ENGEL EC88 INJECTION MOLDING QUICK START GUIDE

Basic Operation

VERSION 2.0
5/1/2019
MAIN GUIDE
Pendant Controller Buttons

- Mold Closing Screen
- Semi-Auto Mode
- Barrel Heat & Oil Temp Screen
- Setup Mode
- Injection Hold (Parameters) Screen
1. Main power ON
2. Control Voltage ON
3. Turn HEAT Switch to AUTO
4. Turn MODE SELECT Switch to MANUAL. You may need to switch from MANUAL to AUTOMATIC and back to MANUAL. Also, be sure to close the RIGHT door.
5. Close the safety gates and press MOTOR START button
6. Load Molds into MUD Frames
7. Press SETUP MODE Button on Controller Pendant. Make sure it says "setup mode" on the screen!
8. Press MOLD CLOSE Button on Controller Pendant. Again, make sure the screen says SETUP MODE!!! If it isn't in SETUP MODE, the mold will close very quickly and could crash.
9. Turn CLOSE CLAMP Switch to CLOSE until the mold fully closes and hold for 10 seconds. This will zero the mold position and properly set the mold height.
10. Press the MANUAL button on the Controller Pendant
11. Check your ejector pins by turning the EJECTOR Switch to the FORWARD position. Don’t forget your sprue ejector pin!!!

NOTE: You cannot do this if the mold is not fully open!
12. Press the INJECTION HOLD SCREEN Button on the Controller Pendant to adjust:
   a. Injection Hold Time (pack time)
   b. Cooling Time
   c. Set Screw Feed Stroke (shot size)
13. While still in INJECTION HOLD SCREEN, Set your parameters. This may take a few tries to get the right settings.
14. Allow the machine to reach operating temperature. You can monitor the temperature by pressing the Barrel Heat & Oil Temp button on the controller pendant.

If the zones are at operating temperature, the square next to them will be filled. If not, the square will be empty.

<table>
<thead>
<tr>
<th>Barrel:</th>
<th>Zone Set</th>
<th>Act</th>
<th>OK</th>
<th>Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nozzle</td>
<td>1</td>
<td>390</td>
<td>390</td>
<td></td>
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<td>Barrel</td>
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<tr>
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<tr>
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<td>5</td>
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</tr>
<tr>
<td></td>
<td>6</td>
<td>72</td>
<td>75</td>
<td>OFF</td>
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</tbody>
</table>

Temperature Plus Tolerance: 34 °F
Temperature Minus Tolerance: 20 °F

Stand By Temp. Set Point: 399 °F
Manual Stand By Temperature: OFF

Oil Temperature: Set Value = 186 °F
Actual Value = 79 °F
Minimum Temperature Limit = 61 °F
Maximum Temperature Limit = 140 °F
15. When the machine reaches operating temperature, retract the nozzle using the NOZZLE switch.
16. Place the block on the bushing
17. Shut the right safety gate and move the NOZZLE Forward by turning the NOZZLE Switch to the FORWARD position until it presses against the block.
18. Turn the INJECTION FEED Switch to the FEED position until you have a full Set Screw Feed Stroke (shot size)
19. Shut the right safety gate and move the NOZZLE back by turning the NOZZLE Switch to the BACK position until it presses against the block.
20. Remove the Block
21. Shut the right safety gate and turn the NOZZLE Switch to the FORWARD position until the NOZZLE is back in the operating position.
22. Turn the MODE SELECT Switch to AUTO
23. Press the SEMI-AUTO button on the Controller Pendant
24. To begin Run, close (or, open and then re-close), the left door
25. After run is finished, turn MODE SELECT Switch to MANUAL.
26. Retract NOZZLE by turning switch to BACK position
27. Remove your mold from the MUD Frames
28. Put everything away and clean up area
COLOR CHANGING GUIDE
1. Close shut-off gate on the hopper and remove the hopper
2. Dump all resin into the bucket labeled “Tye Dye”
3. Replace hopper onto machine and open the hopper gate
4. Mix your color resin with clear resin:
   a. 1 coffee can of clear resin (Approximately 500g)
   b. 1 teaspoon of colored resin (Approximately 2.5g)
   c. MIX THOROUGHLY
5. Dump the mixture into the hopper and begin your parts run
   a. **NOTE:** It may take several parts to begin noticing color change. This is normal.
AFTER YOUR RUN
1. Close the hopper shut-off gate
2. Remove the hopper and dump all contents into the bucket labeled “TYE DYE”
3. Replace the hopper and re-open the hopper gate
4. Dump about ½ coffee can of Dyna-purge into the hopper
5. Retract the Nozzle by turning the NOZZLE Switch to the BACK position and place the wooden block onto the bushing.
6. Turn the NOZZLE Switch to the FORWARD position until the Nozzle is pushing firmly against the wooden block and then turn the INJECTION Switch to the FEED position to fill the Nozzle with the Dyna-Purge.
7. Retract the Nozzle and turn the INJECTION Switch to the INJECT position and extrude the Dyna-Purge from the nozzle.
8. Repeat steps 5-8 until all the Dyna-Purge in the hopper has been extruded
   a. Be sure to clean the extruded Dyna-Purge!
9. After the Dyna-Purge is finished, add about a ½ coffee can of clear resin to the hopper
10. Extrude the clear resin until it no longer has any color
11. Move Nozzle back to operating position