

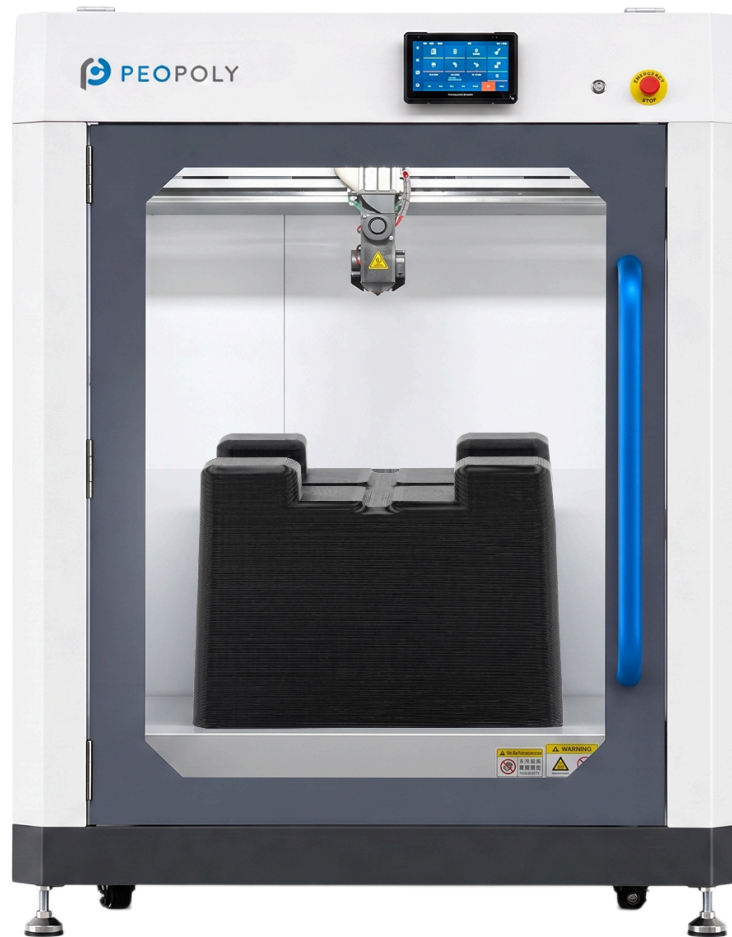
PEOPOLY

GIGA 800

Industrial FGF 3D Printer · User Guide

Revision B

Sep 2026



[TO CONFIRM] This draft contains placeholder markers wherever a value, link, or image must be supplied before release. Search the document for "[TO CONFIRM]" and "FIGURE REQUIRED" to find them all.

Serial number: _____

Installation date: _____

Installed by: _____

Electrician / contractor: _____

How to Use This Guide

This guide follows the machine from the crate to your first finished part, in the order the work actually happens. Sections are labelled with who does the work and roughly how long it takes, because installing a Giga 800 usually involves more than one person and more than one day.

Section	Who does it	When
2. Before Your Machine Ships	Facilities / buyer	Weeks before delivery
3. Receiving and Placement	Receiving team, forklift operator	Delivery day
4. Electrical Connection	Licensed electrician only	After placement
5. First Power-On and Function Check	Operator	Same day as electrical
6. Network Setup	Operator or IT	After power-on
7. Bed Leveling	Operator	Before first print
8. Your First Print	Operator	After leveling
9–12. Operation and upkeep	Operator	Ongoing

Reading the procedure steps

Most steps in Sections 5 through 9 are written in three lines:

Example step

Do: The action you take.

You should see: What the machine should do in response — a screen state, a sound, a temperature climbing, a movement completing. If you do not see this, something is wrong.

If not: Where to go next when the expected result does not happen.

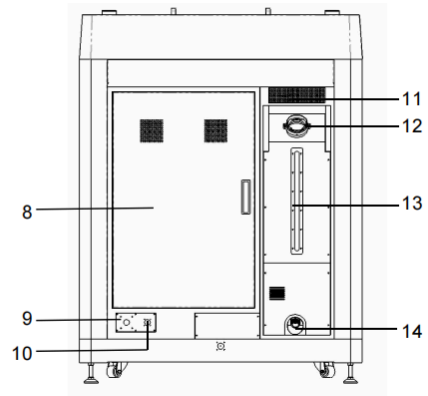
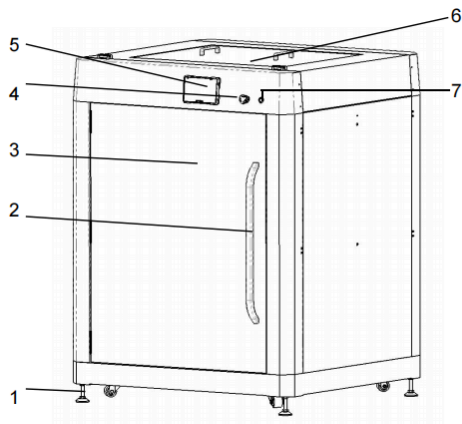
The **You should see** line matters as much as the action. It is how you tell a fault from normal behaviour, and it gives you a baseline to compare against months from now when something changes.

Quick Start

The complete path from crate to first print. Each step points to the section with the full procedure. **Do not skip Section 5.** It is the check that tells you the machine survived shipping, and it must happen while your freight claim window is still open.

1. **Prepare the site** — electrician booked, circuit installed, floor and doorways checked, dryer and dehumidifier on hand. Download the software and profiles. *(Section 2)*
2. **Receive the crate** — inspect and photograph it **before signing** the delivery paperwork. *(Section 3)*
3. **Uncrate, position, level the feet, remove all shipping restraints.** *(Section 3)*
4. **Have your electrician connect the machine.** *(Section 4)*
5. **Power on and run the five function checks** — boot, emergency stop, homing, axis movement, heat test. *(Section 5)*
6. **Connect to the network, or set the machine up for offline use.** *(Section 6)*
7. **Level the bed** — hot, using the nine adjustment points. *(Section 7)*
8. **Dry your pellets, load the hopper, prime and purge the extruder.** *(Section 8)*
9. **Slice a small test model, print it, and inspect the first layer.** *(Section 8)*
10. **Purge the extruder before shutting down.** *(Section 9)*

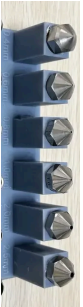
WARNING The hopper has no low-level sensor. The machine automatically pulls pellets from the hopper into the extruder as needed, but nothing warns you when the hopper itself is running empty. A 12 L hopper holds roughly 3 to 4 hours of material at full flow rate. **You must check and refill the hopper yourself.** See Section 8.6.



1. Adjustable Foot
2. Door handle
3. Door
4. Emergency button
5. Operation screen
6. Top inspection window
7. Start button

8. Electrical box
9. Power Switch
10. Power Socket
11. Air Filter
12. Feed Inlet
13. Hopper Viewing Window
14. Back Discharge Port

	Metal blade x1		U Disk (random color) x1		Wrench x1
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	Nozzle 0.6-3 mm x6		14mm L-shaped socket wrench x1		3D printing platform glue x1
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1. Safety

Read this section completely before uncrating or operating the Giga 800. This is an industrial machine weighing 320 kg, drawing up to 5000 W, and operating at temperatures up to 400 °C. It is not a desktop 3D printer and must not be treated as one.

1.1 Who may operate this machine

The Giga 800 is intended for use by trained adults in a commercial, industrial, or educational workshop setting. Operators must have read this guide in full before running the machine unsupervised. This machine is not suitable for use by minors, and is not suitable for unsupervised use in a home or classroom.

1.2 Emergency stop

The emergency stop is the **red mushroom button on the front of the machine, beside the control panel**. Locate it before you do anything else. Every person who works near the machine should know where it is.

- **To stop the machine immediately:** press the button firmly. Motion and heating stop at once.
- **To recover:** twist the button to release it, then re-home the machine before printing again. See Section 5.2.

[TO CONFIRM] Confirm the E-stop release action (twist-to-release vs pull-to-release) and confirm exactly what the E-stop cuts — motion and heaters only, or full machine power including the controller.

1.3 Electrical

WARNING Electrical connection must be carried out by a licensed electrician. See Section 4. Do not attempt to fit a plug or connect the machine yourself.

- Supply must be **single phase, 220–240 V, 50/60 Hz**, on a dedicated circuit.
- The machine draws up to **5000 W at peak** during initial heat-up. Typical draw while printing is **2000–3000 W**.
- Always switch off and isolate the machine at the wall before cleaning or performing any maintenance inside the chassis.

1.4 Burns and hot surfaces

- The nozzle reaches **400 °C** and the bed reaches **120 °C**. Both remain dangerously hot for a long time after a print ends.
- The enclosed chamber reaches approximately **60 °C** during printing. Open the door with care, and allow the chamber to vent before reaching inside.
- Molten polymer purged from the extruder is at full nozzle temperature and will cause severe burns. It also sticks to skin.
- Always wear the supplied high-temperature gloves when purging, clearing a clog, changing a nozzle, or removing a part from a warm bed.

1.5 Gloves and clothing

The rule differs depending on what you are doing, and getting it wrong is dangerous in both directions:

Situation	Gloves
Machine is moving, or could start moving. Reaching near the gantry, rails, belts, or extruder drive.	No gloves. No loose clothing, no jewellery, tie back long hair. Fabric caught in the gantry will cause injury and serious machine damage.
Machine is stationary. Purging, clearing a clog, changing a nozzle, handling hot parts or a hot bed.	High-temperature gloves required.

