FRONTIER INSTALLATION OPTIONS METHOD SELECTION



## THE FIRST CONSIDERATION TO MAKE WHEN SPECIFYING A FRONTIER SYSTEM IS THE INSTALLATION METHOD.



For suspended installations it is strongly recommended to consult a building engineer for seismic considerations. See Pages 23-29 for suggested details. For all installations in sprinklered buildings, consult a fire engineer to ensure the intended position of the Frontier Fins/Rafts meet sprinkler and alarm standards. Further detail on the fire standards can be found in the supplemental document "Fire Considerations for Autex Frontier Acoustic Fins".

# **FRONTIER**<sup>TM</sup> **INSTALLATION METHOD 1** DIRECT FIX TO CEILING

Counter sunk screw with max head diameter of 8mm



Mark out your ceiling at the recommended spacing for your chosen product (refer to table on page 5 for details). Screw the Autex Mounting Clips into the ceiling using screws suitable for the substrate (not supplied).



When you are satisfied with the alignment of the Fins/Rafts turn the clips 90 degrees so they clip into the channel and lock in place.



allowing adjustment along the length.



Lift the assembled Fins/Rafts into place and click them onto the Autex Mounting Clips. Turn the clips 45 Deg to temporarily hold the Fin/Raft in place while

# **FRONTIER**<sup>TM</sup> **INSTALLATION METHOD 2** DIRECT FIX TO RAIL



Mark out the ceiling and screw in 2x cross rails at 1200 mm centres using screws suitable for the substrate (not supplied) at max centres of 600 mm. Insert the Autex Mounting Clips at the desired fin spacing. Fin spacing can be marked on the cross rails prior to installation. (Refer to table on page 5 for details).



When you are satisfied with the alignment of the Fins/Rafts turn the clips 90 degrees so they clip into the channel and lock in place.



Lift the assembled Fins/Rafts into place and click them onto the Autex Mounting Clips. Turn the clips 45 Deg to temporarily hold the Fin/Raft in place while allowing adjustment along the length.



Ensure suitable fastener for the clip, rail and substrate is used. For additional security, the Autex Mounting Clips can be screwed into the cross rail.

# **FRONTIER**<sup>TM</sup> **INSTALLATION METHOD 3** SUSPENDED FROM RAIL



Mark out the ceiling and screw in 4x backing plates suitable for M6 threaded rod in a 1200 mm x 1200 mm square using screws suitable for the substrate (not supplied). Fin spacing can be marked on the cross rails prior to being clipped onto the Removable W-Clips. (Refer to table on page 5 for details).



When you are satisfied with the alignment of the Fins/Rafts turn the clips  $90^{\circ}$  so they clip into the channel and lock in place.



Insert the Autex Mounting Clips at the desired fin spacing on the cross rails with the handle tilted towards the floor. Lift the assembled Fins/Rafts into place and click them onto the Autex Mounting Clips. Turn the clips 45 Deg to temporarily hold the Fin/Raft in place while allowing adjustment along the length.

NOTE: In sprinklered buildings please check with local fire engineer for sprinkler layouts and hanging requirements.

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**PLEASE NOTE**, the threaded rod and backing plate suspension method is the default option for large installations. As these parts are supplied by a third party, please see your account manager for preferred supplier in your territory. For smaller installations, adjustable cable hangers are available from Autex.



# FRONTIER BOX PACKAGE CONTENTS





STYLE	FIN LENGTH (mm)	FIN THICKNESS (mm)	FIN DEPTH (mm)	FIN SPACING (mm)	FINS PER PACK	MOUNTING CLIPS	AREA PER PACK (m <sup>2</sup> )
	2400	12	100	100	24	48	5.76
	2400	12	150	150	16	32	5.76
	2400	12	200	200	12	24	5.76
TUNDRA	2400	12	300	300	8	16	5.76
IUNDKA	2400	24	100	100	12	24	2.88
	2400	24	150	150	8	16	2.88
	2400	24	200	200	6	12	2.88
	2400	24	300	300	4	8	2.88
						•	
DUNE/SIERRA/TALUS	2400	12	300*	300	8	16	5.76
DUNE/ SIEKKA/ IALUS	2400	24	300*	300	4	8	2.88
				•		•	
AXIS	2400	12	150	300	16	16	5.76
						-	
RAFT STYLE	RAFT LENGTH (mm)	RAFT WIDTH (mm)	RAFT DEPTH (mm)	RAFT SPACING (mm)	RAFTS PER PACK	MOUNTING CLIPS	AREA PER PACK (m <sup>2</sup> )
BEAM 100	2400	70	92	150	8	16	2.88
BEAM 250	2400	70	232	300	4	8	2.88
BLADE	2400	70	257	300	4	8	2.88

