

SwitchBrace

THE FREEDOM TO CHOOSE

August 2026

www.boardswitch.co.nz

SwitchBrace
THE FREEDOM TO CHOOSE

The SwitchBrace® Dual Plasterboard Bracing System

Provides New Zealanders with the freedom to choose either GIB® Plasterboard or EPB Plasterboard® at the internal lining stage, without incurring any extra compliance costs.

Specifying SwitchBrace® Systems at Bracing Design Stage

This will give your client the freedom to choose. Allowing them to consider more important and valued advantages such as quality, price or innovation. Without incurring extra design or engineering costs, amendment fees, minor variations or other compliance costs.

Combined Conservative System Performances

SwitchBrace® identified and combined the most conservative bracing performance of each bracing system within the two plasterboard brands. Building Officials will accept either brand at post-line stage because the most conservative performances were used in the bracing design.

SwitchBrace® Numbering System

The SwitchBrace® Dual Plasterboard Numbering System allows easy identification for designers, engineers, builders and building officials of which type of plasterboard is to be used within the two plasterboard brands.

Independently Appraised

The published bracing ratings have been obtained by identifying the most conservative performance values of either the EPB QuickBrace® Systems or the GIB EzyBrace® Systems. Both systems are independently Appraised and the SwitchBrace® table of results show the most conservative performances of the two bracing systems.

SwitchBrace® Software

The SwitchBrace software is a powerful tool that allows designers and engineers to calculate the demands and complete the bracing design in either kiloNewtons (kN) or Bracing units (Bu). A number of other enhanced features will further assist designers and engineers, to not only comply to the rules of NZS 3604:2011 but also assist in good design and construction.
For the SwitchBrace® software visit www.switchbrace.co.nz or email info@switchbrace.co.nz to request a copy.

Key Benefits

- Quality, Price and Innovation can be freely considered
- No Compliance issues
- Increased Competition
- Keeping down the cost to build a home
- Providing New Zealanders The Freedom to Choose

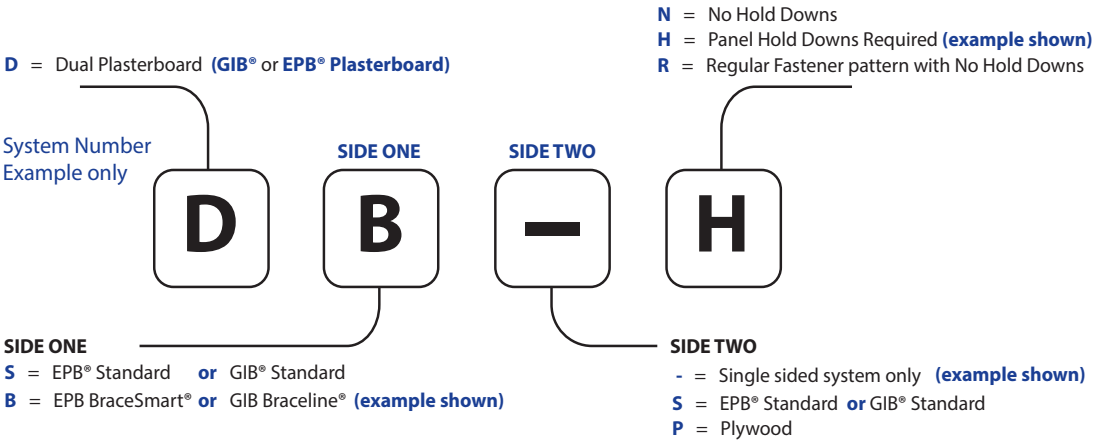
Bracing Design & Calculating Bracing Demand

To calculate the Bracing Demand and assist in Bracing Design for a project consult any of the following publications;

- NZS3604:2011 Section 5
- EPB QuickBrace® Systems Manual
- GIB EzyBrace® Systems Manual
- Specific design

