

MODEL 204.1

Heat Seal Machines



PUT IT ON!®

FOR USE BY QUALIFIED SERVICE PERSONNEL 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-sealing field, insures the continuing capability of delivering the best decorated substrates possible.

This manual describes installation, operation, and maintenance procedures for your new model machine, as well as easy to use instructions for on-the-spot maintenance.

Your 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 **separate** 15 amp AC circuit. Only industrial extension cords with proper wire size should be used: size 16/3 wire for distances up to 25 feet, and size 14/3 for distances up to 50 feet.



INTERNATIONAL

Use a **designated** 16 amp AC circuit. Only industrial extension cords with proper wire size (2.5 sq. mm) shall be used.

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.

Specifications

Voltage **115/120 Volts AC** 50/60 Hertz
Model 204 14.6 Amps 1750 Watts

Voltage **230/240 Volts AC** 50/60 Hertz
Model 228 9.6 Amps 2200 Watts

Weight Model 228 94 Pounds (42.7 KG)

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Operation

1. It is recommended that you review the "How to Apply Instructions" (on our Product Information Sheet) before beginning heat sealing operations.
2. Push on/off switch to **ON** position.
3. Set desired temperature and swing the upper platen arm to its fully open position, away from lower platen.
4. Allow the machine to warm up until the selected temperature is reached.
5. Set the desired pressure by adjusting the pressure adjust handle on the top of the machine. To increase pressure, rotate handle counterclockwise.
6. Place the substrate on lower platen, smoothing out all wrinkles.
7. Position transfer or lettering on substrate.
8. Swing the upper arm into position directly over the lower platen.
9. Close machine by pulling handle down into locked position.
10. The timer will start automatically and a buzzer will beep at the end of the time cycle.
11. Lift safety lock and pull handle up slowly and move 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.

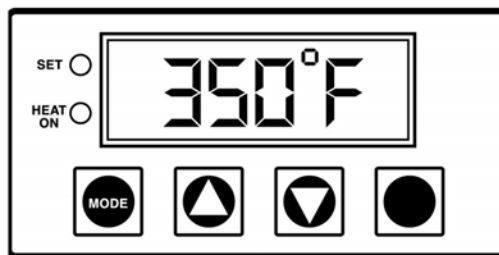


NOTE

For safety purposes, it is necessary to push the handle into the locked position after it is lifted. This will eliminate the accidental lowering of the heat platen handle.

12. Swing away arm to the extreme right hand position and remove substrate.

Operation Timer/Temperature Control



Temperature

The controller displays the actual temperature of the heat platen. When the **HEAT ON** LED is on, the heat platen is calling for heat. To change the set temperature:

- Press **MODE** switch twice
- **SET** LED will light
- Press **UP** arrow to increase temperature set point or press **DOWN** arrow to lower temperature set point (keeping the **UP** or **DOWN** arrow depressed will result in rapid changes in settings)
- Press **MODE** switch once
- **SET** LED will turn off and the controller display will return to actual platen temperature.

NOTE

Fahrenheit/Centigrade Conversion

The temperature controller can be programmed to display either °F or °C. To change:

- Turn **Power Off**
*Depress both the **UP** and **DOWN** switches simultaneously and hold in the depressed position while turning on the **Power**.*



Timer

The controller has a count down timer that automatically activates a buzzer at completion of the application. To change the set time:

- Press **MODE** switch once
- **SET** LED will light
- Press **UP** arrow to increase set time cycle or press **DOWN** arrow to lower set time cycle (keeping the **UP** or **Down** arrow depressed will result in rapid changes in settings)
- Press **MODE** switch twice
- **SET** LED will turn off

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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.



