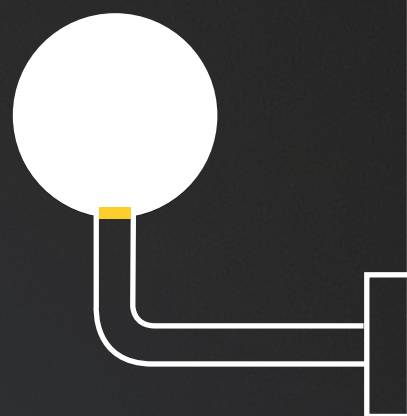


TEC=LED

ILLUMINATED ROUND TIMBER HANDRAILS INSTALLATION GUIDE



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Thank you for your interest in our custom manufactured Illuminated Handrail system.

TecLED's round timber handrails are supplied prefabricated, cut to the exact lengths required at your site and include all components needed for a complete, successful installation. **Note that connection of 240V mains power must be carried out by a licensed electrician.**

This document contains all the information needed to:

Survey and measure

...the installation site to enable our technical team to determine precisely the nature and quantity of components required - and thus provide an **accurate quotation** for your job.

Facilitate the issue of production sheets

...prior to manufacture to ensure that the prefabricated components accurately suit the installation site, thus avoiding any on-site complications or obstacles.

Full installation guidelines

...to ensure a sound, functional and legal install of your handrail.

We recommend reading this entire document prior to commencing an order to familiarise yourself with the complete process and thus avoid any issues down the track.

If anything is unclear or you need further clarification, please contact our:

Technical team

Email: eyal@tecled.com.au

Phone: (02) 9317 4177 during business hours EST

STEP ONE

Survey and measure

Before we can provide an accurate quotation, we need to know exactly the nature and extent of componentry required for your handrail project.

This requires a detailed and accurate measurement and assessment of the installation site by the client or their duly authorised representative and will form the basis of all procedures going forward.

While it is a simple process, it needs to be accurate and thorough.

Tools required

Measuring
tape



Chalk
line



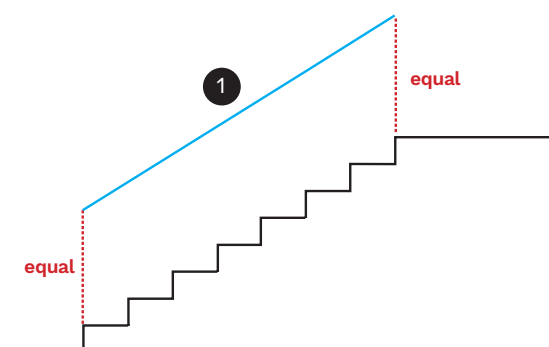
Protractor



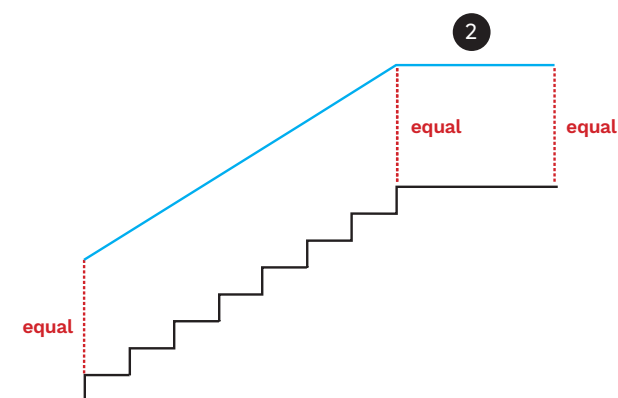
Level



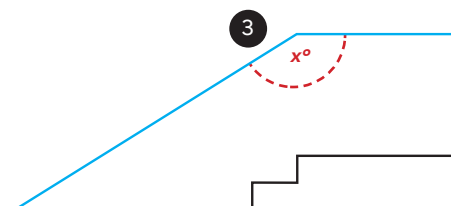
- 1 Using a chalk line (or other marking tool), draw a line from the first riser to the last riser, ensuring the line is equidistant from the riser nosings. Height above nosings is irrelevant, as long as it is equal. Measure and record this line in millimeters.



- 2 Draw a second line at the landing, again ensuring it is equidistant above the landing. Measure and record this line in millimeters.



- 3 Using a protractor, carefully measure the angle where the chalk lines meet. Record this angle.



- 4 **Continue this process** along the entire extent of the staircase where a handrail is required. Use the following page as an example of how to record or draw the data, and complete the form on the final page as necessary. Make a note where wall studs are located (if applicable) as these will be used to fix the brackets to.

