



# AUTOMATIC CONTROLLER

Item #117289

## INSTRUCTION MANUAL



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## DESCRIPTION

The Automatic Controller uses a capacitive sensor to monitor the material level in a hopper. When the material level rises high enough to cover the sensor, the unit closes a solenoid valve and shuts off air to a pneumatic hopper-loader.

\*\*\* DANGER \*\*\*

INJECTION MACHINES COULD CAUSE DEATH, SHOCK OR INJURY. Lock out and tag out power to machine before you install Automatic Controller. Follow safety steps in machine manual when you install or adjust Automatic Controller.

## INSTALLATION

1. Lock out and tag out power to machine where you are going to install Automatic Controller.
2. Connect inlet side of Automatic Controller solenoid to fitting on regulator. Connect outlet side to loader air hose.

Use screws to attach Automatic Controller directly to machine, or support it using a bracket.

3. Decide on level you want material to reach in your hopper. Mark a convenient spot near that level to mount sensor.

Keep in mind that material will tend to pile higher near nozzle discharge and be lower opposite the nozzle discharge.

Punch or drill 1-1/4" hole at point marked on hopper. If drilling, keep chips out of feed throat. Operation is safest if you remove hopper and work at a bench.

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## INSTALLATION (continued)

### \*\*\* NOTE \*\*\*

If you are using abrasive materials or if hopper dryer will heat sensor above 188°F, you will need a protective PTFE cover for sensor. Call IMS Engineering Dept. at 440/543-1615 for information on these covers.

4. Install sensor in hole, with one nut outside hopper. Double-nut sensor inside hopper. Tighten all nuts.
5. Route sensor cord to Automatic Controller. Keep cord away from heat and moving parts.  
  
Cord is 11 Feet long.
6. Plug cord into alarm box. Plug box into grounded 115/60/1 outlet.

## ADJUSTMENT

Adjust sensor at installation and at material changes.

1. Fill hopper with material you will be using.
  2. Turn Automatic Controller on.
  3. Slowly turn adjusting screw counterclockwise just until relay opens compressed-air valve to start loader.
  4. Slowly turn screw clockwise just until relay closes valve, shutting off loader.
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### ADJUSTMENT (continued)

6. Turn screw to midpoint between relay-on and relay-off points.
7. From safe platform, watch hopper while machine is operating. Make sure the Controller turns loader on when material level drops below sensor and shuts it off when material rises to level of sensor.
8. Re-adjust if necessary.

### OPERATION

1. Loader must have been installed in accordance with this manual.
  2. Open air-supply shutoff valve. Turn Automatic Controller ON.
  3. Adjust regulator for lowest flow that will convey enough material. To improve flow, you may also need to adjust how deep your vacuum wand rests in material.
  4. Automatic Controller will open and close solenoid valve as needed to cycle loader.
  5. To shut down:
    - a. Shut off or disconnect air supply.
    - b. Turn Automatic Controller OFF.
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**REPLACEMENT PARTS**

<b>IMS P/N</b>	<b>DESCRIPTION</b>
116053	Proximity Sensor
116050	Sensor Cable
113390	Solenoid Valve
108033	Filter Regulator
106646	On/Off Toggle Switch
104193	Fuse Cap
104172	Fuse Cap and Holder Assembly

FIGURE 2  
ELECTRICAL SCHEMATIC  
for Automatic Controller

