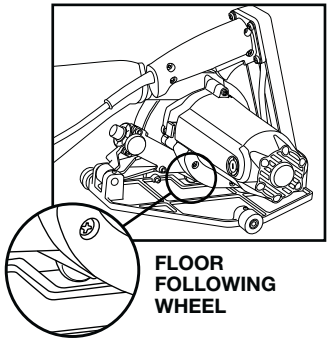
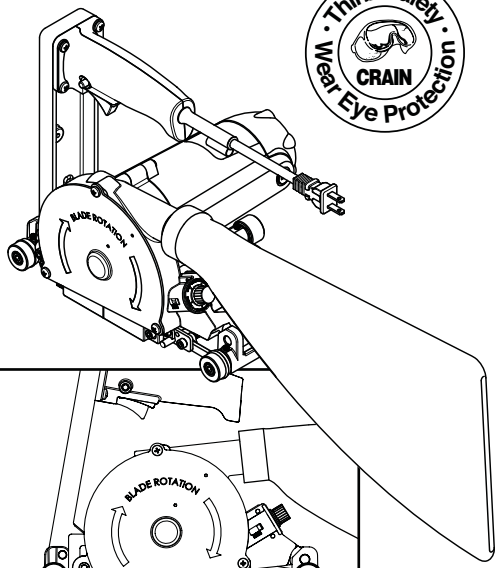
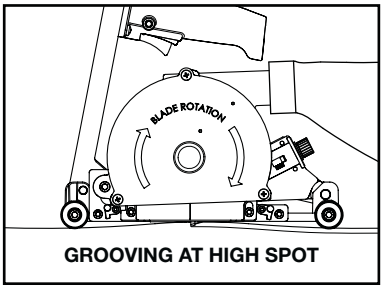
INSTRUCTIONS FOR:



FLOOR FOLLOWING WHEEL





GROOVING AT HIGH SPOT

GROOVING AT LOW SPOT

CRAIN

No. 968 Floor Following Power Groover

SAFETY FIRST:
KICKBACK HAZARDS:

- **USE CAUTION WHEN ADJUSTING CUTTING DEPTH. CUTTING TOO DEEP MAY CAUSE THE BLADE TO CONTACT THE SUBFLOOR AND COULD EVEN CAUSE SUDDEN, POWERFUL KICKBACK OF THE GROOVER TOWARDS YOUR BODY. KNEEL TO THE SIDE OF THE TOOL.**
- **TIGHTEN THE DEPTH LOCKING KNOB BEFORE MAKING A GROOVE TO MAKE CERTAIN THAT CUTTING DEPTH IS CONTROLLED.**
- **THIS GROOVER SHOULD BE PUSHED IN FORWARD DIRECTION ONLY. DO NOT PULL BACKWARD TOWARDS YOURSELF.**
- **GRIP HANDLE FIRMLY FOR COMPLETE CONTROL WHILE IN USE.**
- **IN USE, KEEP HANDS AWAY FROM THE FRONT AND UNDERSIDE OF THE TOOL AT ALL TIMES.**

OPERATING INSTRUCTIONS:

This groover is designed to track in the seamline of solid vinyl, linoleum, or rubber floors to cut a trapezoidal groove for welding. It is not designed for use on other materials such as hardwood or steel.

SAFETY INSTRUCTIONS:

For your protection, wear safety glasses, ear plugs, and a dust mask or respirator when using this groover.

Grip handle firmly for complete control while in use.

Use caution when adjusting the cutting depth. Cutting too deep may cause the blade to contact the subfloor. This may cause damage to the blade, the vinyl flooring to be installed, and may even cause sudden, powerful kickback of the groover towards your body. In use, kneel to the side of the groover as you push it along the seam.

Tighten the depth locking knob before making a groove to make certain that cutting depth is controlled.

Use the groover on uniform, flat areas only, and in a straight line along a straight seam only. The groove is only accurate when the tool is pushed forward. Do not pull the groover backward towards yourself.