1.6 Mechanical and lifting

- The machine weighs **320 kg net**, and **410 kg crated**. It can crush or cause serious injury if

it tips. Never attempt to move it by hand.

- Use a forklift rated for the load, and fork in fully from the **front or rear only**. Forking from the side, or forking in only partially, will damage the machine.
- The CoreXY gantry moves fast and carries significant mass. Keep hands, tools, and material clear of the build area whenever the machine is powered.
- Never reach into the chamber during a print. Pause the print or press the emergency stop first.

1.7 Fumes and ventilation

Printing at high temperature releases fumes and ultrafine particles. ABS, ASA, PPA, and nylon are the most significant. The chamber is enclosed, which contains fumes during a print and then releases them when the door is opened.

- Install the machine in a **well-ventilated area**, ideally with extraction, and preferably in a space separate from desks and general workspace.
- Let the chamber vent for several minutes after a print before reaching inside.
- Purge material into a container in a ventilated area. Do not purge into an enclosed or unventilated space.

1.8 Fire and unattended operation

The Giga 800 is designed for long production runs, and many jobs will run overnight. Long unattended running carries real risk and should be prepared for.

- Install a **smoke detector** in the room, and keep a **Class ABC fire extinguisher** within reach of the machine.
- Never leave the machine running unattended for the first time until you have completed at least one supervised print from start to finish.
- Keep the area around the machine clear of paper, packaging, solvents, and anything flammable.
- Do not run the machine unattended if any heating, thermal, or motion fault has appeared recently, even if it cleared on its own.
- If the machine is on a network, set up remote monitoring so you can check on a long print. See Section 6.

1.9 Intended use

Use the Giga 800 only as described in this guide. Users must comply with all applicable laws and regulations in their region, and must not use the machine to produce items prohibited by local, national, or regional law.

2. Before Your Machine Ships

Who: facilities or the buyer. When: as early as possible, weeks before delivery.

Everything in this section has lead time. Electricians need booking, dryers need ordering, and doorways cannot be widened on the day the truck arrives. Work through this section as soon as your order is confirmed.

2.1 Electrical supply

Give the following to your electrician and have the circuit installed **before** the machine arrives. The full electrician-facing page is Section 4, which can be printed and handed over on its own.

Requirement	Value
Supply type	Single phase, dedicated circuit
Voltage	220–240 V
Frequency	50 / 60 Hz
Peak power (initial heat-up only)	5000 W — approximately 22 A at 230 V
Typical power while printing	2000–3000 W
Connection supplied on the machine	Open 3-wire pigtail whip, no plug fitted, international harmonized coloring (Brown -> Hot, Blue -> Neutral, Green/Yellow -> Ground)
Conductor sizing, breaker rating, protection	Determined by your electrician per local code, cable run length, and installation method

NOTE Peopoly does not specify a cable size or breaker rating. Requirements vary by country, cable run, and installation method. Your electrician sizes the installation from the load figures above.

2.2 Space and access

Check the route from the loading dock to the machine's final position, and measure every doorway and turn along the way.

	Width	Depth	Height	Weight
Crated	1400 mm	1300 mm	1700 mm	410 kg
Uncrated machine	1200 mm	1140 mm	1560 mm	320 kg

- ☐ Doorways, corridors, and lifts on the delivery route clear the **crated** dimensions.
- ☐ Final position allows the crated unit to be brought alongside, and leaves clearance to open the chamber door fully and reach the rear panel for service.
- ☐ Floor is flat, solid, and rated for 320 kg concentrated on four feet. A suspended or timber floor may need checking.
- ☐ Ceiling height clears the crate during forklift transport.
- ☐ Location is away from heat sources, direct sunlight, flammable or explosive materials, and away from sources of vibration.
- ☐ Ventilation or extraction available. See Section 1.7.

[TO CONFIRM] Recommended service clearance on each side of the machine — supply figures for front, rear, and sides.

2.3 Equipment to have on hand

None of this ships with the machine, and you will want all of it before your first print.

Item	Why	Priority
Forklift or pallet truck rated over 500 kg	Moving the crated machine. Nothing else will do it safely.	Essential, delivery day
Pellet dryer, top-loading, 12 kg capacity or larger	Most industrial pellets must be dried before printing. Small desktop filament dryers cannot keep up with a machine consuming up to 3 kg per hour.	Essential before first print
Dehumidifier	Required if ambient humidity exceeds 40%, especially for nylon, PPA, and TPU.	Strongly recommended
Sealed storage containers for pellets	Dried pellets reabsorb moisture from open air within hours.	Essential
Heat-resistant metal container for purging	Catching molten purge. Do not use a plastic bucket or a bag held by hand.	Essential
Smoke detector and Class ABC extinguisher	Long unattended runs. See Section 1.8.	Essential

Spare bed adhesion spray	The supplied can is a consumable. See Section 2.5.	Recommended
Spare nozzle	Fibre-filled pellets wear nozzles. See Section 10.	Recommended

2.4 Software and profiles

Set this up while the machine is still in transit. You will be ready to slice the moment the machine is levelled.

1. Download and install [Orca Slicer](#) on the computer you will use. You can download the software from their official website [orca-slicer.com](#). The current profile version is 2.4.2
2. Download the [Peopoly Giga 800 printer profile](#) and add it to Orca Slicer. We currently have ABS LW and PPA-CF for 1mm and 3mm file.
3. Download the **Siraya Tech material profiles**. These are pre-tuned for this machine and remove nearly all first-time calibration work.
4. Download a **test model** to print first. A small, simple part is the right choice — do not make your first print a large or critical job. You can use useful models for your printer like funnel and scoop included in the shipment [here](#).

NOTE The USB drive included in the box has test GCODE. It is for test printing this printer before shipping. You can use it for transferring sliced G-code from your computer to the machine. There is no test file pre-loaded on it.

2.5 Bed adhesion spray is a consumable

The Giga 800 bed uses a sprayed-on adhesion coating, and one can is included in the box. It is not a permanent surface. Reapply approximately **once every three prints**, and expect to replace the can periodically.

When the supplied can runs out, **Siraya Tech Bed Adhesion spray** is the recommended replacement and is available on Amazon. Order a spare before you run out — a print will not stick without it.

2.6 Pre-arrival checklist

- ☐ Electrician booked and circuit installed
- ☐ Delivery route measured against crated dimensions
- ☐ Floor checked for flatness and load
- ☐ Forklift or pallet truck arranged for delivery day

- ☐ Ventilation arranged
- ☐ Smoke detector and extinguisher in place
- ☐ Pellet dryer ordered and delivered
- ☐ Dehumidifier in place if humidity exceeds 40%
- ☐ Sealed pellet storage ready
- ☐ Metal purge container ready
- ☐ Orca Slicer installed, printer and material profiles added
- ☐ Test model downloaded and sliced
- ☐ Spare bed adhesion spray ordered

3. Receiving and Placement

Who: receiving team plus a forklift operator. When: delivery day. Allow: 2 to 3 hours.

3.1 Inspect the crate before you sign

WARNING Do this while the driver is still there. Freight claims have short deadlines and almost always require evidence recorded at the point of delivery. Once you sign a clean delivery receipt, recovering the cost of transit damage becomes very difficult.

1. Walk around the crate. Look for crushing, punctures, water staining, and damage to corners and edges.
2. Check that the crate is upright and that any tip or shock indicators have not been triggered.
3. **Photograph the crate from all four sides and the top**, before anything is opened.
4. If you see any damage at all, **note it in writing on the delivery paperwork before signing**, and photograph the noted paperwork.
5. Contact Peopoly support the same day with your photographs and serial number. See Section 12.

3.2 Uncrate

CAUTION Two people minimum. Crate panels are heavy and awkward, and there are

fasteners and banding under tension.

1. Cut and remove the banding.
2. Remove the top panel first, then the side panels. Work from the top down so nothing falls inward onto the machine.
3. Keep all packaging and the pallet **until the machine has passed the function check in Section 5**. If the machine has to go back, it has to go back in its crate.
4. Inspect the machine itself for dents, scratches, bent panels, cracked screens, and loose or disconnected cables. Photograph anything you find.

3.3 Move the machine into position

WARNING Fork in **fully**, from the **front or rear only**. Forking from the side, or forking in only part way, will damage the machine frame.

1. Confirm your forklift is rated well above 410 kg.
2. Fork in fully from the front or rear.
3. Lift slowly and keep the load low while moving.
4. Position the machine in its final location, allowing clearance to open the chamber door fully and to reach the rear service panel.
5. Remove the machine from the pallet.

3.4 Level the machine on the floor

This is levelling the **machine on its feet**, which is different from levelling the print bed in Section 7. Both are needed, and this one comes first — a machine sitting on an uneven floor will slowly twist the frame and the bed levelling will not hold.

1. Place a spirit level or a machinist's level on the machine frame, front to back.
2. Adjust the threaded levelling feet at the base until level.
3. Repeat side to side.
4. Check that **all four feet carry load**. A foot that can be rocked means the frame is being twisted. Adjust until there is no rock.

3.5 Remove all shipping restraints

WARNING The machine will be damaged if it is homed with restraints still fitted. Do not power on until this step is complete and you have checked twice.

1. Locate the brightly coloured zip-ties securing the print head and the X and Y gantry rails.

2. Snip and remove every zip-tie using the supplied flush cutters.
3. Remove all foam packing blocks, including any beneath the heated bed and behind the gantry.
4. Remove any tape, film, or desiccant packs from inside the chamber.
5. **By hand, with the machine still switched off, gently push the print head through its full travel in X and Y, and check the bed moves freely in Z.** It should move smoothly with no catching, grinding, or hard stops.
6. Count your removed restraints against the list below and confirm nothing is left inside the machine.