SwitchBrace® Numbering System

Nomenclature



SwitchBrace® Dual Plasterboard Numbering Systems & Performance Table

SwitchBrace® Dual Plasterboard Numbering Systems					SWITCHABLE LINING REQUIREMENTS		
Dual Code	Min Length	BU'S/m Wind	BU'S/m EQ	Panel Hold Downs	**EPB Plasterboard® Linings**	OR	**GIB® Plasterboard Linings**
Plasterboard on One Side							
DS-N	0.40	50	55	No	EPB® Standard Plasterboard one side	OR	GIB®Standard Plasterboard one side
	1.20	70	60				
DB-H	0.40	90	95	Yes	EPB BraceSmart® one side		GIB Braceline® one side
	1.20	125	105				
Plasterboard on Both Sides							
DSSR	0.40	50	50	N/A	EPB® Standard Plasterboard on both sides (Regular EPB® Installation Guide fastener pattern)	OR	GIB® StandardPlasterboard on both sides (Regular GIB® Site Guide fastener pattern)
	1.2	50	50				
DSSN	0.40	75	65	No	EPB® Standard Plasterboard both sides	OR	GIB® Standard Plasterboard both sides
	1.20	95	85				
DBSH	0.40	110	115	Yes	EPB BraceSmart® one side, EPB® Standard Plasterboard the other		GIB Braceline® one side, GIB®Standard Plasterboard the other
	1.20	150	145				
Plasterboard One Side, Plywood the Other							
DSPH	0.40	100	115	Yes	EPB® Standard Plasterboard one side, 7mm structural plywood the other	OR	GIB® Standard Plasterboard one side, Structural Plywood the other
	1.20	150	150				
DBPH	0.40	120	135		EPB BraceSmart® one side, 7mm structural plywood the other		GIB Braceline® one side, 7mm structural plywood the other
	1.20	150	150				

* Timber Floors - It is required by NZS 3604:2011 to limit BU ratings to 120 BU/m for timber floors. For a higher floor frame uplift, a specifically engineered design will be required.

SwitchBrace® Dual Plasterboard Numbering Systems					SWITCHABLE LINING REQUIREMENTS		
Dual Code	Min Length	BU'S/m Wind	BU'S/m EQ	Panel Hold Downs	**EPB Plasterboard® Linings**	OR	**GIB®Plasterboard Linings**
DSSR	0.40	50	50	No	EPB® Standard Plasterboard on both sides (Regular EPB® Installation Manual fastener pattern)	OR	GIB® StandardPlasterboard on both sides (Regular GIB® Site Guide fastener pattern)
	1.2	50	50				

Framing

Framing heights and dimensions to comply with NZS 3604:2011 stud and top plate tables for load bearing and non load bearing walls.
Refer to relevant sections and clauses of
NZBC B1 – Structure: AS1 Clause 3 – Timber (NZS 3604)
NZBC B2 – Durability: AS1 Clause 3.2 – Timber (NZS 3602)

Bottom Plate Fixing

There are no specialised bottom plate fixings beyond the requirements of NZS 3604:2011

Timber Floor:

Fastening within the bracing element must be done in accordance with NZS 3604:2011. i.e. Either pairs of 100 x 3.75mm hand driven nails or three 90 x 3.15mm power driven nails at 600mm centres.

Concrete Floors:

External walls: Within the bracing element fix the bottom plate as per NZS 3604:2011.
Internal Walls: Within the bracing element fix the bottom plate as per NZS 3604:2011.
Note: Alternatively use 75 x 3.8mm shot-fired fasteners with 16mm discs at 150mm & 300mm from end studs and thereafter at 600mm centres. Ensure a minimum penetration of 30mm into the concrete foundation.

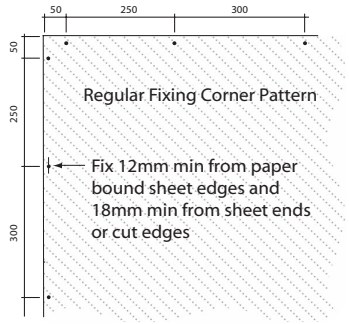
Wall Lining

DSSR: One layer to Each side of frame
The Plasterboard sheets can be fixed vertically or horizontally. Use full height or full length sheets when fixing vertically or horizontally where possible. Sheets shall be touch fitted.

Fixing of Plasterboard Linings

Fastening: (Corners and Perimeters)
Minimum 32mm x 6g High thread Drywall screws.