RAFT STYLE	RAFT LENGTH (mm)	RAFT WIDTH (mm)	RAFT DEPTH (mm)	RAFT SPACING (mm)	<b>RAFTS PER PACK</b>	MOUNTING CL
BEAM 100	2400	70	92	150	8	16
<b>BEAM 250</b>	2400	70	232	300	4	8
BLADE	2400	70	257	300	4	8
TRAPEZOID	2400	200	137	300	4	8

\*The depth of DUNE/SIERRA/TALUS fins vary but average out to 300mm

2.88



FRONTIER FRONTIER MOUNTING CLIP



### **DIRECT FIX TO CEILING**



12mm Frontier Fin shown in example. Repeat the same process for Frontier 24mm Fin and Frontier Raft

### **DIRECT FIX TO RAIL/SUSPENDED FROM RAIL**



12mm Frontier Fin shown in example. Repeat the same process for Frontier 24mm Fin and Frontier Raft

FRONTIER STANDARD DESIGNS



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## **TUNDRA 300**



# **FRONTIER FRONTIER FINS** DUNE/SIERRA/TALUS PACKS



### DUNE





**SIERRA** 



Install sequence pattern as shown above A,C,D,C\*,B,E,B\*,A

Box layout as shown below.

Installation sequence pattern as shown above D,C,B,A,A\*,B\*,C\*,D\*...

Box layout as shown below.















## **TALUS**

Installation sequence pattern as shown above A,C,B,C\*,A,C,B,C\*...

Box layout as shown below.

 A
B
C
C*)
 A
B
C
(C*)

## FRONTIER FINS DUNE/SIERRA/TALUS PATTERN REPEAT

DUNE









# FRONTIER FINS TUNDRA PACK COVERAGE











# FRONTIER FINS FIN TO EXTRUSION ASSEMBLY



Using a rubber mallet, seat the channel onto the fin.



Ensure the end of the channel is aligned with the Frontier Fin by tapping the overhanging end of the extrusion.





The Frontier Fin is now ready for installation to the ceiling.

# FRONTIER AXIS ASSEMBLY INSTRUCTIONS



In the Frontier Axis pack there are two types of Fin (A & B). Part A has two notches and the small notch should be facing up when inserted into Part B.



Using a rubber mallet, attach the 8x Rafnex channels along the lengths of the 'B' fins to lock the Axis Fins together in a grid.



To attach the included 2x RAFNEX24 cross rails, first clip the 16x Autex Mounting Clips at the intersection points along the A2 & A7 Rails. Press the Crossrail onto the clips so they click into place.

Twist the Autex Mounting Clips 90deg to lock them off. The Frontier Axis Grid is now ready for installation to the ceiling.



# FRONTIER AXIS INSTALLATION TO CEILING





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suspension set if pages 23-28 for suggested details

## FRONTIER FRONTIER CEILING FIXING OPTION OVERVIEW



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METHOD

5. HANGING

W-CLIP

**CROSS RAIL** 

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RFACE

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II



CROSS RAIL W-CLIP TO RONDO 119 INTO 127 TCR CROSS RAIL W-CLIP TO RONDO SUSPENSION





## GUIDE

Starting with your predetermined Fin/Raft option (bottom), choose your installation path above which indicates components required.

----- Autex Component ----- 3rd Party Component

## FRONTIER RAFT RAFT RAFT STYLES











FRONTIER RAFT PROFILE DETAIL



**BEAM 100** 



**BEAM 250** 



BLADE



- Raft height is inclusive of the Autex frontier Raft Extrusion NOTES - Refer to page 19 for recommended Raft spacing (X).



