

TEN-FAB3 - Aerial Distribution Enclosure Installation Guide

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Getting Started



TEN-FAB3 - Aerial Distribution Enclosure

Introduction

Thank you for choosing this Teleste product. The TEN-FAB3 compact Aerial Distribution Enclosure can support up to 32 customer aerial connections, it provides support for both LC and SC customer connections along with incoming fibre splicing and provision of different sizes of splitters. This guide will walk you through all the steps for a successful installation.

Package Contents

Kindly unpack the TEN-FAB3 and confirm that all items are present, as illustrated in Figure 1. Should any items be missing, please promptly contact your local seller for assistance.



Figure 1 - Package contents

- TEN-FAB3 enclosure
- Cable ties
- Splice protectors
- Fixing wall screws
- Wall fixings
- Key for lockable lid
- Velcro
- Pole clamp rings (stainless steel)

About the TEN-FAB3 Aerial Distribution Enclosure

The compact Aerial Distribution Enclosure TEN-FAB3 is easy to install and operate and uses a considerably smaller amount of space on aerial pole which is huge advantage when mounting in congested locations.

- 2 rows of 8 adapter positions. Up to 32 (LC) customer connections
- 2 splice trays, each with 18 splice holders (9 double depth positions)
- 6 splitter positions in base under splice trays (4 x 1:2/4/8 + 2 x 1:16)
- 2 rows of 8 adapter positions

Product Specification - General

Dimension (HxWxD)	219 x 150 x 82 mm	IP rating	IP66
Material	Thermoplastic - UV Resistant	Customer Connections	32LC/16SC adapters
Splitters	(1:2/4/8) – 4 pcs (1:16) – 2 pcs	Colour	Black RAL 9005
Cable Entry Ports	2 main entry ports and a loop through oval port, all at 10mm		
Cable/Fibre management	Base tray supports cable management for loop through cables Integrated fibre management on splice tray Drop cable support and fixing		
Splicing	Positions for 18 customer splices per tray Spare fibre coiling space		
Splice Trays	2 splice trays hinged on base tray		
Mounting/Fixing	External fittings to fit to mounting bracket or on building wall		

Ordering Information

TEN-FAB3-0	FTTH aerial box 3 with 2 fibre trays empty	
TEN-FAB3-32LCA0	FTTH aerial box 3 with 16 LC/APC duplex adapter and 2 fibre trays	
TEN-FAB3-32LCAP	FTTH aerial box 3 with 16 LC/APC duplex adapter 32 LC/APC pigtails and 2 fibre trays	
TEN-FAB3-16SCA0	FTTH aerial box 3 with 16 SC/APC adapter and 2 fibre trays	
TEN-FAB3-16SCAP	FTTH aerial box 3 with 16 SC/APC adapter 16 SC/APC pigtails and 2 fibre trays	

Fibre Routing Techniques for Splitters

Figure 2 illustrates the preferred routing method for the shortest splitter tails (see red markers) and provides visual guidance on how to properly organise the complete set of splitter fibres.

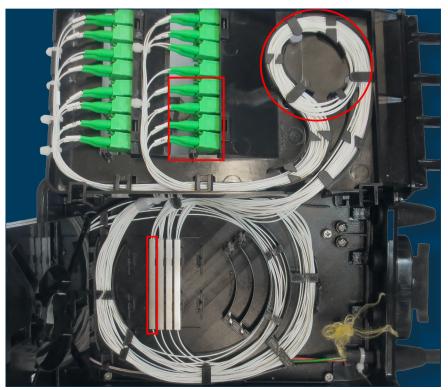


Figure 2 - Splitter routing

Mechanical Layout

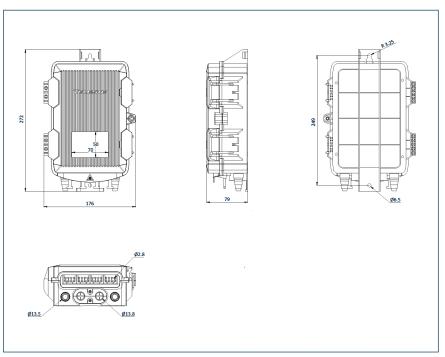


Figure 3 - Mechanical layout

Installation Instructions



Warning! Ensure to follow basic safety precautions to reduce risk of fire, electrical shock, and personal injury.

