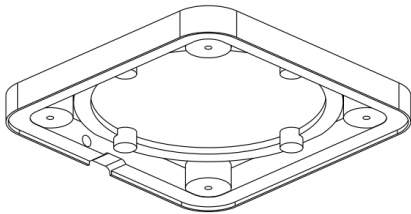


CM2-001 GLOSS BLACK UPPER HOUSING

SHEET 1/5 · NOT TO SCALE



Overall	108.00 × 108.00 × 10.30 mm
Inner opening	92.00 × 92.00 mm, R7.00 mm
PCB mounting	4× M3×0.5, pitch 78.00 × 78.00 mm; 6.0 min full thread
Base mounting	4× M2.5×0.45 at cardinal R41.00; 5.0 min full thread
Light-guide pocket	106.40 outer, 1.50 deep; floor Z8.80
Rear USB-C notch	11.00 × 4.60 mm capsule; center Z9.80, open top

MATERIAL

POM (black), CNC machined

FINISH

No bead blast. Strict cosmetic A-surfaces; smooth/semi-gloss, target Ra ≤ 0.8 µm.

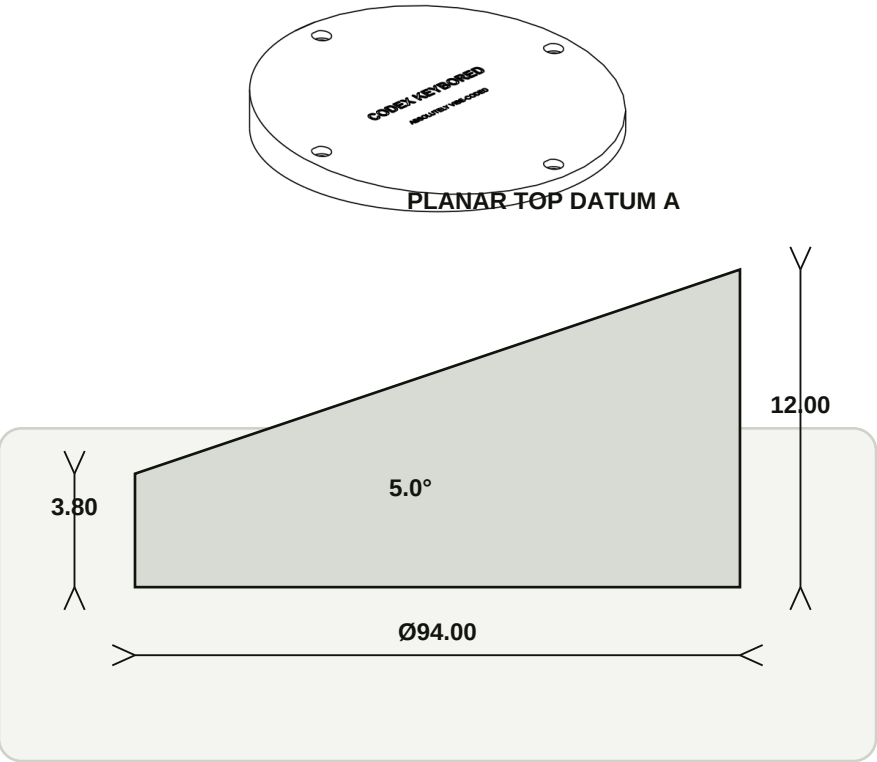
MANUFACTURING NOTES

- Break exposed edges 0.20–0.40 mm; do not round locating faces.
- Tap threads directly in POM; thread axes are normal to PCB/top datum.
- Protect all exterior faces from clamp marks and shipping scratches.
- Rear Ø4.20 service hole is reserved for a future Bluetooth PCB actuator.

ACCEPTANCE: VERIFY CRITICAL DIMENSIONS ON FIRST ARTICLE

Manufacture to STEP for all unlisted geometry; do not infer hidden threads or fits.

CM2-002 ANGLED BOTTOM WEIGHT



Plan diameter	Ø94.00 mm
Front thickness	3.80 mm nominal
Rear thickness	12.00 mm nominal
Underside angle	5.0° nominal; top datum remains planar
Mounting holes	4× Ø2.80 THRU at cardinal R41.00
Counterbores	4× Ø5.00 × 1.90 deep from local angled underside
G-65 O-ring groove	Ø67.50 centerline × 3.60 wide × 2.20 deep; normal to underside
Logo	Engrave 0.25 deep after anodize; geometry included in STEP

MATERIAL

6061-T6 aluminum

FINISH

Fine bead blast + matte black anodize

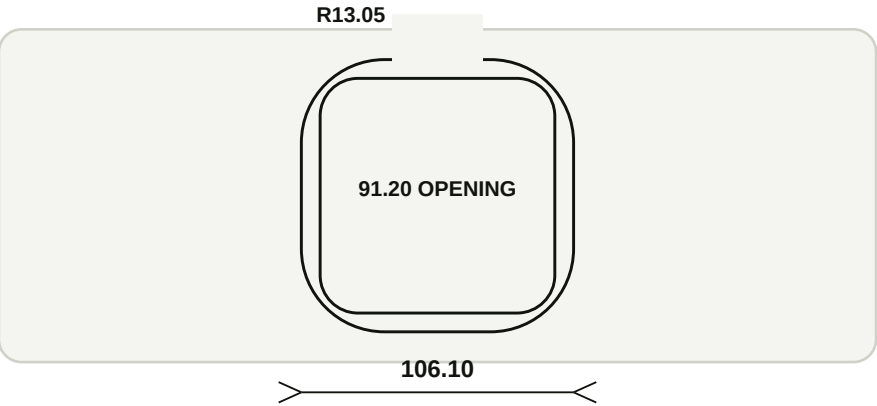
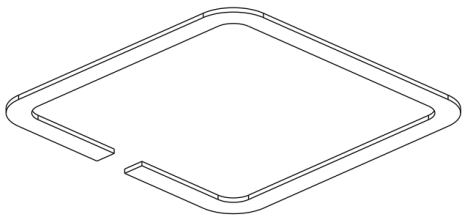
MANUFACTURING NOTES

