, PROD. STOP | NOT SHOWN | G0463 | LAG BOLT |
| J-07 | 5331 | SCREW, 1/4-20x1 1/2 | NOT SHOWN | G0442 | BRACKET-TOP WALL |
| K. | G0500 | HEAD ASS'Y | | | |

(For details on head ass'y, see diagram on next page)

BG6100 PARTS DIAGRAM - HEAD ASSEMBLY



| REF. # | PART CODE | DESCRIPTION |
|----------------|-----------|---------------------------------|
| K. | G0500 | HEAD ASS'Y |
| K-02 | G0384 | SLIDE BLOCK ASS'Y |
| K-03 | G0422 | DOWEL PIN, 3/16x3/8 |
| K-04 NOT SHOWN | G0182 | SPRING PIN 1/8x1/2 |
| K-05 | G0184 | SPRING PIN 1/16x5/16 |
| K-06 | G0185 | THUMBSCREW, 8-32x3/4 |
| K-07 NOT SHOWN | G0406 | BUMPER, 3/16x3/16 |
| K-08 | G0405 | HANDLE GRIP, GREEN |
| K-09 | G0364 | GLASS CARTRIDGE |
| K-10 | G0392 | GLASS/ PLEXI BLADE HOLDER ASS'Y |
| K-11 | G0358 | PLATE, BLADE HOLDER INSIDE |
| K-12 | G0362 | PLATE, TOP GLASS HOLDER |
| K-13 | G0363 | SLIDE BEARING, DELRIN |
| K-14 | G0237 | GLASS WHEEL (10) PER PACK |
| K-15 | G0399 | SHOULDER SCREW, 1/4-20x3/16 |
| K-16 | G0467 | SHOULDER BOLT, 1/4-20x3/16 |
| K-17 | G0403 | KNOB ASS'Y, SPRING TENSION |
| K-18 | 8879 | SPRING, TORSION |
| K-19 | 6748 | SCREW, BUTTON HD. HEX 10-24x1/4 |
| K-20 | 4389 | NUT, FLANGED 1/4-20 |

| REF. # | PART CODE | DESCRIPTION |
|----------------|-----------|---------------------------------------|
| K-21 | 1481 | NUT, HEX 1/4-20 |
| K-22 | G0400 | BLADE HOLDER, BOARD SIDE |
| K-23 | G0451 | COMPRESSION SPRING, DUAL NEST |
| K-24 | G0359 | PLATE, BLADE HOLDER OUTSIDE |
| K-25 | G0399 | SHOULDER SCREW, 1/4-20×3/16 |
| K-26 | G0358 | PLATE, BLADE HOLDER INSIDE |
| K-27 | G0404 | KNOB ASS'Y, 10-32×3/8 |
| K-28 | 377 | KNOB ASS'Y, BLADE HOLDER |
| K-29 | G0179 | HANDLE GRIP, BLACK |
| K-30 | G0213 | SCREW, 1/4-20×1 |
| K-31 | G0398 | RETRACT LEVER, GLASS |
| K-32 | G0360 | RETRACT LEVER, BOARD |
| K-33 | G0178 | HANDLE, PULL DOWN |
| K-34 | G0434 | THUMBSCREW, FOR GLASS/PLEXI CARTRIDGE |
| K-35 | G0175 | SCREW, BTN. HD. SOC. 10-24×3/8 |
| K-36 | G0440 | BUSHING, BOTTOM |
| K-37 | G0440 | BUSHING, TOP |
| K-38 NOT SHOWN | G0448 | BUSHING PLATE, TOP |
| NOT SHOWN | G0466 | HEAD BUMPER |
| NOT SHOWN | G0447 | BUMPER CAPS |

B G 6 1 0 0 W A R R A N T Y

Atscott Mfg, Inc warrants this new BG6100 cutter to be free from defects in material and workmanship for a period of three years from the date of purchase by the original user/consumer. Each cutter, accessory and part will be thoroughly inspected before shipment to insure conformance to specifications.

If the C + H[®] cutter, accessory or part malfunctions or is inoperable within the warranty period because of a defect in material or workmanship, we will repair, or at our option, replace the defective unit at no cost to the original user or consumer purchaser.

This warranty excludes and does not cover defects or malfunctions of a cutter's accessories or parts due to repairs by persons not authorized by us; by use of parts or accessories not designed or authorized by us; by mishandling, improper adjustment, modifications or damages.

To obtain repair or replacement under this warranty, contact your C + H[®] distributor.

This warranty is in lieu of all other warranties expressed or implied. Nielsen & Bainbridge expressly disclaims all other warranties, including the warranties of merchant ability and fitness for a particular purpose.

The manufacturer neither assumes nor authorizes any representative or other person to assume for it, any other liability in connection with the sale, maintenance, or repair of cutters.

In no event shall **Atscott Mfg, Inc** be liable for any damages or losses, incidental or consequential, direct or indirect, arising out of the use of this product.

Atscott Mfg, Inc
1150 Holstein Dr NE
Pine City, MN 55063

www.atscott.com