

Operation and Maintenance Manual MNL90009
08/31/05 Rev. F

MODEL 218A/228A

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-sealing field, insures the continuing capability of delivering the best-decorated substrates possible.

This manual describes installation, operation, and maintenance procedures for your new 200 series machine, as well as easy to use instructions for on-the-spot maintenance.

Your 200 series 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 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 218A	12.5 Amps	1500 Watts
Model 228A	14.6 Amps	1750 Watts

Voltage	230/240 Volts AC 50/60 Hertz	
Model 218A	6.25 Amps	1500 Watts
Model 228A	9.6 Amps	2200 Watts

Weight Model 218A	75 Pounds (34.1 KG)
Weight Model 228A	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. Turn the power on by pressing the **POWER** button on the controller.
3. Set desired temperature and time. 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 lever on the top of the machine. To increase pressure, pull lever forward.
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.

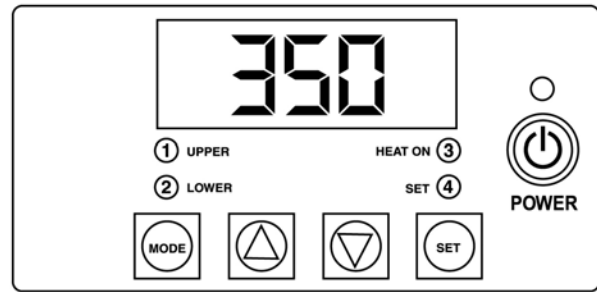
NOTE



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



Solid State Controller

This controller has three (3) control features:

1. Temperature - Temperature may be set from 225-450°F (107-232°C).
2. Time - Time may be set from 1 second to 10 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.

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ADDITIONAL NOTES:

Temperature



NOTE

Fahrenheit/Centigrade (Celsius) Conversion

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

To change:

*Press the **MODE** button until the temperature is displayed, then push and hold the **SET** button for 10 seconds.*

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 **10:00**, Colons (:) flash while timer is running.



NOTE

The timer or buzzer may be stopped while the handle is in the down position by pressing both the DOWN (↓) arrow button and the UP (↑) arrow button simultaneously. 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 both UP (↑) and DOWN (↓) arrow buttons for 3 seconds until the counter resets to zero (**0000**) on the display.


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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.

  **Insta**® 
HEAT SEAL MACHINE
MODEL NO. _____ VOLTS _____
WATTS _____ MFG. _____ S/N _____
INSTA MACHINE CORP. • 5642 BORWICK AVE. • SOUTH GATE, CA. 90280

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. The Model 218/228 machines require 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 an inch or two and apply heavy machine oil to slide mechanism.

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 MPPL023

With the above items you should be able to accomplish most repairs.

