

**DOOR CUTTING:** see Figure 15

- Open the door to the maximum, away from the case-ments. Work from the inside of the door outward, away from the hinges. To avoid splintering veneer doors, it may be advisable to score the veneer surface at the desired height of the cut, prior to using the saw. An applica-tion of wide masking tape in the cutting zone also helps reduce splintering, and will protect the saw housing from scratching the veneer. **DO NOT MOVE OR LIFT DOOR WHILE CUTTING OR KICKBACK MAY RESULT!**

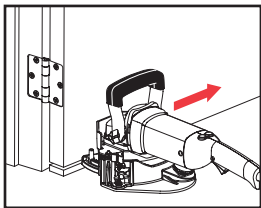


Figure 15

- NOTE: The maximum thickness of cut is 1 5/8", which is adequate for most doors. Check for adequate depth of cut before starting. Thicker doors may require cuts from both sides of the door. Take care not to leave a thin remnant of door on the opposite side, which can easily break off and crack the veneer. Also, check that the floor is at the same elevation on both sides of the door, or additional height adjustment may be required.

- The maximum height of cut is one inch. To cut off higher than one inch, place a flat sheet of plywood underneath the saw.

**POCKET DOOR CUTTING:**

- Take precautions necessary for veneer doors and check door thickness as described above (under "Door Cutting"). Pocket door cutting requires two people. One must hold the saw down and in a fixed position, while the other person slowly pulls the door into the blade. **DO NOT LIFT DOOR OR THE SAW WHILE CUTTING OR KICKBACK MAY RESULT!**

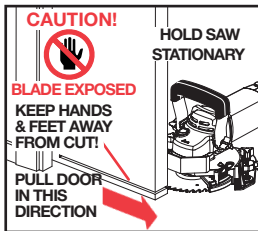


Figure 16

- Remove any unfinished area at the bottom of the pocket door with a hand saw, following along in the pre-established cut.

**MASONRY, STONE, OR TILE UNDERCUTTING:**

- The No. 805 Masonry Blade is primarily used for cutting brick. It is not for use on tile or stone. Use the No. 822 Diamond Blade for cutting brick, tile or stone.

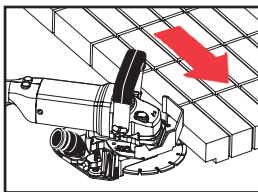


Figure 17

- Masonry, stone, and tile undercutting creates a lot of dust. We strongly recommend the operator wear a dust mask and place a light cloth over the air intake on the motor. This will prolong the life of the saw.
- DO NOT** use this saw for cutting steel or aluminum. Sparks can cause fire in the wall behind the door casing.

**MAINTENANCE:**

If saw is dropped, the blade guard may be bent or otherwise damaged, restricting full return. Sawdust that accumulates behind the blade guard will cause it to become clogged, especially drywall dust. Check operation of the blade guard before each use. Do not use the saw if the blade guard does not operate properly. When not in use, store saw in the custom carrying case. The saw motor may run even if the switch malfunctions, causing the motor to not switch off. Do not use saw if the switch malfunctions. Repair the switch immediately!

**WARNING:**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from brick, cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

