



## DETAILED INSTALLATION GUIDE with TIPS AND TRICKS

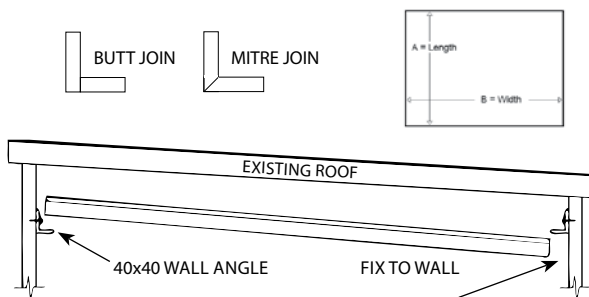
As we don't know the who, what, when, where and how of your existing roof construction, we have included instructions for the most common roof types. If yours is not covered, please give us a call on 02 9821 2199. [www.ceilink.com.au](http://www.ceilink.com.au)

### STANDARD INSTALLATION

#### STEP 1. Perimeter supports

Bottom of angle should be a minimum of 60mm below the existing roof skin. Fasten the wall angles at every 600mm to both side beams (B) and your starting beam (A) - leaving the final angle until all panels have been fitted. Refer page 2 for fixing details.

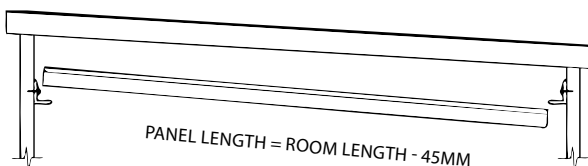
**Corners :** you can either mitre or butt joint the angle at the



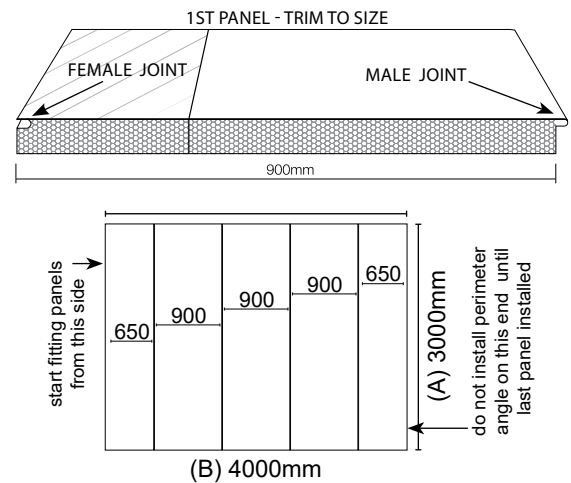
#### STEP 2. Cutting Panels

To cut your panels we recommend using a circular saw or with a metal-cutting blade. If using a circular saw we recommend cutting with the back of the panel, silver side facing up, being careful not to scratch the ceiling face.

**Panel Length :** your panels should be 45mm shorter than the internal room width.

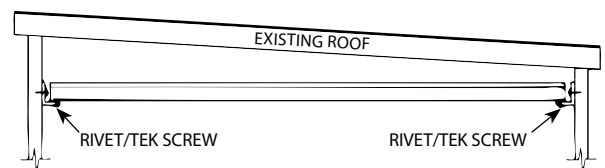


**Panel Width :** To balance the ceiling look and to avoid fitting a narrow strip at one end, check measure the room width and if necessary adjust/cut the first and last panel widths making sure you keep the male joint on the first panel and the female joint on the last panel. Ensure you reduce the overall width by 45mm for ease of installation.



#### STEP 3. Fitting Panels

Start assembly with the male joint facing out. Lift panels above the wall angles, then lower the panel to sit evenly on each angle. Slide the first panel to the end of the room. Screw or rivet the first panel to the wall angle in each panel corner. Fit and install the rest of the panels in the same manner.

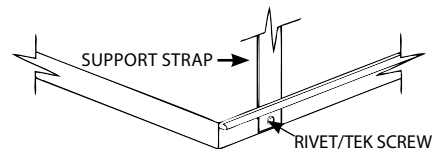


**For spans 4001mm or more, or panels supporting extra weight from heavy lights :**

Hanger support straps will need to be fitted.

