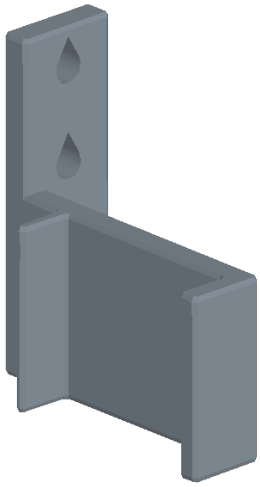
Lorex N863 / solid sleeve mount

1. Geometry and orientation

Lorex N863 / solid sleeve revision

Actual CAD geometry. No cross-braces or weight-relief cutouts.

Upper sleeve

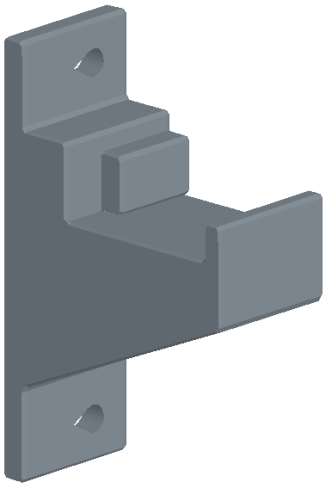


Continuous 7 mm side wall

Open at both ends; print sleeve axis upright

1 mm edges / 0.6 × 1.2 mm end bevels

Lower shoe



Solid gusset; no triangular opening

1.2 mm edges / 0.6 × 1.2 mm end bevels

Print the outer side flat on the bed

Prototype: geometric checks passed; native slicing and physical tests are pending.

Feature	Revision 3
Upper sleeves	Continuous 7 mm side wall; open through 50 mm height. No horizontal cross-rib.
Lower shoes	Solid gussets. No triangular window or decorative cutouts.
Edge finishing	Upper: 1.0 mm; lower: 1.2 mm; end/entrance bevels: 0.6 × 1.2 mm.
Required print orientation	Upper: sleeve axis vertical. Lower: outer side flat on bed. Preserve STL/3MF orientation.

Only the mounting bores remain. Their 60-degree roof faces replace a flat ceiling. Chamfers do not alter the mounting-hole centres.

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2. Wall layout and slide-in assembly

Datum	Dimension / location
Case reference envelope	375 wide × 328 high × 53 thick. Rear cable panel faces down.
Wall stand-off	25 mm; small rear lips guide the case because the wall does not contact it.
Stud centres	406.4 mm / 16 in. Hole X = ±203.2 from recorder centre.
Lower holes	Y = -70 and +38 from the lower bearing plane, on both studs.
Upper holes	Y = 348 and 374 from the same lower bearing plane.
Upper sleeve opening	53 mm case + 2 mm front + 2 mm rear clearance. Side clearance: 1 mm.
Removal	343 mm nominal vertical clearance travel; allow at least 350 mm above the case.

Hardware
Eight suitable timber screws into studs; eight steel washers; eight metal compression tubes, 8 mm outside diameter, 6.4 mm inside diameter and nominally 8 mm long. Match tubes to the actual flange. Screw length, pilot and embedment depend on the wall and the fastener manufacturer.

Assembly
Print the coupon and check actual lower corner contact, feet, ventilation and plugs. Mark all eight holes from a level bearing datum and verify the real stud spacing. Install all four brackets without compressing the ABS beneath the washers. Align the recorder from above and lower it through the fixed upper sleeves onto both lower shoes.

Removal
Shut down, disconnect and support the recorder. Lift approximately 350 mm, then withdraw it forward. All brackets remain on the wall. Support the cable bundle separately. Gravity seating is not an upward-motion lock.

This is a dimensioned guide, not a full-size drilling template. Nominal CAD clearance does not establish a fit on the actual enclosure.

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3. Print settings and verification status

Setting / result	Value
Printer / material	Bambu Lab X1 Carbon / ABS
Default candidate process	0.4 mm nozzle; 0.20 mm layers; six walls; 100% infill; 5 mm brim.
Manufacturing files	Four brackets on one geometry 3MF plate; fit coupon on a separate plate.
Solid-volume mass estimate	528.6 g for the four brackets at 1.05 g/cm³. Excludes brim; not a slicer filament estimate.
Geometric checks	Five closed, single-solid meshes; continuous slide clearance; no non-bed horizontal underside.
Layer-support screening	15 geometric probes: five meshes × 0.16, 0.20 and 0.24 mm layers. Not native G-code.
Native Bambu Studio slicing	NOT RUN. The old 63-probe result does not qualify these files.

Load case

The assumed loaded mass remains 3.2 kg. The full doubled load, 62.76256 N, is allocated to each lower shoe independently. This is a design load, not a measured safety factor. Chamfers reduce local material; filled cutouts do not establish a strength rating.

Physical checks remain pending

Verify sound enclosure contact, fastening and actual mass. Proof-test with a dummy matching the bearing geometry and centre of gravity at twice the measured mass, checking each shoe without assuming equal load sharing. Measure bracket temperature with the intended PoE load. Record displacement after settling, at 1 hour, 24 hours and 7 days, and permanent set after unloading.

Stop for cracks, layer separation, ongoing deformation or movement at fasteners. A 0.5 mm displacement stop criterion is project-specific, not a published lifetime allowance. Seven days cannot establish long-term ABS creep life. No manufacturer approval for this recorder orientation has been established.