In use, the groover may throw sparks. Make certain that flammable gasses are not present when using this tool.

In use, keep hands away from the front and underside of the tool at all times.

Do not remove the groover from the seam until the blade stops.

GUARDS, DUST BAG, RETURN SPRING:

Do not use the tool without functional guards, return springs, and dust bag attached. Some flooring materials contain metal chips. Failure to maintain blade guards or dust bag may result in dust, debris, and/or metal chips being ejected in the direction of the user.

The return spring of the groover is for your safety. It causes the blade to lift out the groove and to be retracted into the guard automatically. If it wears out or becomes damaged, replace it immediately.

DANGEROUS ENVIRONMENTS:

Keep the work area clean and dry; clutter invites accidents. Do not use the groover on damp or wet floors, as this can create an electrocution hazard. This groover may throw sparks. Make sure no flammables are present.

ACCIDENTAL STARTING:

To avoid accidental starting, do not carry the groover while plugged in, and

don't carry it with a finger on the switch.

CORD ABUSE AND EXTENSION CORDS:

Never carry the groover by the cord or yank the cord to disconnect the plug from an outlet. Keep the cords away from heat, oil, and sharp edges. If the cord or strain relief is cut or damaged, replace immediately.

Avoid using long extension cords, as these cause some loss of power. To keep the groover from overheating, use a heavy duty extension cord with these minimum wire sizes. 25' cord = 16 gauge / 50' cord = 14 gauge wire.

DOUBLE INSULATED:

This groover's electric motor is constructed with two separate layers of electrical insulation. A motor built with this insulation system does not need to be grounded. As a result, this groover is equipped with a two prong plug without a ground pole.

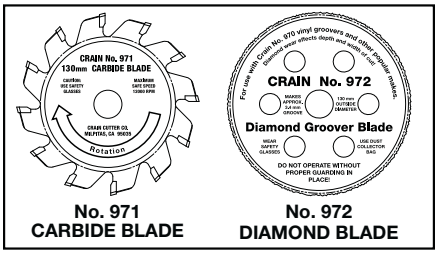
OPERATION:

A test groove and test weld on scrap material is highly advisable ON EVERY JOB before attempting to groove the actual floor. From time to time, the front and rear wheels may require adjustment, especially after blade changes. If the groove is not centered over the seam line, wheel adjustment is necessary. See instructions under "Wheel Adjustment".

Follow the flooring manufacturer's recommendations with respect to the depth and shape of the groove that is necessary. Check the depth of cut on scrap material on every job. See instructions under "Depth Adjustment".

CARBIDE BLADE AND DIAMOND BLADE:

Fig. 1

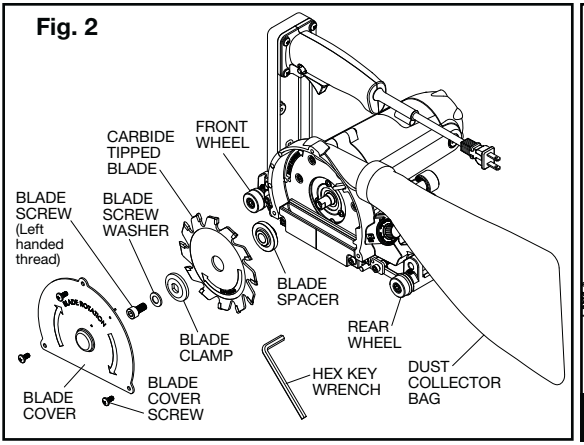


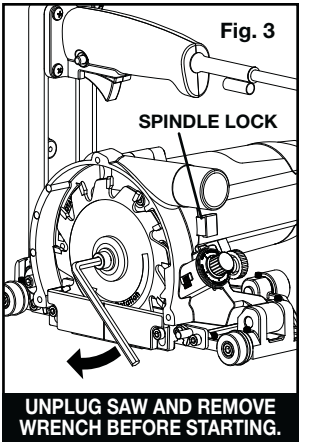
The groover comes with a carbide-tipped blade (No. 971) for use on vinyl, linoleum, and rubber floors ONLY (Fig. 1). The carbide-tipped blade has a trapezoidal shape that works well on most vinyl and linoleum floors. On metal-impregnated "safety floors", a diamond grit blade must be used (No. 972) (Fig. 1). Follow the flooring manufacturer's specifications for type of blade to be used and the groove depth and shape.