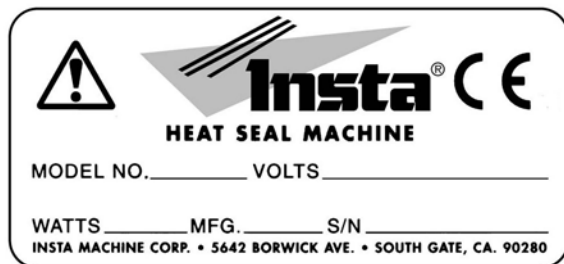
CAUTION

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



CAUTION

When servicing or cleaning the machine, make sure that the power cord is removed from 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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Preventive Maintenance Suggestions

The IGS heat seal machines are relatively maintenance free. For long trouble-free life, the following preventive maintenance should be followed:

1. Do not heat seal items such as buttons, pins, snaps, or zippers that 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).
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. This machine requires periodic lubrication with a high-temperature, non-melting grease (MPPL023).
 - A. Lubricate the post, handle and cam assembly depending upon usage. (Once every month if used continuously.)
 - B. There are four (4) points of lubrication:
 - a) Post
 - b) Lower Cam
 - c) Guide Post
 - d) Upper Pin Area

In addition, occasionally apply a few drops of heavy machine oil to the upper portion of the cam assembly. To lubricate the pressure adjustment, raise cover put some high-temperature grease MPPL023 grease on the treaded section of the adjustment screw.

NOTE

Wipe off any excess oil or grease. Replace cover, screw, and knob.



Model 204 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. Grease gun
- G. Special high temperature grease

With the above items 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 RTV-106 (or RTV-108) 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.

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Digital Controller Replacement



NOTE

Disconnect Power Supply

1. Remove the pressure adjust jam handle and remove both the pressure adjust knob and jam nut.
2. Remove the two screws which secure the instrument housing. Carefully tilt the housing forward.



NOTE

There are wires attached to the housing.

3. Disconnect the sensor wires from the controller.
4. Disconnect the seven pin connector from the controller.



NOTE

Rock the connector gently side to side.

Do not pull connector by the wires..

5. Remove the four controller mounting screws.
6. Reverse this procedure to reinstall controller.

Heat Platen Removal



NOTE

Disconnect Power Supply

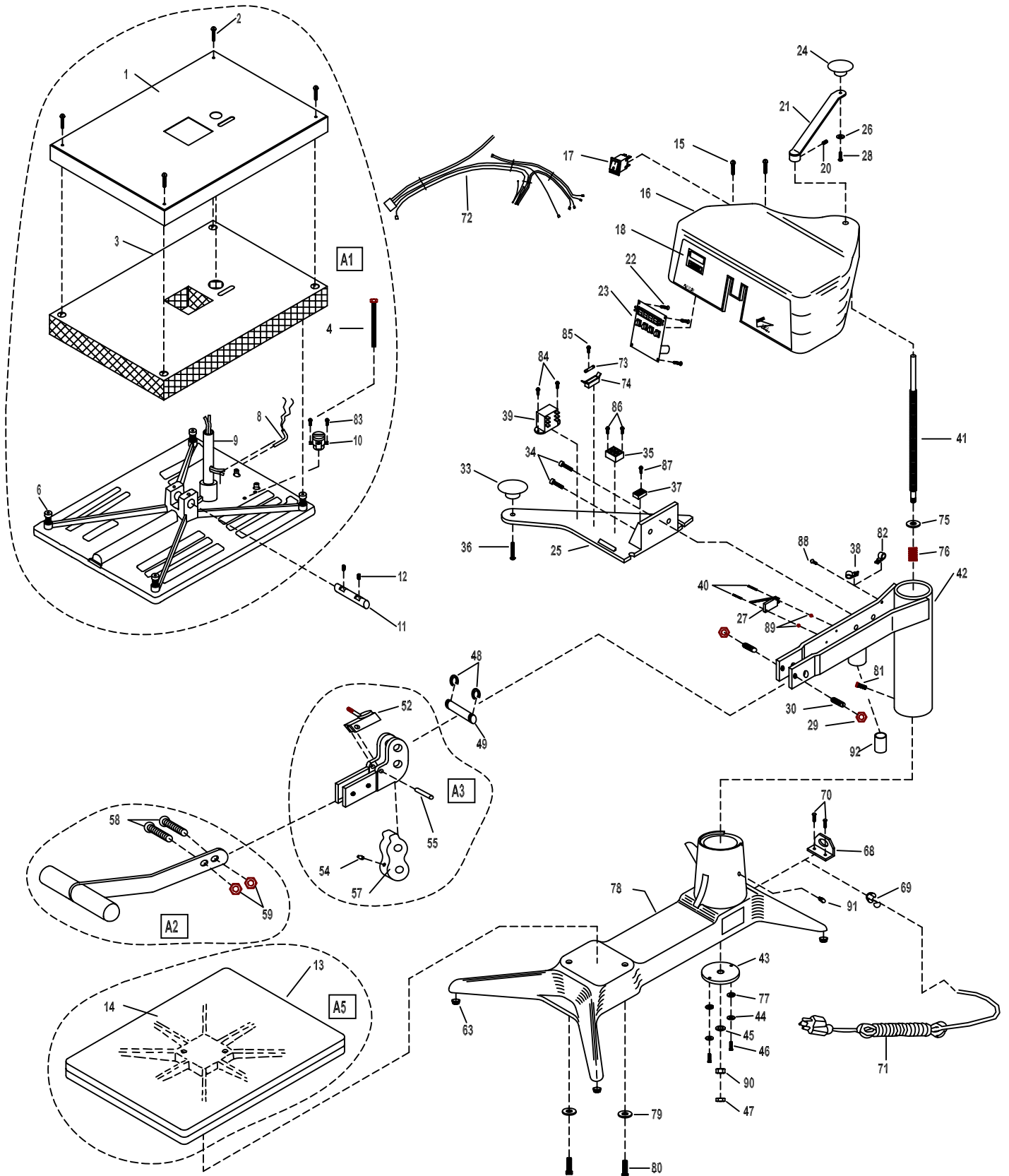
1. Remove the pressure adjust handle.
2. Remove the two screws which secure the instrument housing. Carefully tilt the housing forward.



