

# INSTA™

INSTA GRAPHIC SYSTEMS



## **MODEL 909**

### **OPERATION AND MAINTENANCE MANUAL**

## 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

Do not place hands between the platens after activating.



### WARNING

Hot Surface. Avoid contact.



### CAUTION

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



### CAUTION

The recommended input pressure shall not exceed 100 psi. The operating pressure is from 30 – 100 psi.



### CAUTION

The operation may be terminated by pressing the **DISENGAGE** switch.



### CAUTION

The machine is to be operated by one person only.



### CAUTION

To reduce the risk of electric shock and injury to persons, disconnect from power supply before servicing and /or cleaning.

## International Symbols



Power Off



Power On



Hot Surface



Risk of Electrical Shock



Protective Earth Terminal



Start Action



Disengage



Ground



Caution - Warning

## Congratulations!

Your selection of the Insta Graphic Systems heat seal machine is a sound business decision. Insta equipment is the result of the highest quality engineering and time-tested design. Your new machine combined with Insta'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 model 909 machine, as well as easy to use instructions for on-the-spot maintenance.

Your model 909 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.

This automatic heat press machine is air operated to help prevent operator fatigue and promote consistent production speed. Its 6" x 6" platens lend itself to the application of tagless labels, as well as, logos & small graphics. Always consistent in its results, the model 909 is used for its high speed application capability and its reliability.

The model 909 has been designed to generate and evenly distribute tremendous pressure throughout the entire platen. Its cast-in tubular heating element heats the metal from within, to produce constant and long lasting heat. A successful heat transfer requires three key elements to work in tandem: time, temperature and pressure. The model 909 has mastered those elements and gets the job done every time.

## Limited Machine Warranty

Insta Graphic Systems 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 heating element) and 90 days on labor from the invoice date.

This warranty will be effective only when Insta 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.

Insta 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.*

## 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.



### 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

### MODEL 909

Voltage	<b>120 Volts AC</b>	50/60 Hertz
Model 909	1000 Watts	8.3 Amps

Voltage	<b>230 Volts AC</b>	50/60 Hertz
Model 909	920 Watts	4.0 Amps

Model 909	
Machine Weight	61 Pounds (27.7 KG)

## Degree of Protection

IP (Ingress Protection) rating according to IEC 60529.

### NOTE

*IEC 60529 does not specify sealing effectiveness against the following: mechanical damage of the equipment; the risk of explosion; certain types of liquid conditions, e.g. those that are produced by condensation; corrosive vapours; fungus; vermin*

**IP54 = IP**  
 1<sup>st</sup> Digit 5  
 2<sup>nd</sup> Digit 4

1 <sup>st</sup> Digit	Protection from solid objects	2 <sup>nd</sup> Digit	Protection from moisture
0	Non protected	0	Non protected
1	Objects greater than 50mm	1	Dripping water
2	Objects greater than 12mm	2	Dripping water when tilted up to 15 deg.
3	Objects greater than 2.5mm	3	Spraying water
4	Objects greater than 1mm	4	Splashing water
5	Dust protected	5	Water jets
6	Dust tight	6	Heavy seas
--	---	7	.15m – 1m immersion
--	---	8	1m + submersion

## Operation

1. Push **ON/OFF** switch (on left side of machine) to **ON** position.
2. Turn the power on by pressing the **POWER** button on the controller.
3. Set desired temperature and time.
4. Allow the machine to warm up until the selected temperature is reached.
5. Set the desired pressure by adjusting the air pressure regulator on the back of the machine.
6. Select the desired timing cycle.
7. Place the substrate on lower platen, smoothing out all wrinkles.
8. Position transfer or lettering on substrate.