Start assembly as per the instructions above. For each panel fitted, insert hanger support strap between the foam core and steel skin of the male joint in the middle of the panel. Fix this into place with a tek screw or rivet. Fix the top end of the hanger support strap to the top of a roof ridge (the highest point) or preferably the frame. Fit and install the rest of the panels in the same manner.

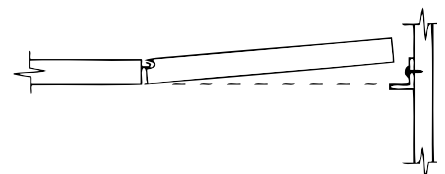
You will require 1 support strap for every panel 4001 mm or longer.



#### STEP 4. Last Panel

Place the last angle on your wall and drill fixing points, but do not fix this angle in place yet. Lift your panel into place, now lift up the outer side of your panel and fix your last angle in place. Once you have fixed your last angle, you can then lower your panel and screw it into place.

**Please note :** If you do not have enough height above the Ceilink panel you may not be able to lift the Ceilink panel high enough to secure the perimeter angle to your wall / beam. In such cases, simply secure the perimeter angle to the panel alone at 600mm centres. The strength of the perimeter angle will strengthen the Ceilink panel and no further fixings should be required.



# TIPS FOR FITTING AND MEASURING CEILINK

## SCREWS

**Fixing the perimeter angle to steel / aluminium beams** - the self drilling fixing screws or rivets can be used to secure the angles, we have available, to your wall and or beam. These can also be used to fix the Ceilink panels in place, at each panel corner.

**Fixing the perimeter angle to brick walls** - you will need to use a suitable masonry drill, screws and plugs to secure the perimeter angles to the brick wall.

**Fixing the perimeter angle to timber beams** - you will need to pre-drill the angle and use timber screws to secure the perimeter angles to the timber beam.

**Please note :** As you are fixing through aluminium and steel, it is best to use an impact screwdriver as it will make the process far easier. If you do not have one or find it difficult to fix the screw through the angle and panel, you may wish to drill pilot holes first using a 3mm drill bit.

## CUTTING CEILINK PANELS

**Using a circular saw** - when using a circular saw to cut Ceilink panels, make sure the reflective silver side is facing up. Ensure the white steel surface is protected from the surface you are resting it on. Please ensure the steel face is not placed directly on the ground.

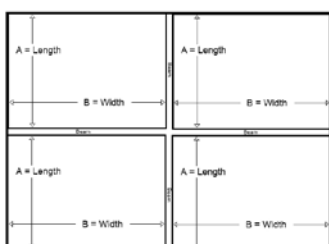
## LIGHTING

Contact a licensed electrician for any electrical work. We recommend pre-wiring cables before fitting Ceilink panels. Downlights can be fitted if the gap between the roof skin and the panel meets the lights requirements and safety guidelines.

We have LED Downlights available. Please call or email for more information. To fit these downlights you will require at least 100mm between the current roof and the base of the perimeter angle.

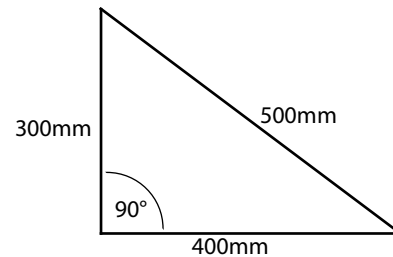
## INSTALLING CEILINK IN MULTIPLE BAYS

Depending on your support placement, depth restrictions etc, you may be required to install Ceilink in sections. It is recommended to fit the panels across the shortest measurement.