3.6 Check the accessories against the box list

Verify all of the following before discarding any packaging.

- ☐ Open 3-wire electrical pigtail whip
- ☐ Metric hex key (Allen wrench) set
- ☐ Flathead screwdriver
- ☐ Flush cutters
- ☐ Metal print removal scraper
- ☐ Unclogging pin
- ☐ USB flash drive (blank)
- ☐ High-temperature thermal gloves
- ☐ Bed adhesion spray
- ☐ Sample Siraya Tech ABS LW pellets, 25 kg

4. Electrical Connection

Who: licensed electrician only. When: after the machine is in its final position.

NOTE This section is written to be handed to your electrician. It is self-contained. Print this page on its own if that is easier.

4.1 Load and supply

Parameter	Value
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Supply type	Single phase, dedicated circuit - 3 wire international harmonized coloring (Brown -> Hot, Blue -> Neutral, Green/Yellow -> Ground)
Voltage	220–240 V
Frequency	50 / 60 Hz
Peak load	5000 W — approximately 22 A at 230 V
Peak duration	Initial heat-up only. Extruder heating zones and bed draw simultaneously.
Continuous load while printing	2000–3000 W
Protective earth	Required. The machine must be earthed.

Conductor size, breaker rating, and protective device selection are the electrician's determination, based on local wiring regulations, cable run length, installation method, and grouping. Peopoly does not specify these.

4.2 Connection at the machine

The Giga 800 ships with an **open 3-wire pigtail whip** rather than a moulded plug, because industrial connectors and local codes vary too widely to fit one at the factory. The whip is wired to the harmonised colour standard:

Conductor colour	Function
Brown	Line (live)
Blue	Neutral
Green / Yellow	Protective earth

WARNING This is a **line–neutral–earth** configuration for a single-phase 220–240 V supply. It is **not** a split-phase line–line–earth configuration. Do not connect the blue conductor to a second line conductor. International harmonized coloring (Brown -> Hot, Blue -> Neutral, Green/Yellow -> Ground)

The whip is to be terminated directly into a suitably protected circuit at the distribution board, or into an industrial connector appropriate to the installation. Follow local regulations for termination, strain relief, and isolation.

Ground	Green/Yellow	
Neutral	Blue	
Line	Brown	

4.3 Before energising

- ☐ All shipping restraints removed (Section 3.5) — the machine will move on first power-up
- ☐ Machine level and stable on all four feet
- ☐ Earth continuity verified
- ☐ Polarity verified
- ☐ Circuit correctly rated and protected
- ☐ Emergency stop located and accessible
- ☐ Chamber clear of tools, packaging, and debris

5. First Power-On and Function Check

Who: operator. When: as soon as the electrical work is finished. Allow: 45 to 60 minutes.

These five checks confirm the machine survived shipping, and they take you through everything the machine does before any material is involved. Do them in order — each one builds on the last, and each one is easier to diagnose when the one before it has already passed.

WARNING Run these checks while your freight claim window is still open. Transit damage that is found weeks later, after the first failed print, is much harder to claim for. This is the reason this section comes before levelling and printing rather than after.

Just as importantly, this is where you learn what **normal** looks and sounds like on your machine. Note anything unusual now, while there is nothing else going on to confuse the picture.

5.1 Power on and boot

Connecting the Power Cable: The cable port is located at the back of the Giga 800. There

is only one way for the cable to plug into the port, so if it does not go in, please turn the connector and try a different angle.



The Main Power Switch is located at the back of the printer, right next to the power cable port. Make sure to turn it on by pressing the red switch in and turning it clockwise. See the image below for reference:



The Power Button is the silver button on the front of the Giga 800. Once the Main Power Switch at the back is switched on, the power button will turn green, indicating the machine is ready to be turned on.



Once power button is pressed, the machine will turn on and wait for the screen to boot to the Klipper Main Screen



Check 5.1

Do: Confirm the emergency stop is released, then switch the machine on at the main switch.

You should see: The control screen lights and boots to the Klipper home screen within roughly a minute. Fans run. No error message or red banner is displayed. The firmware version is shown and readable.

If not: A blank screen means power is not reaching the machine — stop and have your electrician check the supply. An error banner on boot should be photographed and sent to support before going further. See Section 11.

[TO CONFIRM] Supply: location of the main power switch, expected boot time, firmware version and where it is displayed, and what a healthy home screen looks like.

5.2 Emergency stop test

Test the emergency stop **before anything moves**. It is the one control you must be able to rely on, and this is the only moment when testing it costs nothing. The emergency stop red button

is located at the upper right corner at the front of the machine.



Check 5.2a — press

Do: Press the red emergency stop button on the front of the machine.

You should see: The machine stops immediately. The screen shows an emergency stop or shutdown state.

If not: If the machine does not respond, stop. Isolate the machine at the wall and contact support. Do not operate it.

Check 5.2b — release and recover

Do: Twist the emergency stop button to release it, then follow the on-screen prompt to clear the stop state and restart the firmware.

You should see: The machine returns to the normal home screen and accepts commands again.

If not: See Section 11. Note that after any emergency stop, the machine loses its position and must be re-homed before printing.

[TO CONFIRM] Confirm the exact release action and the exact on-screen recovery sequence (FIRMWARE_RESTART, a button on the touchscreen, or a power cycle).

5.3 Home all axes

WARNING Check the build area is completely clear before homing. Any tool, offcut, packaging, or leftover foam left on the bed will be driven into by the gantry. Debris on the bed is the most common cause of damage during commissioning. Make this a habit — clear and check before every home, every time.

Check 5.3

Do: Clear and visually inspect the entire bed and chamber. Then home all axes from the control screen.

You should see: All three axes move to their home positions and stop cleanly against their endstops. Movement is smooth and continuous. You will hear the servos and the motion system, but there should be no grinding, no knocking, and no hard impact.

If not: Grinding or binding usually means a shipping restraint is still fitted — power off and return to Section 3.5. An axis that does not stop, or reports an endstop error, should be reported to support. See Section 11.

Command: Press move on the home screen and then select all. This is a required step for printer to perform other functions

5.4 Move each axis

Homing only proves each axis reaches one end. This check proves the whole travel is clear.

Check 5.4

Do: Using the jog controls on the screen, move X, Y, and Z across their full travel in stages. Move in large increments first, then small. Watch and listen throughout.

You should see: Smooth, consistent movement across the whole range in all three axes. The sound stays even from one end of travel to the other. The gantry holds position when the movement stops — the closed-loop servos should not drift or give way under hand pressure.

If not: A change in sound or resistance at one part of the travel points to a rail, belt, or ball screw problem. Note where it happens and contact support. See Section 11.

5.5 Heat test, with no material loaded

The last check before material enters the machine. Running the heaters dry confirms the thermal system works and lets you see the temperatures behave normally without a jam or a bad pellet confusing the picture.

CAUTION Nozzle and bed will become extremely hot. Do not touch either during or after this test. Keep the chamber door closed while heating.

Check 5.5

Do: From the temperature screen, set the extruder zones to a moderate target of around 200 °C and the bed to around 60 °C. Watch the temperature graph as they climb, then let them sit at target for several minutes.

You should see: Both extruder zones and the bed climb steadily and reach their targets.

Once at target, temperatures hold steady within a couple of degrees. No thermal error appears. You may notice a faint smell from manufacturing residue on first heat-up, which is normal and passes.

If not: A zone that climbs very slowly, stalls short of target, swings widely, or triggers a thermal runaway error indicates a heater or thermistor fault. Do not print. Photograph the temperature graph and contact support. See Section 11.

Cool down

Do: Set all temperatures back to zero and let the machine cool.

You should see: Temperatures fall steadily. The machine is now commissioned and ready for network setup and levelling.

5.6 Commissioning record

Fill this in and keep it. It is your evidence if a freight claim is needed, and your baseline if the machine changes behaviour later.

Check	Pass	Notes / anything unusual
5.1 Power on and boot		
5.2 Emergency stop and recovery		
5.3 Home all axes		
5.4 Full travel, all axes		
5.5 Heat test		

Date: _____ Completed by: _____

6. Network Setup

Who: operator or IT. When: after the function check. Allow: 15 minutes.

6.1 Choose how you will use the machine

Decide this first, because the rest of the section depends on it.

Option	What you get	How files reach the machine
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Networked	Full Mainsail web interface from any browser on your network. Remote monitoring of long prints, remote start and stop, direct file upload, easier support.	Upload over the network, or USB
Offline / air-gapped	Machine never touches a network. Nothing leaves the facility.	USB drive only

The Giga 800 is fully functional offline. Nothing about the machine requires a cloud service or an account, and no telemetry is sent.

6.2 Connecting to your network

1. On the control screen, open the network settings.
2. Connect to your Wi-Fi network,
3. Note the IP address shown on the screen.
4. On any computer on the same network, enter that IP address into a web browser. The **Mainsail** interface will open.

Confirm the connection

Do: Load the Mainsail interface in a browser and check that it shows live temperatures matching the control screen.

You should see: Mainsail loads, shows the machine as connected and ready, and temperature readings update in real time.

If not: If Mainsail does not load, confirm the computer is on the same network and subnet, and that the IP address is correct. See Section 11.

NOTE Ask your IT team for a DHCP reservation for the machine, so its IP address does not change. Otherwise the address you noted today may not work next week, and any bookmark or saved link will break.