Pay constant attention to the shape and depth of the groove. Blades will wear, producing a smaller or irregularly shaped groove than desired, particularly with the diamond grit blade. Blades can be replaced as necessary.

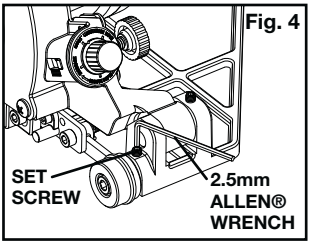
BLADE CHANGE:

To change the blade, first unplug the groover. Remove the blade cover by



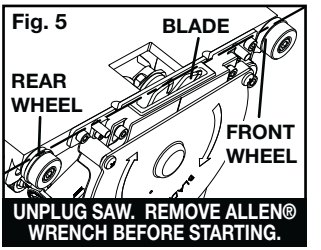


removing the three blade cover screws (Fig. 2). Depress the spindle lock (Fig. 3). Insert the hex key wrench in the blade screw and turn CLOCKWISE to unscrew (Fig. 3). (NOTE: the blade screw has a left-hand thread.) Remove the blade screw, blade screw washer, blade clamp, and the blade (Fig. 2). When replacing a blade, make certain that the blade spacer is mounted first on the spindle, followed by the blade, then the blade clamp (Fig. 2). Retighten the blade screw (including blade screw washer) by turning counter-clockwise. Replace the blade cover with the three blade cover screws (Fig. 2).



WHEEL ADJUSTMENT:

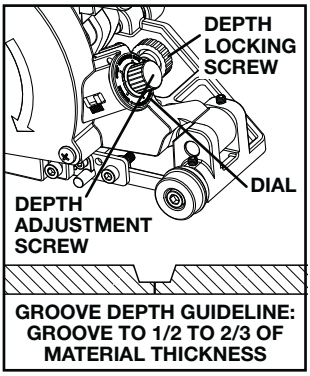
The groover is factory-calibrated so that the center line of the blade is in line with the raised edges of the front and rear guide wheels (Fig. 5). From time to time, especially after a blade change, the guide wheels may become out of calibration. If the groove does not run down the center of the seam, or the groove becomes too wide, perform the following to adjust the guide wheels:



Unplug the groover. Each wheel has a set screw to hold it in position (Fig. 4). Loosening a set screw allows a wheel to be slid inward towards the base or outward away from the base. Both raised edges on the front and rear guide wheels must align with the center of the blade (Fig. 5). After adjustment, tighten both set screws to prevent the wheels from moving.

Sometimes adjustment requires several tries. Check for proper alignment by eye, and then test with a test groove on scrap material.

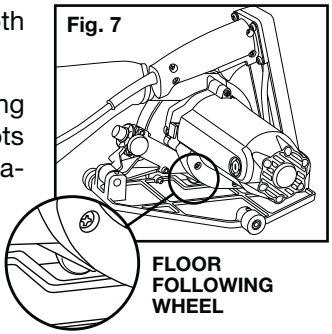
Fig. 6



DEPTH ADJUSTMENT:

The grooving depth is factory pre-set to approximately 1 mm (.040"). The depth of groove can be adjusted from zero to approximately 3.5 mm in depth by turning the depth adjusting screw (Fig. 6). To adjust, first unplug the groover. Loosen the depth locking screw (Fig. 6). Turn the depth adjustment screw clockwise to increase the depth of cut, and counterclockwise to decrease (Fig. 6). The amount of depth adjustment is indicated by a dial (Fig. 6). Each increment on the dial changes depth by .10 mm, and one full turn changes the depth by .5 mm.