## SQUARENESS OF THE ROOM

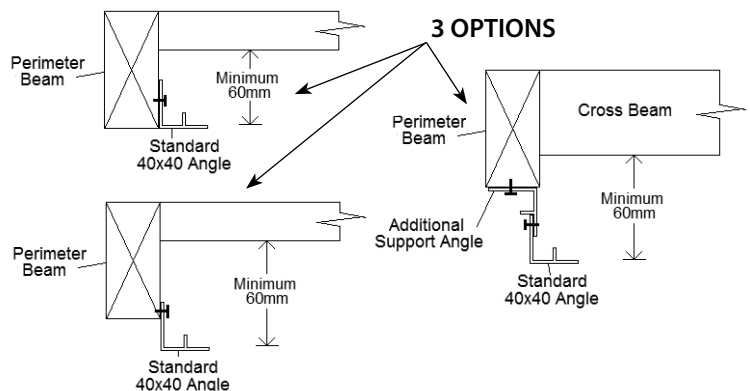
Select one of the long, straight walls as a datum, and check that the other walls are square and parallel to the datum. A good method for checking the squareness is to use the 3,4,5 method. Measure 300mm along one side from a corner, 400mm from another – the distance between the points (hypotenuse) should be 500mm.



Plan which corner to start from – it is usually best to first work along the datum wall.

## DEPTH REQUIRED FOR CEILINK INSTALLATION

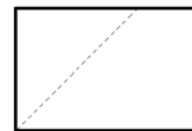
If there is not enough space to fit angles at 60mm depth, you may be required to fit another perimeter angle to your beams (see diagram) or extend the depth of your beam with a timber or steel beam to match your existing structure.



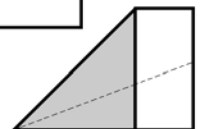
## IS YOUR GABLE ROOF PITCH 22.5°?

A typical roof pitch is 22.5° - to see if your roof is pitched at 22.5° you will require a piece of A4 paper and some origami skills. Ceilink Gable angles are designed for a 22.5° roof pitch. If your roof pitch is different to this, please contact Ceilink for assistance.

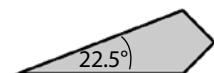
**Step 1.** Fold the piece of paper diagonally at one corner



**Step 2.** Fold the piece of paper diagonally at the same corner



**Step 3.** Now you will have a 22.5° measuring tool.



# CALCULATE ROOF TYPE - SKILLION / FLAT ROOF



Skillion / Flat Roof

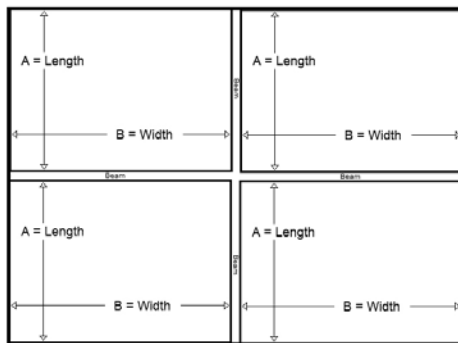
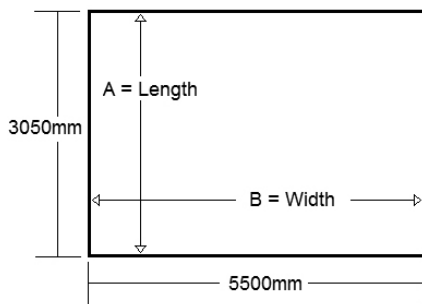
Using a tape measure, to the nearest millimetre measure the area where you wish to install Ceilink.

**Always remember: measure twice, order once.**

## STEP 1. How to measure

To determine what panel length is required measure the distance between support beams (A) and deduct 45mm. Note: The distance (A) should be the shortest measurement of the length / width.

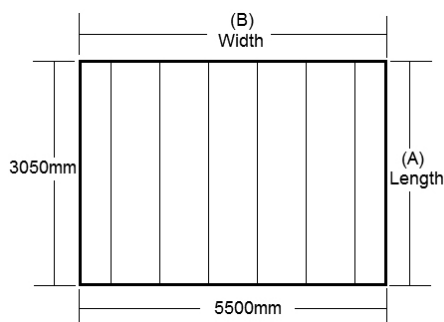
Example :  $A = 3050 - 45\text{mm} = \text{panel length } 3005\text{mm}$



## STEP 2. Calculate panels

To calculate the number of panels required divide the Width (B) by 900mm

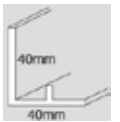
Example :  $B = 5500\text{mm} \div 900\text{mm} = (6.11 \text{ panels})$   
= 7 full panels of 3005mm length.