## **TRAPEZOID**

# FRONTIER PACK COVERAGE















# FRONTIER RAFT ASSEMBLY





# FRONTIER INSTALLATION TIPS EXTRUSION JOINER DETAIL



### RAFCCT



Light duty plastic connector used to join direct fixed rails. Both joiners are compatible with all extrusion sizes







### **RAFHDCC**



Heavy duty diecast connector with 4x grub screws used to join cross rails and/or suspended rails.



NOTE: In addition to joiner, screw the end caps together to create a cleaner join



# **FRONTIER FRONTIER COMPONENTS** AUTEX PART IDENTIFICATION



RAFTCC Autex Mounting Clip



### RAFHDCC

Autex Heavy Duty Frontier Channel Connector with 4x M5 Grub Screws



RAFCCT Autex Frontier Channel Connector



RAFNEX Frontier 12mm Extrusion





RAFWCP Autex Removable W-Clip

RAFM6GC

24mm Ceiling Grid

Connector with M6 Thread



**RAFNEX24** Frontier 24mm Extrusion





**RAFM6MP** Magnet Pot with M6 Thread and Cable Adaptor



RAFNEXRT Frontier Raft Extrusion



### RAHVAS Autex Adjustable Suspension Set 1000 mm cable -Channel Connection

**RAH3MBE** 3m Steel Cable with Ball End

# FRONTIER FRONTIER COMPONENTS (NZ & AU ONLY) AUTEX (



**RONDO 129** 28mm Furring Channel



**RONDO 2534** Top Cross Rail Suspension Clip

**RONDO 121** 5mm Soft Galvanised Suspension Rod



**RONDO 308** 16mm Furring Channel



**RONDO 547** Adjustable Suspension Hanger (Concrete)







**RONDO TCR 127** 25mm Top Cross Rail



**RONDO 534** Adjustable Suspension Hanger (Purlins)



Other brands may have comparable components. Check with your account manager.











### **RONDO 719** Adjustable

Suspension Clip





### **RONDO 274**

121 to Timber /Steel Joist

Rondo components are supplied by a 3rd party and may not be available in all territories.

### **FRONTIER** SUSPENDED OPTIONS SUGGESTED DETAIL - CABLE TO RAIL

Suggested Ceiling Fixing Detail				
Substrate Fixing Minimum Embedment				
Concrete	Hilti-HUS3-HR6	40 mm		
Steel	Stainless Steel 8G Tek Screw	0.55 mm		
Timber	Stainless Steel 8G Wood Screw	30 mm		



**NOTE:** This suspension method is suitable for small installations only. For larger installations refer to pages 25-29

0 RAHVAS Autex Adjustable Suspension Set -Channel **RAFNEX24 Autex Frontier** 24 mm Extrusion RAFNEX Autex Frontier 12 mm Extrusion + Fin - or -**RAFNEX24** Autex Frontier 24 mm Extrusion + Fin - or -RAFNEXRT Autex Frontier Raft Extrusion + Raft

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**SCREW FIXING** Suitable for Substrate (NOT SUPPLIED)

### RAFWCP

Autex Removable W-Clip



### **FRONTIER** SUSPENDED OPTIONS SUGGESTED DETAIL - CABLE TO FIN/RAFT

Suggested Ceiling Fixing Detail				
Substrate	Fixing	Minimum Embedment		
Concrete	Hilti-HUS3-HR6	40 mm		
Steel	Stainless Steel 8G Tek Screw	0.55 mm		
Timber	Stainless Steel 8G Wood Screw	30 mm		



**NOTE:** This suspension method is suitable for individual fins only. Requires 1x **RAHVAS** set per fin. For larger installations refer to pages 25-29

9 J RAHVAS Autex Adjustable Suspension Set -Channel RAFNEX Autex Frontier 12 mm Extrusion + Fin - or -RAFNEX24 **Autex Frontier** 24 mm Extrusion + Fin - or -RAFNEXRT Autex Frontier Raft

Extrusion + Raft

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### **SCREW FIXING**

Suitable for Substrate (NOT SUPPLIED)