### **SAFETY DELAY FEATURE**

*The machine is equipped with a safety delay for the upper platen. Only the **controller revision 2.29** has this feature (see point 9).*

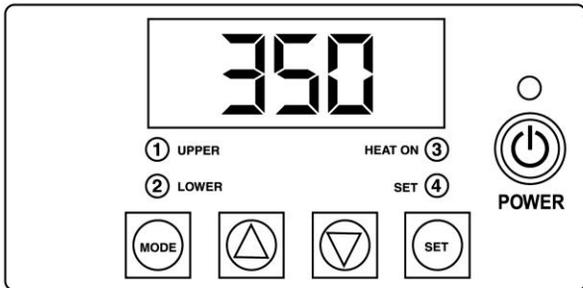
9. Depress and **hold down** both start buttons, one on each side of the machine, simultaneously (optional foot pedal may be used). **The start buttons must be held down until the upper and lower platens make contact.** At this point the machine operation is fully automatic. The upper platen moves downward, seals the transfer to the substrate and then releases automatically at the end of the selected timing cycle.
10. The **DISENGAGE** button may be pushed at any time to deactivate the machine.

## Environmental Conditions

Only operate Insta heat seal machines under suitable environmental conditions.

1. Placed on a even, non flammable surface.
2. Can support a minimum of 300 lbs. if placed above a platform.
3. Do not restrict access to the main power switch.
4. Maintain a clearance around any forms of liquid.
5. Do not over extend the power cord.
6. The operational voltage should not be 10% max/min of the rated value.
7. Avoid voltage spikes.

## Operation Timer/Temperature Control



## Solid State Controller

This controller has three (3) control features:

1. Temperature - Temperature may be set from 125 - 450°F (52-232°C).
2. Time - Time may be set from 1 second to 99.59 minutes.
3. Counter – Cycle counter counts the number of applications from 1 to 9999 (see additional Notes – Counter).

## Controller Operation

1. If the temperature is not being displayed, press the **MODE** button until temperature is displayed.
2. Push and hold **SET** button and simultaneously push UP (↑) or DOWN (↓) arrow buttons to the desired temperature setting.
3. Press the **MODE** button until time is displayed.
4. Push and hold **SET** button and simultaneously push UP (↑) or DOWN (↓) arrow buttons to the desired timer setting.

## Temperature



### NOTE

#### **Fahrenheit/Centigrade (Celsius) Conversion**

Press the **MODE** button until the counter is displayed; You are in level 1. Press the **DOWN ARROW** (↓) button to switch between levels. The temperature will be displayed on level 2, then push the **SET** and **DOWN** (↓) or **UP ARROW** (↑) button to switch from °F or °C.

## Timer

- The controller has a count down timer that automatically activates a buzzer at the completion of the application.
- Timer display is minutes:seconds. Range is **00:00** to **99:59**, Colons (:) flash while timer is running.



### NOTE

The timer or buzzer may be stopped while the handle is in the down position by pressing the **MODE** button. The timer will automatically reset after the handle is raised.

## Counter

The controller has a built in cycle counter.

- Press **MODE** button until the counter is displayed.
- Counter display range is 0000 to 9999.
- To reset the cycle counter, display the counter reading, then push and hold UP (↑) and DOWN (↓) arrow buttons for 3 seconds until the counter resets to zero (**0000**) on the display.

## Preventive Maintenance Suggestions

The Insta 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. Polycarbonate bowls of the air filter regulator and pressure gauges: Avoid area with direct sunlight; impact blow or temperature outside of the rated range.
6. Do not expose/clean filter bowls with detergents, chlorinated hydro-carbons, ketones, esters or certain alcohols.
7. Do not expose the polycarbonate bowls or the sight gauges in air systems where compressors are lubricated with fire resistant fluids such as phosphate ester and di-ester lubricants.

## 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

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 special prepared cord.)*



### NOTE

*Machines are shipped with a standard MPF90119 elbow air fitting. **EUROPEAN models include a MPPF086 quick disconnect air fitting.***

## Replacement of Silicone Rubber Pads

1. Make sure heat platen is cool.
2. Use tube of MPPC006 silicone adhesive sealant to bond the 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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## Safety and Danger Zone Diagram

