FORGOTTEN INDUSTRIES

CASELABS MERCURY S8 + PEDESTAL

Assembly Reference & Recovery Manual

Hang On To Each Other // Manual 001 // The Principalé // L'Archive

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CaseLabs closed in 2018. No official assembly documentation survived for general distribution. This manual was compiled from forum archives, build logs, review photography, and community knowledge. It exists because the machines deserve to be understood.

A thing documented is a thing not yet lost.

01. Chassis Specifications

The CaseLabs Mercury S8 is a horizontal-ATX full-tower chassis. All-aluminum construction. Removable motherboard tray. Modular panel system. Production ran approximately 2014–2018. No new units will be manufactured. Every S8 in existence is the complete production run.

Exterior Dimensions

Height (main cube)	18.74 in / 476 mm
Width	14.54 in / 369 mm
Depth	19.03 in / 483 mm
Weight	18.5 lbs / 8.5 kg (case only)
Rubber feet add	0.75 in / 19 mm to height
Standard casters add	2.6 in / 67 mm
HD casters add	3.0 in / 76 mm

Motherboard Tray

Tray dimensions (standard ATX)	12.38 in × 10.75 in / 315 mm × 273 mm
Supported form factors	mATX, ATX, E-ATX (consumer), SSI-CEB
E-ATX compatible (confirmed)	ASUS Rampage IV Extreme, ASUS Maximus V Formula, EVGA Z87 Classified
E-ATX not compatible	Supermicro X7DAE and similar workstation-class E-ATX
Optional upgrade (at manufacture)	SSI-EEB tray (+$10.00)
Mounting method	Slides into frame on rails; secured with four screws
Under-tray storage	2× 3.5" HDD or 4× 2.5" SSD (stealth mount, underside)

> *NOTE — The tray is externally removable. The full motherboard, GPU, and expansion card assembly can be built on the bench and slid in as a unit. Use this feature. It is one of the S8's strongest design decisions.*

Expansion Slots & Drive Capacity

Expansion slots	8
Flex bays (5.25")	9
PSU mounts	1 main cube; additional in pedestal

Native HDD capacity	4 (+ 2 on MB tray, loses SSD positions)
Maximum HDD capacity	22
Native SSD capacity	4
Maximum SSD capacity	44
Maximum radiator size	360mm (120.3)

02. Main Cube Internal Layout

The S8 main cube divides into two functional zones. The right chamber — visible through the right window — is the primary component zone: motherboard, GPU, reservoir, pumps, and all visible tubing. The left/rear zone contains the flex bay column, HDD racks, and secondary routing. The top frame accepts drop-in radiator mounts. The rear accepts a single 120mm or 140mm fan.

Top Radiator Mounting

The top frame supports drop-in radiator mounts: separate aluminum plates (.090" / 2.3mm) that allow radiator + fan assemblies to be built on the bench and lowered in as one unit. Strongly preferred over the integrated mount option for serviceability.

– 2× 360mm drop-in (recommended — this build)
– 2× 120mm + 2× 140mm alternative
– 2× 240mm / 2× 280mm alternative
– Standard integrated 2× 360mm (part of frame — functional, less serviceable)

> *NOTE — With dual 360mm top radiators in push-pull, there is still clearance for tubing and PSU cables to the GPU even with 63mm thick radiators. Extended top adds vertical clearance for extreme configurations.*

Side Radiator Mounting

Right side of the main cube accepts a 360mm or 240mm radiator. The 360mm side position is not compatible with HDD drive cages in the same chamber. A 280mm radiator does not fit — the front I/O panel creates a width conflict.

> **VERIFY — Confirm whether your unit has the side 360mm mount bracket in hand. It is a separate aluminum piece. If missing, Singularity Computers manufactures a direct replacement and distribution plate for this position.**

HDD Chamber / Flex Bay Column

The left/front section houses the flex bay column (9 available 5.25" positions) and HDD chamber. One HDD rack is included; each rack holds 4× 3.5" drives or 8× 2.5" SSDs with adapters. The rack cannot be rotated 90 degrees. With the rack removed, a 240mm radiator can mount here.