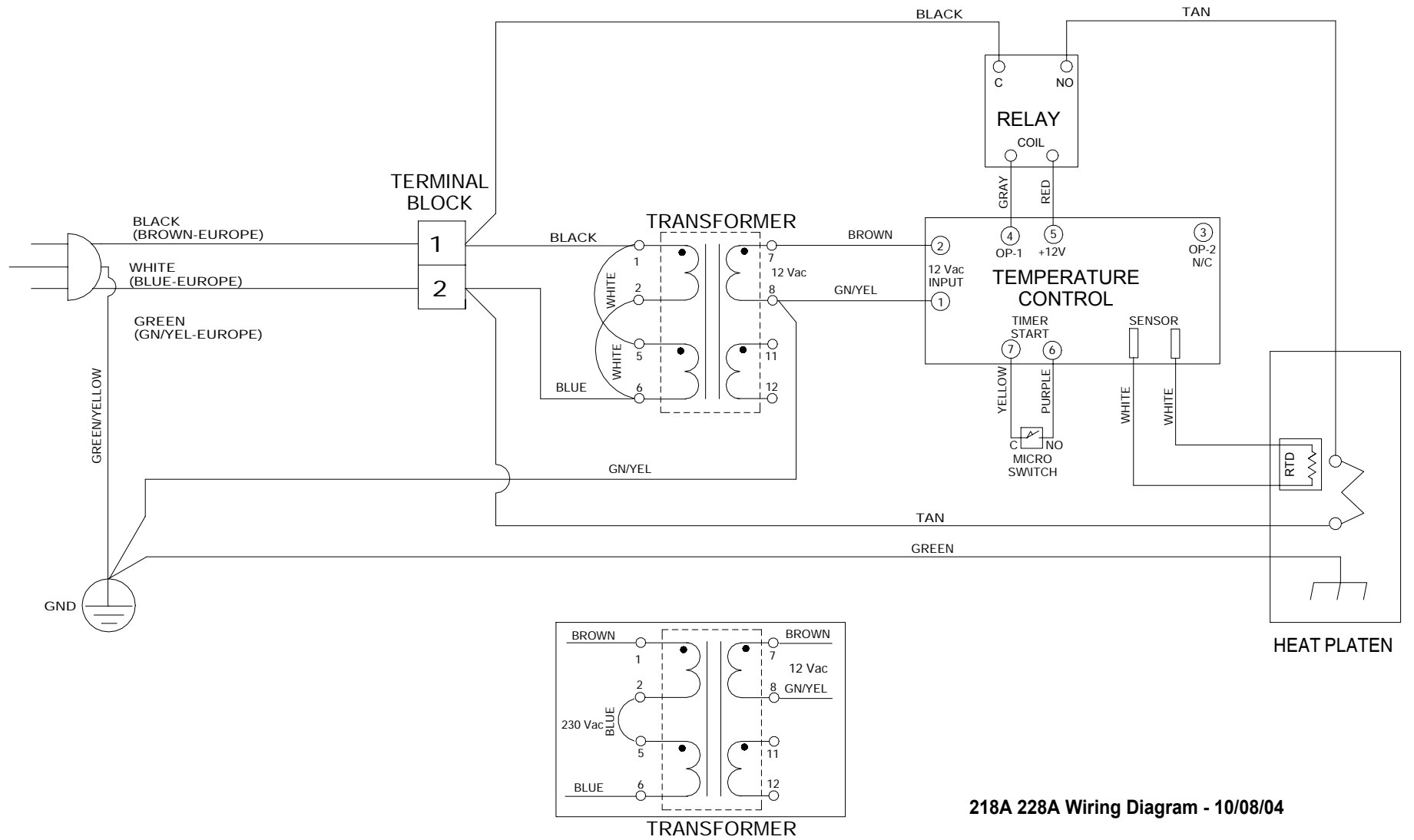


WARNING

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

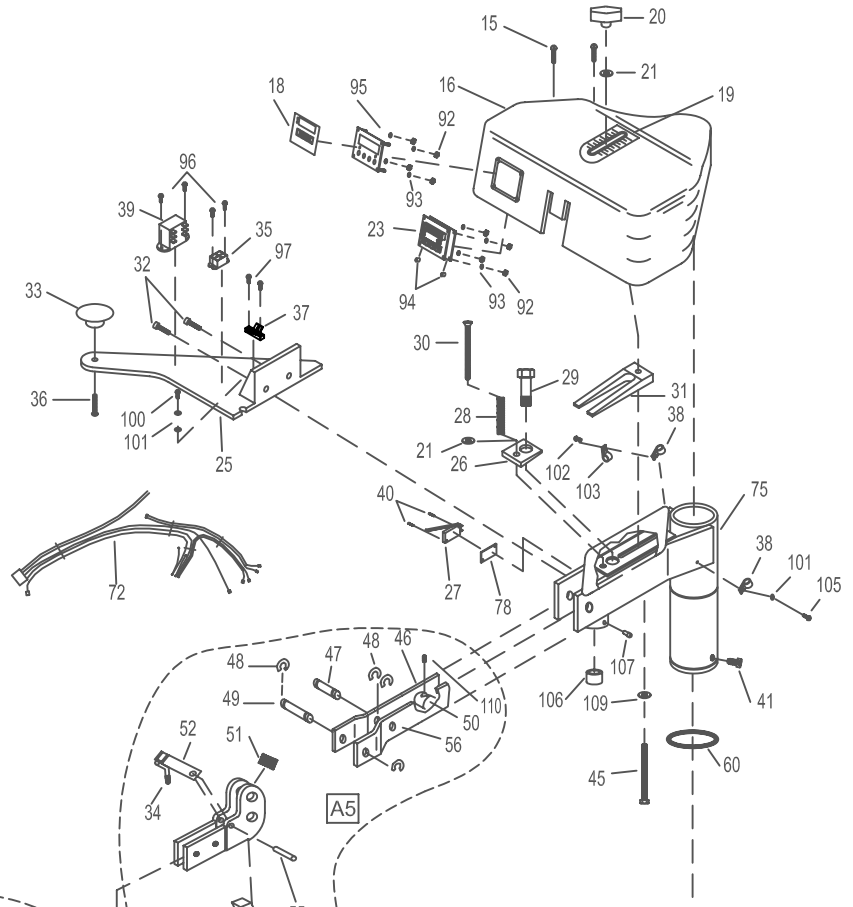
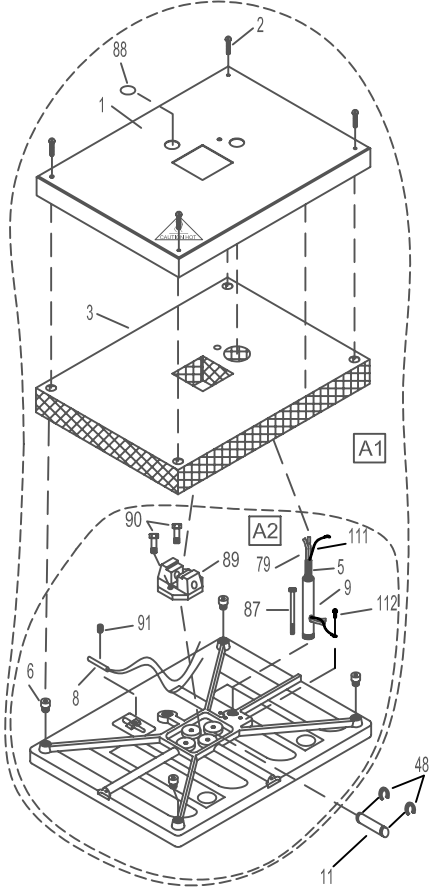
Replacement of Silicone Rubber Pads

1. Make sure heat platen is cool.