**GUARANTEE**

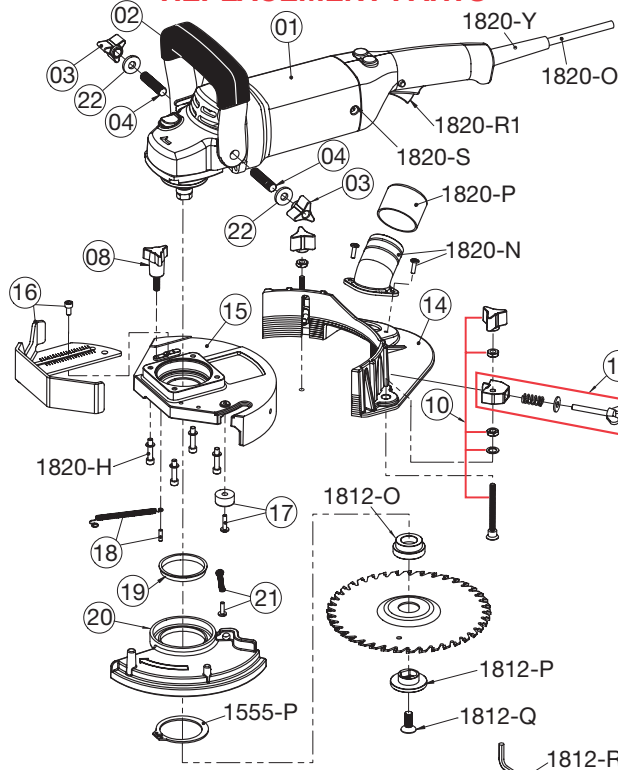
This Crain No. 825/825V Heavy Duty Undercut Saw is guaranteed to be free of defects in workmanship and quality of materials for a period of one year. Any parts of this saw found defective subject to the guarantee will be replaced at no charge. Credit in full or part cannot be extended by the distributor, nor will a new saw be given as a replacement or loaner. Saws subject to this warranty must be accompanied by same, returned freight PREPAID to Milpitas, CA, and must be in assembled condition.

DATE OF MFG. \_\_\_\_\_

**CRAIN CUTTER CO., INC.**

Milpitas, CA 95035 TEL: (408) 946-6100  
www.craintools.com

**REPLACEMENT PARTS**



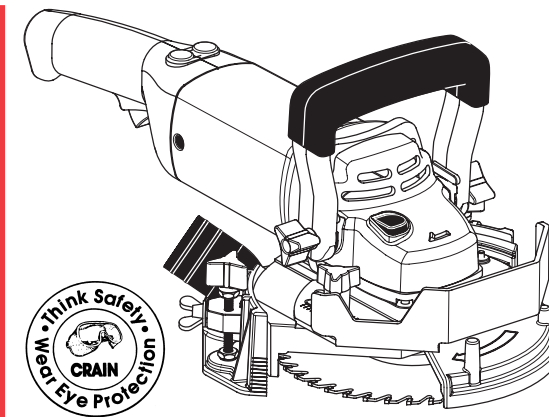
**NO. 825 HEAVY-DUTY UNDERCUT SAW**

Order No.	Description	Order No.	Description
1825-01	Power Unit, 120 V	1825-20	Blade Guard
1825-01V	Power Unit, 220V	1825-21	Flared Spring & Screw
1825-02	Ratchet Handle	1825-22	Handle Washers (2)
1825-03	Handle Three-Arm Knobs (2)	1820-H	Housing Fastener Set (4)
1825-04	Handle Threaded Studs (2)	1820-N	Dust Port w/Screws (4)
1825-08	Depth Gauge Three-Arm Knob	1820-O	Power Cord Only
1825-10	Height Adjuster Three-Arm Knob & Fasteners (5)	1820-P	Dust Port Cap
1825-11	Guide Washer & Fasteners (4)	1820-R1	Switch Type B, Black
1825-14	Height Adjuster	1820-S	Brushes (not shown)
1825-15	Housing	1820-V	Brush Holder Assembly plus
1825-16	Depth Gauge & Fasteners (2)	1820-Y	Brushes (not shown)
1825-17	Stopper & Screw	1555-P	Strain Relief Only
1825-18	Hooked Spring & Screw	1812-O	Snap Ring
1825-19	Blade Guard Sleeve	1812-Q	Blade Spacer
		1812-P	Blade Clamp
		1812-Q	Blade Screw
		1812-R	5mm Allen® Wrench

**SPECIFICATIONS:**

POWER UNIT	Model No. 825	Model No. 825V
Voltage:	120VAC, 60 HZ.	220VAC, 50HZ
Construction:	Double Insulated	Double Insulated
Plug Type:	3-Prong Plug	UK Plug
Amperes:	8.15 Amps	4.1 Amps
Wattage:	930 Watts	930 Watts
No Load Speed:	6,500 RPM	6,500 RPM
Max Depth of Cut:	1 5/8"	1 5/8"
Max. Height of Cut:	1"	1"
Toe Space Cutting Specifications:		
Minimum Height / Maximum Depth:	3 1/2" / 3 1/2"	3 1/2" / 3 1/2"
Gross Weight:	17.4 LBS.	17.4 LBS.
Replacement Blades for both No. 825 / No. 825V:	#821 Carbide-Tipped Blade, #805 Masonry Blade, #822 Diamond Blade	