## STEP 3. Calculate perimeter angles

To calculate the number of standard 40x40 angles required add all the perimeter measurements together and divide this by 4000mm.

Example :  $(5500 + 3050 + 5500 + 3050\text{mm}) \div 4000\text{mm}$   
= (4.275 angles)  
= 5 full standard 40x40 angles



Note: To avoid joints on angle lengths less than 4000mm you may require extra angles.

For Skillion / Flat roofs where Ceilink is required to be installed in sections repeat the above steps for each section.

Please note standard perimeter angles are available in 4000mm lengths. Gable angles are available in 4000mm only.

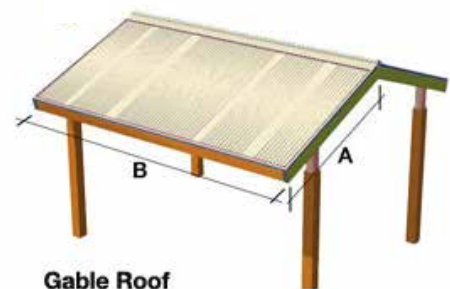
Available support angles:

Ceilink angle 4m & 6m to suit 90°

Ceilink top gable angle 4m- to suit 22.5° pitch

Ceilink bottom gable angle 4m - to suit 22.5° pitch

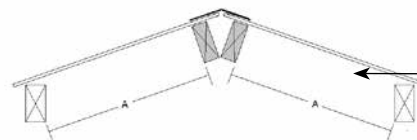
# CALCULATE ROOF TYPE - GABLE ROOF



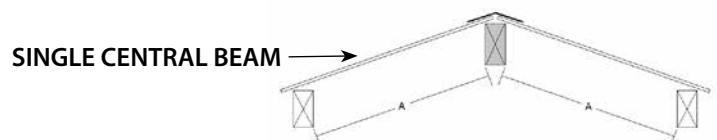
Gable Roof

For a gable roof you will be required to install Ceilink in sections. Please take note of the angle of the gable roof and support beams prior to ordering specific angles. Dedicated gable roof support angles are based on a 22.5° roof pitch.

For gable roofs the panels should be fitted to run from bottom to top. Below are the typical gable roof constructions.



DOUBLE CENTRAL BEAM



SINGLE CENTRAL BEAM

Using a tape measure, to the nearest millimetre measure the area where you wish to install Ceilink. You will be required to do this for both sides of the gable.

**Always remember: measure twice, order once.**

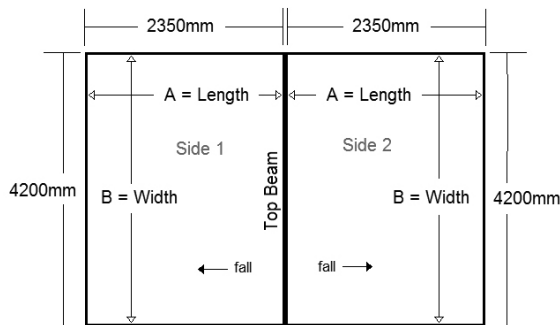
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## STEP 1. How to measure

To determine what panel length is required use the length (A) of the roof from support to support and deduct 45mm

Example: Side 1 :  $A = 2350 - 45\text{mm} = \text{panel length } 2305\text{mm}$

Side 2 :  $A = 2350 - 45\text{mm} = \text{panel length } 2305\text{mm}$



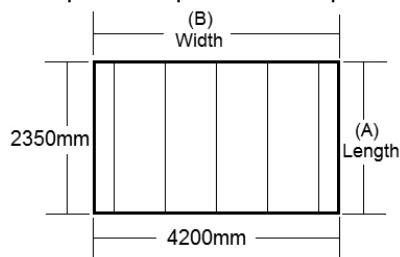
## STEP 2. Calculate panels

To calculate the number of panels required divide the Width (B) by 900mm

Example : Side 1 :  $4200\text{mm} \div 900\text{mm} = (4.66 \text{ panels})$

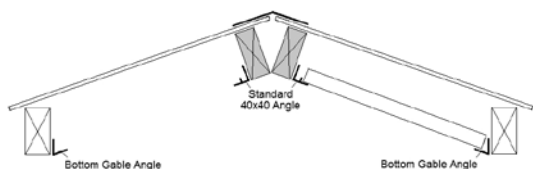
Side 2 :  $4200\text{mm} \div 900\text{mm} = (4.66 \text{ panels})$

