

# MODEL 414

## Heat Seal Machines



**PUT IT ON!**®



# THIS MACHINE IS DESIGNED TO BE OPERATED BY ONE OPERATOR ONLY

## Congratulations!

Your selection of the Insta Graphic Systems® (IGS) heat seal machine is a sound business decision. IGS equipment is the result of the highest quality engineering and time-tested design. Your new machine combined with IGS's reputation of innovation in the heat-seal industry, insures the continuing capability of delivering the best-decorated substrates possible.

This manual describes installation, operation, and maintenance procedures for your new model 414 machine.

Your model 414 machine will have a long trouble-free life. Read this manual. Keep it with your machine; it's your key to proper operation and lasting service.

## Installation



### DOMESTIC

Use a 15 amp AC circuit. Only industrial weight extension cords with proper wire size should be used: size 18/3 wire for distances up to 25 feet, and size 16/3 for distances up to 50 feet.



### INTERNATIONAL

Only industrial extension cords with proper wire size (2.5 mm sq.) shall be used.



### IMPORTANT

The appliance must be plugged into a proper receptacle of the proper size and rating. Equally important, the line voltage must be able to accommodate this appliance as well as *other appliances operating on this circuit.*

## Specifications

Electrical	120 Vac, 50/60 Hz, 400 W 240 Vac, 50/60 Hz, 400 W
Weight	33 Pounds (14.5 KG)

## Limited Machine Warranty

Insta Graphic Systems® (IGS) warrants this heat seal machine, when operated under normal conditions, to be free from manufacturing defects in material and workmanship for a period of one year on parts (lifetime on the upper heating element) and 90 days on labor from the invoice date.

This warranty will be effective only when IGS authorizes the original purchaser to return the product to the factory in Cerritos, California freight prepaid, and only when the product upon examination has proven to be defective.

This warranty does not apply to any machine that has been subjected to misuse, negligence or accident.

IGS shall not be liable for the injury, loss or damage, direct or consequential, arising out of the use or the inability to use the product.

No claim of any kind shall be greater in amount than the sale price of the product or part to which claim is made.

*This is the sole warranty given by the company, it is in lieu of any other warranties, expressed or implied, in law or in fact, including the warranties of merchantability and fitness for a particular use, and is accepted as such by the purchaser in taking delivery of this product.*

## Safety Summary



### WARNING

In case of power cord damage, do not attempt to repair or replace the power cord. Contact the manufacturer or the local distributor.



### WARNING

Avoid touching hot surfaces while operating the machine.



### CAUTION

During normal operation, the base of the machine must be installed or placed above the wall socket.

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## Operation

1. It is recommended that you review the "How to Apply Instructions" (in our Product Catalog) before beginning heat sealing operations.
2. Push **ON/OFF** switch to **ON** position. Set desired temperature and lift handle so that the upper platen arm is away from lower platen.



### NOTE

*A setting of 8.5 on the temperature dial is approximately 350°F (177°C).*



### CAUTION

The temperature adjustment knob gets very hot during operation. Adjust only when machine is cold.

3. Allow the machine to warm up for approximately 30 minutes. When the selected temperature is reached, the neon lamp on the power switch will cycle on and off.



### NOTE

*The thermometer indicates the internal temperature of the heat platen and will indicate a temperature approximately 15 degrees F (8.3 degrees C) higher than the actual heat platen surface. The temperature control is calibrated at the factory and indicates the **TRUE** surface temperature of the heat platen.*



### NOTE

*The lower platen may be changed from the standard platen to the special custom platen by tilting the back of the platen up and moving it towards the operator. Install the alternate platen by reversing the above procedure until the platen locks in place.*



### NOTE

*The lower platen may be adjusted to accommodate various caps, sleeves, pant legs, etc. Rotate the adjustment knob located on the lower front of the base. Clockwise rotation will move the lower platen to the rear and counter-*

*clockwise rotation will move the lower platen forward.*

4. Set the desired pressure by adjusting the pressure adjust knob on the top-rear of the machine. To reduce pressure, turn knob clockwise.
5. Place the substrate on lower platen. For a cap, pull sweatband out, place crown on lower platen, and lock the cap retainer by pushing handle to the rear until it locks. Smooth out all wrinkles.
6. Position transfer or lettering on substrate or cap.
7. Close machine by pulling handle down into locked position.
8. Set timer for desired time cycle.
9. The bell will ring at end of the time cycle. Pull handle up **slowly** and move the upper platen handle to its full open position. This technique will avoid transfer paper (cover) from being pulled off prematurely due to suction from the separating platens.
10. Unlock cap retainer and remove substrate.