Fastening Centres: (Corners and Perimeters)
Corner and Perimeter Pattern: Refer to the regular corner fixing pattern below.
Place all fasteners no less than 12mm from paper bound sheet edges and 18mm from sheet ends or cut edges.

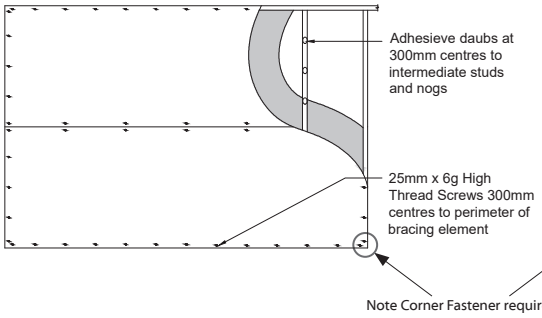


Fasteners and Fastening Centres in the Field of the lining
For vertically fixed sheets place fasteners (screws or adhesive daubs) at 300mm centres to the intermediate sheet joints. For Horizontally fixed sheets place screws at the sheet edge that crosses the studs. Place daubs of Drywall adhesives at 300mm centres to intermediate studs.

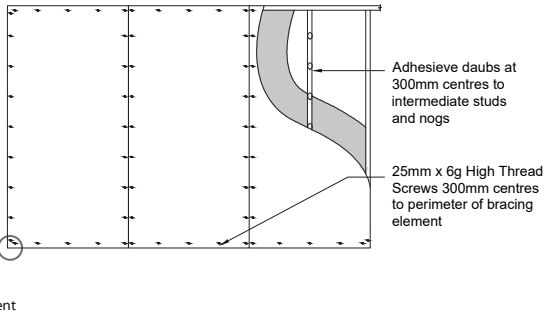
Jointing of Finishing of Plasterboard Linings

All fasteners stopped and all sheet joints reinforced with paper jointing tape. All in accordance with the relevant plasterboard manufacturer's installation guide.

Horizontal Fixing



Vertical Fixing



PLASTERBOARD ON ONE SIDE

SwitchBrace® Dual Plasterboard Numbering Systems					SWITCHABLE LINING REQUIREMENTS		
Dual Code	Min Length	BU'S/m Wind	BU'S/m EQ	Panel Hold Downs	**EPB Plasterboard® Linings**	OR	**GIB®Plasterboard Linings**
DS-N	0.40	50	55	No	EPB® Standard Plasterboard one side	OR	GIB®Standard Plasterboard one side
	1.20	70	60				
DB-H	0.40	90	95	Yes	EPB BraceSmart® one side		GIB Braceline® one side
	1.20	125	105				

Framing

Framing heights and dimensions to comply with NZS 3604:2011 and must be a minimum of 70 x 45mm for internal walls and 90 x 35mm for external walls. Nogs and Dwangs are not a requirement in order to achieve the bracing ratings in this document.
Refer to relevant sections and clauses of
NZBC B1: Structure; AS1 Clause 3 Timber - NZS 3604
NZBC B2: Durability; AS1 Clause 3.2 Timber - NZS 3602

Fastening Bracing Elements to Floor

Timber Floor:
Fastening within the bracing element must be done in accordance with NZS 3604:2011.
i.e. Either pairs of 100 x 3.75mm hand driven nails or three 90 x 3.15mm power driven nails at 600mm centres.
For **DB-H:** Use the panel hold downs at each end of the bracing element.

Concrete Floors:
External or Internal walls: Within the bracing element fix the bottom plate as per NZS 3604:2011.
For **DS-N:** On Internal Walls alternatively use 75 x 3.8mm shot-fired fasteners with 16mm discs at 150mm & 300mm from end studs and thereafter at 600mm centres. Ensure a minimum penetration of 30mm into the concrete foundation.
For **DB-H**: Use the panel hold downs at each end of the bracing element.

