



STORM PROTECTION PRODUCTS Storm Panel Installation Instructions



IMPORTANT NOTICE!

Read the enclosed instructions carefully before installing the Fabric-Shield[™] Storm Panel. Pay close attention to all warnings and notes. This manual should be retained for future reference. Wayne Dalton P.O. Box 67 Mt. Hope, OH 44660 (888) 827-3667

TABLE OF CONTENTS

Items Included	
Tools Required	
Installation Steps	4
Cleaning and Maintenance	12
Warranty	12
Customer Service Number	12

SAFETY INFORMATION

IMPORTANT

Fabric-Shield[™] products are not hurricane proof and may not protect the glass from shattering or offer a high level of security. Proper installation of Fabric-Shield[™] products is important to product performance. Every assembly and installation is different (windloads, structural support, etc.). Wayne-Dalton strongly recommends consultation with a Wayne-Dalton supplier or an experienced contractor, architect, or structural engineer prior to the assembly and installation of any Wayne-Dalton Storm Protection Products. Wayne-Dalton assumes no responsibility in regard to the post-manufactured assembly and installation of Wayne-Dalton Storm Protection Products.

DEFINITION OF SYMBOL



PRODUCT COMPLIANCE:

Wayne Dalton Fabric-Shield Storm Panel have been evaluated and approved by the following:

Florida Building Code product approval www.floridabuilding.org

Meets the following test standards (results available):

Florida Building Code TAS 201, 202 & 203 ASTM - E-1886, E-1996

Design Pressure +/- 66 PSF

INSTALLATION SAFETY INSTRUCTIONS

WARNING: INCORRECT INSTALLATION CAN LEAD TO SEVERE OR FATAL INJURY. FOLLOW THESE INSTRUCTIONS CAREFULLY.



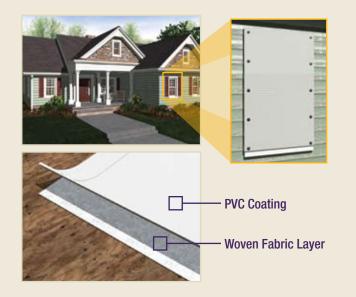
WARNING: Wayne-Dalton Corp. is not responsible for determining compliance of this product and/or its installation with any codes and/or regulations enforced in your area.

- 1. Before installing this product, **READ and FOLLOW all installation** instructions fully so you are aware of all of the functions and features..
- Using ladders and/or scaffolding and working at elevated levels may be hazardous. Follow equipment manufacturer's instructions for safe operation. Use extreme caution when working around window and door openings. Falling from a ladder or an opening may result in severe or fatal injury.
- Wear eye protection when using tools to install, repair, or adjust the product to prevent eye injuries. Improper use of hand/power tools could result in personal injury and/or product damage. Follow manufacturer's instructions for safe operation of equipment.
- 4. Product should be installed prior to a storm. Always be aware of local forecasts.
- 5. Wind-borne debris may break glass. Stay away from glass during a storm.
- 6. Steel fasteners will corrode when used with ACQ Pressure Treated Lumber. Obtain and use the appropriate size stainless steel screws to fasten unit to any rough opening made from ACQ Pressure Treated Lumber. Failure to use stainless steel fasteners may result in fastener corrosion causing product failure.
- 7. Wear protective gloves to install, repair, or adjust fabric shield to avoid hand injuries.
- 8. Pay close attention to all warnings, notices, and notes in these instructions.
- 9. Openings covered with this product cannot be used for an escape exit.
- 10. Wayne-Dalton disclaims any responsibility for the use of any fasteners other than those shown on the Florida Building Commission product approvals.

DATE OF PURCHASE

PLACE OF PURCHASE





ongratulations. You've selected Wayne-Dalton Fabric-Shield[™] panels to protect your home from internal pressurization resulting from devastating storm damage. These panels are lightweight, easy to handle and simple to store. They are translucent, allowing natural light to enter the home and are quick to attach and remove – making them a convenient alternative to plywood or metal.

Wayne-Dalton Fabric-Shield[™] Storm Panels are PVC-coated woven fabric, tested to reduce damage from wind, rain and storm-driven debris. Standard and custom sizes are available.

These easy-to-follow instructions will help you complete a hasslefree installation of your Fabric-Shield storm panels. Carefully read the list of tools and safety information before getting started.

ITEMS INCLUDED & TOOLS REQUIRED

Storm Panel Package Contents:



INSTALLATION STEPS

Preparation

(Figure A) First determine if your home's underlying material is:

- Wood
- Concrete
 Hollow block
- Hollow block

This will help determine the placement of the fasteners to attach the panels to your.

Also determine if your windows and door casings are:

- recessed with an extended sill or without a sill
- flush to the wall or protrude past the wall

Check if shutters, down spouts or other items might interfere with fastener placement.

Take note of your exterior siding. The thickness of your walls and where you plan to attach fasteners will determine the length and type of fastener required.

(Figure B) Fasteners MUST penetrate the exterior finish into a solid substrate to provide a proper anchor. This is crucial to ensure a properly installed panel.

(Figure C) Count the number of openings to which you wish to attach panels. Include:

- all windows and doors with glass
- roof and gable-end vents
- any other openings that would allow wind to enter your home if damaged

(Figure D) Measure each opening's width from the inside of the exterior trim. Measure the opening's height from the sill to the bottom of the top trim. When measuring a window with an extended sill, measure from the top of the sill to the bottom of the top trim.

(Figure E) Write this information down on your worksheet along with a brief description of the opening.





2 Grommet Placement

(Figure A) For windows with wood framing, mount the panel with the grommets left to right.

For hollow and concrete block walls without protruding sills, you can mount the panel with the grommets left to right or top to bottom.

For hollow and concrete block walls with a protruding sill, mount the panel with the grommets left to right.

(Figure B) A minimum 1-inch or greater panel overlap of the opening is recommended. More overlap increases the systems resistance to small flying debris that can come in around the unattached edges.

(Figure C) On your worksheet, record the following information:

- panel orientation
- the amount of overlap desired
- the type of framing and exterior the fastener will be going through

(Figure D) The length of a panel is calculated by adding your measurements of the opening to the desired amount of overlap on each **unfastened** end of the panel. Record that figure in the appropriate column on the right hand side of the worksheet.

(Figure E) On your worksheet write the "fastener set-back" from the opening required for your home's type of framing, as found on Chart 1 of the worksheet.

Depending on the panel orientation, add either columns 1 and 7 together and write down the result under column 8 OR add columns 2 and 7 together and enter under column 9. This is the grommet span, which determines how far apart your fasteners will be.



3 Grommet Spacing

(Figure A) Now use Chart 2 to determine where your grommet span falls and enter the Panel Letter into your worksheet. If there is no panel available for this opening change the mounting style or adjust the grommet span.

All panels are 96" long.