[TO CONFIRM] Supply: the machine hostname (if one is set), whether Mainsail is reachable by hostname as well as IP, any default login credentials, and the firmware update procedure.

6.3 Running offline

1. In the network settings on the control screen, set Wi-Fi to **OFF**.
2. Leave the Ethernet port unconnected.
3. Transfer sliced G-code to the machine using the supplied USB drive.

For organisations with strict security requirements, the Giga 800 is designed to support

air-gapped, offline workflows. It runs open-source Klipper firmware, which your IT and security teams can inspect. Print data never leaves your facility.

NOTE Whether a particular installation meets ITAR or any other regulatory requirement depends on your organisation's own compliance programme, procedures, and controls. The machine supports offline operation; compliance itself is determined by the operator.

7. Bed Leveling

Who: operator. Check the existing bed level before making any adjustment. The bed is pre-levelled before shipping, and the Giga 800's large nozzle can tolerate small variation. Adjustment is only needed if the nozzle is too close to the bed, too far from it, or the clearance changes noticeably across the build area.

The Giga 800 does not use a bed probe or automatic mesh compensation. Bed levelling is mechanical. The machine is levelled at the factory and often needs no correction, but shipping vibration can disturb it, so always check the bed before the first print. The Z axis homes against a mechanical endstop, which sets the Z reference and limits downward travel.

7.1 Before you start

WARNING Check and level the bed at printing temperature. An 800 mm build plate changes shape as it heats. Heat the bed to the temperature you will actually print at, close the chamber door, and let it soak for 20 to 30 minutes before checking or adjusting the level.

- ☐ Machine has passed the function check in Section 5
- ☐ Machine is level on its feet and all four feet carry load (Section 3.4)
- ☐ Bed is clean, with no old material, adhesive residue, or debris
- ☐ Bed heated to printing temperature and soaked 20–30 minutes, door closed
- ☐ Nozzle clean — a blob of cooled plastic on the tip will make every measurement wrong
- ☐ US quarter (1.75 mm thick), or another coin with a measured thickness
- ☐ Hex key for the levelling screws

7.2 Check the existing level

Check the existing level before adjusting anything:

- Power on the printer.
- From the main screen, tap “Move”.



Tap “Home”.



Tap “Home All”.



The extruder moves to the front-left home position and stops at approximately 12.5 mm

above the bed.



- Using the Move controls, lower Z to 1.75 mm above the bed. Use the 0.5 mm steps first, then 0.1 mm steps as you approach the target. A US quarter is approximately 1.75 mm thick and can be used as the reference gauge.
- Move the print head to nine positions across the build bed and compare the nozzle-to-bed clearance at each position using the quarter as the reference. If a quarter is not available, measure the thickness of another coin and use that thickness as the reference height. At this stage, check the level only; do not adjust the bed unless the clearance is clearly too close, too far, or inconsistent across the bed.

IMPORTANT Do not use the Z-Calibrate function for bed levelling. Before making any bed adjustment, take a photo of the current Z-Calibrate screen so the factory preset value is recorded.



7.2.1 How Z zero is set

The Z axis homes against a mechanical endstop, which defines Z zero. The bed surface is then set relative to that reference using the mechanical adjustment points beneath the bed. You are adjusting the bed to meet the nozzle, not changing Z zero to match the bed.

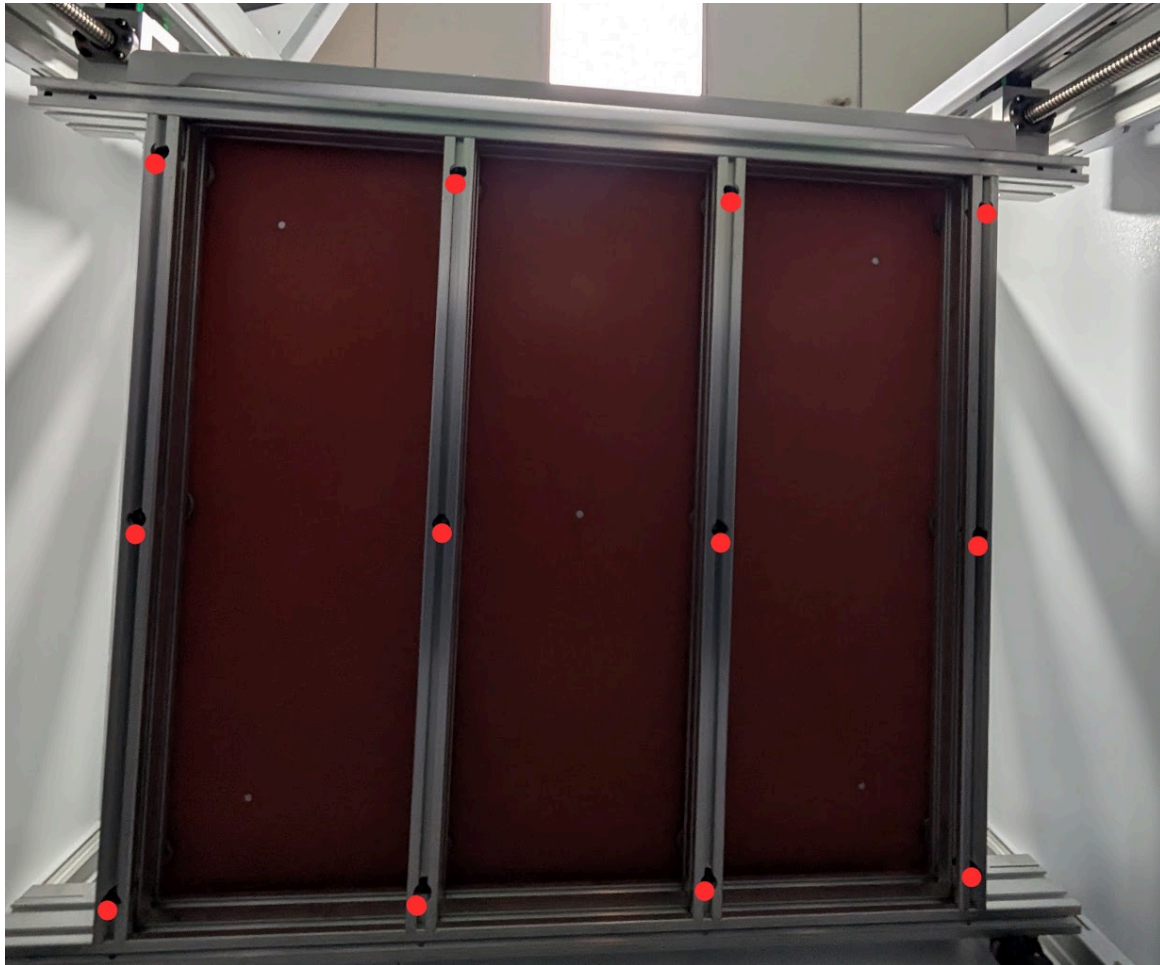
Always home the Z axis before checking or adjusting the bed. Re-home after any work that may have moved the Z endstop or the bed mounting.

7.3 The 12 adjustment points

The bed has 12 mechanical adjustment locations underneath. Check nozzle clearance at nine measurement positions on the build surface: the centre, four corners, and four edge midpoints.

Work in that order. Setting the centre first gives you a reference for the rest of the bed and reduces the chance of chasing the same error from point to point.

The photo below shows the 12 adjustment locations beneath the build bed.



7.4 Levelling procedure

7.4.1 Home the machine

Do: Clear the bed completely, check for debris, then home all axes.

You should see: All axes home cleanly. The machine now knows where Z zero is.

If not: See Section 5.3.

7.4.2 Set the reference height

Do: After homing, use the Move controls to set Z to the reference height (1.75 mm when using a US quarter). Then move the print head to the centre measurement position.

You should see: The nozzle is at the chosen reference height above the bed at the centre position.

7.4.3 Set the centre reference

Do: Place the US quarter, or your measured reference coin, between the nozzle and the bed. Adjust the centre-area levelling point until the coin fits without force and the nozzle is very close to the top of the coin without touching it.

You should see: The reference coin fits consistently between the nozzle and the bed without being pinched. This is your reference clearance; match the remaining measurement positions to it.

Which way to turn:

Symptom	Action
Bed too close — the coin will not fit, or the nozzle touches the coin	Turn the screw clockwise to lower the platform
Bed too far — there is a visible gap above the reference coin	Turn the screw counter-clockwise to raise the platform

7.4.4 Check and adjust the remaining eight positions

Do: Move the print head to each remaining measurement position in order: four corners, then four edge midpoints. At each position, use the same reference coin and adjust the nearby levelling point until the clearance matches the centre reference.

You should see: The same coin clearance at all nine measurement positions.

7.4.5 Make a second pass

Do: Check all nine measurement positions again in the same order.

You should see: Little or no adjustment is needed on the second pass. The bed is level when the reference clearance is consistent across all nine positions.

If not: If the clearance changes noticeably after you adjust another point, the adjustment is affecting its neighbours. Make a third pass using smaller corrections. If the bed will not settle, confirm that the machine is level on its feet and that all four feet carry load. A twisted frame will not hold a consistent bed level. See Section 11.

NOTE Final levelling is confirmed by the first layer, not by the coin check alone. Section 8.7 shows what a good first layer looks like. One or two small corrections may be needed after the first print.

