



HEATED GATE CUTTER

Models FH2 / FH245

Item #109470 / Item #109466

INSTRUCTION MANUAL



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TABLE OF CONTENTS

Safety Summary.....	2
Product Description.....	3
Product Specifications.....	3
Assembly.....	4
Operation.....	9
Maintenance.....	11
Replacement Parts List.....	12
Maintenance Records and Notes.....	13

REVISIONS				
ECN#	REV	DESCRIPTION	DATE	APPROVED
	001	Reformatted, updated for safety wording, new 6-digit part numbers inserted	10/03	PSH, GDH

SAFETY SUMMARY

This manual uses the following signal words to call attention to the safety sign and to designate a degree or level of hazard seriousness.

1. **DANGER:** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.
2. **WARNING:** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
3. **CAUTION:** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. Also used to alert against unsafe practices or property damage only accidents.
4. **NOTE:** indicates general safe practices, machine use instructions and information, property damage only hazards, temporary hazards, precautions to avoid a hazard, results of not avoiding a hazard, or any combination of these messages.
5. **SYMBOL/PICTORIAL:** conveys a message without words.
6. **SAFETY ALERT SYMBOL:** indicates a potential personal injury hazard; an exclamation point inside a triangle.





PRODUCT DESCRIPTION

IMS High Temperature Gate Cutters are heated for an easier cleaner cut and heat sealed gates improve molded parts. The 7½" Models have standard flat back blades while the 8¼" Models are equipped with 45° angled blades with flat back. Features include precision pivot for smooth accurate performance at elevated temperatures, removable D2 blades for easy sharpening and insulated foam handle covers. Kits include the Heated Gate Cutter complete with blades, 40 watt (two 20 watt) cartridge heaters, controller, insulated foam handle covers and a cutter stand.

PRODUCT SPECIFICATIONS

	<u>7 1/2" Model</u>	<u>8 1/4" Model</u>
Controller Voltage	115/60/1	115/60/1
Temperature Range.....	40 watt: 100° F to 520° F..... (midway on blade)	40 watt: 100° F to 520° F (midway on blade)
Spring Type.....	Coil.....	Coil
Blade Material.....	D2.....	D2
Overall Length	7 1/2"	8 1/4"
Blade Length.....	1".....	1"
Usable Blade Opening		
At Tip	15/16".....	1 1/8"
At Base:.....	5/16".....	25/32"
Weight.....	13 oz.....	14 oz.