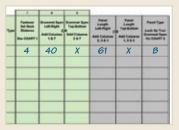
(Figure B) Next, cut the panel to size. Begin by marking the panel to the correct length using a tape measure. Measure corner to corner to check for squareness. Use a carpenter's square or straight edge to cut the panel to the appropriate length using a sharp utility knife.

To grommet and mount the panel, determine the spacing between grommets based on:

- the wind zone you live in (Local building officials can help you if you don't know your wind zone)
- the panel size
- your home's framing
- the type of fastener you will use

(Figure C) Based on this information, use Chart 3 to tell you how much space should separate each grommet.

A GROMMET SPAN CHART 2 Minimum Maximum Panel A 28 36 Panel B 38 46 Panel C 49 57 Panel D 59 67 Panel E 69 77 Panel F 79 87 104 Panel G 96







			HART 3 M	AXIMUM G	ROMMET S	PACING			
		*****	>	(and	300000000	40000000	-		
	1/4" Tapcon SG			1/4" Panelmate PRO			1/4" Panelmate TVAS		
Min Anshor	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block
Embedment	1-1/2*	1-3/4"	1-1/4"	1-7/8*	r	1-1/4"	1-7/8"	r	1-1/4"
			Panel A	(Span = 2	8" min / 36"	max)			
Wind Speed MPH	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block
110	12	12	12	12	12	12	11	11	9
120	12	12	12	12	12	12	- 11	9	9
140	12	12	12	12	12	12	8	8	7
			Panel B		8" min / 46"	max)			
Wind Speed	Wood	Concrete	Hollow	Wood	Concrete	Hollow	Wood	Concrete	Hollow
MPH			Block			Block			Block
110	12	12	12	12	12	12	11	11	9
120	12	12	12	12	12	12	11	11	9
130	12	12	12	12	12	12	10	10	8
140	12	12	12	12	12	11	8		7
Wind Speed	Wood	Concrete	Panel C Hollow	(Span = 4	9" min / 57 Concrete	Hollow	Wood	Concrete	Hollow
110	12	12	Block 12	12	12	Block 12	10	10	Block
120	12	12	12	12	12	12	10	10	8
130	12	12	12	12	12	10	9	9	7
140	12	12	12	12	12	9	8	8	6
			Panel D		9" min / 67	max)			
Wind Speed			Hollow			Hollow			Hollow
MPH	Wood	Concrete	Block	Wood	Concrete	Block	Wood	Concrete	Block
110	12	12	12	12	12	10	8	8	6
120	12	12	12	12	12	10	8	8	6
130	12	12	12	12	12	8	7	7	5
140	11	12	12	11	12	7	6	6	5
Marca Connect			Panel E Hollow	(apan = 6	9" min / 77"	Hollow			Hollow
Wind Speed MPH	Wood	Concrete	Block	Wood	Concrete	Block	Wood	Concrete	Block
110	12	12	12	12	12	8	6	6	5
120	12	12	12	12	12	8	6	6	5
130	12	12	12	10	12	7	5	5	4
140	12	12	11	9	12	6	5	5	4
			Panel F	(Span = 7	9" min / 87"				
Wind Speed MPH	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block
110	10	12	11	10	12	7	5	5	4
120	10	12	11	10	12	7	5	5	4
130	8	12	9	9	12	6	5	5	4
140	8	12	8	8	12	5	4	4	3
			Panel G	(Span = 9	²⁷ min / 104				
Wind Speed	Wood	Concrete	Hollow	Wood	Concrete	Hollow	Wood	Concrete	Hollow
110	9	12	Block 10	9	12	Block	5	5	Block 4
120	9	12	10	1	12	6	5	5	4
130	8	12	9	8	12	5	4	4	3
140	7	12	8	7	12	5	4	4	ž
σ) 2003 Edition (4)	Any opening to (5)	g the Simplifie octive Area is scated more the Mean roof he	ed Loads foun 2) Importance 10 sq.ft.for pu han 3 feet awa ight less than	d in Chapter 16 Factor is 1.0 poses of worst y from any cor or equal to 301	Raference (case assumption on a resid leet (2 stories)	tharts 1609.6 Mon ential structur	8 and 1609.6D e.	
		Residential str urban resid te does not me	Sential subdivi set these criti	isions with clo	sely spaced bu ensult our En-	ildings or fore	sted areas.		



4 Spacing - Barrier Islands

For homes on Barrier Islands and other Coastal or open exposures, you will need to use a different chart to determine the spacing of the grommets on your structure.

(Figure A) Determine your Design Pressure from the chart based on:

- Window Opening Location (Figure B) Zone 5 = within 3 feet of the end of the building Zone 4 = Interior Zone
- Mean Roof Height: (Figure B) Average the eave height of the roof and the height to the highest point of the roof
- Wind Zone

Consult your local building officials to determine your Wind Zone

(Figure C) After determining the design pressure, use Chart 4 to determine the grommet spacing.

Use the next higher value than your design pressure as a guide in Chart 4.

EXAMPLE

If your home is in a 130 mile per hour wind zone, the average roof height is 22 feet, and the window is located in "Zone 4," your design pressure is 44.6 (the higher of the two numbers).

Using Chart 4, for Panel 1 installation, use "45" for your design pressure. The appropriate grommet spacing is therefore 12" apart.