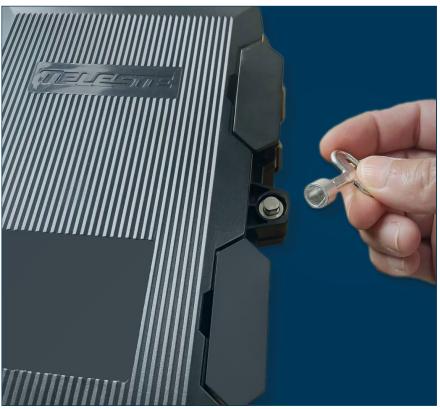
Thank you for choosing this Teleste product. Please take a moment and carefully read these instructions through before installing the product.

General Preparations and Precautions

- 1. Check the Aerial Distribution Enclosure, cable items and all other components for any damages before installation.
- 2. Make sure to keep all components dry and clean for the installation.
- 3. Keep the working environment clean (dry and no dust) and flat for the installation.
- 4. Standard instruments and tools should be used during the installation.

Installation Guidelines

1. Use the special key to rotate counter clockwise and loosen the base to access the enclosure.

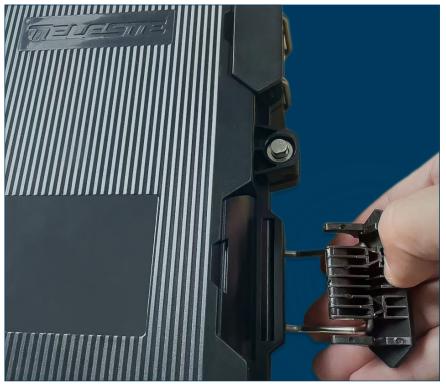


Picture 1



All necessary safety instructions must be followed during the installation and maintenance operations. The safety requirements for class 1M lasers are detailed in EN60825-1.

2. Use a screwdriver to gently pry open the catch mechanisms, or alternatively, open them manually. Refer to Picture 2 for visual guidance.



Picture 2

3. Start by removing the rubber grommet for one of the main ports.



Picture 3

4. Prepare the rubber grommet by using a utility knife or a standard cutter to carefully cut it to size according to the intended cable diameter.

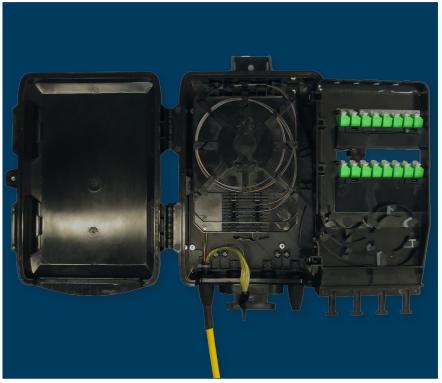


Picture 4

5. Start by inserting the incoming cable through the rubber grommet. Secure the cable firmly with a tie or a metal worm drive ring, being careful not to overtighten. This will prevent movement and stress that could damage the fibres.



Note! Properly securing the cable is crucial to maintaining the integrity of the optical fibres. Movement and stress on the fibres can lead to physical damage, such as microbends or fractures, disrupting the transmission of light. This can cause poor network performance.



Picture 5

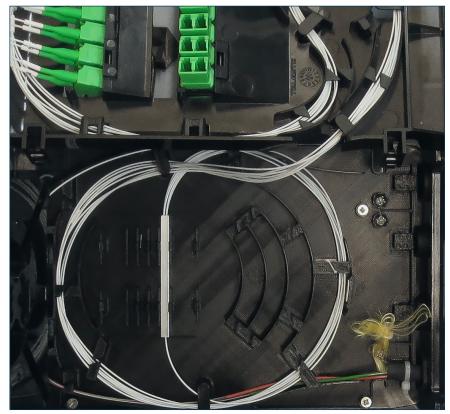
- 6. Next, anchor the cable's strength member in the screw terminal, then tighten the screw. Trim away any excess cable yarn.
- 7. Then route the incoming fibres around the fibre guides in an orderly manner. Adjust the length, ending the loop at the splice holder.



Note! The enclosure design is made to support splitter legs ranging from 1m to 1.5m.