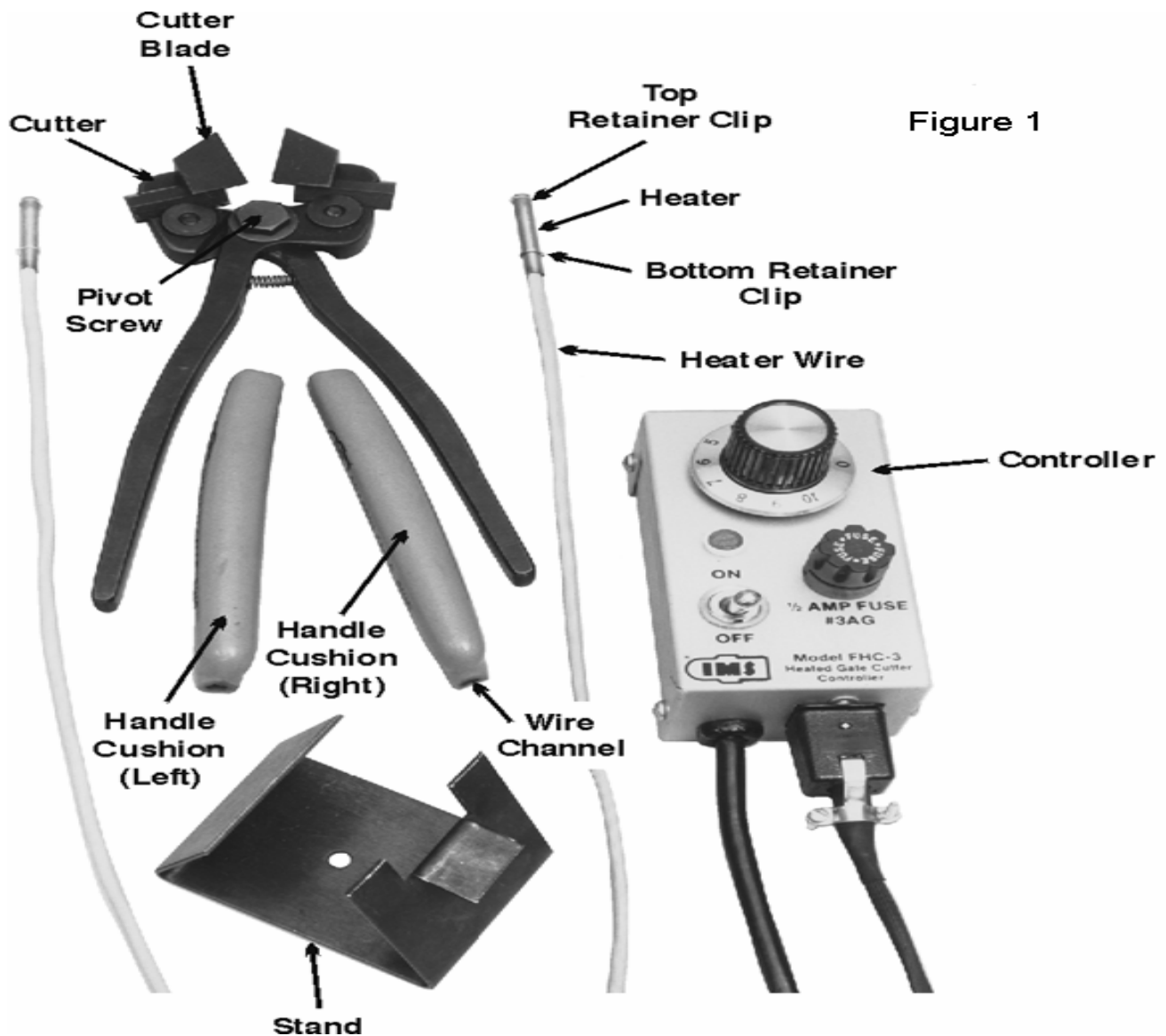
ASSEMBLY

NOTE: Controller must be unplugged. Wires **MUST NOT BE CONNECTED** to controller. The first four steps must be completed before wires are connected to the controller.

INSTALL HANDLE CUSHIONS (required for heat and electrical protection).

The handles will be tight, which they need to be to stay on. Installing them with a back and forth twisting motion works best.

Note that there are left and right handle cushions. With the flat back of the blades facing down, the handle's wire channel should face UP. See Figure below.



ASSEMBLY (continued)

CLEAN HEATER HOLES IN BLADES.

Thoroughly clean and dry the heater holes in the blades

CAUTION

Heaters that absorb a liquid can fail early, short out or cause electric shock.

Clean and dry oil from heater holes in blades thoroughly before installing heaters.

INSTALL HEATERS.

NOTE: Controller must be unplugged. Wires **MUST NOT BE CONNECTED** to controller. This step and the following two steps must be completed before wires are connected to the controller.

Remove retainer clips from heaters

Slide heaters through handle cushions. You might need to work the wire channel a little with your fingers to open it up for the heaters. **NEVER PULL** heaters. Continue to **PUSH** leads to get them through wire channels.

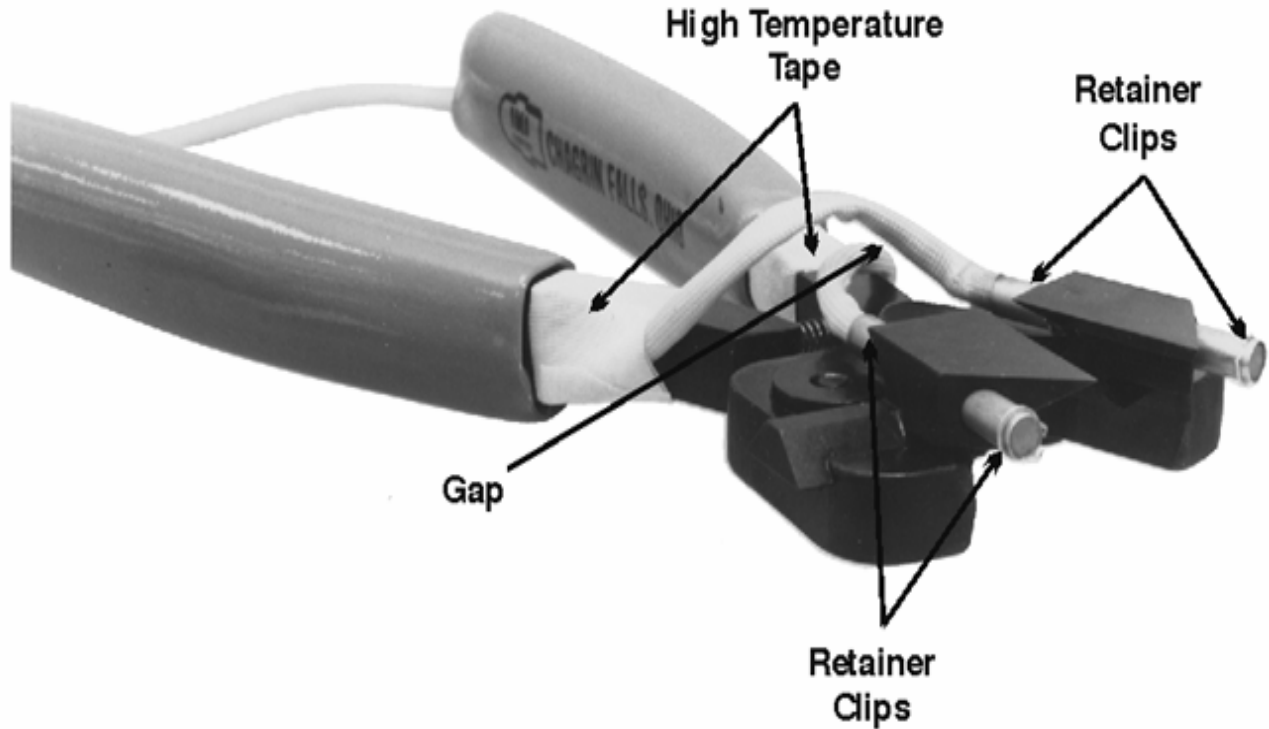
Install bottom retainer clip on each heater. This is easiest if you slide clip over open end of heater first.