Minimum Anchor Embedment W Anchor Embedment W 30 35 40 45 40 45 55 60 66 7 Design Pressure 65 W 30 35 40 45 55 66 56 66 00 65 66 7 00 65 66 7 00 65 66 7 00 65 66 7 00 65 66 7 00 65 66 7 00 65 66 7 00 65 66 7 00 65 66 7 00 65 60 7 55 7 65 7		Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	SG Hollow Block 1-144 Hollow Block 1-144 Hollow Block 12 12 12 12 12 12 12 12 12 12 12 12 12	Wood 1-7/8" Span = 28" Wood 12 12 12 12 12 12 12 12 12 12	Panelmate Concrete 2" Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Hollow Block 1-1/4" hax) Hollow Block 12 12 12 12 12 12 11 10 9 8 8 8 8 8	1:4" Wood 1:-7/8" Wood 9 8 7 6 6 6 6 6 6 6 6 6 7 6 6 7 6 6 7 6 6 5 Wood 11 10 8 7 6 6 5 Wood 10 9 8 7 6 5 8 7 6 6 6 6 6 6 6 6 6 6 <t< th=""><th>Panelmate Concrete 11 9 8 8 7 7 6 6 6 6 7 7 7 6 6 6 7 7 7 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7</th><th>TVAS TVAS TVAS TVAS Block Bloc</th></t<>	Panelmate Concrete 11 9 8 8 7 7 6 6 6 6 7 7 7 6 6 6 7 7 7 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	TVAS TVAS TVAS TVAS Block Bloc
Anchor Embedment V 30 35 40 45 55 60 68 68 00 68 45 55 60 68 66 66 00 65 66 66 00 66 00 65 66 66 00 65 66 66 00 65 66 66 00 65 66 66 00 65 66 66 00 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 65 65 65 65 65 65 65 </th <th>Wood 1.1/2" Wood 12 11 10 12 12 13 14 150 16 17 18 Wood 12 12 12 12 12 12 12</th> <th>Concrete 1-344* P Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12</th> <th>Hollow Block 1-144 Hollow Block 1-144 Hollow Block 12 12 12 12 12 12 12 12 12 12 12 12 12</th> <th>Wood 1-7/8" span = 28 Wood 12 13 10 10 9 9 9 9 12 <</th> <th>Concrete 2" min / 36" r Concrete 12 12 12 12 12 12 12 12 12 12</th> <th>Hollow Block 1-1/4" nax) Block 1-1/4" nax) Block 1-1/4" nax) Block 12 12 11 10 9 8 8 8 8 8 8 8 8 12 12 11 10 9 9 8 8 8 7 7 7 8 Block 10 9 9 8 7 7 7 8 8 6 7 7 6 6</th> <th>Wood 1-7/8" Wood 11 9 8 7 6 6 6 6 7 7 6 6 6 7 6 7 6 7 6 7 6 5 Wood 111 10 9 8 7 6 5 Wood 10 9 8 7 6 5</th> <th>Concrete 2" Concrete 11 9 8 7 7 6 6 6 6 7 7 6 6 6 7 7 6 6 6 7 7 7 6 6 6 7 7 7 6 6 6 7 7 7 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 7 7 7 7 7 6 6 6 7 7 7 7 7 6 6 6 7 7 7 7 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 8 8 8 8 7 7 7 6 6 6 6 6 8 8 8 8 7 7 7 6 6 6 6 8 8 8 8 7 7 7 6 6 6 8 8 8 8 7 7 7 6 6 6 8 8 8 8 8 8 7 7 7 6 6 6 8 8 8 8 8 8 7 7 7 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8</th> <th>Hollow Block Block Part Block Part Part Part Block Part P</th>	Wood 1.1/2" Wood 12 11 10 12 12 13 14 150 16 17 18 Wood 12 12 12 12 12 12 12	Concrete 1-344* P Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Hollow Block 1-144 Hollow Block 1-144 Hollow Block 12 12 12 12 12 12 12 12 12 12 12 12 12	Wood 1-7/8" span = 28 Wood 12 13 10 10 9 9 9 9 12 <	Concrete 2" min / 36" r Concrete 12 12 12 12 12 12 12 12 12 12	Hollow Block 1-1/4" nax) Block 1-1/4" nax) Block 1-1/4" nax) Block 12 12 11 10 9 8 8 8 8 8 8 8 8 12 12 11 10 9 9 8 8 8 7 7 7 8 Block 10 9 9 8 7 7 7 8 8 6 7 7 6 6	Wood 1-7/8" Wood 11 9 8 7 6 6 6 6 7 7 6 6 6 7 6 7 6 7 6 7 6 5 Wood 111 10 9 8 7 6 5 Wood 10 9 8 7 6 5	Concrete 2" Concrete 11 9 8 7 7 6 6 6 6 7 7 6 6 6 7 7 6 6 6 7 7 7 6 6 6 7 7 7 6 6 6 7 7 7 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 6 7 7 7 7 7 6 6 6 7 7 7 7 7 6 6 6 7 7 7 7 7 6 6 6 7 7 7 7 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 7 7 7 7 6 6 6 6 8 8 8 8 7 7 7 6 6 6 6 6 8 8 8 8 7 7 7 6 6 6 6 8 8 8 8 7 7 7 6 6 6 8 8 8 8 7 7 7 6 6 6 8 8 8 8 8 8 7 7 7 6 6 6 8 8 8 8 8 8 7 7 7 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8	Hollow Block Block Part Block Part Part Part Block Part P
Anchor Embedment V 30 35 40 45 55 60 68 68 00 68 45 55 60 68 66 66 00 65 66 66 00 66 00 65 66 66 00 65 66 66 00 65 66 66 00 65 66 66 00 65 66 66 00 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 65 65 65 65 65 65 65 </th <th>1-1/2" Wood 12 12 12 12 12 12 12 12 12 12 12 12 12</th> <th>1-3/4" P Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12</th> <th>Block 1-14/3* 1-24/3* 1-21/3* 1-21/3* 1-21/3* 1-21/2* 1</th> <th>1-7.85" Span = 28" Wood 12 12 12 12 12 12 12 12 12 12</th> <th>2" min 736" r Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12</th> <th>Block 1-1/4" 1-1/4" 1-2 1-1/4" Block 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2</th> <th>1-7/8" Wood 11 9 8 7 6 6 6 6 11 11 10 10 9 8 8 7 6 6 6 5 8 Wood 11 11 9 8 7 6 6 6 8 7 7 6 6 6 6 8 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 8 7 7 7 6 6 6 6 8 8 7 7 7 6 6 6 6 8 8 7 7 7 6 6 6 6 8 8 8 7 7 7 6 6 6 6 8 8 8 8 7 7 6 6 6 6 8 8 8 8 7 7 6 6 6 6 8 8 8 8 8 8 7 7 6 6 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8</th> <th>2" Concrete 11 9 8 8 7 7 6 6 6 6 7 7 6 6 8 8 8 7 7 6 6 6 5 8 8 7 7 6 6 8 8 8 7 7 6 6 6 7 7 6 6 6 8 8 7 7 7 6 6 6 6</th> <th>Block 1-1/4" Hollow 9 8 7 6 6 5 5 5 7 6 6 7 6 7 6 5 7 6 7 6 5 5 5 5 5 5 5 5 6 7 6 7 6 7 6 5 5 5 5 6 7 7 7 7 7 7 7 7 7 7</th>	1-1/2" Wood 12 12 12 12 12 12 12 12 12 12 12 12 12	1-3/4" P Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Block 1-14/3* 1-24/3* 1-21/3* 1-21/3* 1-21/3* 1-21/2* 1	1-7.85" Span = 28" Wood 12 12 12 12 12 12 12 12 12 12	2" min 736" r Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Block 1-1/4" 1-1/4" 1-2 1-1/4" Block 1-2 1-2 1-2 1-2 1-2 1-2 1-2 1-2	1-7/8" Wood 11 9 8 7 6 6 6 6 11 11 10 10 9 8 8 7 6 6 6 5 8 Wood 11 11 9 8 7 6 6 6 8 7 7 6 6 6 6 8 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 7 7 7 6 6 6 6 8 8 7 7 7 6 6 6 6 8 8 7 7 7 6 6 6 6 8 8 7 7 7 6 6 6 6 8 8 8 7 7 7 6 6 6 6 8 8 8 8 7 7 6 6 6 6 8 8 8 8 7 7 6 6 6 6 8 8 8 8 8 8 7 7 6 6 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8	2" Concrete 11 9 8 8 7 7 6 6 6 6 7 7 6 6 8 8 8 7 7 6 6 6 5 8 8 7 7 6 6 8 8 8 7 7 6 6 6 7 7 6 6 6 8 8 7 7 7 6 6 6 6	Block 1-1/4" Hollow 9 8 7 6 6 5 5 5 7 6 6 7 6 7 6 5 7 6 7 6 5 5 5 5 5 5 5 5 6 7 6 7 6 7 6 5 5 5 5 6 7 7 7 7 7 7 7 7 7 7