## Preventive Maintenance Suggestions

The Insta Graphic Systems® (IGS) heat seal machines are relatively maintenance free. For a long, trouble-free life, the following preventive maintenance steps should be followed:

1. Do not heat seal items such as buttons, pins, snaps, or zippers which tend to cut the silicone rubber pad or scratch the Teflon heat platen.
2. Periodically clean the Teflon-coated heat platen with a non-abrasive piece of cloth. Stubborn stains may be cleaned, **when platen is cool**, with mineral spirits.
3. When the heat platen is hot and not in use, keep in open position (away from the silicone rubber pad).

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4. To prevent soiling of substrate, periodic wiping of the entire exterior machine, including platens, with a clean rag is recommended. If necessary, use mineral spirits for cleaning a **cold** machine. Since mineral spirits are flammable, use precautions and keep away from sparks, flame, or hot heat platen.
5. Occasionally apply a few drops of heavy machine oil to the moving parts of the cam assemblies and pressure adjustment screw.



## NOTE

*Wipe off any excess oil or grease.*

## Safety Summary



### WARNING

In case of power cord damage, do not attempt to repair or replace the power cord. Contact the manufacturer or the local distributor.



### WARNING

Avoid touching hot surfaces while operating the machine.



### CAUTION

During normal operation, the base of the machine needs to be installed or placed above the wall socket.

## International Symbols



Power Off



Power On



Hot Surface



Risk of Electrical Shock



Protective Earth Terminal



Ground



Caution - Warning

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## General Maintenance

It is recommended that you have the following items available:

- A. Regular screw driver
- B. Phillips head screw driver
- C. Small adjustable wrench
- D. Needle nose pliers with insulated handle
- E. Set of Allen wrenches
- F. Special high temperature grease (MPPL023)

With the above items (*not supplied with machine*) you should be able to accomplish most repairs.



### WARNING

*Power cord replacement should be from the manufacturer only (because it requires a specially prepared cord).*

## Replacement of Silicone Rubber Pads

1. Make sure heat platen is cool.
2. Use tube of MPPC006 adhesive to bond silicone rubber pad to metal platen.  
**NOTE:** *Read instructions on the tube package.*
3. Be sure that the surface of the silicone platen is clean. Use a **mild** solvent such as **mineral spirits**.
4. The pad and metal must be thoroughly dry and clean, before starting the bonding operation.
5. Apply adhesive sealant to the metal platen. Spread a thin even coat and apply pad immediately. Apply pressure and position pad making sure that there is no air entrapment.