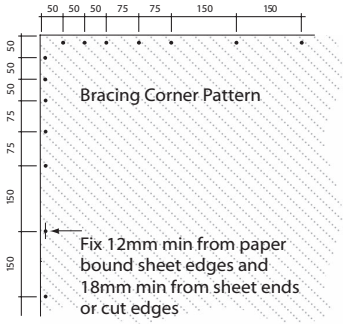
Wall Lining (As per Specified System Above)

One layer of Plasterboard lining type as per specified system above to ONE side of frame.
The Plasterboard sheets can be fixed vertically or horizontally. Use full height or full length sheets when fixing vertically or horizontally where possible. All sheet end butt joints must be fixed over solid timber framing and fastened at 200mm centres. Alternatively the sheet end butt joints may be back blocked. Sheets shall be touch fitted.

Fixing of Plasterboard Linings

Fastening: (Corners and Perimeters of the bracing element)
Minimum 32mm x 6g High thread Drywall screws (Fortress® or Grabber® or Senco®)

Fastening Centres: (Corners and Perimeters of the bracing element)
Corner Pattern: Refer to the bracing corner pattern above.
Perimeter Pattern: Place fasteners at 150mm centres around perimeter of bracing element.
Place all fasteners 12mm from paper bound sheet edges and 18mm from sheet ends or cut edges.

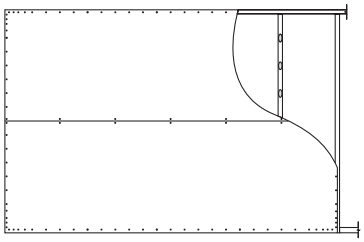


Fasteners and Fastening Centres in the Field of the bracing element
For vertically fixed sheets place fasteners at 300mm centres to the intermediate sheet joints. For Horizontally fixed sheets place fasteners at the sheet edge that crosses the studs. Place daubs of Drywall adhesives at 300mm centres to intermediate studs. Take extra care to ensure that screws or clouts are not placed closer than 200mm from any daubs of adhesive.

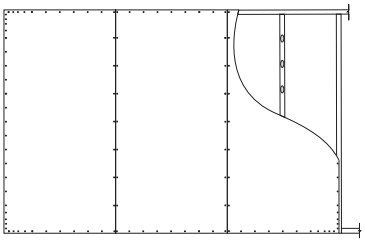
Jointing of Finishing of Plasterboard Linings

All fasteners stopped and all sheet joints reinforced with paper jointing tape. All in accordance with the relevant plasterboard manufacturer's installation guides.

Horizontal Fixing



Vertical Fixing



PLASTERBOARD ON BOTH SIDES

SwitchBrace® Dual Plasterboard Numbering Systems					SWITCHABLE LINING REQUIREMENTS		
Dual Code	Min Length	BU'S/m Wind	BU'S/m EQ	Panel Hold Downs	**EPB Plasterboard® Linings**	OR	**GIB®Plasterboard Linings**
DSSN	0.40	75	65	No	EPB® Standard Plasterboard both sides	OR	GIB®Standard Plasterboard both sides
	1.20	95	85				
DBSH	0.40	110	115	Yes	EPB BraceSmart® one side, EPB® Standard Plasterboard the other		GIB Braceline® one side, GIB® Standard Plasterboard the other
	1.20	150	145				

Framing

Framing heights and dimensions to comply with NZS 3604:2011 and must be a minimum of 70 x 45mm for internal walls and 90 x 35mm for external walls. Nogs and Dwangs are not a requirement in order to achieve the bracing ratings in this document.

Refer to relevant sections and clauses of

NZBC B1: Structure; AS1 Clause 3 Timber -NZS 3604

NZBC B2: Durability; AS1 Clause 3.2 Timber -NZS 3602

Fastening Bracing Elements to Floor

Timber Floor:

Fastening within the bracing element must be done in accordance with NZS 3604:2011.

i.e. Either pairs of 100 x 3.75mm hand driven nails Or three 90 x 3.15mm power driven nails at 600mm centres.

For **DBSH:** Use panel hold downs at each end of the bracing element.

Concrete Floors:

Within the bracing element fix the bottom plate as per NZS 3604:2011.

For **DSSN**: For Internal Walls alternatively use 75 x 3.8mm shot-fired fasteners with 16mm discs at 150mm & 300mm from end studs and thereafter at 600mm centres. Ensure a minimum penetration of 30mm into the concrete foundation.