**INSTRUCTION MANUAL**



**CRAIN**

**No. 825/825V HEAVY-DUTY UNDERCUT SAW**

**WARNINGS:**

- IN USE, KEEP ONE HAND ON THE SWITCH HANDLE AND ONE HAND ON THE RATCHET HANDLE. DON'T REMOVE A HAND TO CLEAR DEBRIS.**

**KICKBACK HAZARDS:**

- THIS SAW PLUNGE-STARTS. PLUNGE SLOWLY BEFORE PUSHING FORWARD!**
- KEEP RPMs HIGH. DON'T FORCE THE SAW, ESPECIALLY WHEN NAILS MAY BE PRESENT.**
- HEIGHT ADJUSTMENT: KEEP THE BLADE HOUSING FLAT ON LEVEL FLOORS, AND KEEP BLADE PARALLEL TO THE FLOOR AT ALL TIMES.**
- ALWAYS PUSH SAW AGAINST BLADE ROTATION. NEVER PULL TOWARDS YOU OR RUN IN REVERSE.**

**SAFE OPERATING POSITION: KEEP KNEES AND OTHER BODY PARTS OUT OF KICKBACK ARC.**

**KNEEL TO THE SIDE! DO NOT USE STANDING UP!**

**CUTTING DIRECTION**

## SAFETY FIRST

The Heavy-Duty Undercut Saw is designed for undercutting affixed wooden door jambs, moldings, base, as well as masonry and stone, to allow new floor coverings to be fit underneath. Do not use this saw for sanding floors, cutting metal, or any other purpose not described in this instruction manual.

**HANDLES:** In use, keep both hands on the handles at all times.

**KICKBACK HAZARDS:** While cutting, do not force the saw. Also, keep the housing flat on the floor and the blade parallel to the floor at all times. Angling may cause powerful, dangerous kickback. Keep the saw RPMs high. Using a dull blade will place a heavy load on your saw and increase the danger of kickback. Use only Crain replacement blades.

**EYE & EAR PROTECTION:** Always wear safety glasses when using a power tool. Wear ear plugs when using this saw.

**BLADE GUARD:** The blade guard attached to your saw is for your safety and protection. If it becomes damaged, do not operate your saw until it has been repaired. Keep the blade guard in operating condition when using the saw.

**DOUBLE-INSULATED:** This tool is constructed with two separate layers of electrical insulation. A tool built with this insulation system does not need to be grounded.

**DANGEROUS ENVIRONMENTS:** Keep work area clean; clutter invites accidents. Do not use the saw on damp or wet floors. Be sure that there is good lighting. This saw may throw sparks. Make certain that flammable materials, especially explosive vapors, are not present. Use face or dust mask if cutting operation is dusty.

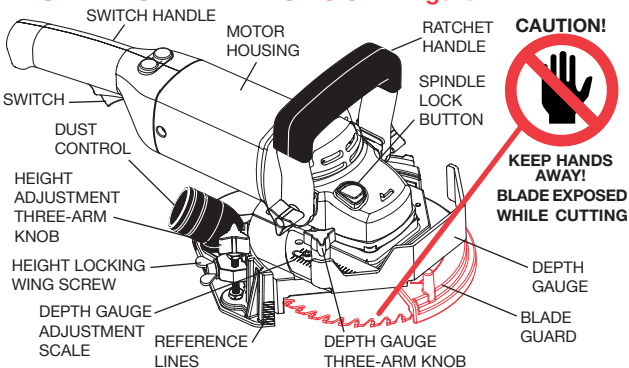
**ACCIDENTAL STARTING:** To avoid accidental starting, do not carry tool while plugged in or with fingers on switch.