7.5 When to re-level

- Before the first print
- After the machine has been moved, even a short distance
- On the interval in the maintenance schedule (Section 10)
- Whenever the first layer looks wrong in one area of the bed but not another
- After any work on the bed, the bed mounting, or the Z axis

8. Your First Print

Who: operator. When: after levelling. Allow: 2 hours plus print time, including drying.

Make your first print a small, simple test model. Do not start with a large or critical job — the point of this section is to see the machine work end to end and to learn what normal looks like.

8.1 Dry your pellets

WARNING Wet pellets are the most common cause of failed FGF prints. Moisture turns to steam in the extruder, causing popping and hissing, rough surfaces, stringing, internal voids, and weak layer bonding. Nylon, PPA, and TPU absorb moisture from open air within hours. Drying is not optional for these materials.

1. Load pellets into a top-loading pellet dryer.
2. Dry at the temperature and time for your material — see **Appendix A**.
3. Move dried pellets straight into the hopper, or into a sealed container. Do not leave dried pellets standing open.
4. If ambient humidity in the room is above 40%, run a dehumidifier. This matters most for nylon, PPA, and TPU.

NOTE The 1 kg sample supplied with the machine has been sealed but may still need drying depending on how long it has been in transit. Dry it before use.

8.2 Load the hopper

The Giga 800 has a **12 L hopper integrated into the chassis**, with a built-in air suction system that pulls pellets into the extruder. There is no external compressor and no separate feed unit. Make sure to utilize the pellet funnel to feed on top of the hopper to help loading.



1. If you are changing materials, clear the previous material out first. See Section 9.
2. Open the hopper lid and pour dried pellets in. Pellets must be **1 mm to 5 mm** on their longest side.
3. Close the lid.

FIGURE REQUIRED — Hopper lid, fill opening, and the suction feed line to the extruder

How the feed system behaves

A sensor in the extruder detects when the extruder is running low and automatically vacuums more pellets up from the hopper. You will hear the suction cycle on and off periodically during a print. **This is normal.** It is not a fault, and it does not mean anything is wrong.

WARNING There is no sensor in the hopper itself. Nothing detects or warns you when the hopper is running empty. If the hopper empties mid-print, the extruder will keep running, the print will fail, and you will not be told. **Checking the hopper is your job.**

How long a hopper lasts

	Approximate
Hopper capacity	12 L — roughly 9 to 12 kg depending on material density
Maximum flow rate	3 kg per hour
Runtime at moderate flow	Longer, but still well short of a full overnight run

Plan for this. Any job longer than a few hours will need the hopper topped up part way through, and an overnight job will need topping up before you leave.

[TO CONFIRM] Confirm: can the hopper be safely topped up while a print is running? If yes, describe the procedure here — this is essential information for overnight jobs. If no, that limitation must be stated plainly.

8.3 Prime and purge the extruder

Never start a print on an unproven extruder. Purging first confirms the material is flowing cleanly and dry before you commit to a job.

CAUTION Wear the supplied high-temperature gloves. Purge into a heat-resistant metal container, never a plastic bucket and never a bag held in your hand. Ensure the area is ventilated.

8.3.1 Heat up

Do: Set the extruder zones and bed to the values for your material (Appendix A) and wait for them to reach target and stabilise.

You should see: Both zones and the bed reach target and hold steady. See Section 5.5 for what normal heating looks like.

If not: See Section 11.

8.3.2 Purge

Do: Position a heat-resistant container to catch the purge, then run the extruder feed until material comes through.

You should see: Material extrudes in a steady, even, continuous stream. It should be consistent in colour, smooth in surface, and free of bubbles. It should be **silent** — no popping, hissing, or crackling.

If not: **Popping or hissing means the pellets are wet.** Stop, and dry the material properly before going any further. Nothing else will fix this. If nothing extrudes at all, see Section 11.

8.3.3 Purge until clean

Do: Keep purging until the extrudate is completely consistent — particularly important when changing from a previous material.

You should see: Colour and texture are uniform with no streaking or contamination from the previous material.

[TO CONFIRM] Supply the exact purge control on the touchscreen (the current draft refers to a "Feed" button), and an approximate purge quantity or duration needed to fully clear the barrel on a material change.

8.4 Prepare the bed

1. Let the bed cool. Applying the spray cold gives a better result than applying it hot, though either works.
2. Clean the bed surface. It must be free of grease, fingerprints, dust, and old material.
3. Apply an even coat of the supplied **bed adhesion spray** across the whole printing area.
4. Let it dry before printing.

NOTE Reapply approximately **once every three prints**. When the supplied can runs out, **Siraya Tech Bed Adhesion spray** is the recommended replacement and is available on Amazon. Keep a spare — parts will not stick without it.

CAUTION Use the metal scraper carefully and at a shallow angle. Gouging the bed surface will damage the coating and create adhesion problems in that spot on every future print.

[TO CONFIRM] Confirm the bed surface material, the correct cleaning agent (IPA or otherwise), and whether the metal scraper is safe to use directly on the bed.

8.5 Slice the model

You should already have Orca Slicer, the Giga 800 printer profile, and the Siraya Tech material

profiles installed from Section 2.4.

1. Open Orca Slicer and select the **Peopoly Giga 800** printer profile. Confirm the build volume shows 800 × 800 × 800 mm.
2. Check that the **nozzle diameter set in the software matches the nozzle physically fitted to your machine**. Correct it if it does not. A mismatch here will ruin the print regardless of everything else.
3. Import your test model.
4. Select the **Siraya Tech material profile** for the pellets you loaded. Use the pre-configured profile rather than entering temperatures by hand — the profiles carry tested flow rates, retraction, and temperature curves. Manual settings are covered in Appendix B if you need them.
5. Slice, then use the preview and the layer slider to check the result before exporting.
6. Export the G-code to the USB drive, or upload it directly through Mainsail if the machine is networked.

[TO CONFIRM] State which nozzle size ships fitted as standard, and describe how an operator identifies the fitted nozzle size on the machine. Nozzle range is 0.4–3.0 mm and the user currently has no way to check.

8.6 Start the print

- ☐ Bed clear of tools and debris, and visually checked
 - ☐ Hopper full
 - ☐ Extruder purged and flowing cleanly
 - ☐ Bed sprayed and dry
 - ☐ Chamber door closed
 - ☐ Emergency stop released and accessible
1. Insert the USB drive, or select the file you uploaded through Mainsail.
 2. Open the file menu on the control screen and select your model.
 3. Start the print.

Confirm the print has started correctly

Do: Watch the machine heat, home, and begin the first layer.

You should see: The machine heats to target, homes all axes, and begins laying down material in a continuous, well-adhered line.

If not: See Section 8.7 and Section 11.

8.7 Watch the first layer

Stay with the machine for the whole first layer. It is the best few minutes you will spend, and almost every print failure is visible or preventable here.

What you see	What it means	What to do
Lines are smooth, slightly flattened, and joined to their neighbours with no gaps. Material sticks firmly to the bed.	Correct. Levelling and first layer height are right.	Let it run.
Lines are round, thin, and not touching. Material peels up behind the nozzle.	Nozzle too far from the bed, or bed not sprayed.	Stop. Re-check levelling (Section 7) and bed prep (Section 8.4).
Lines are transparent, ridged, squashed wide, or the nozzle is scraping the bed.	Nozzle too close to the bed.	Stop. Re-level (Section 7).
Good in one area of the bed, poor in another.	Bed is not level across its area.	Stop. Re-level, paying attention to the points nearest the poor area.
Popping or hissing, rough or bubbled surface.	Wet pellets.	Stop. Dry the material (Section 8.1). Continuing will waste the whole job.
Extrusion becomes uneven, thin, or stops.	Feed problem, clog, or empty hopper.	Check the hopper first. See Section 11.

FIGURE REQUIRED — First layer reference photographs — correct, too high, too low, wet material

8.8 During the print

- **Keep the chamber door closed.** The chamber holds around 60 °C from the bed and nozzle, which is what stops large parts warping. Opening the door mid-print causes rapid cooling and can lift the part off the bed.
- **Check the hopper on a timer.** There is no low-hopper alarm. Set a reminder rather than relying on memory.
- Suction cycling on and off is normal.

- If networked, monitor from Mainsail rather than opening the door.

8.9 Remove the part

1. Let the print finish and allow the bed to cool. The bed coating releases parts as the bed cools, so patience here does most of the work for you.
2. Once cooled, lift the part off. Large parts normally release with little force.
3. If a part is reluctant, wait longer for it to cool further before reaching for a tool.
4. Use the metal scraper only when needed, at a shallow angle, taking care not to gouge the bed surface.

CAUTION Do not lever a part off a hot bed. You will damage the coating, and hot parts distort.

9. Changing Materials, Emptying and Purging

9.1 Before you start

Changing materials on the Giga 800 means clearing material from three places: loose pellets in the hopper, loose pellets in the feed path and extruder feed section, and molten polymer remaining in the screw, barrel, and nozzle. For a complete material change, clear all three in order. Skipping one can contaminate the new material or cause a clog, especially when switching between materials with very different printing temperatures.

Where the material is	Method	Use when
Loose pellets in the hopper	Empty the hopper (9.2)	Changing material, or emptying for storage
Loose pellets in the feed path	Clear the feed section (9.3–9.4)	Changing material
Molten polymer in the barrel and nozzle	Purge the melt (9.5)	Changing material, and before every shutdown

9.2 Step 1 — Empty the main hopper

Recover unused pellets from the hopper before running material through the extruder unnecessarily.

Place a clean container beneath the hopper discharge outlet. Turn the cap counterclockwise to loosen and remove it, then allow the pellets to drain into the container. Lightly tap the outlet if necessary to release pellets remaining inside. Reinstall the cap when the hopper is empty.



