



INSTALLATION GUIDE

Distribution Box Installation Guide

Siting, mounting, splicing, drops and acceptance for
wall- and pole-mounted fiber distribution boxes.

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Fiber Distribution Box — Installation Guide

This guide covers the installation of wall- and pole-mounted fiber distribution boxes (FDB/FAT) of the classes supplied by PROSKY — the network's last managed connection point, where a distribution cable is split and handed to subscriber drops. It is a generic professional practice guide for this equipment class; always follow the project design pack and local regulations where they differ.

1 • Before you start

- Confirm the box position against the network design: splitter ratio, incoming cable ID and drop count must match the as-planned records.
- Check the kit: box, splitter module (if cascaded splitting), pigtails, adapters, splice protection sleeves, cable glands, mounting hardware, labels.
- Tools: fusion splicer, cleaver, stripping tools, isopropyl wipes, torque tool for pole bands, drill for wall anchors, optical power meter.
- Safety: treat every fiber as live — never look into a connector or fiber end; collect fiber shards in a dedicated container; wear eye protection when cleaving.

2 • Siting and mounting

Wall mounting

- Mount at 1.5 – 2.0 m height on a flat, stable surface, away from water runoff paths, heat sources and mechanical impact zones.
- Use all anchor points with fixings suited to the substrate (masonry anchors, not wood screws, in brick or concrete). Leave the door swing fully clear.

Pole mounting

- Use the stainless banding or bolt kit specified for the box — never improvised wire. Two bands, tensioned and crimped, box vertical with cable entries facing down.
- Position below the strand/messenger level used by the drop spans so drops route downward into the glands without tight bends.

3 • Cable entry and sealing

- Bring the distribution cable in through the designated port only; keep the minimum bend radius ($\geq 20\times$ cable diameter during pull, $\geq 10\times$ fixed).
- Strip to the length marked inside the box; anchor the strength member to the internal clamp — the fibers must never carry load.
- For uncut (mid-span) architecture, maintain the loose-tube loop uncut through the storage ring and open only the tube being distributed at this box.
- Fit and tighten glands or heat-shrink entries so the rated ingress protection (typically IP65 class outdoors) is actually achieved; blank unused ports.

4 • Splicing and splitter installation

- Seat the PLC splitter module in its holder before splicing; route its input pigtail to the incoming fiber tray position.
- Fusion-splice input and any pass-through fibers; target ≤ 0.05 dB per splice; protect every splice with a sleeve seated in the tray comb.
- Store splice trays with slack loops ≥ 30 mm radius; one tray per tube where the box allows; close tray lids before dressing the next level.
- Park splitter output pigtails on the adapter field; fit dust caps on every unused adapter — contamination is the leading cause of FTTH faults.

5 · Subscriber drops

- Terminate drops with field-installable connectors or pre-connectorised drop assemblies per the project standard; clean and inspect before every mating.
- Anchor each drop with a tension clamp at the box side; leave a drip loop below the entry; respect the drop cable's 15 mm minimum bend radius.
- Record port → subscriber mapping on the door label and in the plant records before leaving site.

6 · Acceptance checklist

Check	Pass criterion (typical practice)
Splice loss	≤ 0.05 dB average per fusion splice (OTDR or power meter)
Port power	Downstream level at each splitter output within design budget
Sealing	Glands torqued, unused ports blanked, door gasket seated
Mechanical	Box rigid on mounting, drops strain-relieved, drip loops present
Records	Labels inside and outside match the plant database

Typical values for this product class — request the certified PROSKY datasheet for guaranteed figures.

7 · Maintenance

Inspect seasonally exposed boxes annually: gasket condition, gland tightness, band tension on poles, connector end-face condition on any reworked port. Replace dust caps after every intervention and update records with any port change.

8 · Troubleshooting at the box

Symptom	First checks
One subscriber dark	Port mapping vs. records; drop connector end-face; drop bend at the gland; VFL from the box toward the home
All subscribers on one splitter dark	Splitter input splice; upstream distribution fiber (OTDR from the hub); splitter seated correctly
Intermittent errors after weather	Water ingress — gasket, glands, blanked ports; corrosion on adapter field; drip loops present
High loss on a reworked port	Contaminated adapter sleeve — clean both sides or replace the adapter

Typical values for this product class — request the certified PROSKY datasheet for guaranteed figures.

PROSKY distribution boxes ship with mounting hardware, splice trays and port labels for the practices in this guide; matching PLC splitters, drop cables, clamps and field connectors are part of the same catalogue — see proskytele.com/resources for class datasheets.