**CORD ABUSE:** Never carry tools by the cord or yank the cord to disconnect from an outlet. Keep cords away from heat, oil, and sharp edges.

**EXTENSION CORD:** To minimize power loss and prevent overheating, use maximum of 25 feet long and 16 AWG.

**HAIR & CLOTHING:** Keep all loose hair and clothing away from the spinning blade at all times.

## WORKING TERMINOLOGY: Figure 1

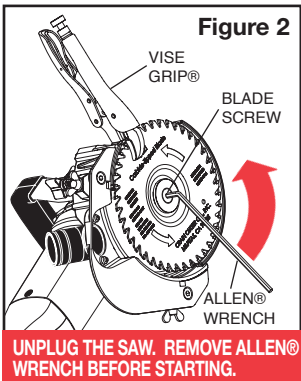


## BLADE REMOVAL: see Figure 2

- Turn off and unplug saw.

- Retract the height adjuster so it is flush with the housing to allow clearance for the Allen® wrench.

- Push the spindle lock button with one hand and insert the Allen® wrench into the blade screw with other hand; then turn the Allen® wrench until the spindle engages with the lock button (blade will stop rotating).



- Hold onto the plastic housing, then push hard on the Allen® wrench counter-clockwise to open. If the blade is hard to remove, use a Vise Grip® to hold the blade.

## BLADE INSTALLATION: see Figure 3

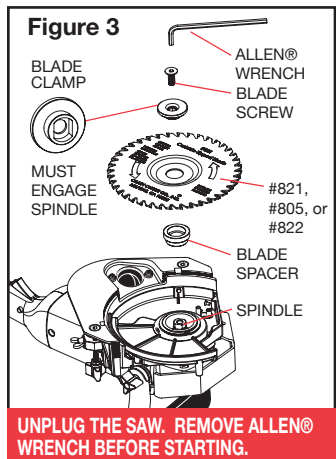
- Unplug the saw.

- Place the blade spacer over the spindle.

- Place the blade on top of the blade spacer.

- Place the blade clamp through the arbor hole of the blade with the bottom slot of the blade clamp properly aligned with the spindle.

- Insert and re-tighten the blade screw. Push in the spindle lock to tighten. Be sure to tighten firmly before use.



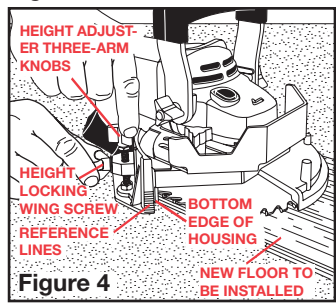
## BLADE HEIGHT ADJUSTMENT: see Figure 4

- Unplug the saw. Loosen the two height locking wing nuts one to two turns.

- Turn the two height adjustment three-arm knobs clockwise to increase blade height and counter clockwise to decrease height.

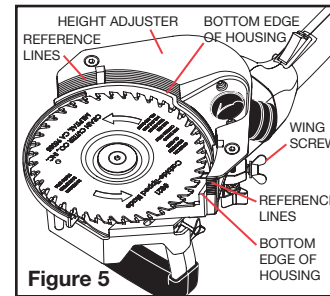
- It is best to turn both height adjustment three-arm knobs at the same time to ensure the blade is set parallel with the floor.

- Both the front of the height adjuster and the inside of the height ad-



juster have 10 reference lines, in  $3/32$ " increments (.093", one blade thickness - figure 5). Max. height is 1".

- To prevent saw kickback, the blade must be set parallel to the floor. This can be ensured by checking from the front of the saw that, on BOTH sides of the blade housing, the number of lines below the bottom edge of the blade housing are the same (figure 4), OR by turning the saw over and making sure the bottom edge of the blade housing is completely parallel with a reference line (figure 5).



- It may be easiest to set the saw blade flat on top of the new flooring to be fit beneath the desired undercut, and turn the height adjuster three-arm knobs clockwise until the height adjuster rests flat on the floor. From that point, for a snug fit with the new floor, adjust height down by one reference line (one blade thickness).