1. Finish or stop the current print and allow all machine motion to stop.
2. Place a clean container beneath the hopper discharge outlet.
3. Remove the discharge cap and allow the pellets to drain into the container.
4. Lightly tap the outlet if necessary and check that the hopper is completely empty.
5. Reinstall the cap and store recovered pellets in a clean, sealed, labelled container.

NOTE The hopper photo above shows the discharge outlet and cap used for this procedure.

9.3 Step 2 — Remove loose pellets from the extruder feed section

Pellets can remain inside the feed system even after the main hopper is empty. Clear these before loading the new material.

Use the pellet exit gate and supplied pellet removal tube described in Section 9.4.

Position the tube over a clean container before running the feeder.

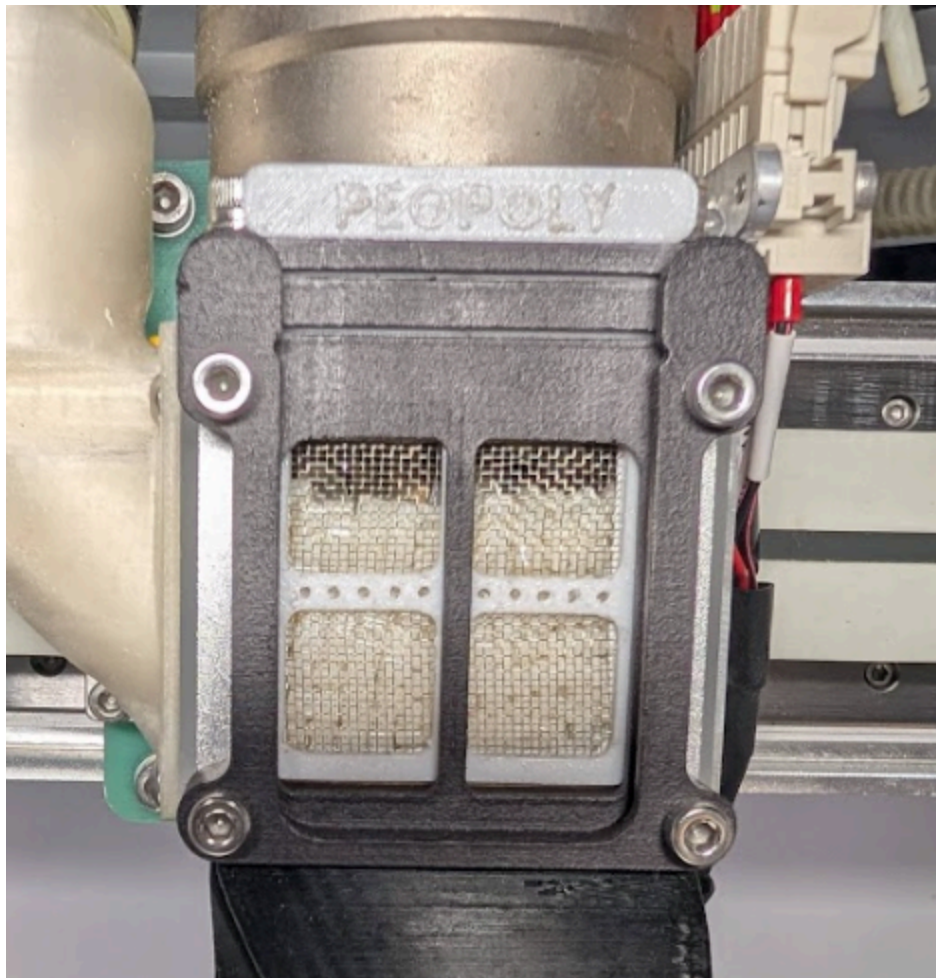
Continue until no more loose pellets discharge from the feed section.

FIGURE — Pellet exit gate, pellet removal tube, and discharge path

9.4 Using the pellet exit gate

Use the supplied pellet removal tube to route loose pellets out of the extruder feed section and into a clean container.

1. Locate the pellet exit gate on the extruder, shown below.



2. Find the supplied pellet removal tube.



3. Fit the notched end of the tube into the slide slot of the pellet exit gate.





1. 4. Pull the white pellet screen with the Peopoly text upward to open the pellet discharge path. Use two hands and lift evenly.



2. Position the other end of the tube over a clean container. On the Klipper touchscreen, open the Macros section and run the feeder.
The feeder control is in the Macros section of the interface:



6. Press the play button on “FEEDER_ON”.
7. Repeat the feeder cycle as needed until no more pellets come out.
8. Reinstall the pellet screen.
9. Remove the pellet removal tube.

9.5 Step 3 — Purge the molten material

WARNING Molten polymer may be discharged at temperatures up to 400 °C. Wear high-temperature gloves whenever working near the nozzle or handling purge material. Purge only into a stable, heat-resistant metal container and ensure the area is ventilated.

1. Heat the extruder to the normal printing temperature of the material currently inside the machine.
2. Position a heat-resistant metal container beneath the purge area.
3. Run the extruder feed and allow the remaining material to purge through.
4. Continue purging until the remaining old material has been expelled.

The purge should form a smooth, continuous stream. Popping or hissing usually indicates wet material; stop and dry the material before continuing.

[ENGINEERING TO CONFIRM] Exact melt-purge physical sequence, including the discharge tube, filter screen, container placement, and required photo sequence. This is a burn-hazard procedure and must be unambiguous before release.

FIGURE REQUIRED — Melt purge procedure: discharge tube, filter screen, container placement, step by step

9.6 Step 4 — Load the new material

1. Confirm the hopper discharge cap is reinstalled.
2. Confirm the pellet screen is installed correctly.
3. Load properly dried new pellets into the hopper.
4. Close the hopper.
5. Heat the extruder to the required temperature for the new material.
6. Allow the automatic feed system to move the new pellets into the extruder.

See Section 8.1 for drying and Section 8.2 for normal hopper loading.

9.7 Step 5 — Purge until the new material is clean

Run the extruder until the material exiting the nozzle is completely consistent. Continue purging until the colour and texture are uniform, no visible trace of the previous material remains, and extrusion is smooth and continuous. When changing between materials of similar colour, purge more conservatively because contamination may not be visible.

9.8 Special care when changing between different polymers

Take extra care when changing between materials with very different processing temperatures. Residual low-temperature material can degrade or carbonise if it is carried directly to a much higher temperature, increasing the risk of clogging. Purge the old material thoroughly before raising temperature significantly, then continue purging with the new material until the output is completely clean and stable.

9.9 Material change checklist

- ☐ Main hopper emptied of old pellets
- ☐ Loose pellets removed from the extruder feed section
- ☐ Old molten material purged
- ☐ Hopper outlet cap reinstalled
- ☐ Pellet screen reinstalled
- ☐ New material properly dried
- ☐ New material loaded
- ☐ Extruder heated to the new material temperature
- ☐ Purge is uniform and free of old material
- ☐ Orca Slicer material profile updated
- ☐ Orca Slicer nozzle size matches the installed nozzle

9.10 Shutting down

How you shut down determines how easy the next start-up is.

1. **Purge the extruder before it cools.** Material left to solidify in the barrel makes the next heat-up harder, and material left sitting at temperature will degrade.
2. Set all temperatures to zero.
3. Let the machine cool with the chamber door open, so heat and any residual fumes vent.
4. Clear the bed and remove any debris.
5. Switch off at the main switch.

NOTE Do not leave the machine hot and idle for long periods. Polymer sitting at temperature in the barrel degrades, and degraded polymer is a common cause of clogs the next time you print.

After a power failure

Klipper does not resume an interrupted print by default. If power is lost mid-print, the job is lost. On restoring power, home the machine, check the bed for stuck material, and clear the extruder before starting again.

[TO CONFIRM] Confirm whether any power-loss recovery feature is available on this machine.

10. Maintenance

The Giga 800 runs abrasive fibre-filled materials at high temperature for long hours. Maintenance is not optional, and most of it is quick.

10.1 Schedule

Interval	Task
Before every print	Clear the bed and check for debris before homing Check hopper level and refill Check the nozzle tip is clean Reapply bed adhesion spray every third print
Weekly	Wipe down bed, chamber interior, and exterior surfaces Remove accumulated pellet dust and stray pellets from the chassis and around the hopper Visually inspect the nozzle for wear Check the suction feed line is clear
Monthly	Clean the filter screen Inspect belts for tension, wear, and debris Inspect linear rails and ball screws for contamination Check all four machine feet still carry load Re-check bed level
Every 3–6 months	Apply industrial grease to the linear guide rails Lubricate the ball screws Inspect and clean the extruder screw and barrel Full inspection of wiring and connectors
As needed	Replace the nozzle when worn — see Section 10.3 Replace bed adhesion spray when the can runs out Re-level after any machine move

[TO CONFIRM] Confirm the intervals above against engineering's recommendations, and add any items specific to the extruder screw, barrel, and drive that are not listed. Add an hours-based interval (for example every 500 running hours) if that is more appropriate for production users.

10.2 Nozzle wear

WARNING Nearly every material in the Giga 800 range is carbon or glass fibre filled. Fibre-filled polymer is abrasive and will wear a nozzle out. On a machine pushing up to 3 kg per hour, a nozzle can wear noticeably faster than most users expect.

A worn nozzle grows in diameter, which shows up as poor dimensional accuracy, inconsistent extrusion width, and a general loss of surface quality that no amount of slicer tuning will fix. It comes on gradually, which makes it easy to miss.