2. Use tube of 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.

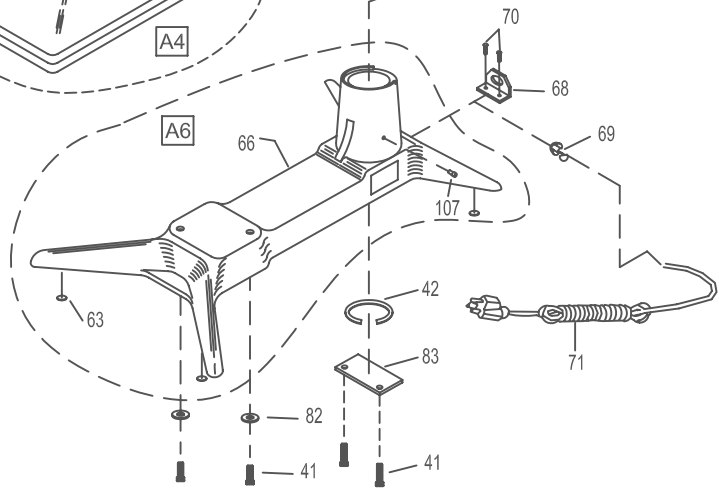
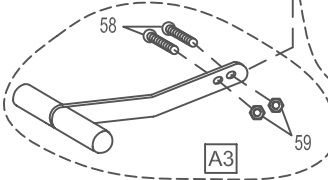
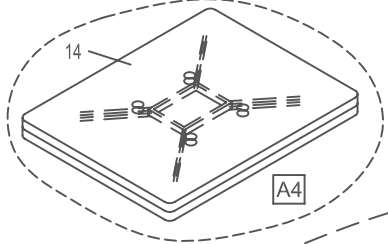
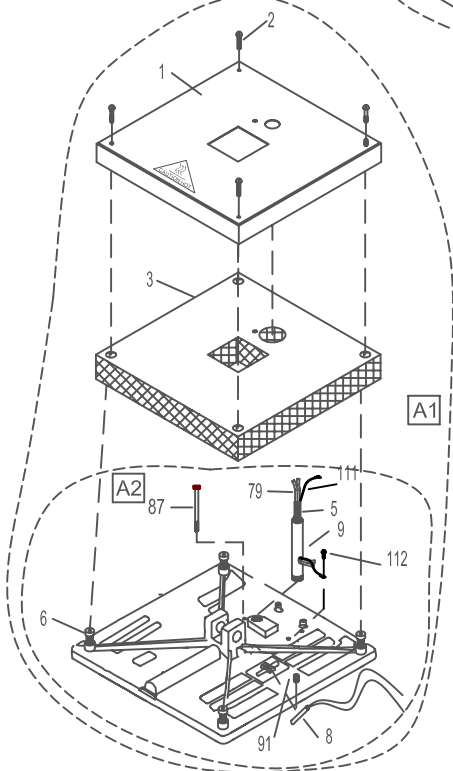


