Fortus® 250mc
Introductory Information

Other sources of information

A complete guide to your system, is available on the CD that comes with your system and on the web (http://www.fortus.com). That guide provides information on the following topics:

- System specifications
- Building
- Reloading material
- Maintaining the system
- Troubleshooting system issues
- Customer Care

You can also find legal and warranty information on the CD. Further information is available at the customer web site (http://www.fortus.com).

Legal notices

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Safety precautions

The following precautions ensure the proper use of the system and prevent the system from being damaged. Follow these precautions at all times.

- Use the power supply voltage specified on the nameplate. Avoid overloading the system's electrical outlet with multiple devices.
- Ensure the system is well-grounded. Failure to ground the system may result in electrical shock, fire and susceptibility to electromagnetic interference.
- Before disassembling or repairing the system yourself, contact your local Service Representative. See Support section of User Guide.
- Use only the power cord supplied with the system. Do not damage, cut or repair the power cord. A damaged power cord has risk of fire and electric shock. Replace a damaged power cord with an approved power cord.
- Do not allow metal or liquids to touch the internal parts of the system. Doing so may cause damage, fire, electric shock or other serious hazards.
- Power off the system and disconnect the power cord from the power outlet in any of the following cases:
  - If there is smoke or an unusual smell coming from the system.
  - If the system is making an unusual noise not heard during normal operation.
  - A piece of metal or a liquid touches the internal parts of the system.
  - During an electrical (thunder/lightning) storm
  - During a power failure

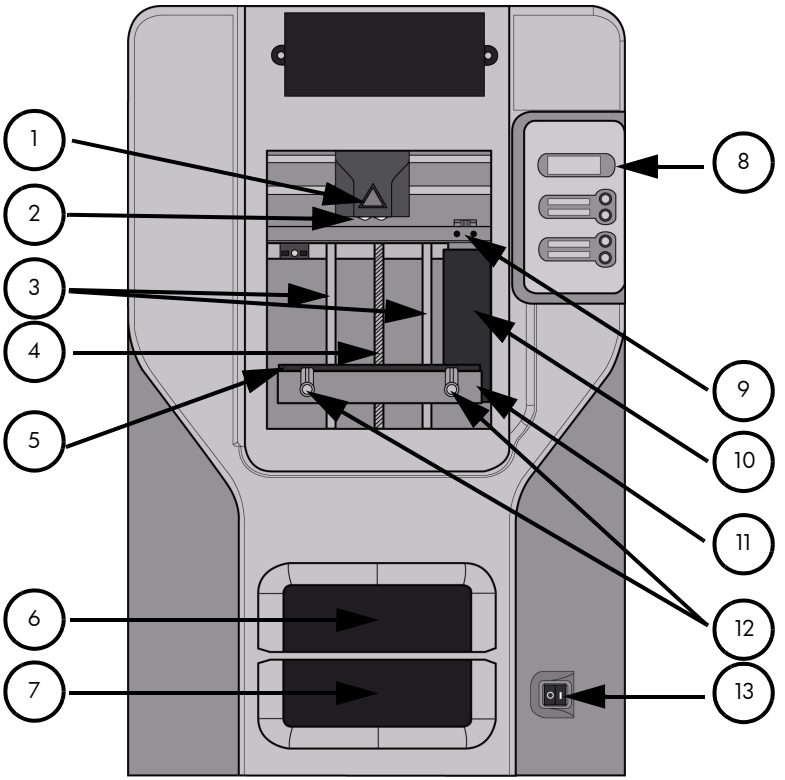
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FDM® Process

1. From 3D CAD data, pre-processing software automatically slices, calculates support structures and creates tool paths that are optimized for the system.
2. Parts are built layer by layer in an additive process. Dual extrusion heads precisely lay down thermoplastic model and support material to create each layer.
3. Temporary support structures are easily removed. Soluble support material automatically dissolves in a water-based solution.