Do not handle the machinery with wet hands

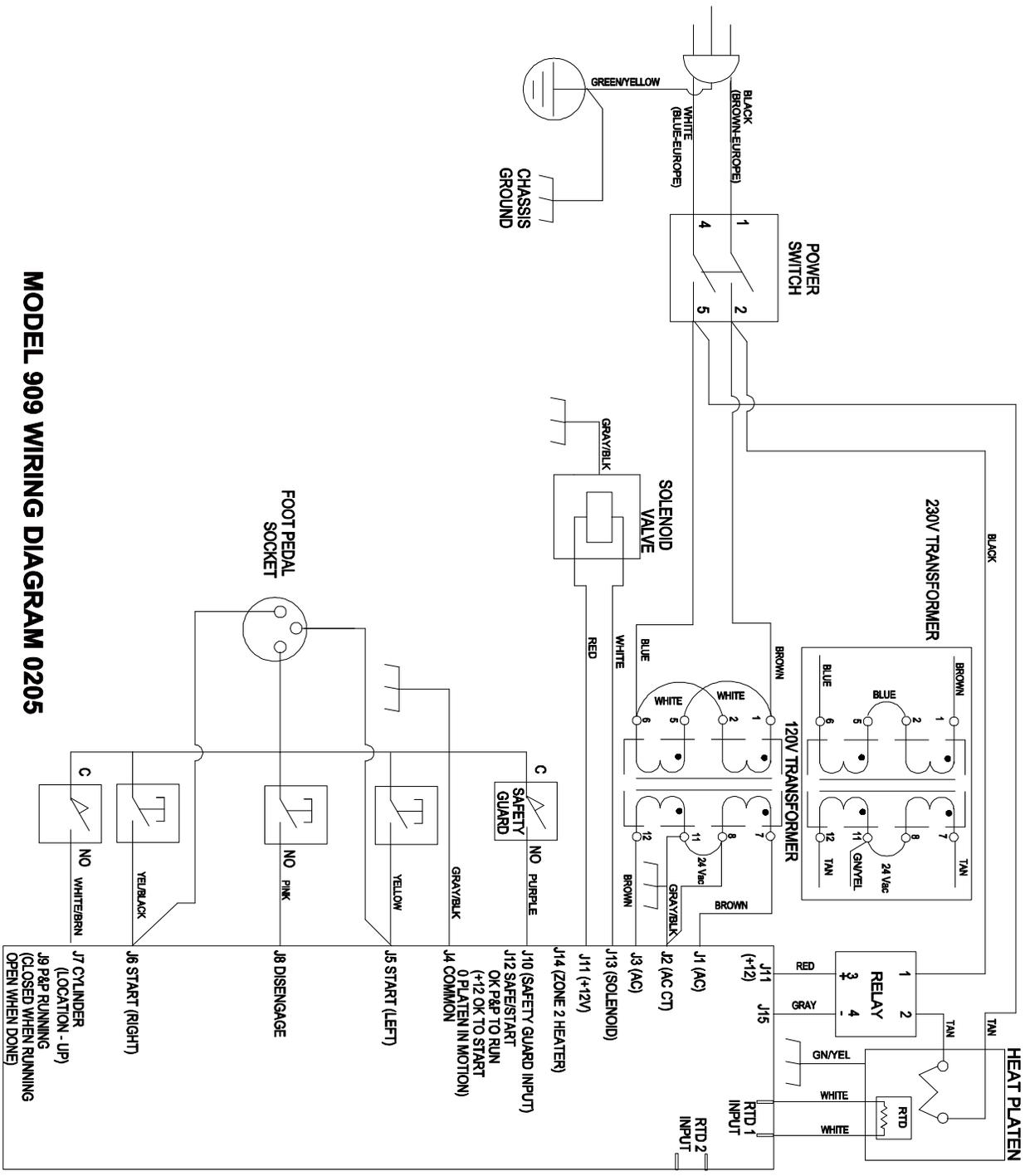


Hot Surface.  
Avoid contact  
with Upper Platen  