**NOTE:** *A serrated blade such as used for laying down rubber floor tiles would be helpful.*

6. Allow to cure overnight under low pressure at normal room temperature.

## Temperature Control Replacement

### NOTE

*Disconnect Power Supply*



1. Remove knob and shroud cover plate.
2. Disconnect the wires going to the control.

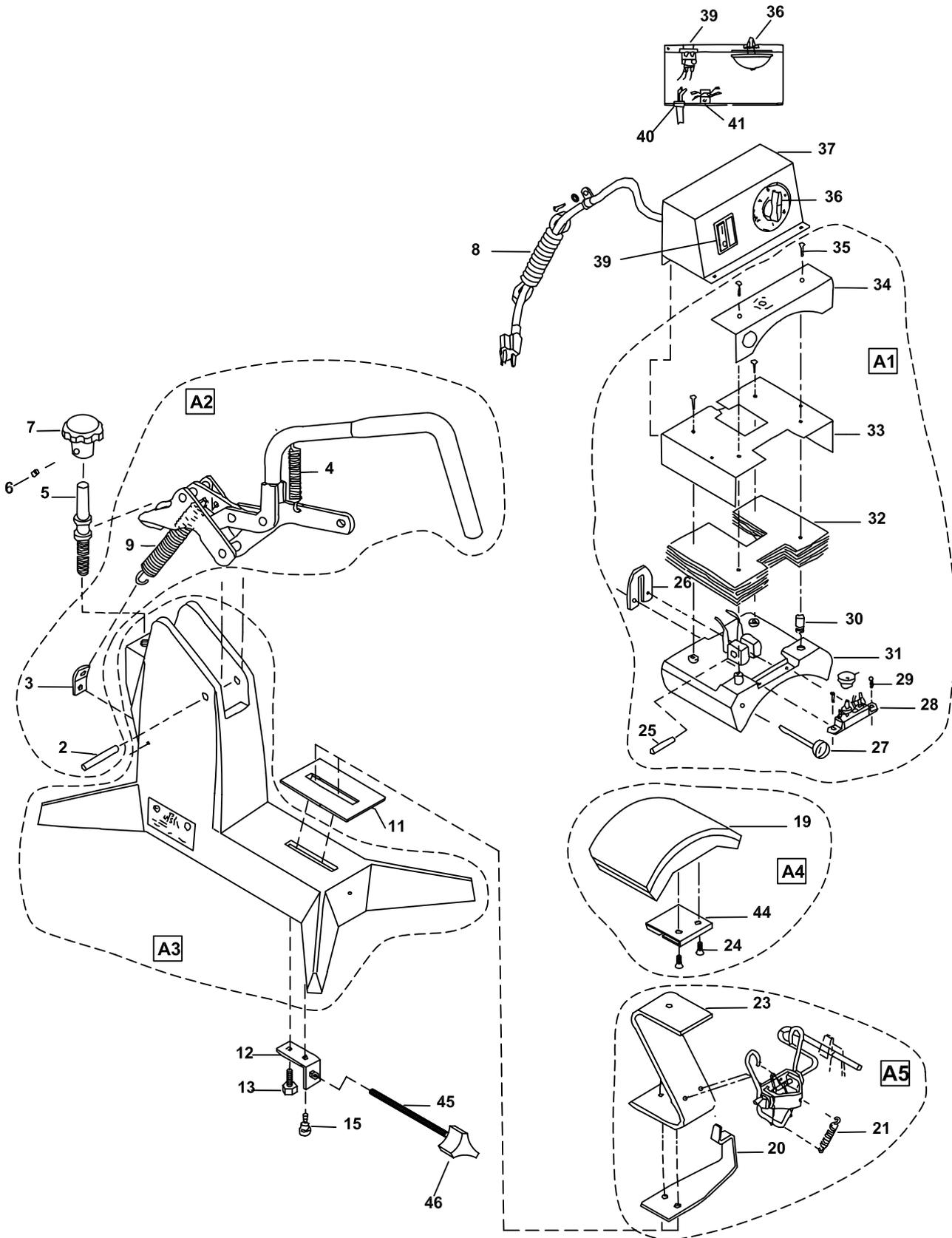
### NOTE

*The terminal with only one wire going to it is the **HOT** side of the line. The other terminal has two wires--one from the heating element and one from the lamp.*



3. Remove the two temperature control mounting screws.
4. Reconnect the three (3) wires to temperature control as stated in Step 2.
5. Insert the two screws which secure the control to the front of the heat platen.
6. Turn the control counterclockwise to the minimum temperature position.
7. Replace the knob with the pointer indexed to the zero "0" position.