NOTE

There are wires attached to the housing.

1. Disconnect the sensor wires from the controller.
2. Disconnect the two heat platen wires which come up through the guide post, **one from the relay and one the power switch.**
3. Remove the heat platen wire clamps.
4. Place some padding on the base of the machine to protect the Teflon coating on the heat platen during disassembly.
5. Using an Allen wrench, loosen the two lower pivot pin set screws.
6. Using a long, thin punch or screw driver, drive the lower pivot pin from the platen.
7. Swing the arm to the extreme right and slowly lower the heat platen until the guide post clears the bushing. The wires may then be pulled free.
8. Reverse this procedure to install.



204.1 EXPLOSION REV C - 09/10/03

		MODEL	MODEL
		204.1	204.1
NO	PART NAME	120V AC	230V AC
1	HEAT SHROUD	MPSS228	MPSS228
2	SCREW, SHROUD	MPSS143	MPSS143
3	FIBERGLASS INSULATION	MPSP254	MPSP254
4	SCREW, MICRO SWITCH ENGAGE	MHSH14204	MHSH14204
6	SHROUD INSULATORS (4/SET)	MPSI089	MPSI089
8	SENSOR, TEMPERATURE	MPPS201	MPPS201
9	GUIDE POST	MPSP088	MPSP088
10	HI-TEMPERATURE LIMITER	MPPT046	MPPT046
11	PIVOT PIN (PLATEN)	MPSP083	MPSP083
12	SET SCREW, LUG PIN	MHST142038	MHST142038
13	LOWER PLATEN	MPSP220	MPSP220
14	PAD, SILICONE RUBBER	MPPP031	MPPP031
15	SCREW, HOUSING	MPSP102438	MPSP102438
16	INSTRUMENT HOUSING	MPSH014	MPSH014
17	POWER SWITCH ASSEMBLY	MPPS060	MPPS060
18	HOUSING OVERLAY DECAL	MPPL011	MPPL011
20	SET SCREW, HANDLE ADJ.	MHST142014	MHST142014
21	HANDLE, ADJUSTMENT PRESSURE	MPSP014	MPSP014
22	SCREW, CONTROLLER	MHSP63238	MHSP63238
23	CONTROLLER	MPPT250	MPPT250
24	MUSHROOM KNOB	MPPK017	MPPK017
25	SWING AWAY HANDLE	MPSH013	MPSH013
26	WASHER, HANDLE, ADJ. PRESSURE	WSAE14	WSAE14
27	MICRO SWITCH	MPPS043	MPPS043
28	SCREW, HANDLE, ADJ. PRESSURE	MHSB142034	MHSB142034
29	NUT, DETENT	MHNH3816	MHNH3816
30	DETENT, PLUNGER SPRING	MPSP134	MPSP134
33	MUSHROOM KNOB	MPPK017	MPPK017
34	SCREW, SWING HANDLE	MHSH142058	MHSH142058
35	RELAY	MPPR200	MPPR200
36	SCREW, SWING HANDLE	MHSB142078	MHSB142078
37	TERMINAL BLOCK	MPPT201	MPPT201
38	CABLE CLAMP 5/16	MHCC516	MHCC516
39	TRANSFORMER	MPPT700	MPPT700
40	SCREW, ROUND HEAD	MHSR44078	MHSR44078
41	PRESSURE ADJUSTMENT SCREW	MPSS070	MPSS070
42	ARM ASSEMBLY POST	MPSP204	MPSP204
43	PLATE, POST RETAINING	MPSP20450	MPSP20450
44	WASHER, PLATE, POST RETAINING	WSAE14	WSAE14
45	WASHER, PLATE, POST RETAINING	WSAE12	WSAE12
46	SCREW, PLATE, POST RETAINING	MHSH14201	MHSH14201
47	NUT, SELF LOCKING JAM	MHNHJSL1220	MHNHJSL1220
48	E-CLIPS	MPSC240	MPSC240
49	CAM PIVOT PIN (UPPER PLATEN)	MPSP262	MPSP262
52	SAFETY LOCK	MPSL240	MPSL240
54	GREASE FITTING	MPSF145	MPSF145
55	ROLL PIN (SAFETY LOCK)	MPSR141	MPSR141