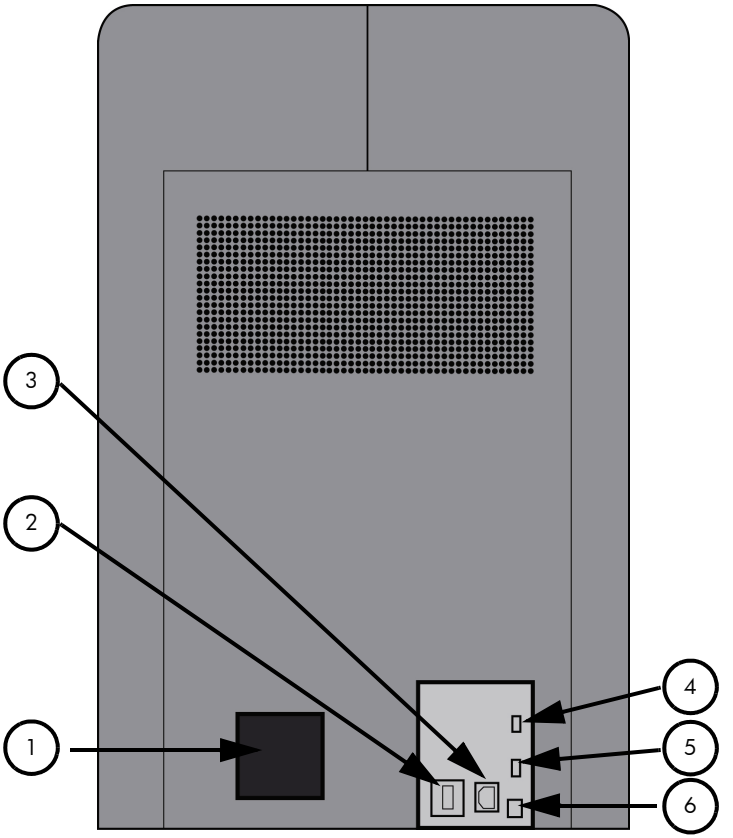
System Overview

Front view



1	Extrusion Head	8	Display Panel
2	Extrusion Tips	9	Tip Cleaning Assembly
3	Guide Rods	10	Purge Container
4	Lead Screw	11	Z stage platen
5	Modeling Base	12	Modeling Base Retainers (2)
6	Model Material Cartridge	13	Power Switch
7	Support Material Cartridge		

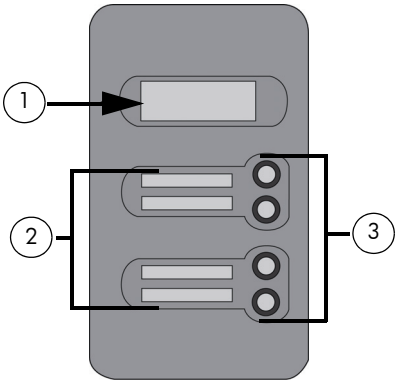
Rear View



1	Fan Cover	4	UPS Connection
2	Main Circuit Breaker	5	Diagnostic Hookup
3	Power Cord Adapter	6	Network Cable Connection

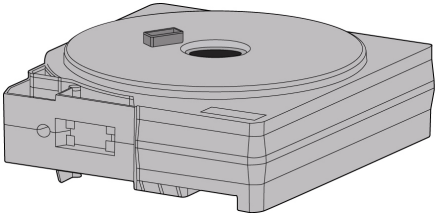
To avoid damage to the system from an uncontrolled power loss, installation of a UPS (Uninterruptible Power Supply) is recommended.

Display Panel



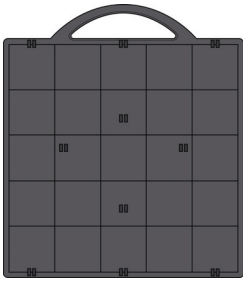
1	Main display window
2	Lower display windows
3	Keypad buttons

Material Cartridge



Material cartridges are factory packaged in a box and an anti-static, moisture-proof bag to preserve shelf life. Material will stay humidity free inside the cartridge for at least 30 days after opening. Shelf life is more than one year if the cartridge package remains sealed.

Modeling Base



DO NOT reuse modeling bases. If a modeling base is reused, calibration errors, poor part quality, and loss of extrusion may occur. Additional modeling bases are available from your reseller.

Display panel hierarchy

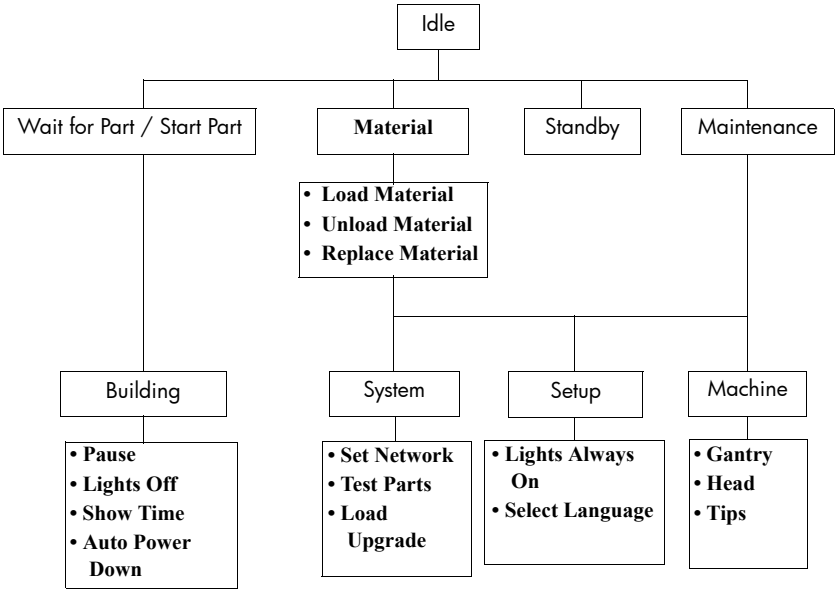


Table 1. Error Messages

Error message	Recommendation
Error code on display panel	Contact Technical Support.
Build Error	Partial or bad part file sent to system. Check STL file validity in CAD software; reprocess STL in Insight and re-download to system.
Can't Find Home Check Modeling Base	1.Verify a modeling base is inserted. 2.Modeling base may be used or defective – replace.
Load Error Purge failed	1.Verify the material pulls freely from the cartridge. 2.Verify the material tubes are free of material. 3.Check for and clear any excess material build up around the tips.
Model/Support Jam in head clear before resuming	See Troubleshooting section in User Guide.
Pausing	1.Press **Resume**. 2.Unload the material cartidges and reload.