218A 228A Wiring Diagram - 10/08/04

228A



218A



218A / 228A EXPLOSION - 08/16/05

		MODEL	MODEL	MODEL	MODEL
		218A	218A	228A	228A
NO	PART NAME	120V AC	240V AC	120V AC	230V AC
1	SHROUD, HEAT	MPSS218	MPSS218	MPSS228	MPSS228
2	SCREW, PAN HD #10 x 1.00 LG	MPSS143	MPSS143	MPSS143	MPSS143
3	INSULATION, FIBERGLASS	MPSP251	MPSP251	MPSP254	MPSP254
5	TUBING, SHRINK TFE AWG7	MPPS131	MPPS131	MPPS131	MPPS131
6	INSULATORS, SPACER (4/SET)	MPSI089	MPSI089	MPSI089	MPSI089
8	SENSOR, TEMPERATURE REPLACEMENT KIT	MPPS210	MPPS210	MPPS210	MPPS210
9	POST, GUIDE	MPSP085	MPSP085	MPSP085	MPSP085
11	PIN, PIVOT PLATEN	MPP0139	MPP0139	MPP0139	MPP0139
14	PAD, SILICONE RUBBER	MPPP030	MPPP030	MPPP031	MPPP031
15	SCREW, PHILLIP PAN HEAD 10-24 x 0.5 LONG	MHSP102412	MHSP102412	MHSP102412	MHSP102412
16	HOUSING, INSTRUMENT	MBAH90000	MBAH90000	MBAH90000	MBAH90000
18	LABEL, CONTROLLER OVERLAY	MPSL128	MPSL128	MPSL128	MPSL128
19	LABEL, SCALE OVERLAY (PRESSURE ADJ.)	MPPL012	MPPL012	MPPL012	MPPL012
20	KNOB, PRESSURE ADJUST	MPPK019	MPPK019	MPPK019	MPPK019
21	WASHER, SAE 5/16" I.D.	MHWSAE516	MHWSAE516	MHWSAE516	MHWSAE516
23	CONTROLLER, DIGITAL	MPC90003	MPC90003	MPC90003	MPC90003
25	HANDLE, SWING AWAY	MPH90002	MPH90002	MPH90002	MPH90002
26	WASHER, WEDGE	MPSP010	MPSP010	MPSP010	MPSP010
27	SWITCH, MICRO	MPPS043	MPPS043	MPPS043	MPPS043
28	SPRING, TENSION	MPSS200	MPSS200	MPSS200	MPSS200
29	SCREW, BOLT HEX 1/2-13 x 3.00 LONG	MHBH12133	MHBH12133	MHBH12133	MHBH12133
30	SCREW, FLAT HD 5/16-18 x 2.00 LONG	MHSF516182	MHSF516182	MHSF516182	MHSF516182
31	CAM WEDGE	MPSP001	MPSP001	MPSP001	MPSP001
32	SCREW, SOCKET HD 1/4-20 x 0.5 LONG	MHSSH142012	MHSSH142012	MHSSH142012	MHSSH142012
33	KNOB, HANDLE (MUSHROOM)	MPPK017	MPPK017	MPPK017	MPPK017
34	CAP, VINYL BLACK 5/16" x .281 LONG	MPC90006	MPC90006	MPC90006	MPC90006
35	RELAY	MPPR200	MPPR200	MPPR200	MPPR200
36	SCREW, BUTTON HD 1/4-20 x 0.875 LONG	MHSB142078	MHSB142078	MHSB142078	MHSB142078
37	BLOCK, TERMINAL	MH11096914	MH11096914	MH11096914	MH11096914
38	CLAMP, CABLE 5/16 IN	MHCC516	MHCC516	MHCC516	MHCC516
39	TRANSFORMER	MPPT700	MPPT700	MPPT700	MPPT700
40	SCREW, ROUND HEAD 4-40 x 0.75 LONG	MHSR44034	MHSR44034	MHSR44034	MHSR44034