For **DBSH**: Use panel hold downs at each end of the bracing element.

Wall Lining (As per Specified System Above)

One layer of Plasterboard lining type as per specified system above to BOTH sides of frame.

The Plasterboard sheets can be fixed vertically or horizontally. Use full height or full length sheets when fixing vertically or horizontally where possible. All sheet end butt joints must be fixed over solid timber framing and fastened at 200mm centres. Alternatively the sheet end butt joints may be back blocked. Sheets shall be touch fitted.

Fixing of Plasterboard Linings

Fastening: (Corners and Perimeters of the bracing element)

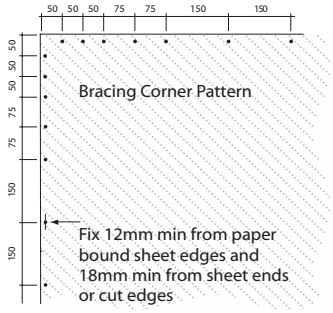
32mm x 6g High thread Drywall screws (Fortress® or Grabber® or Senco®)

Fastening Centres: (Corners and Perimeters of the bracing element)

Corner Pattern: Refer to the bracing corner pattern below.

Perimeter Pattern: Place fasteners at 150mm centres around perimeter of bracing element.

Place all fasteners 12mm from paper bound sheet edges and 18mm from sheet ends or cut edges.



Fasteners and Fastening Centres in the Field of the bracing element

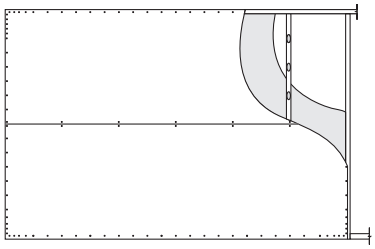
For vertically fixed sheets place fasteners at 300mm centres to the intermediate sheet joints.

For Horizontally fixed sheets place fasteners at the sheet edge that crosses the studs. Place daubs of Drywall adhesives at 300mm centres to intermediate studs. Take extra care to ensure that screws or clouts are not placed closer than 200mm from any daubs of adhesive

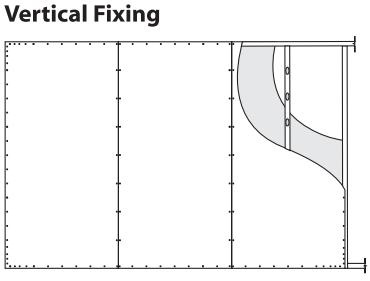
Jointing of Finishing of Plasterboard Linings

All fasteners stopped and all sheet joints reinforced with paper jointing tape. All in accordance with the relevant plasterboard manufacturer's installation guides.

Horizontal Fixing



Vertical Fixing



PLASTERBOARD ON ONE SIDE, PLYWOOD THE OTHER

SwitchBrace® Dual Plasterboard Numbering Systems					SWITCHABLE LINING REQUIREMENTS		
Dual Code	Min Length	BU'S/m Wind	BU'S/m EQ	Panel Hold Downs	**EPB Plasterboard® Linings**	OR	**GIB®Plasterboard Linings**
DSPH	0.40	100	115	Yes	EPB® Standard Plasterboard one side, Structural the other	OR	GIB®Standard Plasterboard one side, Structural Plywood the other
	1.20	150	150				
DBPH	0.40	120	135		EPB BraceSmart® one side, 7mm structural plywood the other		GIB Braceline® one side, 7mm structural plywood the other
	1.20	150	150				

Framing

Framing heights and dimensions to comply with NZS 3604:2011 and must be a minimum of 70 x 45mm for internal walls and 90 x 35mm for external walls. Nogs and Dwangs are not a requirement in order to achieve the bracing ratings in this document.

Refer to relevant sections and clauses of

NZBC B1: Structure; AS1 Clause 3 Timber -NZS 3604

NZBC B2: Durability; AS1 Clause 3.2 Timber -NZS 3602

Fastening Bracing Elements to Floor

Timber Floor:

Fastening within the bracing element must be done in accordance with NZS 3604:2011.

i.e. Either pairs of 100 x 3.75mm hand driven nails or three 90 x 3.15 power driven nails at 600mm centres.