Design Pressure W 30 35 40 45 55 60 66 66 30 35 40 45 55 60 66 66 30 35 40 45 55 60 68 66 66 66 00 66 60 66 60 66 60 66 60 66 60 66 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 65 65 65 65 65 65 65 <td>Wood 12 12 12 12 12 12 12 12 12 12</td> <td>Concrete 12 12 12 12 12 12 12 12 12 12</td> <td>1-144" annel A. (; Hoticow Block 12 12 12 12 12 12 12 12 12 12</td> <td>Span = 28 Wood 12 12 12 12 12 12 12 12 12 12</td> <td>min 7 38* r Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12</td> <td>1-1/4" nax) Hotlow Block 12 12 12 12 12 10 9 8 8 8 8 8 8 8 8 8 8 8 8 8</td> <td>Wood 11 9 8 7 6 6 6 6 9 8 7 7 6 6 6 9 8 7 6 5 5 9 8 7 6 5 9 8 7 6 5 9 8 7 6 5</td> <td>Concrete 11 9 8 7 7 6 6 6 6 7 7 6 6 6 7 7 7 6 6 6 7 7 7 7 6 6 6 7 7 7 7 7 7 7 7 7 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7</td> <td>Hollow Block 9 8 8 7 6 6 6 5 5 5 5 5 5 5 6 7 7 6 6 7 7 6 6 7 7 7 6 7 7 7 7</td>	Wood 12 12 12 12 12 12 12 12 12 12	Concrete 12 12 12 12 12 12 12 12 12 12	1-144" annel A. (; Hoticow Block 12 12 12 12 12 12 12 12 12 12	Span = 28 Wood 12 12 12 12 12 12 12 12 12 12	min 7 38* r Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	1-1/4" nax) Hotlow Block 12 12 12 12 12 10 9 8 8 8 8 8 8 8 8 8 8 8 8 8	Wood 11 9 8 7 6 6 6 6 9 8 7 7 6 6 6 9 8 7 6 5 5 9 8 7 6 5 9 8 7 6 5 9 8 7 6 5	Concrete 11 9 8 7 7 6 6 6 6 7 7 6 6 6 7 7 7 6 6 6 7 7 7 7 6 6 6 7 7 7 7 7 7 7 7 7 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	Hollow Block 9 8 8 7 6 6 6 5 5 5 5 5 5 5 6 7 7 6 6 7 7 6 6 7 7 7 6 7 7 7 7
30 35 40 45 55 60 65 65 65 65 65 65 65 65 65 65	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Hotlow Block 12 12 12 12 12 12 12 12 12 12 12 12 12	Wood 12 13 10 10 9 9 Span 59	Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Hotlow Block 12 12 12 12 11 10 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	111 9 8 8 7 7 6 6 6 6 6 6 8 8 8 7 7 6 6 5 5 8 8 8 7 7 6 6 5 5 8 8 8 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	111 9 8 8 7 7 7 6 6 6 6 6 8 8 7 7 6 6 8 8 7 7 6 6 5 5 7 7 6 6 8 8 7 7 7 6 8 8 8 8 7 7 7 7 6 6 6 6	Block 9 8 7 6 5 5 5 5 5 6 7 6 7 6 5 7 6 5 7 6 5 4 4 4
30 35 40 45 55 60 65 66 65 66 65 65 65 65 65 65	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Block 12 13 10 10 10 10 10 10 10	12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Block 12 12 12 11 10 9 8 8 12 13 14 10 9 8 8 12 12 12 12 12 12 12 12 12 13 9 8 7 7 7 12 13 14 10 9 8 7 10 9 8 7 6 6	111 9 8 8 7 7 6 6 6 6 6 6 8 8 8 7 7 6 6 5 5 8 8 8 7 7 6 6 5 5 8 8 8 7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	111 9 8 8 7 7 7 6 6 6 6 6 8 8 7 7 6 6 8 8 7 7 6 6 5 5 7 7 6 6 8 8 7 7 7 6 8 8 8 8 7 7 7 7 6 6 6 6	Block 9 8 7 6 5 5 5 5 5 6 7 6 7 6 5 7 6 5 7 6 5 4 4 4
35 40 40 45 50 55 60 65 65 66 30 35 40 45 55 66 30 35 40 45 55 60 65 66 66 90 65 66 66 90 65 66 66 90 65 66 66 90 65 66 66 90 65 66 90 90 30 35 60 90 35 90 36 90 35 90 35 90 65 90 65 90 65 90 90 90 90 90 90 <	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 13 11 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 13 10 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 12 12 11 10 9 9 8 8 7 7 7 7 7 8 8 8 8 7 7 7 7 8 8 8 8	9 8 8 7 6 6 6 6 8 8 8 8 8 7 6 6 6 5 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	9 8 7 7 6 6 6 6 7 6 6 8 8 7 6 6 8 8 7 6 6 8 8 8 7 6 6 8 8 8 8	9 8 7 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
40 40 55 55 60 65 65 65 55 65 65 65 65 65 65 65 65 65	12 12 12 12 12 11 11 11 11 11 11 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 11 10 9 8 8 8 8 8 8 8 8 8 8 8 8 8 12 12 11 10 9 8 7 7 7 7 7 8 10 9 8 8 7 7 7 7 8 10 8 8 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8	8 8 7 7 6 6 6 6 6 6 11 10 10 8 8 8 7 7 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	8 8 7 7 6 6 6 6 6 8 8 7 7 6 6 5 5 7 7 6 6 5 5 7 7 6 6 5 5 7 7 6 6 6 6	7 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
45 50 55 60 65 66 0 30 35 40 50 65 60 65 60 65 60 65 66	12 12 12 11 11 11 11 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 11 11 11 11 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	111 100 9 8 8 8 8 112 112 112 112 112 112 110 9 9 8 7 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 7 8 8 7 7 6 6	8 7 6 6 6 6 7 11 10 8 8 7 7 6 6 5 5 Wood 10 9 8 8 7 7 6 6 5 5 5 7 7 6 5 5 7 7 6 6 6 7 7 7 6 6 6 6	8 7 7 6 6 6 6 7 10 10 10 8 8 8 7 6 6 6 5 7 7 6 6 5 7 7 6 6 6 5 8 7 7 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	6 6 5 5 5 5 5 5 6 5 5 6 5 5 6 5 5 4 4 4 4