- Inspect the nozzle tip weekly. Look for a rounded, enlarged, or scored opening.
- Keep a spare nozzle on hand. Waiting for one to arrive means downtime.
- Replace the nozzle when quality drops and levelling and material are both known good.

[TO CONFIRM] Supply: expected nozzle life in kg or hours for fibre-filled materials, the nozzle part number, and where to buy replacements. Confirm whether hardened nozzles are supplied as standard.

10.3 Changing the nozzle

Use this procedure when replacing a worn nozzle or changing to a different nozzle diameter.

WARNING — HOT SURFACES

The nozzle and surrounding extruder components will be hot during this procedure. Wear heat-resistant gloves that cover the wrist and wear long sleeves. A hot nozzle may drop unexpectedly during removal and can cause serious burns to the hand, wrist, or forearm.

Before you start

You will need:

- The 14 mm L-shaped socket wrench supplied with the printer



- The replacement nozzle



- The supplied white sealing tape



- Heat-resistant gloves that cover the wrist
- Long sleeves

The Giga 800 includes 10 nozzles in different diameters. Select the nozzle size you want to install before beginning.

Procedure

1. Power on the printer.
2. Home the machine. Make sure the build area is clear before homing.
 - From the main screen, tap “Move”.



Tap “Home”.



Tap “Home All”.



3. Move the extruder into a safe working position. Move the extruder toward the front-center area of the machine and lower the bed to create enough working clearance. A good working position is approximately 250 mm to the right on X, with the bed lowered about 250 mm.
4. Heat Extruder T0 to 200 °C for ABS and similar lower-temperature materials, or 250 °C for higher-temperature materials. Wait until the target temperature is reached. Heating softens the plastic remaining inside the nozzle and makes the nozzle easier to remove.
5. Put on heat-resistant gloves and long sleeves.
6. Locate the supplied 14 mm L-shaped socket wrench.
7. Remove the installed nozzle. Fit the 14 mm socket wrench fully over the nozzle and carefully turn it to loosen the nozzle. Keep your hands and arms clear directly below the nozzle. Once fully loosened, the hot nozzle may drop. Place the removed nozzle on a heat-resistant surface and allow it to cool. In following picture, pushing the wrench away from user tightens screws and pulling toward to user loosen



8. Select the replacement nozzle. From the supplied nozzle set, choose the nozzle diameter required for your print and confirm the diameter before installation.
9. Apply the supplied white sealing tape. Wrap the threaded section of the replacement nozzle with the white tape for approximately 5 complete turns. Keep the tape on the threaded area only. Do not cover the nozzle opening



10. Install the replacement nozzle. Thread the nozzle into the extruder by hand first until it is seated. Then use the 14 mm socket wrench to tighten it until it feels firmly seated. Do not overtighten.
11. Check the installation. With the extruder still hot, confirm that the nozzle is seated securely and that there is no visible gap or looseness.
12. Update the nozzle size in Orca Slicer. Before printing, make sure the nozzle diameter selected in Orca Slicer matches the nozzle physically installed on the machine. Also adjust material print profiles as necessary. In general, the nozzle and bed temperature do not need to be changed with different size of nozzles. However, the layer height and layer width needs to be updated. Layer height is recommended to be 40-55% of the nozzle diameter. So for a 3mm nozzle, recommended layer height is 1.2-1.65mm. For Line width, it is recommended to be 80-100% of the nozzle diameter. So for a 3mm nozzle, it would be best to have the line between 2.4-3mm. Bottom layer line width can be 10% larger than the other layers for improved layer adhesion

IMPORTANT Using a slicer nozzle diameter that does not match the installed nozzle will cause incorrect extrusion and poor print quality.

After changing nozzle size, run a short purge for 1000mm and inspect the first layer before starting a print.

10.4 Cleaning

WARNING Always switch off and isolate the machine at the wall before cleaning.

- Wipe dust, plastic debris, and stray pellets from the machine with a dry cloth.
- Pay attention to pellet dust around the hopper and feed system — it accumulates and can affect feeding.
- Keep the chamber interior clear of dropped material and purge remnants.

10.5 Lubrication

1. Wipe off old, dirty grease first. Adding new grease on top of contaminated grease traps abrasive particles against the bearing surface.
2. Apply a fresh bead of industrial grease along the linear guide rails.
3. Slide the gantry back and forth by hand, with the machine off, so the grease works into the slider blocks.
4. Lubricate the ball screws.

[TO CONFIRM] Specify the grease type and grade for the linear rails and for the ball screws, and describe the ball screw lubrication procedure.

11. Troubleshooting

Organised by what you see. Work down each list in order — the checks are ordered from most likely and easiest to hardest.

11.1 Machine will not power on or boot

- Check the emergency stop is released.
- Check the main switch.
- Have your electrician confirm the supply and the breaker.
- If the screen boots to an error, photograph it and contact support before going further.

11.2 Homing fails, or the machine grinds or binds

- **Power off immediately.**
- Check for shipping restraints still fitted — this is the most common cause on a new machine. See Section 3.5.
- Check for debris, tools, or leftover material on the bed or in the gantry path.
- Move each axis by hand with the machine off and feel for resistance.
- If an endstop error is reported, contact support.

11.3 Temperature will not reach target, or swings

- Confirm the chamber door is closed.
- Check the target is within the machine's range — 400 °C nozzle, 120 °C bed.
- Compare against the heat test in Section 5.5. If it was fine then and is not now, something has changed.
- A thermal runaway error means stop. Do not attempt to override it. Photograph the temperature graph and contact support.

11.4 Nothing extrudes, or extrusion stops mid-print

- **Check the hopper first.** There is no low-hopper sensor, and an empty hopper is the most common cause. See Section 8.2.
- Check pellets are not bridging or arching over the hopper outlet, which stops them feeding even though the hopper looks full. Break up any bridge.
- Check the suction feed line for a blockage.
- Check pellet size is within 1–5 mm. Oversized pellets, fines, and dust all cause feed problems.
- Check for a clog. See 11.5.

11.5 Clogged nozzle or extruder

CAUTION Wear high-temperature gloves. Move the bed well clear of the nozzle before working near it. Hold the unclogging pin with pliers rather than by hand.

- Heat the nozzle to the printing temperature of the material currently loaded, and **do not exceed 400 °C** under any circumstances.
- Attempt a purge first. See Section 9.4.
- If purging does not clear it, carefully insert the unclogging pin into the nozzle opening from below to clear the blockage.
- If purging and the pin both fail, the blockage is likely in the barrel rather than the nozzle tip. Contact support before disassembling anything.
- Repeated clogging usually means wet material, degraded material left too long at temperature, or contamination from an incomplete material change.

[TO CONFIRM] The source draft advised heating 20 °C above printing temperature to clear a clog. For materials already printed at up to 400 °C this exceeds the machine maximum. Confirm the correct clearing procedure and any safe temperature margin.

11.6 Popping, hissing, bubbles, rough surface

- **The pellets are wet.** This is almost always the cause.
- Stop, dry the material properly (Section 8.1 and Appendix A), and purge before restarting.
- Check your storage — dried pellets left in open air reabsorb moisture within hours.
- If ambient humidity is above 40%, run a dehumidifier.

11.7 Poor first layer

- See the first layer table in Section 8.7, which covers each symptom and its cause.
- Confirm the bed was sprayed and the spray was dry.
- Confirm the bed was clean and free of grease.
- Re-level, hot, following Section 7.

11.8 Parts warping or lifting off the bed

- Keep the chamber door closed for the whole print. The 60 °C chamber is what prevents warping on large parts.
- Reapply bed adhesion spray. Remember it needs reapplying roughly every third print.
- Clean the bed of grease and fingerprints.
- Re-check levelling.
- Check bed temperature is correct for the material — see Appendix A.
- Some unfilled materials shrink significantly at this scale. A carbon or glass filled version of the same polymer will shrink far less and is often the right answer for very large parts.

11.9 Stringing and oozing

- Dry the pellets. Moisture is the first suspect.
- If the material is definitely dry, increase retraction distance slightly in the Orca Slicer material profile.
- Confirm you are using the Siraya Tech profile for the material actually loaded.

11.10 Layer shift

- Check for debris or an obstruction in the gantry path.
- Check the part has not warped upward far enough for the nozzle to strike it.
- Check belt tension.
- Repeat the axis movement check in Section 5.4 and listen for any change across the travel.

11.11 Cannot reach the Mainsail interface

- Confirm the computer is on the same network and subnet as the machine.
- Re-check the IP address on the control screen — it may have changed if there is no DHCP reservation.
- Confirm Wi-Fi has not been switched off on the machine.
- Try an Ethernet connection instead of Wi-Fi.

11.12 Emergency stop was pressed

- Twist to release the button.
- Clear the stop state on the control screen.
- **Re-home the machine.** Position is lost after an emergency stop.
- Any print that was running is lost and must be restarted.

12. Support and Warranty

12.1 Contacting support

Email: support@peopoly.net ·

General enquiries: contact@peopoly.net

Phone: +1 323 315 0313 ·

Community: the Peopoly Discord

[TO CONFIRM] Confirm which channel Giga 800 owners should use first, and state expected response times. Industrial customers with a machine down will want to know.

12.2 What to include

Sending these with your first message will usually save a day of back and forth.