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DESCRIPTION	MEASUREMENT
Distance A-B	306 mm
Distance B-C	1100 mm
Distance C-D	1320 mm
Distance D-E	3415 mm
Joiner a	35 degrees
Joiner b	90 degrees
Joiner c	35 degrees

DESCRIPTION	MEASUREMENT
Distance A-B	306 mm
Distance B-C	1100 mm
Distance C-D	1320 mm
Distance D-E	3415 mm
Joiner a	35 degrees
Joiner b	90 degrees
Joiner c	35 degrees

OTHER SITE INFORMATION	Distance to nearest (accessible) driver location*	5m from top wall	Wall material	concrete
	Motion activated sensors required (at bottom and top of stairs)	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Suitable site to place transformer/s	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

*Required

Architectural section drawing of a staircase showing a landing and a flight. The drawing includes dimensions for the landing (3'-11" high, 3'-5 3/8" wide), the flight (3'-2" high, 4'-4 1/2" wide), and the railing (9'-2" high, 11 treads @ 10"). It also shows the grain of the wood and the location of the steel angle in the wall.

STEP TWO

Quotation

Upon receipt of your SURVEY and MEASURE information, our team will prepare an accurate quotation for your consideration. Note, TecLEDs offer is supply only, thus the quotation will NOT include installation.

STEP THREE

Production sheet/s

Upon acceptance of our quotation and other formalities, our technical team will issue PRODUCTION SHEET/S detailing exactly how the handrail will be fabricated

These sheets will detail:

- 1 Length of each handrail
- 2 Position of mounting brackets with dimensions between each bracket

- 3 Nature and extent of joiner pieces
- 4 Position of live wire/s
- 5 Number of transformers and the LED run each transformer can service

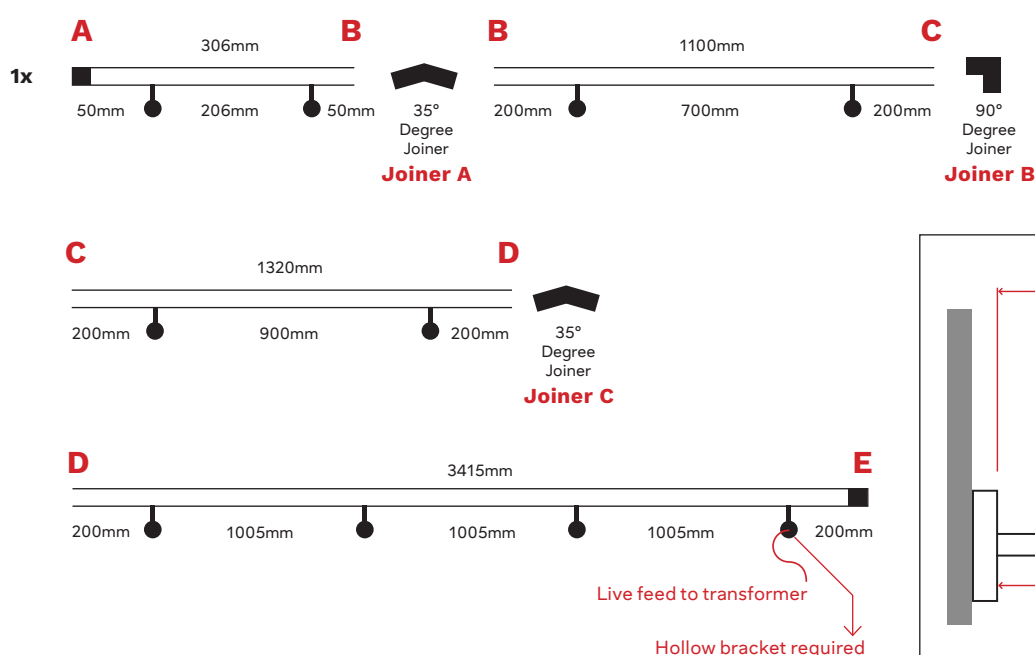
The PRODUCTION SHEET/S will give you an opportunity to check the proposed lengths and componentry against site conditions, having regard to

dimensions, joiner piece angles, 240V feed and any other site conditions that may affect the handrail.

Manufacture will only begin once final PRODUCTION SHEET/S have been approved and signed of by the client.

Once approved and manufactured, no dimension or bracket position can be changed.

Typical Production Sheet



*All measurements of handrail include end caps and joiners where appropriate.

STEP FOUR

Installation

Prior to installation, check that the components received are correct when compared to the approved PRODUCTION SHEET/S. Notify TecLED immediately if anything is missing or incorrect.