- Engraving reads CODEX KEYBORED / ABSOLUTELY VIBE-CODED in bare silver.
- Protect planar top datum; deburr 0.20–0.40 mm.

ACCEPTANCE: VERIFY CRITICAL DIMENSIONS ON FIRST ARTICLE

Manufacture to STEP for all unlisted geometry; do not infer hidden threads or fits.

CM2-003 MANDATORY CAPTURED LIGHT GUIDE



Outer	106.10 × 106.10 mm, R13.05
Inner opening	91.20 × 91.20 mm, R6.60
Thickness	1.50 mm; flatness ≤ 0.20 mm
Rear opening	12.00 mm wide USB relief
Pocket fit	0.15 mm nominal clearance per side

MATERIAL

Clear cast PMMA

FINISH

Transparent-polished edges; uniform fine frost on top optical face.

MANUFACTURING NOTES

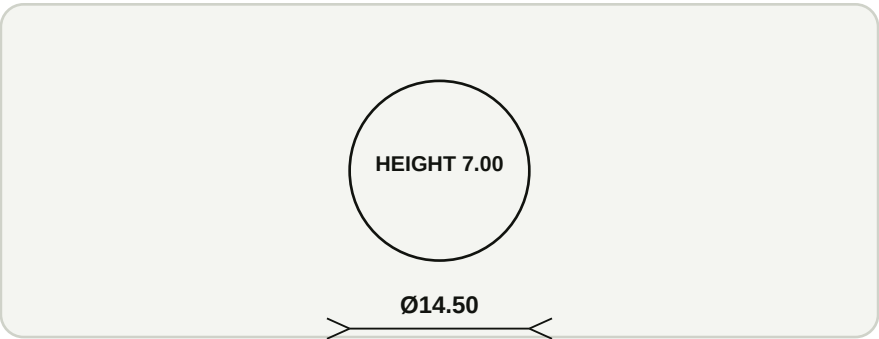
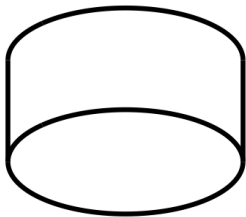
- This part is mandatory with the opaque black housing.
- No opaque contamination; frost only the indicated optical face.
- Protect both faces with removable film for shipping.

ACCEPTANCE: VERIFY CRITICAL DIMENSIONS ON FIRST ARTICLE

Manufacture to STEP for all unlisted geometry; do not infer hidden threads or fits.

CM2-004 JOYSTICK CAP FIT PROTOTYPE

SHEET 4/5 · NOT TO SCALE



Outside diameter	Ø14.50 mm
Overall height	7.00 mm
Shaft interface	Per STEP; verify against selected joystick
Final production	Silicone Shore A 40–50 after fit validation

MATERIAL

Black POM for fit prototype only

FINISH

As-machined fine matte; deburr carefully

MANUFACTURING NOTES

- Do not force onto a discontinued Alps sample.
- Machine one only and treat bore dimensions as provisional.

ACCEPTANCE: VERIFY CRITICAL DIMENSIONS ON FIRST ARTICLE

Manufacture to STEP for all unlisted geometry; do not infer hidden threads or fits.

CM2-005 PURCHASED CONTINUOUS ANTI-SLIP RING

SHEET 5/5 · NOT TO SCALE



Supplier / P/N	JLCCM AMFG-P5-A65-65; JIS B 2401 G-65; use 1
Inner diameter	Ø64.40 ±0.57 mm
Cross section	Ø3.10 ±0.10 mm; nominal OD Ø70.60 mm
Retention groove	Ø67.50 centerline × 3.60 wide × 2.20 deep
Installed protrusion	0.90 mm nominal; groove-to-counterbore land 2.95 mm
Live price	\$0.1522 each, in stock on 2026-07-17
Base screw set	1× M2.5×8, 2× M2.5×12, 1× M2.5×16; ISO 10642

MATERIAL

Black nitrile rubber (NBR), 65 Shore A

FINISH

As supplied; captured mechanically, no adhesive.

MANUFACTURING NOTES

- This one continuous ring replaces both the rejected TPU part and discrete feet.
- Install after anodizing: clean and dry the groove, seat evenly, and remove all twist.
- No glue, printing, trimming, or rubber fabrication is required.
- Purchase: jlcmm.com/product/s/A05/AMFG/o-ring-g-series

ACCEPTANCE: VERIFY SUPPLIER PART NUMBER AND GROOVE FIT

Vendor STEP is a fit reference only; purchase the exact JLCCM part listed above.