Fig. 7



This groover additionally has a floor following roller to automatically compensate for low spots and high spots in the floor, up to ⅛" total variation from low to high over one linear foot of seamline (Fig. 7). The roller rides on the face of the flooring material, moving up and down with the floor, to raise and lower the blade.

The carbide-tipped blade (No. 971) is trapezoidal in shape. The deeper the groove is cut, the wider the groove. Use caution not to cut a wider groove than the welding rod to be used. The diamond blade (No. 972) creates a semi-circular groove.

Check that the groove meets the flooring manufacturer's specifications for depth and shape. Absent specifications, vinyl seams should be grooved between ½ to ⅔ of either a.) the thickness of the wear layer on materials with a backing, or b.) the thickness of the material in vinyl backed products. Linoleum seams are grooved down to, but not into, the jute backing. The groove must be centered on the original seamline and full at the bottom, or the bottom of the seam will be thin and weak. Check concrete subfloors for moisture and that the adhesive is dry. Excess moisture compromises the weld. Clean the groove of all debris especially cuttings from the groover before welding. If a groove is left open too long on a jobsite, contamination can cause weld failure. Groove and weld a test seam before grooving the actual floor.

Once the correct depth is set, firmly tighten the depth locking screw, or variation can occur (Fig. 6).

MAKING THE GROOVE:

To insert the groover into a seam, a starter groove that is at least as long

as the distance between the front and rear guide wheels must be made using a hand groover (Fig. 11). In most cases it is advisable to make the starter groove near a wall. Set the rear (wide-edged) wheel of the groover in the starter groove, and the front (thin-edged) wheel in the seamline (Fig. 8). Check that the blade is over the center of the starter groove.

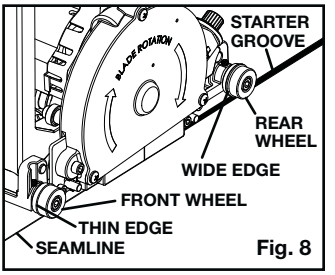


Fig. 8

This groover plunge starts. To start the groover, grasp the pivoting handle and pull the trigger (Fig. 9). With the motor running, lower the pivoting handle fully down to lower the blade into the seam (Fig. 10). Grooving depth is controlled as explained above. Do not place excessive downward pressure on the handle (or anywhere else on the groover) or inaccurate grooving depth will result!

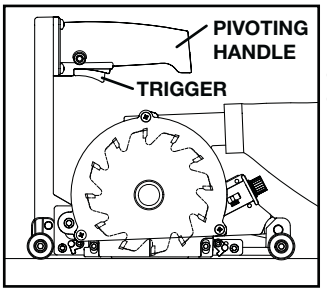


Fig. 9
PULL TRIGGER TO START MOTOR

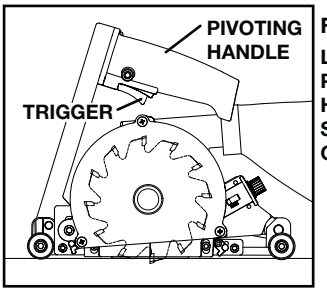


Fig. 10
LOWER PIVOTING HANDLE TO START THE GROOVE

Push the groover slowly along the seamline (Fig. 8). Watch the thin edge on the front wheel carefully, making certain that it stays in the seamline (Fig. 8). Continue the groove until the front wheel approaches the wall. Raise the pivoting handle to remove the blade from the seam (Fig. 9), and release the trigger to turn off the power. Allow the motor to fully stop before removing the groover from the seam. At the wall, some seamline will remain ungrooved, and this must also be grooved using a hand groover.