Apply heat transfer compound to heaters. IMS Infra-Kote (#107264 – 2 oz or #103781 – 16 oz) works well.

Slide heaters into blades as shown in Figure on the next page.

Install top retaining clip on each heater.

ASSEMBLY (continued)



WARNING

Do not allow wires to rub against each other or against other parts of cutter.

Route wires so they do not touch or wear against other surfaces when idle or in storage.

Exposed wires can cause electric shock.

ASSEMBLY (continued)

TAPE WIRES TO HANDLES.

Use high heat tape. IMS #102378 works well.

Leave a little slack in wires. Leave a small gap between wires to keep them from rubbing against each other.

CONNECT CUTTERS TO CONTROLLER.

With controller unplugged, connect wires to controller

CONNECT TO POWER.

Test ground on 115/60/1 outlet you will be plugging controller into.

Plug controller in. Test cutters to ground.

DANGER

Contact with ELECTRIC POWER will cause DEATH OR SHOCK.

Make sure cutters are grounded through controller.

Unplug controller to service cutters.

Repair frayed wires or loose connections immediately.

SET CUTTERS INTO STAND.

IMS recommends securing cutter stand to bench (with bolts, clamps, screws, etc.) to keep it from falling over.



ASSEMBLY (continued)

TEST CUTTERS.

Using *OPERATION* Instructions, test cutters before releasing them for use in production.

DANGER

Only Authorized Persons are to repair the cutters.

OPERATION

Tool must have been assembled according to *ASSEMBLY* Instructions in this manual.

CAUTION

Always wear safety glasses or goggles to protect your eyes when using any plastic gate cutter.

CHECK BLADE ALIGNMENT.

NOTE: This step should be done **before** blades are HOT!

Close cutter and hold it in front of a light

Look at light through blades. The blades should be perfectly parallel and should just barely touch. There should be no daylight between the blades, but no load on them when the handles are closed.

To adjust, loosen screws and use pliers to slide blades. Retighten screws.

WARNING

Do not make changes to the cutter unless approved by IMS Company or the manufacturer in writing.

TURN CONTROLLER ON.

Adjust temperature. The higher the number on the dial, the hotter the cutter will be. If you are not sure, setting the dial to 4 is a good place for trial.

Different gates and different plastics will need different temperatures. Cutters should be hot enough to seal plastic while cutting, but not hot enough to soften plastic in the area of the cut.

Also, if you will be cutting often, set the heat high enough for the blades to recover between cuts.

Let cutters warm up for 15 minutes.



OPERATION (continued)

Hold cutters by cushioned handles. Squeeze gently and slowly onto gate. Give cutters a chance to cut and melt the gate at the same time.

Return cutters to cutter stand between uses.

WARNING

Rough use could damage tool's wiring

Damaged wiring can cause death or shock.

Handle tool carefully.



MAINTENANCE

Keep wires adjusted for slack and gap between. Make sure they are not rubbing anything nor getting pinched.

Keep retainer clips on heaters to keep heaters in position.

Keep pivot pin lubricated to keep action smooth and to prevent wear.

Keep blades adjusted according to Steps in *OPERATION* Instructions above.

Blades can be hand dressed with stone if nicked.



REPLACEMENT PARTS

DESCRIPTION	OLD IMS#	NEW IMS#
Straight Blades	GCZZ-FHB1	102569
45° Blades	GCZZ-FHB145	102549
90° Blades	GCZZ-FHB190	108559
Blade Holders..... (pair, includes screw)	GCZZ-F12.....	102562
Retainer Clip	GCZZ-RC2	108494
Pivot Assembly	GCZZ-F13.....	102553 (screw, washer and nut)
Springs	GCZZ-S12.....	102908 (1 dozen)
Handle Cushions	GCZZ-F25.....	102580 (set of 2)
Controller	GCZZ-FHC3	102576 (1/2 Amp)
Controller Fuse.....	GCZZ-FHC4	102567 (1/2 Amp)
Cartridge Heater Set.....		165818 (two 40 Watt)
Male Plug For Cartridge Heater.....		148827
Fuse Cap.....		113806
Cutter Stand	GCZZ-C213	102596
High-Temp Tape.....	HGXX-STT60.....	102378
Heat Transfer Compound.....	HBXX-IKB16	103781 (Infra-Kote, 16 oz)



MAINTENANCE RECORDS AND NOTES