41	SCREW, SOCKET HD 5/16-18 x 0.75 LONG	MHSSH5161834	MHSSH5161834	MHSSH5161834	MHSSH5161834
42	RING, SNAP	MPSR268	MPSR268	MPSR268	MPSR268
45	SCREW, CARRIAGE BOLT 5/16-18 x 2.750 LONG	MHBC51618234	MHBC51618234	MHBC51618234	MHBC51618234
46	PRESSURE ADJUST LEVER (LH)	MPSP2201	MPSP2201	MPSP2201	MPSP2201
47	PIN, PIVOT (LOWER)	MPSP2211	MPSP2211	MPSP2211	MPSP2211
48	CLIPS, "E"	MPSC240	MPSC240	MPSC240	MPSC240
49	PIN, CAM PIVOT (UPPER)	MPSP262	MPSP262	MPSP262	MPSP262
50	NUT, PRESSURE ADJUSTMENT	MPSP2209	MPSP2209	MPSP2209	MPSP2209
51	SPRING, CAM	MPSS201	MPSS201	MPSS201	MPSS201
52	SAFETY LOCK	MPSL241	MPSL241	MPSL241	MPSL241
54	FITTING, GREASE (SHORT)	MPSF145	MPSF145	MPSF145	MPSF145
55	PIN, ROLL (SAFETY LOCK)	MPSR141	MPSR141	MPSR141	MPSR141
56	PRESSURE ADJUST LEVER (RH)	MPSP2200	MPSP2200	MPSP2200	MPSP2200
57	CAM	MPSC218	MPSC218	MPSC218	MPSC218
58	SCREW, BUTTON HD 5/16-18 x 1.00 LONG	MHSB516181	MHSB516181	MHSB516181	MHSB516181
59	NUT, HEX JAM 5/16-18	MHNHJ51618	MHNHJ51618	MHNHJ51618	MHNHJ51618
60	RING, "O" POST	MPSS273	MPSS273	MPSS273	MPSS273
63	FEET, RUBBER (6/SET)	MPF90004	MPF90004	MPF90004	MPF90004
68	BRACKET, POWER CORD	MPSS163	MPSS163	MPSS163	MPSS163
69	STRAIN, RELIEF	MPSS168	MPSS168	MPSS168	MPSS168
70	SCREW, PHILLIP PAN HEAD 10-24 x 0.375 LONG	MHSP102438	MHSP102438	MHSP102438	MHSP102438
71	POWER CORD (USA MODEL)	MPPW141	MPPW142	MPPW141	MPPW142
71A	POWER CORD (EUROPEAN MODEL)	N/A	MPPW202	N/A	MPPW202
71B	POWER CORD (UK MODEL)	N/A	MPPW203	N/A	MPPW203
72	WIRE HARNESS	MPW90011	MPW90011	MPW90011	MPW90011
75	POST, ARM ASSEMBLY	MPSP235A	MPSP235A	MPSP235A	MPSP235A
78	INSULATION, MICRO SWITCH	MH700214	MH700214	MH700214	MH700214
79	WIRE, HEATER	MPPW700	MPPW700	MPPW700	MPPW700
82	WASHER, SAE 5/16 I.D.	MHWSAE516	MHWSAE516	MHWSAE516	MHWSAE516
83	PLATE, REAR POST	MPSP2303	MPSP2303	MPSP2303	MPSP2303
87	SCREW, SOCKET HD 1/4-20 x 4.0 LONG	MHSSH14204	MHSSH14204	MHSSH14204	MHSSH14204
88	PLUG, BUTTON 7/8 IN	MHPB78	MHPB78	MHPB78	MHPB78
89	CLEVIS, UPPER PLATEN	N/A	N/A	MPSP221	MPSP221
90	BOLT, HEX 5/16-18 x 1 IN LG STAINLESS	N/A	N/A	MH51618S	MH51618S
91	SCREW, SET 3/8-16 x 0.5 IN	MHSST381612	MHSST381612	MHSST381612	MHSST381612