HAND GROOVER:

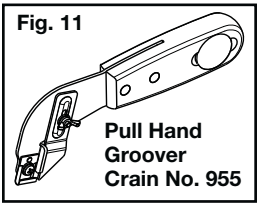


Fig. 11
Pull Hand Groover Crain No. 955

For starter grooves or short seams, such as doorways, a hand groover is needed (Fig. 11 - sold separately). Using a straight edge as a guide, position the hand groover to cut the seam in the exact center. The tool cuts either by pulling or pushing but works best when pulling.

DUST CONTROL:

The groover has a dust bag to collect chips and dust as well as a floor following dust shroud. The floor following dust shroud is spring-loaded and moves up and down automatically at low spots and high spots in the floor. It enshrouds the blade at floor level, ensuring that most chips and dust flow

Fig. 12

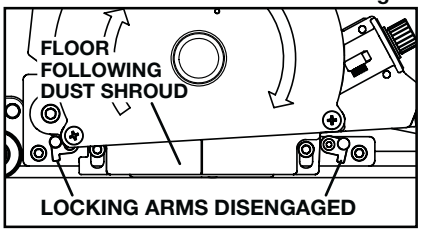
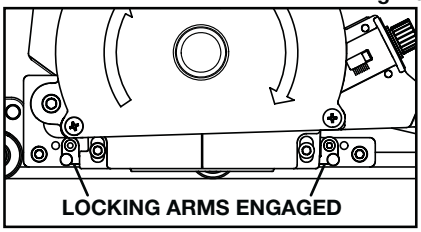


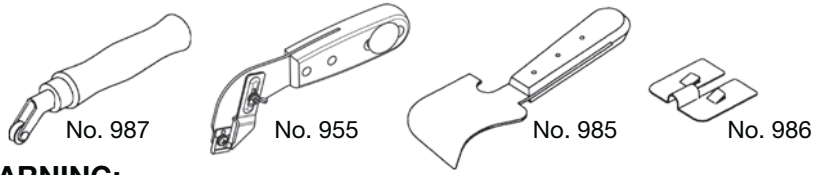
Fig. 13



into the dust bag (Fig. 12). The floor following dust shroud is white and made from soft plastic which will not scratch or mark most floors. Marking can be prevented by raising the floor following chip guard by hand and locking it in the up position using the pivoting locking arms (Fig. 13). This may be necessary on dark colored floors or metal impregnated safety floors. Switch off and unplug the groover before making any adjustments.

OTHER USEFUL VINYL WELDING TOOLS

- **Crain No. 985 Quarter Moon Knife:** Used for trimming the excess welding rod flush to the flat floor's surface, after the weld has cooled.
- **Crain No. 986 Trim Guide:** Helps to minimize concave seams and is most often used in the two-pass method.
- **Crain No. 987 Pressure Roller:** Used to roll the vinyl welding rod into the groove in awkward areas, such as coved wall.



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 product, and
- arsenic and chromium from chemically-treated lumber.