03. Midplate / Chassis Divider

The midplate is the internal aluminum divider separating the main cube from the pedestal. It defines the lower boundary of the primary component chamber and carries the QDC pass-through bulkheads that connect the cooling loop between main cube and pedestal.

The midplate can be repositioned at different heights within the chassis frame — adjusting the ratio of main cube chamber depth to pedestal chamber depth. Default high position maximizes main cube vertical clearance. Lowering increases pedestal volume.

Midplate Position Options

– **High (default):** maximizes main cube clearance for tall reservoirs, pump tops, tall capacitors
– **Mid:** balanced; useful if pedestal carries significant radiator load
– **Low:** maximizes pedestal volume; reduces main cube vertical clearance

> *NOTE — For this build: begin with midplate in the high position during initial assembly and loop routing. Lower only after confirming all main cube components clear at final installed height. QDC pass-through positions are determined by where you drill — plan this before committing to holes.*

QDC Pass-Through Positions

The midplate requires drilled or positioned cutouts for QDC bulkheads passing the loop between main cube and pedestal. These are not factory pre-drilled on most S8 configurations — the builder determines position based on loop architecture.

– Horizontal QDC pass-throughs preferred for serviceability and visual cleanliness
– Position QDCs before committing to any tubing runs in the main cube
– Koolance QDCs are the specified fitting type — confirm thread spec before drilling
– Minimum two QDC pairs (supply and return); three if using a separate pedestal drain

> **NOTE — Do not drill the midplate until the final loop architecture is confirmed on paper and mocked up in the case with actual hardware. A hole in the wrong location cannot be undone on an original CaseLabs piece.**

> **VERIFY — This section requires direct measurement of the recovered midplate once located. Record: overall dimensions (W × H), frame mounting hole positions, any existing cutouts, material thickness. If fabricating a replacement, these measurements become the fabrication specification.**

[PHOTOGRAPH: Midplate — front face, before cleaning, with scale reference]

[PHOTOGRAPH: Midplate — rear face, showing any existing cutouts or marks]

[PHOTOGRAPH: Midplate installed in frame, showing mounting points and QDC positions]

Sourcing a Replacement Midplate

If the original midplate cannot be located, replacement options in order of preference:

1. Secondary market — eBay, r/hardwareswap, Overclock.net B/S/T, [H] forums. Search: "CaseLabs Mercury S8 midplate" or "CaseLabs S8 parts." Parts surface occasionally from builders who parted out their S8 after 2018.

2. Fabrication from measurement — A waterjet or laser cutter shop can produce a functional aluminum replacement from confirmed measurements and a CAD file. Material specification: .090" (2.3mm) aluminum, matching drop-in mount stock.

3. Community CAD files — Check Overclock.net S8 threads and CaseLabs community for surviving dimensional drawings. The SMA8 midplate CAD request thread (OCN, 2020) indicates prior community attempts — contact those threads for any surviving files.

> *NOTE — bestcases.eu is the last known active CaseLabs official distributor. Singularity Computers manufactures aftermarket distribution plates that mount to existing S8 midplate hardware. Neither currently lists a complete midplate replacement — worth contacting directly.*

04. Motherboard Tray — Installation Sequence

The S8 motherboard tray slides out the right side of the main cube frame, allowing full bench assembly before reinsertion as a completed unit. This is the correct installation sequence.

Tray Removal

1. Open or remove the right side panel (window or solid door).

2. Locate the four tray securing screws on the frame perimeter. Keep them in a labeled container — CaseLabs hardware is not generically replaceable.

3. Remove all four screws.

4. Slide the tray toward the open right side. It runs on a frame channel. Move smoothly — do not force.

5. Support from underneath once clear. The populated tray is heavy.

Bench Assembly on Tray

1. Install motherboard standoffs for your specific board form factor.

2. Install the motherboard. Route the 24-pin and CPU power through cable cutouts.

3. Install GPU(s) with waterblock — confirm block mounting before the tray goes back in.

4. Install M.2 drives, RAM, and other components requiring bench access.

5. Partially route CPU and GPU block tubing while the tray is still on the bench. Significantly easier than working inside.