Total panels required : 10 full panels of 2305mm



## STEP 3 : Calculate Gable perimeter angles

### FOR DOUBLE CENTRAL BEAMS



For the above construction, you would require:

- standard 40x40 angles\* for the (A) perimeter lengths and your top beam (B) widths, and
- bottom gable angles\* for your base (B) widths.

**Bottom gable angles** required = the 2(B) base widths  $\div 4000\text{mm}$

Example:  $(4200 + 4200) \div 4000\text{mm}$

= (2.10 angles)

= 3 full bottom gable angles

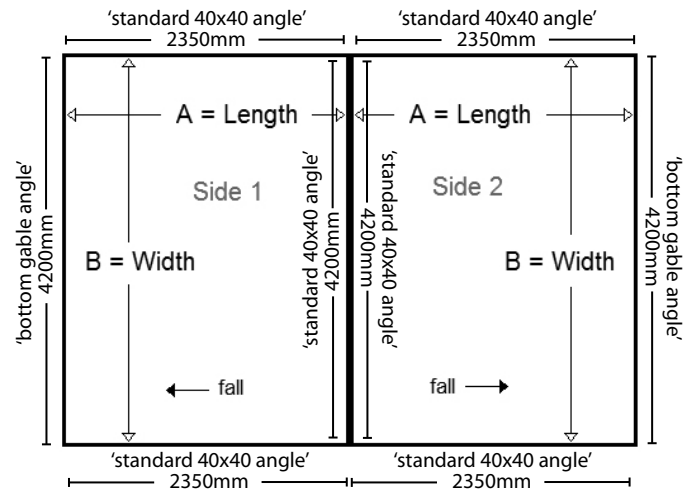
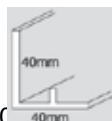
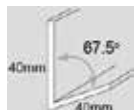
**Standard 40x40 angles** required = the 4 (A) side lengths and the 2 (B) top widths  $\div 4000\text{mm}$

Example:  $(2350 + 2350 + 2350 + 2350 + 4200 + 4200) \div 4000\text{mm}$

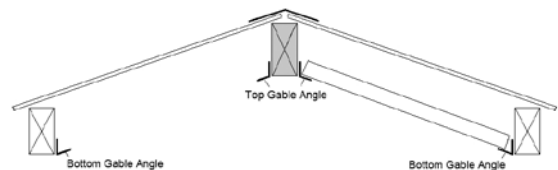
= (4.45 angles)

= 5 full standard 40x40 angles

Note: To avoid joints on angle lengths less than 4000mm you may require extra angles.



### FOR SINGLE CENTRAL BEAM



For the above construction, you would require:

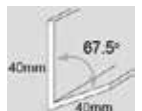
- standard 40x40 angles\* for the (A) perimeter lengths,
- bottom gable angles\* for your base (B) widths, and
- top gable angles\* for your top (B) widths.

**Bottom gable angles** required = the 2 (B) base widths  $\div 4000\text{mm}$

Example:  $(4200\text{mm} + 4200\text{mm}) \div 4000\text{mm}$

= (2.10 angles)

= 3 full bottom gable angles



**Top gable angles** required = the 2 (B) top widths  $\div 4000\text{mm}$

Example:  $(4200\text{mm} + 4200\text{mm}) \div 4000\text{mm}$

= (2.10 angles)

= 3 full top gable angles

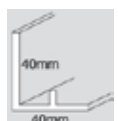


**Standard 40x40 angles** required = the 4 (A) side lengths  $\div 4000\text{mm}$

Example:  $(2350 + 2350 + 2350 + 2350)$

$\div 4000\text{mm} = (2.35 \text{ angles})$

= 3 full standard 40x40 angles



Note: To avoid joints on angle lengths less than 4000mm you may require extra angles.