### **FRONTIER** SUSPENDED OPTIONS SUGGESTED DETAIL - THREADED ROD

	Suggested Ceiling Fixing Detail				
Substrate	Fixing	Minimum Embedment			
Concrete	Hilti-HUS3-HR6	40 mm			
Steel	Stainless Steel 8G Tek Screw	0.55 mm			
Timber	Stainless Steel 8G Wood Screw	30 mm			



**M6 BACK PLATE** 9 (NOT SUPPLIED) д **M6 THREADED** ROD (NOT SUPPLIED) RAFWCP Autex Removable W-Clip **RAFNEX24** Autex Frontier 24 mm Extrusion RAFNEX Autex Frontier 12 mm Extrusion + Fin - or -RAFNEX24 **Autex Frontier** 24 mm Extrusion + Fin - or -RAFNEXRT Autex Frontier Raft extrusion + Raft

option on page 29.





**SCREW FIXINGS** Suitable for Substrate

(NOT SUPPLIED)



## **FRONTIER**<sup>™</sup> **SUSPENDED OPTIONS** SUGGESTED DETAILS - RONDO 1

Suggested Ceiling Fixing Detail				
Substrate Fixing Minimum Embedmen				
Concrete	Hilti-HUS3-HR6	40 mm		
Steel	Stainless Steel 8G Tek Screw	0.55 mm		
Timber	Stainless Steel 8G Wood Screw	30 mm		



**RONDO 121** 5 mm Soft

Galvanised Suspension Rod

**RAFNEX24 Autex Frontier** 24 mm Extrusion

RAFNEX

- or -

Autex Frontier

**RAFNEX24 Autex Frontier** 



Ju -

24 mm Extrusion + Fin - or -RAFNEXRT Autex Frontier Raft

Extrusion + Raft



**RONDO 547** 

Adjustable Suspension Hanger

### RAFWCP

Autex Removable W-Clip

### RAFTCC

Autex Mounting Clip







## **FRONTIER** SUSPENDED OPTIONS SUGGESTED DETAILS - RONDO 2

Suggested Ceiling Fixing Detail				
Substrate Fixing Minimum Embedmen				
Concrete	Hilti-HUS3-HR6	40 mm		
Steel	Stainless Steel 8G Tek Screw	0.55 mm		
Timber	Stainless Steel 8G Wood Screw	30 mm		

For certain size installations,

**RONDO 121** 5 mm Soft Galvanised Suspension Rod **RONDO TCR** 127 25 mm Top Cross Rail **RAFWCP** Autex Removable W-Clip

> RAFNEX24 **Autex Frontier** 24 mm Extrusion

RAFNEX Autex Frontier 12 mm Extrusion + Fin - or -RAFNEX24 Autex Frontier 24 mm Extrusion + Fin - or -RAFNEXRT Autex Frontier Raft Extrusion + Raft

### SEISMIC CONSIDERATIONS

transverse and longitudal seismic bracing may be required (dashed lines). See suggested bracing option on page 29.



**RONDO 2534** Top Cross Rail

Suspension Clip

**RONDO 119** U Clip

M6 x 20 **SOCKET HEAD CAP SCREW** (NOT SUPPLIED)

RAFTCC Autex Mounting Clip

## **FRONTIER** SUSPENDED OPTIONS SUGGESTED DETAILS - RONDO 3

Suggested Ceiling Fixing Detail				
Substrate Fixing Minimum Embedmer				
Concrete	Hilti-HUS3-HR6	40 mm		
Steel	Stainless Steel 8G Tek Screw	0.55 mm		
Timber	Stainless Steel 8G Wood Screw	30 mm		



### SEISMIC CONSIDERATIONS

For certain size installations, transverse and longitudal seismic bracing may be required (dashed lines). See suggested bracing option on page 29.





### **RONDO 121** 5 mm Soft Galvanised Suspension Rod

### **RONDO 547**

Adjustable Suspension Hanger

### M6 x 20 SOCKET **HEAD CAP SCREW** (NOT SUPPLIED)

### RAFTCC Autex Mounting Clip





## **FRONTIER** SUSPENDED OPTIONS SUGGESTED DETAIL - SEISMIC BRACING



Autex Frontier Raft Extrusion