- ☐ Machine serial number
- ☐ Material and profile in use
- ☐ Clear photographs of the problem, and of the whole machine
- ☐ Photograph of any error message on screen

- ☐ The Klipper log file, downloadable from Mainsail
- ☐ What you were doing when it happened, and whether it is repeatable
- ☐ Your completed commissioning record from Section 5.6

12.3 Transit damage

Report transit damage immediately, with the photographs taken at delivery (Section 3.1). Freight claims are time-limited and generally require evidence recorded at the point of delivery.

12.4 Warranty

[TO CONFIRM] Insert warranty terms, coverage period, what is excluded, consumable items not covered (nozzle, bed spray), and the registration procedure. Link to the warranty policy page.

Appendix A. Material Reference

WARNING The values in this table are starting points only and must be verified before release. Always use the Siraya Tech material profile in Orca Slicer where one exists — those profiles carry tested values for this machine. Use this table for drying, for materials without a profile, and for manual setup.

A.1 Understanding the two heating zones

The Giga 800 uses a dual-zone screw extruder, and the touchscreen shows two extruder temperatures:

Shown as	Location	Relationship
Temperature 0	Lower section, at the nozzle end	Set 20–40 °C higher than Temperature 1
Temperature 1	Upper section, at the feed end	The lower of the two

The material heats progressively as it travels down the screw, so the temperature rises towards the nozzle. Temperature 0 is the value that corresponds to the printing temperature quoted for a material.

A.2 Starting parameters

Material	Temp 0 (nozzle)	Temp 1 (upper)	Bed	Drying
ABS, ABS-CF, ABS-GF	240–260 °C	210–230 °C	100–110 °C	80 °C, 4 h
ASA, ASA-CF, ASA-GF	240–260 °C	210–230 °C	100–110 °C	80 °C, 4 h
PLA, PLA-CF	190–215 °C	160–185 °C	55–65 °C	45 °C, 4 h
PETG, PETG-CF, PCTG	230–250 °C	200–220 °C	70–85 °C	65 °C, 4 h
PA-CF, PPA-CF, PPA-GF	280–320 °C	250–290 °C	100–120 °C	90 °C, 8–12 h
PET-CF, PET-GF	280–310 °C	250–280 °C	100–120 °C	90 °C, 8 h
TPU 60A–95A, TPU-GF	210–235 °C	180–205 °C	50–70 °C	70 °C, 4–6 h
PEBA	220–240 °C	190–210 °C	60–80 °C	70 °C, 4–6 h

[TO CONFIRM] Every value in this table must be replaced with verified figures from the Siraya Tech material science team. Also add: recommended nozzle size per material, and any material that should not be run on this machine.

A.3 Drying is mandatory for these

PA (nylon), PPA, TPU, and PEBA absorb moisture from open air within hours and will not print acceptably wet. PET-CF and PET-GF are close behind. Dry them, store them sealed, and dry them again if they have been standing open.

A.4 A note on PLA and the heated chamber

The Giga 800 chamber reaches around 60 °C during printing, from the bed and nozzle. PLA softens at temperatures in this region, which can cause problems in the feed path on long prints.

[TO CONFIRM] Engineering to advise: can PLA be run reliably in a 60 °C chamber on this machine, and if so under what conditions — door open, bed temperature reduced, or shorter print duration? PLA is listed as a supported material and users will ask.

A.5 Large parts and shrinkage

At 800 mm, shrinkage that is negligible on a desktop machine becomes a real problem. Unfilled polymers shrink and warp most. **Carbon and glass fibre filled versions of the same polymer shrink substantially less**, and for very large parts they are usually the better choice even where an unfilled grade would otherwise do.

Appendix B. Manual Temperature Setup

This appendix is only needed if you are running a material that has no Siraya Tech profile. **For normal use, use the pre-configured profiles in Orca Slicer** — they carry tested flow, retraction, and temperature values for this machine, and setting temperatures by hand gives up all of that.

1. On the control screen, open the temperature page.
2. Set **Temperature 0** (lower, nozzle end) to the printing temperature for your material.
3. Set **Temperature 1** (upper, feed end) to 20–40 °C below Temperature 0.
4. Set the bed temperature for your material.
5. Wait for all three to reach target and stabilise before purging or printing.

Worked example — ABS:

Setting	Value
Temperature 0 (nozzle end)	250 °C
Temperature 1 (upper)	220 °C
Bed	100 °C
Chamber	Passive, door closed

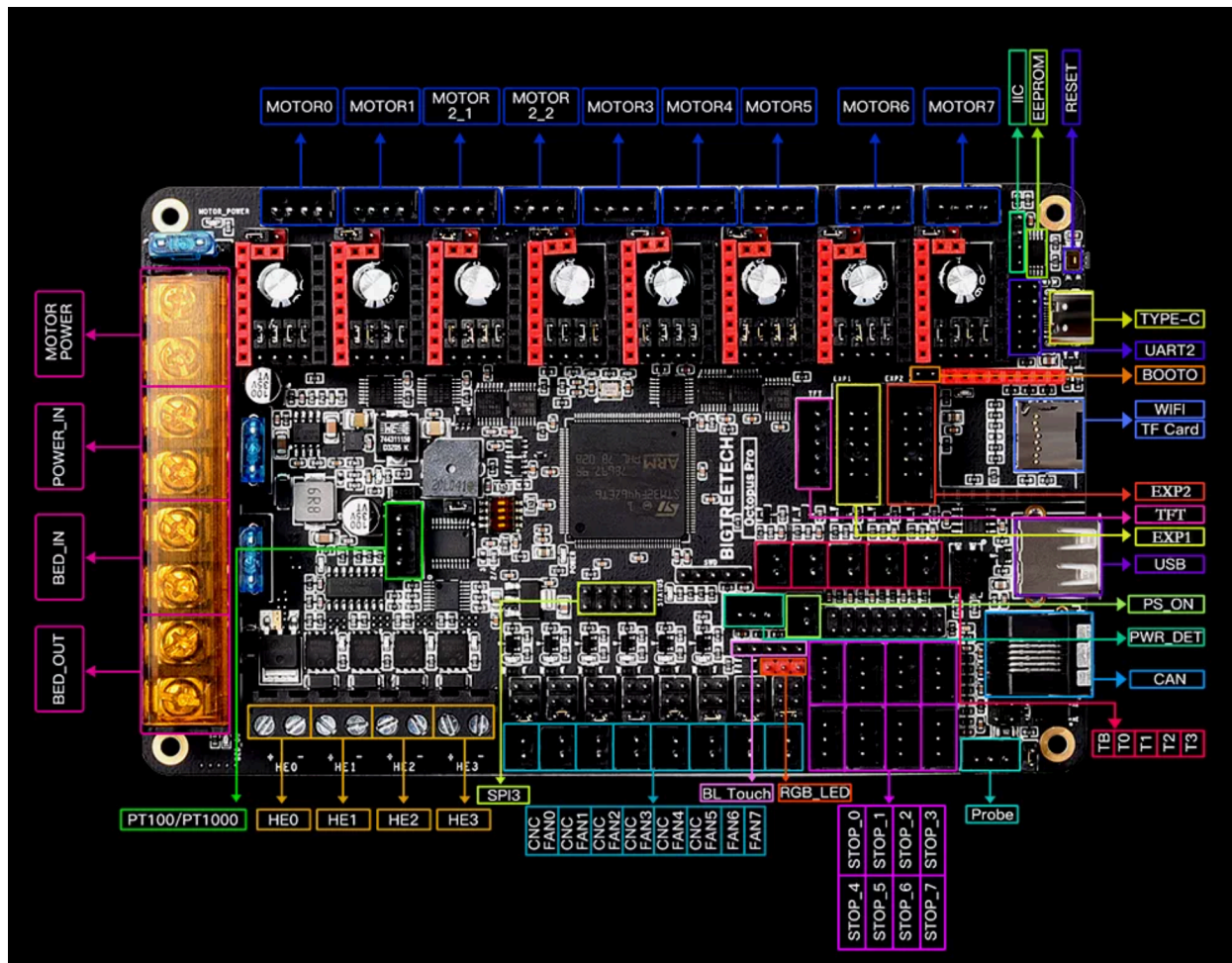
NOTE The worked example in the previous draft gave 200 °C / 160 °C / 80 °C for ABS. Those figures are below the stated ABS range of 230–260 °C and would cause underextrusion and jamming. They have been corrected here, and the corrected values still require verification against the shipped profiles.

Appendix C. Specifications

Build volume	800 × 800 × 800 mm
Machine dimensions	1200 × 1140 × 1560 mm
Crated dimensions	1400 × 1300 × 1700 mm
Net weight	320 kg
Crated weight	410 kg
Motion system	CoreXY, closed-loop servo motors, linear rails and ball screws
Extruder	Dual-zone heating screw extruder
Maximum flow rate	3 kg / hour
Nozzle size range	0.4 – 3.0 mm
Maximum nozzle temperature	400 °C
Maximum bed temperature	120 °C
Chamber	Fully enclosed, approximately 60 °C passive
Pellet size	1 – 5 mm
Hopper capacity	12 L, integrated, air suction feed
Bed levelling	Manual, nine points. No probe.
Firmware	Klipper
Web interface	Mainsail
Slicer	Orca Slicer
Power supply	Single phase 220–240 V, 50/60 Hz
Peak power	5000 W (initial heat-up)
Typical printing power	2000–3000 W
Electrical connection	Open 3-wire pigtail: Brown = Line, Blue = Neutral, Green/Yellow = Earth

Peopoly reserves the right to revise specifications. This guide corresponds to Revision A.

Appendix D. Driver Board Connection Details



Appendix E. Back Panel Function Diagram