Shroud

Keep hands clear

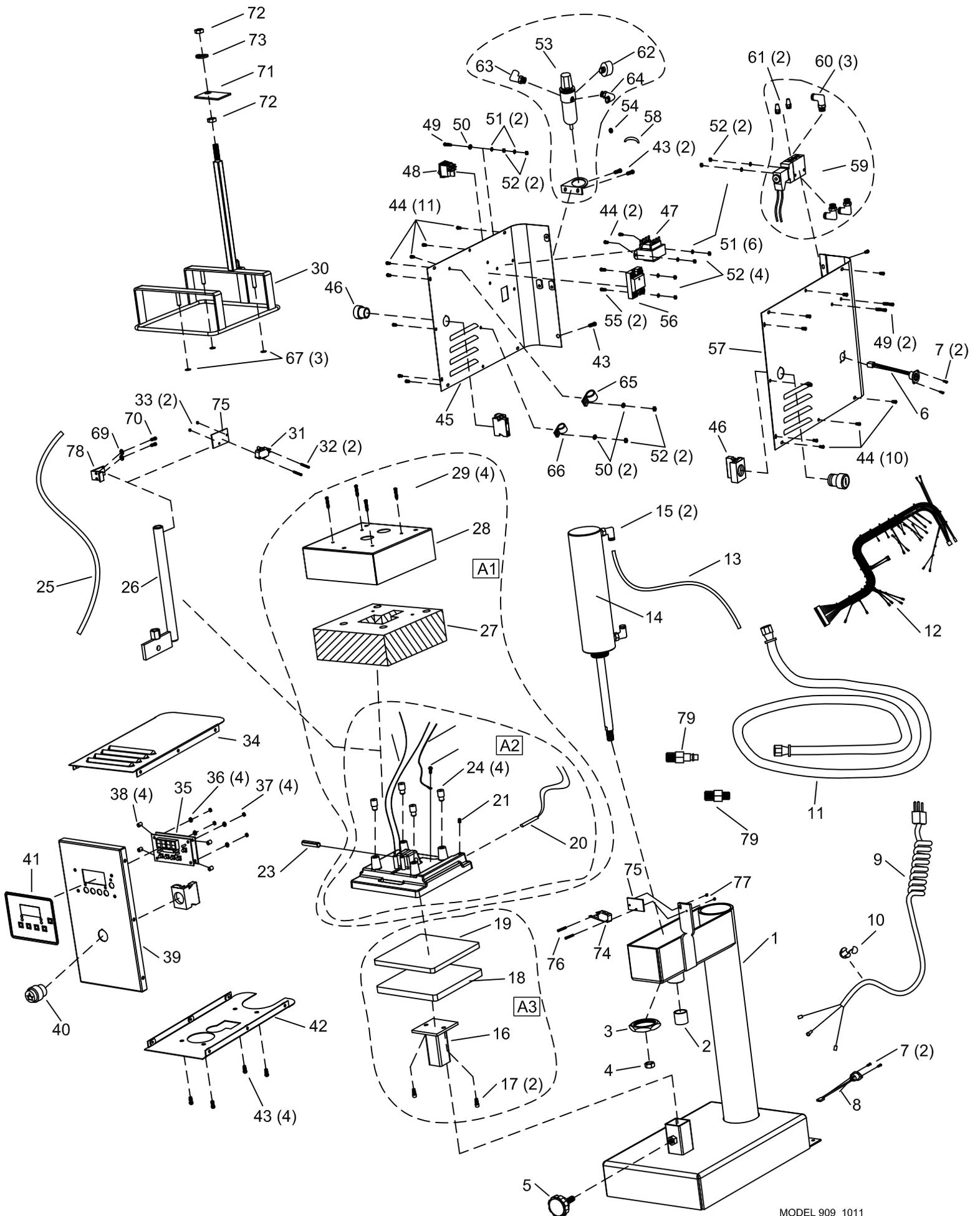
Machinery should  
be operated  
under a secure  
flat surface