> *NOTE — Under-tray storage: two 3.5" HDDs or four 2.5" SSDs mount to the tray underside. Route SATA and power cables before reinstalling the tray if using this storage.*

Tray Reinstallation

1. Align the tray with the frame channel from the right side.

2. Slide in carefully. Watch for tubing and cables in the frame gap — do not pinch.

3. Confirm tray fully seated before reinstalling screws.

4. Reinstall all four screws. Do not overtighten — aluminum threads strip.

5. Reconnect any cables disconnected for removal.

05. Pedestal Assembly & Connection

The pedestal attaches to the underside of the main cube frame. In this build it functions as the machine room: power, storage, drains, additional radiators, and cable management. The main cube above is the shrine.

Physical Connection

1. Position the pedestal on its casters on the final surface. Lock casters before any assembly work.
2. Lower the main cube frame onto the pedestal. Confirm alignment before securing.
3. Secure the main cube to pedestal using provided hardware. Confirm all mounting points are engaged — this assembly is heavy when populated.

> **NOTE — Do not perform assembly work with casters unlocked on a hard floor. Lock all four casters before beginning any work.**

Pedestal Internal Layout

The pedestal interior is two chambers split down the sagittal plane (front-to-back centerline).

– **Left side:** 360mm PE radiator, drive archive rack, intake airflow path

– **Right side:** PSU, cable management, SAS breakout routing, service drain, possible additional 360mm

[PHOTOGRAPH: Pedestal — top face, showing main cube connection points]

[PHOTOGRAPH: Pedestal — internal left chamber]

[PHOTOGRAPH: Pedestal — internal right chamber]

[PHOTOGRAPH: Pedestal — underside, PSU vent hex mesh and caster positions]

> **NOTE — Do not use the original PSU from 2014-2015 without full inspection. Capacitor aging, contact corrosion, and seal degradation make decade-old PSUs a potential failure point. This is not the place to save on the archive.**

06. Radiator Mounting — Main Cube

Confirmed radiator positions in the S8 main cube. This build targets three active 360mm XTX radiators as a practical baseline. Additional positions available if thermal requirements demand.

Top position 1	360mm (drop-in mount recommended)
Top position 2	360mm (drop-in mount recommended)
Side position	360mm or 240mm (incompatible with HDD cage in same chamber)
HDD chamber (rack removed)	240mm
Rear	120mm or 140mm fan only — no radiator

Drop-In Mount Assembly Sequence

1. Assemble radiator and fans onto the drop-in mount plate on the bench.
2. For push-pull: attach fans to both radiator faces before mounting to the plate.
3. Lower the complete drop-in assembly into the top frame from above.
4. Secure with included screws. Do not overtighten into aluminum.
5. Connect fan headers to Aquaero channels before routing tubing to this radiator.

> *NOTE — Noiseblocker eLoop fan orientation: confirm airflow direction before mounting. For top radiators: fans typically exhaust upward (pulling through the radiator from the main cube). For pedestal: intake from outside, exhaust into the radiator.*

07. Loop Architecture Reference

Serial loop architecture. No parallel branches. Single controlled path monitored by Aquaero 6 XT. QDC isolation between main cube and pedestal.

Planned Serial Loop Route

1. Dual D5 pumps (Aquabus, EK dual top) — outlet to loop
2. Top radiator 1 — right, 360mm XTX
3. CPU block (EK EVO nickel/plexi — recovered artifact)
4. GPU block
5. Down through midplate QDC pass-throughs into pedestal
6. Pedestal 360mm radiator (service / drain zone)
7. Back up through floor QDCs into main cube
8. Top radiator 2 — left, 360mm XTX — and/or front/side 360mm
9. Reservoir (EK cylinder — visible through right window)
10. Return to pump inlet

> *NOTE — Aquaero 6 XT flow meter: position after pump outlet, before first radiator. Temperature probes minimum: one before pump inlet (loop return temp), one after top radiator stack (post-rad temp). Six linked probes allow distributed monitoring across both thermal zones.*

Fill and Bleed — Staged for QDC-Separated Loop

1. Fill main cube loop first with pedestal QDCs disconnected.
2. Bleed main cube: run pumps at low speed, tilt case, allow air to purge through reservoir.
3. Once main cube loop is clear, connect pedestal QDCs.
4. Top up reservoir. Run full loop. Continue bleeding until flow meter reads stable and no air is visible.
5. Run 24-hour leak test before closing panels.