MODEL 414 EXPLOSION REV B - 05/16/05

		MODEL	MODEL	MODEL
		414	414	414 EUR
NO	PART NAME	120V AC	240V AC	240V AC
2	PIN, ROLL 3/8 x 2.500 LG	MHPR38212	MHPR38212	MHPR38212
3	BRACKET, SPRING RETAINER	MH412126	MH412126	MH412126
4	SPRING, HANDLE/HOLD DOWN	MPSS454	MPSS454	MPSS454
5	SCREW, PRESSURE ADJ	MPSP482	MPSP482	MPSP482
6	SCREW, SET 1/4-20 x .375 LG	MHSST142038	MHSST142038	MHSST142038
7	KNOB, PRESSURE ADJUSTMENT	MPPK018	MPPK018	MPPK018
8	POWER CORD (USA MODEL)	MPPW141	MPPW162	N/A
8A	POWER CORD (EUROPEAN MODEL)	N/A	N/A	MPPW202
9	SPRING, RETURN	MPSS453	MPSS453	MPSS453
11	PLATE, LOWER SLIDE	MPSP450	MPSP450	MPSP450
12	BRACKET, ZEE RETAINING	MH414312	MH414312	MH414312
13	SCREW, BOLT HEX 5/16-18 x .375 LG	MHBH5161834	MHBH5161834	MHBH5161834
15	SCREW, BOLT, STRIPPER 5/16x.50 LG SLD.PL	MPSS410	MPSS410	MPSS410
17	FEET, RUBBER (6/SET) (NOT SHOWN)	MPF90004	MPF90004	MPF90004
19	PAD, SILICONE 3.25 x 6.25	MPPP024	MPPP024	MPPP024
20	CLIP, HANDLE CAP HOLD DOWN	MPSC412	MPSC412	MPSC412
21	SPRING, HANDLE/HOLD DOWN	MPSS454	MPSS454	MPSS454
23	SUPPORT ZEE	MPSS471	MPSS471	MPSS471
24	SCREW, FLAT HD 1/4-20 x .625 LG	MHSF142058	MHSF142058	MHSF142058
25	PIN, ROLL 3/8 x 1.50 LG	MHPR38112	MHPR38112	MHPR38112
26	BRACKET, STABILIZER	MH412312	MH412312	MH412312
27	THERMOMETER STEM (F/C)	MPPT056	MPPT056	MPPT056
28	TEMPERATURE CONTROLLER	MPPT032	MPPT032	MPPT032
29	SCREW, PAN HD 6-32x.250 LG. SELF TAPPING	MHSP63214ST	MHSP63214ST	MHSP63214ST
30	INSULATORS, SPACER (4/SET)	MPSI089	MPSI089	MPSI089
31	PLATEN, UPPER W/WIRING	MPSP460	MPSP463	MPSP463
32	FIBERGLASS INSULATION	MPSP249	MPSP249	MPSP249
33	SHROUD ASS'Y	MPSS405	MPSS405	MPSS405
34	SHROUD, UPPER PLATEN (FRONT)	MH41237	MH41237	MH41237
35	SCREW, PAN HD #10x1.00 LG PHIL SH METAL	MPSS143	MPSS143	MPSS143
36	TIMER BELL	MPPT058	MPPT058	MPPT058
37	HOUSING INSTRUMENT	MH412211	MH412211	MH412211
39	SWITCH, POWER / INDICATOR ASS'Y	MPPS230	MPPS230	MPPS230
40	STRAIN RELIEF	MPSS166	MPSS166	MPSS166
41	TERMINAL BLOCK	MPPT201	MPPT201	MPPT201
44	CLAMP, RETAINING LOWER PLATEN	MPSP432	MPSP432	MPSP432
45	PLATEN, LOWER THREAD ADJ STUD	MPSP455	MPSP455	MPSP455
46	KNOB, LOWER PLATEN ADJUSTMENT	MPPK014	MPPK014	MPPK014
A1	UPPER PLATEN ASS'Y COMPLETE	MPSP461	MPSP462	MPSP462
A2	HANDLE LINKAGE ASS'Y	MPSH405	MPSH405	MPSH405
A3	BASE/POST ASS'Y	MPSB412A	MPSB412A	MPSB412A
A4	LOWER PLATEN ASS'Y W/SILICONE PAD	MPSP470	MPSP470	MPSP470
A5	CAP HOLDDOWN ASS'Y	MASR021	MASR021	MASR021