50 55 55 60 66 66 30 35 40 45 55 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 66 60 66 60 66 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 65 65 65 65 65 65 65 65 65 <	12 12 11 11 11 11 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 13 11 13 13 12 12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	10 9 9 8 8 8 8 8 8 8 8 8 8 12 12 12 12 12 12 12 12 12 12 12 12 12	7 7 6 6 6 6 7 11 11 10 8 8 8 7 6 6 6 5 5 5 5 9 9 8 7 7 7 6 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5	77 76 66 67 111 10 88 87 76 65 55 55 55 55 55 55 55 55 55 55 55 55	6 5 5 5 5 5 5 7 6 5 5 5 4 4 4 4 8 8 7 6 5 5 5 5 4 4 4 4 4
55 60 65 65 66 7 30 35 40 45 55 60 65 66 66 7 00 35 60 66 00 35 40 45 55 60 66 7 00 35 60 66 66 7 00 55 60 66 00 35 60 65 65 65 66 7 00 55 55 60 65 65 65 65 66 7 00 55 65 65 66 7 68 7 00 65 66 7 00 65 <td>12 11 11 11 11 12 12 12 12 12 12 12 12 1</td> <td>12 12 12 12 12 12 12 12 12 12 12 12 12 1</td> <td>12 12 12 12 12 12 12 12 12 12 12 12 12 1</td> <td>12 12 11 11 11 11 12 12 12 12 12 12 12 1</td> <td>12 12 12 12 12 12 12 12 12 12 12 12 12 1</td> <td>9 8 8 8 8 8 8 8 8 8 12 12 12 12 12 12 12 12 10 8 7 7 7 7 8 8 7 7 8 8 8 7 7 7 8 8 8 7 7 7 8 8 6 6 6</td> <td>7 6 6 6 11 10 8 8 8 7 6 6 5 5 5 8 8 7 6 6 5 5 5 8 8 8 7 7 6 6 5 5 5 8 8 7 7 6 6 5 5 5 8 8 8 7 7 6 6 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8</td> <td>7 6 6 7 11 10 8 8 7 6 6 5 5 7 6 6 5 5 7 7 6 6 8 7 7 6 8 8 7 7 6 8 8 8 7 7 6 8 8 8 7 7 6 8 8 8 8</td> <td>5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 4 4 4 4 10llow 8 8 5 5 5 5 5 4 4 4 4 4</td>	12 11 11 11 11 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 11 11 11 11 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	9 8 8 8 8 8 8 8 8 8 12 12 12 12 12 12 12 12 10 8 7 7 7 7 8 8 7 7 8 8 8 7 7 7 8 8 8 7 7 7 8 8 6 6 6	7 6 6 6 11 10 8 8 8 7 6 6 5 5 5 8 8 7 6 6 5 5 5 8 8 8 7 7 6 6 5 5 5 8 8 7 7 6 6 5 5 5 8 8 8 7 7 6 6 8 8 8 7 7 8 8 8 8 7 7 8 8 8 8	7 6 6 7 11 10 8 8 7 6 6 5 5 7 6 6 5 5 7 7 6 6 8 7 7 6 8 8 7 7 6 8 8 8 7 7 6 8 8 8 7 7 6 8 8 8 8	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 4 4 4 4 10llow 8 8 5 5 5 5 5 4 4 4 4 4
60 65 65 66 30 35 40 45 55 60 68 68 66 68 66 68 66 66 0 66 0 66 0 66 0 66 0 66 0 66 0 66 0 66 0 66 0 65 60 66 0 65 0 55 60 65 60 65 60 65 65 65 60 65 65 65 60 65 65 65 65 65 65 65 65 65 65 65 65 65	11 11 11 11 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 13 11 11 13 span = 38" Wood 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	8 8 8 Hollow Block 12 12 11 10 9 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	6 6 6 11 10 8 8 8 7 6 6 5 5 5 5 5 5 5 5 5 5 6 6 6 6 5 5 5	6 6 7 11 10 8 8 7 6 6 5 5 7 7 6 6 5 5 7 7 6 6 5 5 7 7 6 6 5 5 7 7 6 6 5 5 7 7 7 6 8 7 7 7 6 6 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7	5 5 5 8 9 9 8 7 6 5 5 5 4 4 4 Hollow Block 8 6 5 5 4 4 4 4 4
65 96 30 35 40 45 55 60 65 65 66 96 30 35 60 96 65 96 66 96 30 35 40 45 55 90 65 96 65 96 65 90 35 90 36 90 35 90 65 90 55 90 55 90 65 90 65 90 65 90 65 90 65 90 65 90 65 90 65 90 65 90 65 90 65 90 65 90 68 <	11 11 11 11 12 12 12 12 12 12 12 12 12 1	12 12 P Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 13 14 10 10 12 12 12 12 12 12 12 12 12 12 12 12 12	11 Span = 38 Wood 12 12 12 12 12 12 12 12 12 12	12 12 12 13 145" r Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	8 8 Hollow Block 12 12 12 12 10 9 8 7 7 7 10 9 8 7 7 12 10 9 8 7 7 12 10 9 8 7 7 7 12 10 9 8 7 7 7 12 12 12 10 9 8 7 7 7 7 7 7 7 7 7 7 7 7 7	6 6 7 11 10 8 8 8 7 6 6 5 5 8 7 7 8 8 7 7 8 8 7 7 6 6 6 5 5	6 6 7 11 10 8 8 7 6 5 5 5 5 5 7 6 5 5 5 7 7 6 5 5 5 7 7 6 8 8 7 7 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	5 5 8 8 6 5 5 5 5 4 4 Hollow 8 8 7 7 6 5 5 5 4 4 4 4 4
66 W 30 35 40 45 55 66 66 W 30 30 55 66 66 W 30 30 40 45 40 45 60 66 60 W 30 35 60 66 66 W 30 35 60 66 0 35 40 45 50 55 60 65 60 65 60 65 60 65 60 65 60 65 60 65 60 65 65 65 66 W 30 W	11 11 12 12 12 12 12 12 12 12 12 12 12 1	12 P Concrete 12 12 12 12 12 12 12 12 12 12	12 Panel B (Hollow Block 12 12 12 12 12 12 12 12 12 12	11 Span = 38* Wood 12 12 12 12 12 12 12 12 12 12	12 min / 46" r Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	8 nax) Hollow Block 12 12 11 10 9 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	6 Wood 111 10 8 8 7 6 6 6 5 5 5 8 7 7 8 8 7 7 8 8 7 7 6 6 6 7 7 6 6 6 5 5 5 5 5 5 5 5 5 5	6 Concrete 11 10 8 7 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5	5 Hollow Block 9 8 7 6 5 5 5 5 5 4 4 4 Hollow Block 8 7 6 5 5 5 5 5 4 4 4 4 4
30 35 40 45 55 60 68 68 68 68 68 68 68 68 68 68	12 12 12 12 12 12 12 12 12 12 10 10 10 10 10 10 10 10 10 9 9 9 9 Wood 12 12 12 11 11 10 10 10 10 10 10 10 10 10 10 10	Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Panel B () Hollow Block 12 12 12 12 12 12 12 12 12 12 12 12 12 12 11 11 2nel C () Block 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 13 10 10 10 10 10 10 10 10 10	Wood 12 12 12 12 12 12 12 12 12 12 12 11 10 Scon = 49 Weod 12 12 12 12 12 12 12 11 10 9 Span = 59	Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Hollow Block 12 12 12 11 10 9 8 7 7 7 7 7 7 7 8 8 8 10 9 9 8 8 7 7 7 7 6 6 6	111 10 8 8 7 6 6 5 5 5 8 7 7 6 8 7 7 6 6 6 5 5	11 10 8 7 6 6 5 5 5 Concrete 10 9 9 8 7 7 6 6 6 5 5	Block 9 8 7 6 5 5 4 Hollow 8 7 6 5 5 4 4 4 4 4 4