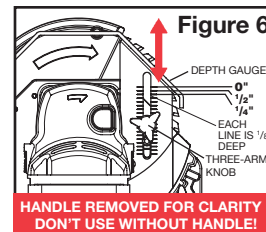
- Securely tighten the height locking wing screws before use.

## DEPTH ADJUSTMENT:

- A depth gauge adjustment scale is engraved on the depth gauge with twelve  $1/8$ " increments (figure 6).

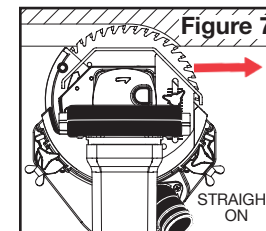
- We recommend the depth of cut be set to no more than  $1/2$ " to minimize the chance of hitting wall studs, nails, etc.

- When undercutting wood base, set depth to cut wood only. Cutting sheetrock makes dust that can damage the saw over time.

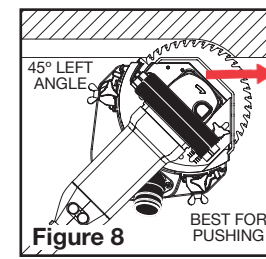


- To adjust the depth gauge, loosen the depth gauge three-arm knob and slide the depth gauge in or out.

- The depth adjuster accurately controls the depth of cut at any of three angles: straight-on (figure 7), 45° left (figure 8), or 45° right (figure 9).



- Cutting at a 45° angle is easiest to push the saw (figure 8).



- For dust control, cutting at the 45° right angle is preferred. This angle captures as much dust as possible inside the housing. When using this saw with a vacuum, this is

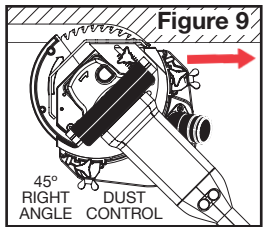
the most effective angle to control dust (figure 9).

- Re-tighten the three-arm knob firmly before use.

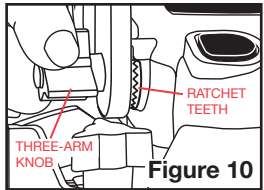
## USING THE SAW:

- Place the saw flat on the floor near the wall to be undercut. Make certain blade is set parallel to the floor.

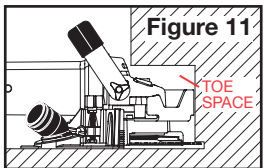
- Make sure the blade holding wing screw, and height locking wing screws are tightened securely. Handle ratchet teeth and three-arm knobs be tightened securely (figure 10).



- Always keep the handle in the vertical position for general undercutting.



- Lower the handle for undercutting toe spaces (figure 11). Be sure to lock knobs.



- Plug in the saw and grasp handles firmly with both hands. Keep one hand on the switch handle and one hand on the ratchet handle at all times. Depress the safety lock button, then pull the power switch.

- To start a cut, use the wall to push the blade guard back and expose blade. **DO NOT USE YOUR HAND!**

- First, plunge slowly to appropriate depth. Second, push the saw forward. Move the saw from left to right only. Don't force the saw; let blade cut at highest RPM possible. Do not pull the saw towards you or run in reverse. Do not lift or angle the saw or kickback may result.

- Remove the saw from the cut, and release the switch to stop.

## INSIDE CORNER CUTTING:

- Cut towards the corner at 45° angle (see figure 12) until the depth gauge meets the right wall (see figure 13).

- Stop and unplug saw. Fully retract depth gauge and continue the cut.

- Push saw into the corner as shown (see figure 14).

**WARNING:** Depth gauge covers the blade and makes the saw safer to use. Always unplug the saw and reset the depth gauge when inside corner cutting is complete.

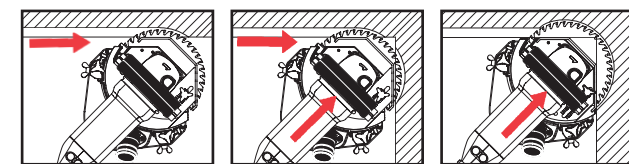


Figure 12

Figure 13

Figure 14