# MODEL 909



MODEL 909 WIRING DIAGRAM 0205

# MODEL 909



		MODEL	MODEL	MODEL
		909	909	909 (EUR)
NO	PART NAME	120V AC	230V AC	230V AC
1	BASE ASSEMBLY	MPB90109	MPB90109	MPB90109
2	BUSHING, GUIDE POST	MPSB070	MPSB070	MPSB070
3	NUT, JAM	MHJN21	MHJN21	MHJN21
4	NUT, JAM 1/2-20	MHNHJ1220	MHNHJ1220	MHNHJ1220
5	KNOB,LOWER PLATEN	MH4210H	MH4210H	MH4210H
6	WIRE HARNESS (PICK 'N' PLACE)	MPPW909C3	MPPW909C3	MPPW909C3
7	SCREW, RD HD 4-40 X 0.5" LG	MHSR44012	MHSR44012	MHSR44012
8	WIRE HARNESS (FOOT SWITCH)	MPPW909C2	MPPW909C2	MPPW909C2
9	CORD, POWER	MPPW141	MPPW142	MPPW202
10	STRAIN RELIEF (CABLE)	MPS90014	MPS90014	MPS90014
11	HOSE, AIR ASSEMBLY	MPPA005	MPPA005	MPPA005
12	WIRE HARNESS (CONTROLLER)	MPPW909C1	MPPW909C1	MPPW909C1
13	TUBING, BLACK AIR LINE 1/4"	MPT90116	MPT90116	MPT90116
14	CYLINDER, AIR 2-1/2" X 6"	MPC90015	MPC90015	MPC90015
15	AIR FITTING,90 DEG 1/4X1/4	MHAQ69P4X4	MHAQ69P4X4	MHAQ69P4X4
16	SUPPORT, LOWER PLATEN	MPSP479	MPSP479	MPSP479
17	SCREW, SOCKET HD 1/4-20 0.5 LG	MHSSH142012	MHSSH142012	MHSSH142012
18	PLATEN, LOWER	MPP90110	MPP90110	MPP90110
19	PAD, SILICONE 6 X 6	MPPP026	MPPP026	MPPP026
20	SENSOR, TEMP. REPLACEMENT KIT	MPPS210	MPPS210	MPPS210
21	SCREW, SET 10-32 X 3/16	MHSST1032316	MHSST1032316	MHSST1032316
23	PIN, ROLL 3/8 X 1.50 LG	MHPR38112	MHPR38112	MHPR38112
24	INSULATORS, SPACER (4/SET)	MPSI089	MPSI089	MPSI089
25	SLEEVING, PVC SIZE 'O'	MPS90113	MPS90113	MPS90113
26	POST, GUIDE ASSEMBLY	MPP90102	MPP90102	MPP90102
27	FIBERGLASS INSULATION 400	MPSP249	MPSP249	MPSP249
28	SHROUD, UPPER PLATEN	MPS90905	MPS90905	MPS90905
29	SCREW, PAN HD #10 X 1.00" LG	MPSS143	MPSS143	MPSS143
30	GUARD ASSEMBLY	MPG90912	MPG90912	MPG90912
31	SWITCH, MICRO	MPPS044	MPPS044	MPPS044
32	SCREW, ROUND HEAD #4-40 X 5/8	MHSR44058	MHSR44058	MHSR44058
33	NUT, HEX 4-40	MHNH440	MHNH440	MHNH440
34	PANEL, TOP COVER	MPP90904	MPP90904	MPP90904
35	CONTROLLER, TEMPERATURE	MPC90115	MPC90115	MPC90115
36	WASHER, INT. TOOTH LOCK #6	MHWLIT6	MHWLIT6	MHWLIT6
37	NUT, HEX 6-32	MHNH632	MHNH632	MHNH632
38	SPACER, NYLON 0.166 ID X1/4 LG	MH110969111	MH110969111	MH110969111
39	PANEL, FRONT	MPP90903	MPP90903	MPP90903
40	SWITCH, DISENGAGE ASS'Y (BLK)	MPPS713	MPPS713	MPPS713
41	LABEL,OVERLAY CONTROL PANEL	MPL90354	MPL90354	MPL90354
42	PANEL, BOTTOM	MPP90902	MPP90902	MPP90902
43	SCREW,BUTTON HD 1/4-20X1/2	MHSB142012	MHSB142012	MHSB142012
44	SCREW, PAN HD 8-32 X .375" LG	MHSP83238	MHSP83238	MHSP83238
45	PANEL, WRAP-AROUND LEFT	MPP90901L	MPP90901L	MPP90901L
46	SWITCH, START ASS'Y	MPPS703	MPPS703	MPPS703
47	TRANSFORMER	MPT90319	MPT90319	MPT90319
48	SWITCH, POWER	MPPS060	MPPS060	MPPS060
49	SCREW, PAN HD 8-32 X 1" LG	MHSP8321	MHSP8321	MHSP8321
50	WASHER, #8 SAE	MHWSAE8	MHWSAE8	MHWSAE8
51	WASHER, INTERNAL LOCK #8	MHWLIT8	MHWLIT8	MHWLIT8
52	NUT, HEX 8-32	MHNH832	MHNH832	MHNH832
53	REGULATOR, AIR FILTER ASS'Y	MPR90101	MPR90101	MPR90101