30 35 40 45 55 60 68 68 68 68 68 68 68 68 68 68	12 12 12 12 12 12 12 12 12 12 10 10 10 10 10 10 10 10 10 9 9 9 9 Wood 12 12 12 11 11 10 10 10 10 10 10 10 10 10 10 10	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Block 12 12 12 12 12 12 12 12 12 12 12 12 12 11 Block 12 13 10 9 Antil O 9	12 12 12 12 12 12 12 12 11 10 5001 49 Wood 12 12 12 12 12 12 12 12 12 5001 59	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Block 12 12 11 10 9 8 7 7 7 10 Block 12 10 9 8 7 7 7 7 7 7 7 6 6	111 10 8 8 7 6 6 5 5 5 8 7 7 6 8 7 7 6 6 6 5 5	11 10 8 7 6 6 5 5 5 Concrete 10 9 9 8 7 7 6 6 6 5 5	Block 9 8 7 6 5 5 4 Hollow 8 7 6 5 5 4 4 4 4 4 4
30 35 40 45 55 60 68 68 68 68 68 68 68 68 68 68	12 12 12 12 12 12 12 12 12 12 10 10 10 10 10 10 10 10 10 9 9 9 9 Wood 12 12 12 11 11 10 10 10 10 10 10 10 10 10 10 10	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 12 12 12 11 11 11 1	12 12 12 12 12 12 12 12 11 10 5001 49 Wood 12 12 12 12 12 12 12 12 12 5001 59	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 11 10 9 8 7 7 7 7 7 8 8 7 7 8 8 9 9 8 8 7 7 7 6 6 6	111 10 8 8 7 6 6 5 5 5 8 7 7 6 8 7 7 6 6 6 5 5	11 10 8 7 6 6 5 5 5 Concrete 10 9 9 8 7 7 6 6 6 5 5	9 8 7 6 5 5 4 4 4 8 10ck 8 8 7 6 5 5 5 4 4 4 4
35 40 45 50 55 66 00 30 35 40 40 40 45 50 55 60 65 66 00 65 66 66 66 66 66 66 65 66 66 66 66 66 66 66 66 66 66 66 67 68 0 68 0 30	12 12 12 12 12 12 12 12 10 10 10 10 12 12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 12 11 11 11 11 11 10 10 10 10 10 10 10 10	12 12 12 12 12 11 10 5001 49 Wood 12 12 12 12 12 12 12 10 10 9 5 5001 59	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 11 10 9 8 7 7 7 7 8 8 8 7 7 10 9 8 8 7 7 7 6 6 6	10 8 8 7 6 6 5 5 5 7 8 7 6 6 6 5 5 5	10 8 8 7 6 5 5 5 5 5 7 6 10 9 8 7 7 6 6 6 5 5	8 7 6 5 5 4 4 4 Hollow 8 7 6 6 5 5 4 4 4 4
40 40 50 50 60 65 66 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	12 12 12 12 11 10 10 10 12 12 12 12 12 11 10 10 9 9 9 9 9 9 9 9 9 12 12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 11 11 11 11 11 10 10 10 10 10 10 10 10	12 12 12 12 12 12 10 10 10 5000 49 12 12 12 12 12 12 12 12 10 10 9 9 9 5000 59	12 12 12 12 12 12 12 12 12 12 12 12 12 1	11 10 9 8 7 7 7 7 7 8 8 8 7 7 7 8 8 7 7 7 6 6 6	8 8 7 6 6 5 5 5 8 9 9 8 7 6 6 6 5 5	8 8 7 6 6 5 5 5 5 7 6 8 7 6 6 5 5 5	7 6 5 5 4 4 4 4 Hollow Block 8 7 7 6 5 5 5 4 4 4 4
45 50 65 65 65 06 06 06 06 06 00 00 00 00 00	12 12 12 11 10 10 10 10 12 12 12 12 12 12 11 10 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 12 11 11 11 2nel C () Hollow Block 12 12 12 12 12 12 12 12 10 10 10 10 10 Enel D () Hollow Hollow	12 12 12 11 10 5000 49 Wood 12 12 12 12 12 12 12 12 12 13 10 10 9 9 9 9 5000 507 507	12 12 12 12 12 12 12 12 12 12 12 12 12 1	10 9 8 7 7 7 7 7 7 7 8 10 8 8 8 7 7 7 6 6 6	8 7 6 5 5 5 9 9 8 7 6 6 6 5 5 5	8 7 6 5 5 5 5 7 6 6 6 5 5 5	6 5 5 4 4 4 Hollow Block 8 7 6 5 5 5 4 4 4
50 65 60 65 66 0 30 35 40 45 55 66 00 65 60 65 60 65 60 65 60 65 66 00 35 40 45 55 60 65 66 65 66 65 66 65 66 65 66 66 66 66 66 66 66 66 66 66 66 66 66 66	12 12 11 10 10 10 10 12 12 12 12 12 12 11 10 10 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 11 11 11 11 11 11 11 11 11 11 1	12 12 12 10 10 5000 49 12 12 12 12 12 12 12 12 11 10 10 9 9 9 500 59	12 12 12 12 12 12 12 12 12 12 12 12 12 1	9 8 7 7 7 1010 Hollow Block 12 10 9 8 7 7 6 6 6	7 6 5 5 5 Wood 10 9 8 8 7 6 6 5 5 5	7 6 5 5 5 7 10 9 8 7 6 6 5 5 5	5 5 4 4 4 8 10ck 8 7 6 5 5 5 4 4 4
55 60 65 66 00 30 35 40 45 50 66 66 00 66 00 66 00 65 66 90 00 65 66 90 35 60 35 60 35 60 55 60 65 65 65 65 60 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 66 90 65 65 66 90 65 65 66 90 65 65 66 90 65 <	12 11 10 10 12 12 12 12 12 11 10 10 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 11 11 2mel G [Block 12 12 12 12 12 12 12 12 12 12 12 12 12	12 11 10 5cen = 49 Wood 12 12 12 12 12 12 12 12 11 10 10 59 5 5cen = 59	12 12 12 12 12 12 12 12 12 12 12 12 12 1	8 7 7 Hollow Bilock 12 10 9 8 8 7 7 6 6 6	6 6 5 5 7 6 6 5 5 5	6 5 5 7 6 5 5 5 5	5 5 4 4 8 1000 8 1000 8 7 6 5 5 5 4 4 4 4
60 65 65 66 30 9 30 40 45 50 55 60 65 65 66 9 30 35 55 60 65 65 65 65 65 65 65 65 60 65 60 65 65 66 65 65 60 65 65 65 60 65 60 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65 65	11 10 10 12 12 12 12 12 12 10 10 10 10 9 9 9 9 9 9 9 9 9 9 9 9 9 9	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 11 11 2010 C (2 10 12 12 12 12 12 12 12 12 12 12	11 10 10 5cen = 49 Wood 12 12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	7 7 13x) Hollow Block 12 10 9 8 7 7 6 6 6	6 5 5 10 9 8 7 6 6 5 5	6 5 5 10 9 8 7 6 6 5 5 5	5 4 Hollow Block 8 7 6 5 5 4 4 4 4
66 30 33 35 40 45 50 65 66 0 0 0 0 0 0 0 0 0 0 0 0	10 Wood 12 12 12 12 11 10 10 9 9 9 9 Wood 12 12	12 Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	11 Panel C () Hollow Block 12 12 12 12 12 12 12 12 12 12	10 Span = 49 12 12 12 12 11 10 10 9 9 Span = 69	12 min / 57 r Concrete 12 12 12 12 12 12 12 12 12 12 12 12	Hollow Block 12 10 9 8 7 7 6 6 6	5 Wood 10 9 8 7 6 6 6 5 5 5	5 Concrete 10 9 8 7 6 6 6 5 5	4 Block 8 7 6 5 5 4 4 4 4
Design Pressure W 30 35 40 45 55 60 65 66 Design Pressure W 30 35 40 45 55 60 66 66 Design Pressure W 30 65 65 66 65 66 65 66 0 65 66 66 0 65 66 66 0 65 66 66 0 30	Wood 12 12 12 12 11 10 10 9 9 Wood 12 12 12 11 10 10 10 10 10 10 10 12 12 12 12 12 12 12 12 12 12	Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Annel C (1 Hollow Block 12 12 12 12 12 12 12 12 12 12 12 12 12	Span = 49 Wood 12 12 12 12 12 11 10 10 9 9 9 5pan = 59	min / 51" n Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Hollow Block 12 10 9 8 7 7 6 6 6	Wood 10 9 8 7 6 6 6 5 5 5	Concrete 10 9 8 7 6 6 5 5	Hollow Block 8 7 6 5 5 5 4 4 4 4