For visual guidance on how to practically organise the complete set of splitter fibres, please consult and review the section 'Fibre Routing Techniques for Splitters'.

8. Next, install four connectorised splitters. Begin by installing the first splitter and fitting it into the appropriate slot.



Picture 6

9. Next, start organising the splitter's unconnectorised input-side fibre around the guides. Fold the tray down and continue organising the fibres around the guides. Place the open end into the splice holder. Be careful and ensure that the bend radius of the fibres is protected to prevent excessive stress. Adjust the length if necessary.



Picture 7

10. Now, prepare to connect the splitter's output ports. Turn the Customer Connection Module (CCM) slightly upwards for easier access.

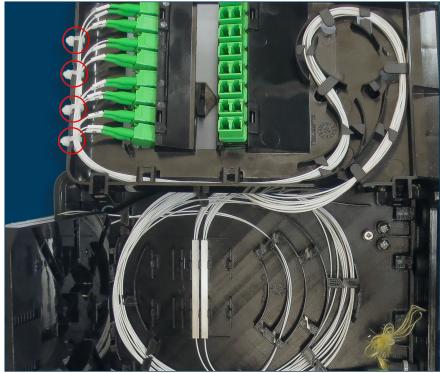


Note! Optical fibres should not be damaged. Cut the damaged fibre, and re-strip the fibre if any damage occurs.



Note! Always clean optical adapters and connector end faces as part of the enclosure installation; this is crucial for maintaining optimal network performance. Be sure to follow proper cleaning techniques and inspect connectors and adapters before installation.

- 11. Continue removing the adapter dust caps. Then, connect the splitter's output connectors to the CCM. Ensure that each connector's end face is cleaned before being connected.
- 12. Proceed with organising the splitter's output fibres in an orderly manner. Again, ensure that the bend radius of the fibres is protected to prevent excessive stress. See Picture 8 and 9 for visual guidance.



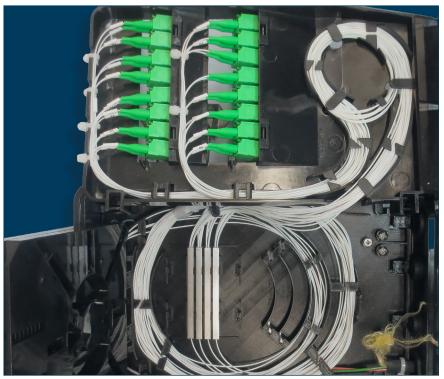
Picture 8

- 13. Continue installing the next splitter in the same way. Use cable ties to firmly secure the bundles of output strands be gentle and avoid overtightening. Refer to the red markers in Picture 8.
- 14. Carry on with the third splitter.



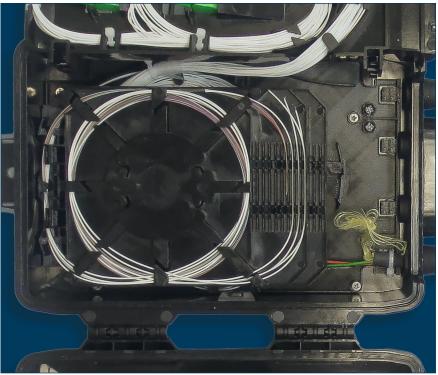
Picture 9

15. Move on to the fourth splitter, completing the splitter installation.

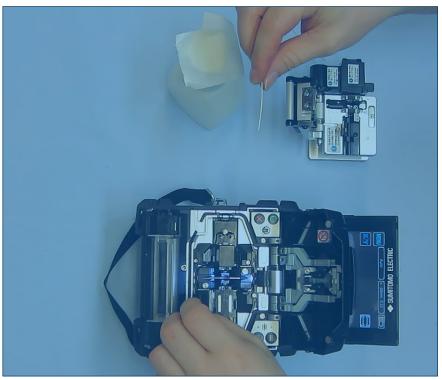


Picture 10

16. Now that the splitter installation is complete, it's time to prepare for the splicing of the incoming fibres to the splitter inputs.