		MODEL	MODEL	MODEL	MODEL
		218A	218A	228A	228A
NO	PART NAME	120V AC	240V AC	120V AC	230V AC
92	NUT, HEX 6-32	MHNNH632	MHNNH632	MHNNH632	MHNNH632
93	WASHER, SHIM #6 (.031)	MH311150019	MH311150019	MH311150019	MH311150019
94	SPACER, LG NYLON 0.166 ID x 1/4 IN	MH110969111	MH110969111	MH110969111	MH110969111
95	PLATE, CONTROLLER	MPP90011	MPP90011	MPP90011	MPP90011
96	SCREW, PAN HEAD 8-32 x 0.25 IN	MHSP83214	MHSP83214	MHSP83214	MHSP83214
97	SCREW, PAN HEAD 8-32 x 0.5 IN	MHSP83212	MHSP83212	MHSP83212	MHSP83212
100	SCREW, PAN HD 8-32 x 0.375 IN	MHSP83238	MHSP83238	MHSP83238	MHSP83238
101	WASHER, #8 SAE	MHWSAE8	MHWSAE8	MHWSAE8	MHWSAE8
102	SCREW, SOCKET HD 1/4-20 x 0.5 IN LONG	MHSSH142012	MHSSH142012	MHSSH142012	MHSSH142012
103	CLAMP, CABLE METAL 3/8 IN	MHCC38	MHCC38	MHCC38	MHCC38
105	SCREW, PAN HEAD 8-32 x 0.375 IN	MHSP83238	MHSP83238	MHSP83238	MHSP83238
106	BUSHING, GUIDE POST	MPSB070	MPSB070	MPSB070	MPSB070
107	FITTING, GREASE (LONG)	MPSF144	MPSF144	MPSF144	MPSF144
109	WASHER, WAVE 0.5 IN	MH5806282	MH5806282	MH5806282	MH5806282
110	SCREW, SET 8-32 x 0.1875 IN LG	MHSST832316	MHSST832316	MHSST832316	MHSST832316
111	WIRE, GROUND	MPW90125	MPW90125	MPW90125	MPW90125
112	SCREW, PAN HD 6-23 x 0.25 LG	MHSP63214	MHSP63214	MHSP63214	MHSP63214
A1	PLATEN, HEAT ASS'Y	MPP218A1A	MPP218A2A	MPP228A1A	MPP228A2A
A2	PLATEN, HEAT (WIRING ONLY)	MPP218A1W	MPP218A2W	MPP228A1W	MPP228A2W
A3	HANDLE, PRESSURE ASS'Y	MPSH515	MPSH515	MPSH515	MPSH515
A4	PLATEN, LOWER ASS'Y	MASP010	MASP010	MASP007	MASP007
A5	CAM / PRESSURE LEVER ASS'Y	MPSC201	MPSC201	MPSC201	MPSC201
A6	BASE ASS'Y	MPSB204A	MPSB204A	MPSB204A	MPSB204A

INSTA GRAPHIC SYSTEMS[®]

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