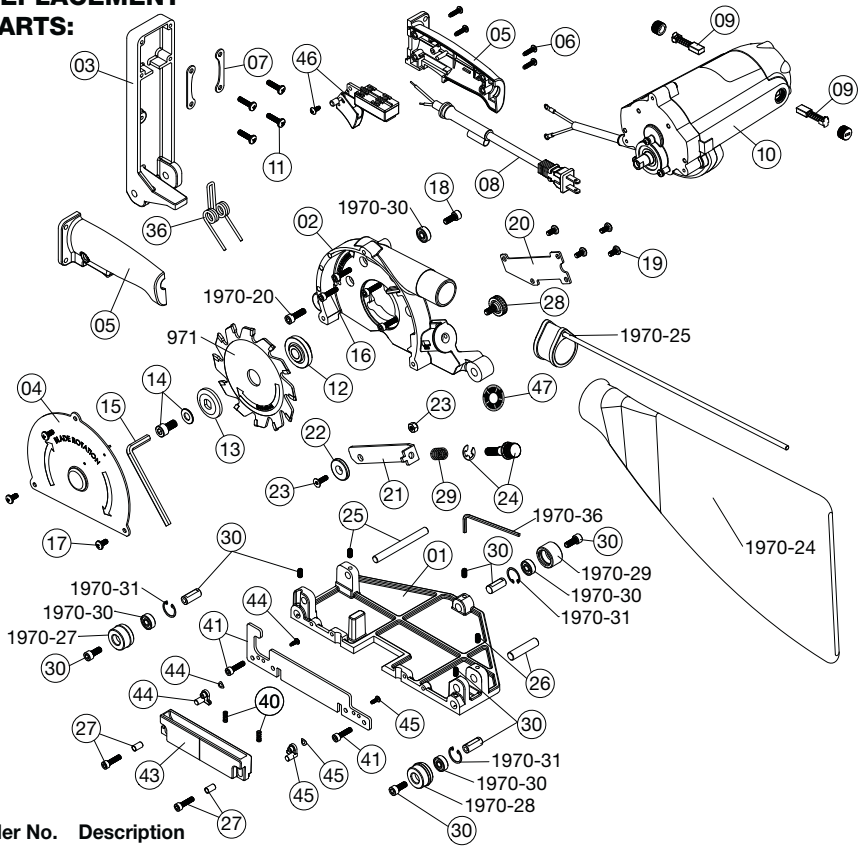
Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

GUARANTEE

This Crain No. 968 Power Groover is guaranteed to be free of defects in workmanship and quality of materials for a period of 6 months.

Any parts of this groover 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 groover be given as a replacement or loaner. Groovers subject to this warranty must be accompanied by same, returned freight PREPAID to Milpitas, CA, and must be in assembled condition.

REPLACEMENT PARTS:



Order No.	Description
1968-01	Groover Base
1968-02	Blade Housing
1968-03	Pivoting Arm
1968-04	Blade Cover
1968-05	Handle Set
1968-06	Handle Screws (4)
1968-07	Handle Bracket (2)
1968-08	Power Cord Set
1968-09	Brushes Set (2)
1968-10	120V Power Unit
1968-11	Handle Bracket Screws (4)
1968-12	Blade Spacer
1968-13	Blade Clamp
1968-14	Blade Screw & Washer
1968-15	Hex Wrench
1968-16	Blade Housing Screws (4)
1968-17	Blade Cover Screws (3)
1968-18	Bearing Screw
1968-19	Depth Gauge Cover Screws (4)
1968-20	Depth Gauge Cover
1968-21	Depth Gauge
1968-22	Floor Following Wheel
1968-23	Floor Following Wheel Fasteners (2)
1968-24	Depth Gauge Screw & Clip
1968-25	Pivoting Arm Pin & Lock Screw
1968-26	Blade Housing Pivot Pin & Lock Screw
1968-27	Dust Shroud Bushings & Screws (4)
1968-28	Depth Gauge Lock Screw
1968-29	Depth Gauge Spring
1968-30	Sliding Axle & Fasteners (3)
1968-36	Torsion Spring
1968-38	Groover Case Only (not shown)
1968-40	Dust Shroud Springs (2)
1968-41	Guide Plate & Screws (3)
1968-43	Dust Shroud
1968-44	Front Latch & Fasteners (3)
1968-45	Rear Latch & Fasteners (3)
1968-46	Switch & Screw
1968-47	Depth Adjusting Label

Common parts with 970:

1970-20	Power Unit Locking Screw
1970-24	Dust Collector Bag
1970-25	Bag Collar & Supporter
1970-27	Front Guide Wheel
1970-28	Rear Wheel
1970-29	Center Wheel
1970-30	Wheel Bearing
1970-31	Snap Ring
1970-36	2.5mm Hex Key Wrench

12/21/2017