Tools required



Handrail componentry (check against PRODUCTION SHEET)



Measuring tape



Level



Stud finder (if applicable)



Appropriate fixings (screws, wall plugs, expanding bolts etc)



Blue painters tape

LOCATE STUDS (if applicable)

Generally, studs are 450mm apart. Ideally, you would have located these studs in your SURVEY and indicated their position when approving the PRODUCTION SHEET/S.

ATTACHING HANDRAIL TO THE WALL

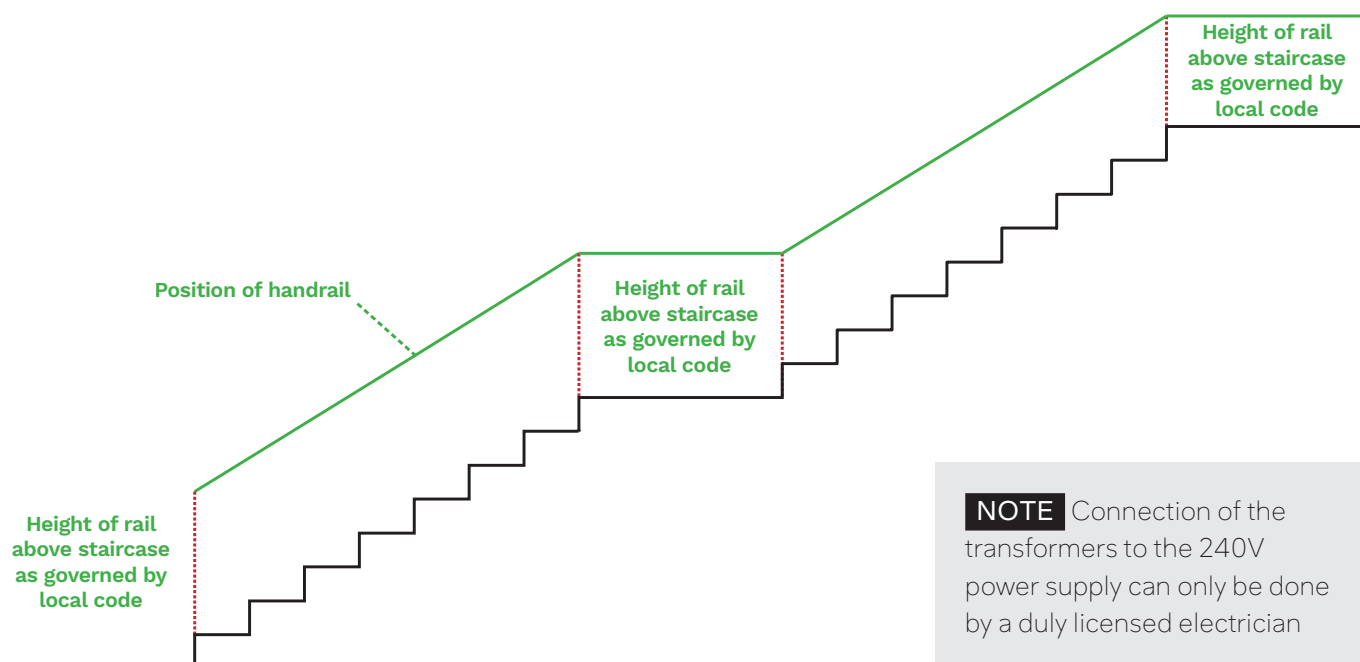
Check your local building codes to determine the desired height of the rail above the stairs.

Once this height is ascertained, draw a line (or chalk line) at this height from the bottom of the stairs all the way to the top of the staircase (including landings).

This will determine the position of the fixing brackets.

CONNECTING THE ELECTRIC WIRING

Your handrail is supplied with low voltage wire/s to connect to the transformer/s. Connection to the transformers should be undertaken by a competent person. All connections must be insulated and secure. If motion activated sensors are included, these should be connected to the transformer/s as well as the fixing brackets.



Survey And Measure Form

Complete the line drawing, including measurements and angles.

*Required

DESCRIPTION	MEASUREMENT
Distance A-B	mm
Distance B-C	mm
Distance C-D	mm
Distance D-E	mm
Joiner a	degrees
Joiner b	degrees
Joiner c	degrees

OTHER SITE INFORMATION	Distance to nearest (accessible) driver location*	m	Wall material	
	Motion activated sensors required (at bottom and top of stairs)	YES <input type="checkbox"/> NO <input type="checkbox"/>	Suitable site to place transformer/s	YES <input type="checkbox"/> NO <input type="checkbox"/>

*Maximum Length of Handrail from one power feed is Max. 5000mm. Any longer lengths will need to have multiple power feeds to avoid Voltage drop.

*Required

Plan view

Side elevation view

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