> **NOTE — Plan the pedestal service drain point and cap/QDC location before committing to tubing runs. The pedestal radiator should drain without requiring full loop disassembly.**

08. Panel Reference

All panels on this build are white powder coat. Panels attach to the frame with hex-head or thumb screws. Handle carefully to avoid scratching the powder coat. Remove protective film from plexi/acrylic immediately before final installation — not before.

Panel Inventory Checklist

Right door	[ ] XL window (full clear) [ ] Standard window [ ] Solid [ ] Ventilated
Left door	[ ] Full window [ ] Standard window [ ] Solid [ ] Ventilated
Front cover	[ ] Window [ ] Ventilated [ ] Solid
Top panel	[ ] Drop-in mount present [ ] Integrated mount [ ] Extended top
Rear panel	[ ] 120/140mm hex mesh [ ] 120mm fan hole
Pedestal underside	[ ] PSU vent hex mesh present

> **VERIFY — Photograph all panels before cleaning and before final assembly. Record which panels are present. Note any powder coat damage, scratches, or dents. This is the evidence record for L'Archive.**

[PHOTOGRAPH: All panels laid out before cleaning — full inventory photograph]

[PHOTOGRAPH: Right window panel — inner face]

[PHOTOGRAPH: Right window panel — outer face, showing powder coat condition]

09. Hardware & Fastener Reference

CaseLabs used consistent hardware throughout the Mercury line. All fasteners are aluminum-compatible — do not overtighten into the frame.

Panel screws	6-32 machine screws, thumb or hex head
Drop-in mount screws	Provided with mount — replace only with matching spec
Motherboard tray screws	4× securing screws, frame-to-tray
Motherboard standoffs	Standard 6-32 brass standoffs — source fresh set if missing
Fan / radiator screws	M3, length varies with radiator thickness + fan depth
QDC bulkhead thread	[VERIFY: measure Koolance QDCs before drilling midplate]

10. Field Notes

Running field record. Date each entry. The archive remembers what panic forgets.

Entry 1 _____

Entry 2 _____

Entry 3 _____

Entry 4 _____

Entry 5 _____

Entry 6 _____

Entry 7 _____

Entry 8 _____

Entry 9 _____

Entry 10 _____

11. Source Record

Compiled from the following sources. Where information conflicts, direct measurement of the physical unit supersedes all documented sources.

– ExtremeRigs.net — CaseLabs Mercury S8 full review, April 2014 (Stren)
– Hardware Canucks — Mercury S8 forum thread, January 2014
– Overclock.net — "CaseLabs announces the Mercury S8" thread, 2014–2016
– Hard|Forum — "New CaseLabs S8 Horizontal ATX" thread, February 2014
– Overclock.net — "Grey Horizon" S8 + Pedestal build log
– Overclock.net — "Manuals? Assembly guidelines?" thread, November 2017
– PCPartPicker — "Case Labs Mercury S8: Midnight Express" build log
– Singularity Computers — CaseLabs S8 distribution plate product pages
– bestcases.eu — CaseLabs official distributor, S8 drop-in mount listings
– Overclock.net — "SMA8 midplate CAD" thread, April 2020
– Forgotten Industries — L'Archive, direct hardware inspection and measurement

> *NOTE — The original CaseLabs assembly manual for the Mercury S3 used the same construction method as the S5 and S8 — community members confirmed the S3 manual applied to all Mercury-line cases. The original PDFs were hosted on the CaseLabs website and are no longer accessible. If a copy surfaces, it supersedes all community-documented sequences here.*