For **DSPH** and **DBPH:** Use the panel hold downs at each end of the bracing element.

Concrete Floors:

Within the bracing element fix the bottom plate as per NZS 3604:2011.

For **DSPH** and **DBPH:** Use the panel hold downs at each end of the bracing element

Wall Lining (As per Specified System Above)

One layer of Plasterboard lining type as per specified system above to ONE side of frame. One layer of 7mm structural Plywood as per specified system above to OTHER side of frame. The Plasterboard sheets can be fixed vertically or horizontally. Use full height or full length sheets when fixing vertically or horizontally where possible. All sheet end butt joints must be fixed over solid timber framing and fastened at 200mm centres. Alternatively the sheet end butt joints may be back blocked. Plywood sheets must be fixed vertically with edges supported by framing or blocking. Sheets shall be touch fitted.

Fixing of Plasterboard Linings

Fasteners: (Corners and Perimeters of the bracing element)

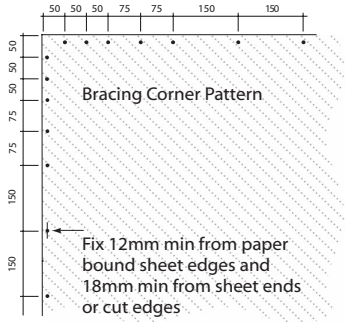
32mm x 6g High thread Drywall screws (Fortress® or Grabber® or Senco®)

Fastening Centres: (Corners and Perimeters of the bracing element)

Corner Pattern: Refer to the bracing corner pattern below.

Perimeter Pattern: Place fasteners at 150mm centres around perimeter of bracing element.

Place all fasteners 12mm from paper bound sheet edges and 18mm from sheet ends or cut edges.



Fasteners and Fastening Centres in the Field of the bracing element

For vertically fixed sheets place fasteners at 300mm centres to the intermediate sheet joints. For horizontally fixed sheets place fasteners at the sheet edge that crosses the studs. Place daubs of Drywall adhesives at 300mm centres to intermediate studs. Take extra care to ensure that screws or clouts are not placed closer than 200mm from any daubs of adhesive.

Fixing of Plywood Linings

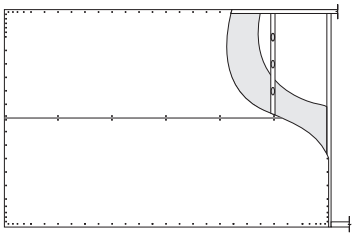
Fasteners: (Corners and Perimeters of the bracing element)

50 x 2.8mm Flat head Galvanized or Stainless Steel annular grooved Nails. Fix at 150mm centres around perimeter of the bracing element and the perimeter of each sheet. Fix at 300mm centres to intermediate studs that are not at the end of a bracing element. The corner pattern fastening is conventional and there is no need for the specialized corner pattern as is required on the plasterboard side of the brace.

Jointing of Finishing of Plasterboard Linings

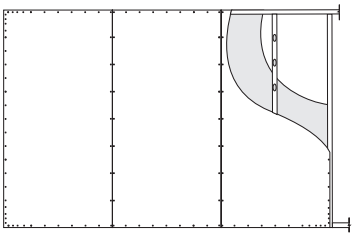
All fasteners stopped and all sheet joints reinforced with paper jointing tape. All in accordance with the relevant plasterboard manufacturer's installation guides.

Horizontal Fixing



Plasterboard side shown

Vertical Fixing



Plasterboard side shown

THE FREEDOM

The absence of undue restrictions and an opportunity to exercise one's rights and powers. Freedom of thought promotes invention, innovation and discovery. Free press, free movement, free speech, free will, freedom of action, freedom to choose.

TO CHOOSE

The free right or privilege of choosing: to exercise one's options. The opportunity to shop around. Exercise ones discretion or to state a preference. The ability to use SwitchBrace™.

For more information
www.boardswitch.co.nz
Email info @switchbrace.co.nz
Freephone 0800 879 482