		<b>MODEL</b>	<b>MODEL</b>	<b>MODEL</b>
		<b>909</b>	<b>909</b>	<b>909 (EUR)</b>
<b>NO</b>	<b>PART NAME</b>	<b>120V AC</b>	<b>230V AC</b>	<b>230V AC</b>
54	GROMMET, 5/16-1/2	MH9600K31	MH9600K31	MH9600K31
55	SCREW, PAN HD 8-32 X 1/2 LG	MHSP83212	MHSP83212	MHSP83212
56	RELAY, SOLID STATE	MPSR2450	MPSR2450	MPSR2450
57	PANEL, WRAP-AROUND RIGHT	MPP90901R	MPP90901R	MPP90901R
58	LABEL, MAX INPUT PRESSURE	MPPL008	MPPL008	MPPL008
59	SOLENOID, AIR ASSEMBLY	MPS90100	MPS90100	MPS90100
60	FITTING, AIR 90° 1/8" X 1/4"	MHAQ69P4X2	MHAQ69P4X2	MHAQ69P4X2
61	MUFFLER	MPM90117	MPM90117	MPM90117
62	GAUGE, AIR	MPG90118	MPG90118	MPG90118
63	FITTING, AIR INLET (ELBOW)	MPF90119	MPF90119	MPF90119
64	FITTING, AIR 90° 1/4 NPT X 1/4 TUBE	MPF90120	MPF90120	MPF90120
65	CLAMP, CABLE 9/16	MHCC916	MHCC916	MHCC916
66	CLAMP, CABLE 7/16	MHCC716	MHCC716	MHCC716
67	RETAINER, PUSH 1/4	MPR90121	MPR90121	MPR90121
69	WASHER #10	MHSAE10	MHSAE10	MHSAE10
70	SCREW, PAN HD 10-32 X 1/4 LG	MHSP103214	MHSP103214	MHSP103214
71	PLATE, MICROSWITCH	MPP90920	MPP90920	MPP90920
72	NUT, HEX 5/16	MHNNH516	MHNNH516	MHNNH516
73	SPLIT WASHER 5/16	MHWL516	MHWL516	MHWL516
74	MICRO SWITCH	MPS90018	MPS90018	MPS90018
75	MICRO SWITCH INSULATOR	700214	700214	700214
76	SCREW, RD HD #4-40 X 3/4	MHSR44034	MHSR44034	MHSR44034
77	NUT, HEX #4-40	MHNNH440	MHNNH440	MHNNH440
78	PICK-N-PLACE MICRO SWITCH BRACKET	MPB90127	MPB90127	MPB90127
79	FITTING, AIR	MPPF085	MPPF085	MPPF086
<b>A1</b>	<b>PLATEN, HEAT ASSEMBLY</b>	<b>MPP9091A</b>	<b>MPP9092A</b>	<b>MPP9092A</b>
<b>A2</b>	<b>PLATEN, HEAT (WIRING ONLY)</b>	<b>MPP9091W</b>	<b>MPP9092W</b>	<b>MPP9092W</b>
<b>A3</b>	<b>PLATEN, LOWER ASSEMBLY</b>	<b>MAP90114</b>	<b>MAP90114</b>	<b>MAP90114</b>

FOR USE BY QUALIFIED PERSONNEL ONLY

**Notes:**

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**13925 E. 166<sup>th</sup> St. • Cerritos, CA USA 90702 • (800) 421-6971 • Fax (562) 404-3010**

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