30 35 40 45 50 55 66 66 66 66 65 55 66 65 65	12 12 12 12 11 10 10 9 9 9 Wood 12 12	Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Hollow Block 12 12 12 12 12 12 12 12 12 12 12 12 11 10 5 Panel D (1) Hollow	Wood 12 12 12 12 11 10 10 9 9 9 9 9 9	Concrete 12 12 12 12 12 12 12 12 12 12 12 12 12	Hollow Block 12 10 9 8 7 7 6 6 6	10 9 8 7 6 6 5 5	10 9 8 7 6 6 5 5	Block 8 7 6 5 5 4 4 4 4
30 35 40 45 50 55 66 66 66 66 65 55 66 65 65	12 12 12 12 11 10 10 9 9 9 Wood 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Block 12 12 12 12 12 12 11 10 10 5 Canel D (5 Hollow	12 12 12 12 11 10 10 9 9 5gan = 59	12 12 12 12 12 12 12 12 12 12 12 12 12 1	Block 12 10 9 8 7 7 6 6 6	10 9 8 7 6 6 5 5	10 9 8 7 6 6 5 5	Block 8 7 6 5 5 4 4 4 4
35 40 45 50 55 60 65 66 30 35 40 45 56 66 66 66 65 66 65 66 66 66 66 66 66 66 30	12 12 12 11 10 10 9 9 9 9 Wood 12 12	12 12 12 12 12 12 12 12 12 12 12 12 12 1	12 12 12 12 12 11 10 10 9 Panel D (8 Hollow	12 12 11 10 10 9 5pan = 59	12 12 12 12 12 12 12 12 12 12	12 10 9 8 7 7 6 6	9 8 7 6 6 5 5	9 8 7 6 6 5	8 7 6 5 5 4 4 4
40 45 50 66 65 66 0 0 35 40 45 55 60 65 65 65 65 65 65 86 0 0 90 65 86 0 0 90 90 90 90 90 90 90 90 90 90 90 90	12 12 11 10 9 9 9 Wood 12 12	12 12 12 12 12 12 12 12 12 Concrete 12	12 12 12 11 10 10 9 Panel D (1 Hollow	12 12 11 10 10 9 9 Span = 59 ^{**}	12 12 12 12 12 12 12 12	10 9 8 7 7 6 6	8 7 6 5 5	8 7 6 6 5 5	7 6 5 4 4 4
45 50 55 60 65 66 06 30 30 35 40 45 55 60 65 65 65 65 00 55 00 55 00 55 00 55 00 00	12 11 10 9 9 9 Wood 12 12	12 12 12 12 12 12 12 Concrete 12	12 12 11 10 10 9 2anel D () Hollow	12 11 10 9 9 5pan = 59	12 12 12 12 12 12 12	8 7 7 6 6	7 6 6 5 5	7 6 6 5 5	5 5 4 4
50 55 55 60 68 68 0 30 35 40 40 45 55 60 65 66 00 55 60 65 66 66 0 30	11 10 10 9 9 9 Wood 12 12	12 12 12 12 12 Concrete 12	12 11 10 10 9 2anel D (1 Hollow	11 10 10 9 9 Span = 59	12 12 12 12 12 12	7 7 6 6	6 6 5 5	6 6 5 5	5 4 4 4
55 60 65 66 00 55 00 30 35 40 45 55 60 60 65 60 65 60 66 60 Design Pressure ¥ 30 30	10 10 9 9 9 Wood 12 12	12 12 12 12 Concrete 12	11 10 10 9 2anel D (3 Hollow	10 10 9 Span = 59	12 12 12 12	7 6 6	6 5 5	6 5 5	4 4 4
60 65 65 68 30 35 40 45 55 60 65 65 66 66 Design Pressure ¥ 30 35	10 9 9 Wood 12 12	12 12 12 Concrete 12	10 10 9 Panel D () Hollow	10 9 9 Span = 59*	12 12 12	6	5	5	4
65 Design Pressure ¥ 30 35 45 55 66 65 66 90 30	9 9 Wood 12 12	12 12 Concrete 12	10 9 Panel D (1 Hollow	9 9 Span = 59*	12	6	5	5	- 4
96 ¥ 30 35 40 45 55 60 65 66 06 ¥ Design Pressure ¥ 30 30	9 Wood 12 12	12 Concrete 12	9 Panel D () Hollow	9 Span = 59'	12				
Design Pressure W 30 35 40 45 55 60 65 65 66 66 Design Pressure W 30 30	Wood 12 12	Concrete 12	Panel D (Hollow	Span = 59'				5	
30 35 40 45 50 55 65 65 65 66 0 0 55 65 66 0 0 53 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 12	Concrete 12	Hollow			naxi		, J	
30 35 40 45 50 55 65 65 65 66 0 0 55 65 66 0 0 53 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 12	12	Block		Concrete	Hollow	Wood	Consta	Hollow
35 40 45 50 65 66 66 0 0 65 68 0 0 0 90 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12					Block		Concrete	Block
40 45 50 55 60 66 66 Design Pressure 30			12	12	12	10	8	8	6
45 50 55 60 65 66 Design Pressure 30	11	12	12	12	12	8	7	7	5
50 55 60 65 66 Design Pressure 30	4.0	12	12	11	12	7	6	6	5
55 60 65 66 Design Pressure 30	10	12	11	10	12	6	5	5	4
60 65 66 Design Pressure V 30	9	12	10	<u>+</u>	12	6	5	5	4
65 68 Design Pressure W 30	8	12	9	\vdash	12	5	4	4	3
66 Design Pressure W 30	7	12		- ;	12		4	4	3
Design Pressure W	7	12		7	12	4	4	4	3
30		F	Panel E (Span = 69"		nax)			
30	Wood	Concrete	Hollow	Wood	Concrete	Hollow	Wood	Concrete	Hollow
	11	12	Block 12	12	12	Block 8	6	6	Block 5
35	10	12	11	10	12	7	8	6	4
40	9	12	10	9	12	6	5	5	4
45	8	12	9	8	12	5	4	4	3
50	7	12	8	1 i	12	5	4	4	3
55	7	12	7	7	12	4	4	4	3
60	6	12	7	6	12	4	3	3	
65	6	12	6	6	11	4	3	3	
66	6	12	6	6	11	4	3	3	
		-		Span = 79"	min / 87" n	nax)			. Harris
Design Pressure V	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block	Wood	Concrete	Hollow Block
30	10	12	Block 11	10	12	Block 7	5	5	Block 4
35	8	12	9	9	12	6	5	5	4
40	8	12	8	8	12	5	4	4	3
45	7	12	8	7	12	5	4	4	3
50	6	12	7	6	12	4	3	3	
55	6	12	6	6	11	4	3	3	
60	5	12	6	5	10	3	3	3	
65	5	12	- 5	5	9	3	3	3	
66		11 P	anel G (S			maxi			
Design Pressure W	Wood	Concrete	Hollow		Concrete	Hollow	Wood	Concrete	Hollow
-			Block	wood		Block			Block
30 35	9	12	10	9	12	6	<u>5</u> 4	5	4 3
30	8	12	8	7	12	5	+	4	3
40	6	12	7	6	12	4	3	3	-
50	6	12	6	6	11	4	3	3	
55	5	12	6	5	10	3	3	3	
60	5	11	5	5	9	3			
65	4	10	5	4	8	3	•		
66	4	10	5	4	8	3	•	•	
The I			r the given D		ZONE in this C				
(1) 2003 6	Edition of t	(3) Effectiv	(2) ve Area is 10	importance Fa sq.ft.for purpl	Chapter 16. F actor is 1.0 bees of worst o equal to 30 fee	ase assumpti		and 1609.6D.	
(5) Residenti		en located in	EXPOSURE C	- per ASCE 7	-02 Barrier Isla	ands and other	r Coastal or o	pen exposures	
	rtial structu	re nueleg ni E	Zone 4 = Inte	erior Zones (V	Talls located O	utside a)			
If your resi	ntial structu	(6)			Walls Located	Preside al			