57	CAM	MPSC220	MPSC220
58	SCREW, HANDLE	MHSB516181	MHSB516181
59	JAM NUT	MHNHJ51618	MHNHJ51618
63	RUBBER FEET (4/SET)	MPSF460	MPSF460
68	BRACKET, POWER CORD	MPSS163	MPSS163
69	STRAIN RELIEF	MPSS168	MPSS168
70	SCREW, BRACKET	MHSP103238	MHSP103238
71	POWER CORD (USA MODEL)	MPPW141	MPPW142
71A	POWER CORD (EUROPEAN MODEL)*	N/A	MPPW202
71B	POWER CORD (UK MODEL)*	N/A	MPPW203
72	WIRE HARNESS	MPPW200	MPPW200
73	FUSE 1000 MA 250V	MPPF701	MPPF701
74	FUSE HOLDER	MPPF708	MPPF708
75	WASHER, PRESSURE ADJ. SCREW	WSAE12	WSAE12
76	SPRING, CAM	MPSS201	MPSS201
77	LOCK WASHER, ADJ. WASHER	WL14	WL14
78	BASE	MPSB204	MPSB204
79	WASHER, LOWER PLATEN	WSAE516	WSAE516
80	SCREW, LOWER PLATEN	MHSH5161834	MHSH5161834
81	SCREW, POST STOP	MPSH381612	MPSH381612
82	CLAMP, CABLE 3/8, STEEL	CC38S	CC38S
83	SCREW, HI-TEMPERATURE LIMITER	MPSP63214	MPSP63214
84	SCREW, TRANSFORMER	MPSP83214	MPSP83214
85	SCREW, FUSE HOLDER	MPSP256516	MPSP256516
86	SCREW, RELAY	MPSP83214	MPSP83214
87	SCREW, TERMINAL BLOCK	MPSP44012	MPSP44012
88	SCREW, CABLE CLAMP	MPSH142012	MPSH142012
89	NUT, MICRO SWITCH	MHNH632	MHNH632
90	NUT, 1/2" JAM NUT	MHNHJ1220	MHNHJ1220
91	ZERK FITTING	B792	B792
92	GUIDE POST BUSHING	MPSB074	MPSB074
A1	UPPER PLATEN ASSEMBLY	MPSP205	MPSP206
A2	PRESSURE HANDLE ASSEMBLY	MPSH515	MPSH515
A3	CAM / PRESSURE LEVER ASSEMBLY	MPSC213	MPSC213
A5	LOWER PLATEN & SPONGE	MASP007	MASP007

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