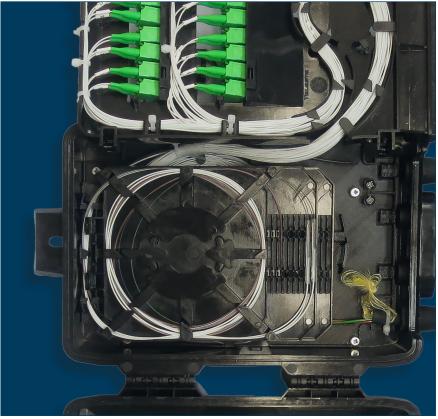


Picture 11



Picture 12

17. Continue splicing the remaining fibres.



Picture 13



Warning! Never look directly into the end of a fibre or a fibre connector that may be carrying laser light. Laser light, visible or invisible, can seriously injure eyes or even cause blindness. 18. Move on to installing the drop cables. Begin by preparing the customer drop cable grommets by carefully cutting them open.



Picture 14

19. Then remove the Customer Connection Module (CCM) adapter dust caps.



Picture 15

20. Now, connect the drop cables, ensuring they are properly cleaned beforehand. Remember to secure all drop cable bundles with cable ties, as demonstrated in Picture 16.



Picture 16

21. It is crucial that the grommets are properly seated. Each grommet has a lip designed to seal against the enclosure lid seal, and this lip must face upwards. Refer to the marker in Picture 17 for guidance.



Picture 17

22. Before finishing the installation and locking up, secure the splice trays using Velcro, as demonstrated in Picture 18.

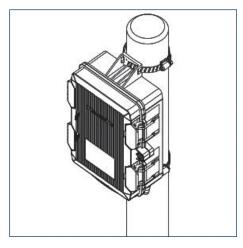


Picture 18

23. Close the enclosure lid and lock the anti-theft screw clockwise. This finishes the installation – good work!



Picture 19

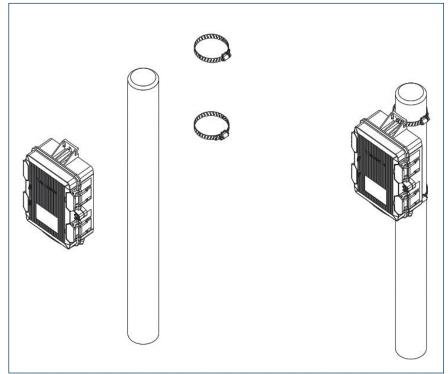


TEN-FAB3 - Pole mounted.

Mounting Guidance

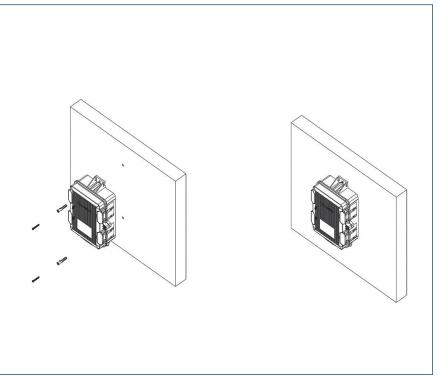
To successfully complete a pole mount or wall mount installation, follow the guidance steps outlined below. Ensure you have all necessary tools and materials on hand before beginning the process.

1. **Pole mount installation.** Locate the two pole clamp rings in the accessories box. Next, pass the rings through the designated mount brackets. Position the brackets against the pole, then securely fasten the rings around the pole. Ensure you apply enough force to hold the mount firmly in place without over-tightening.

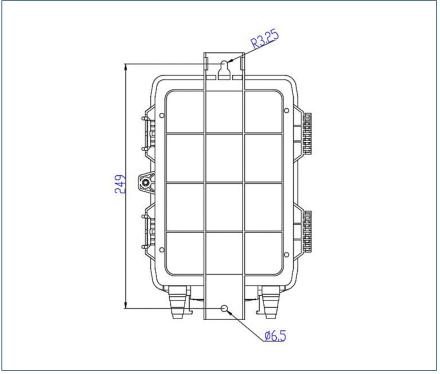


Picture 20

2. *Wall mount installation.* Drill two holes in the wall at the designated locations. Insert the wall fixing plugs into these holes. Position the box so that it aligns perfectly with the drilled holes. Once aligned, secure the box in place by inserting and tightening the bolts. For additional visual guidance, please refer to pictures 21 and 22.



Picture 21



Picture 22

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