You can reach us toll free at 1-800-676-7734 for Consumer Assistance or online at www.wayne-dalton.com

C

Zone 5

Zone 5

5 Marking Grommet Holes

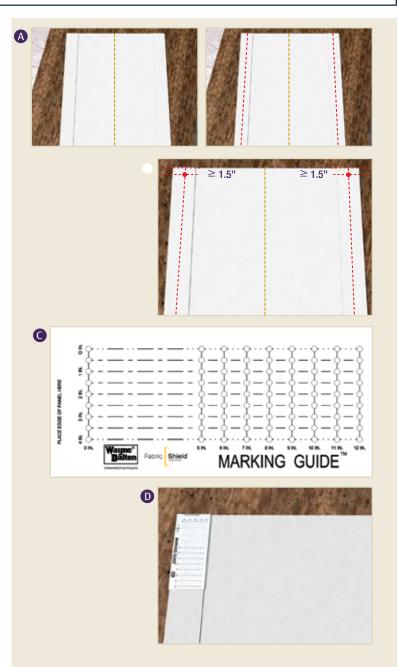
(Figure A) To begin grommeting, locate the center of your panel and mark the location. Divide the **grommet span** by 2 and mark this distance on each side of the centerline at the opposite sides of the non-grommeted side.

(Figure B) Use either the marking guide or a tape measure to measure at least 1-1/2" in from the edge of the panel to set the location of the four corner grommets.

(Figure C) Marking Guide

(Figure D) When using the marking guide, place the lettering MARKING GUIDE on the outside edge of the panel's wide welded side. Move the guide until the edge of the marking guide is aligned with the edge of the panel. This then positions the location of the 1.5 inch set-back. The guide can then be used to mark the grommet spacing.

The distance between grommets can be evenly spaced, located to match mortar joints or any other spacing of your choosing, so long as it does not exceed the maximum grommet spacing in Chart 3. Mark the grommet locations along both edges of the panel using a tape measure or the marking guide.





6 Set Grommets

(Figure A) To prevent drilling into your work surface, place a scrap piece of wood under the panel.

With the drill bit provided in the install kit, drill a 9/16-inch hole in the storm panel at each marked grommet position.

(Figure B) Place a grommet up through the drilled hole and place the washer over the grommet.

(Figure C) Set the grommet using the grommet tool and a hammer. Several blows of the hammer will set the grommet.

Repeat this process to set the remaining grommets on the storm panel.

(Figure D) To complete the panel, apply the Florida Building Code Compliant Label to a convenient location on the back of the panel.

(Figure E) Using a permanent ink pen, write in the area provided on the label a description of the location where the panel is to placed on your home.



Set Fasteners

The following steps are necessary for setting the fasteners on the wall of the house.

In this example, the grommets are oriented Left to Right.

(Figure A) Locate the center of the window opening. Measure up from the edge of the window opening. Include any overlap.

(Figure B) Either use the panel as a template or measure over half the grommet span distance on both sides of the window's centerline and make a vertical mark.

(Figure C) Measure down 1-1/2" from the top edge of the storm panel and make a horizontal mark on both sides of the centerline. This indicates the location of the top left and top right fasteners.

Before drilling for the fasteners, make sure they are level and the window opening is plumb. Adjust if necessary.

(Figure D) Using the appropriate drill for the material through which you are drilling, follow the fastener manufacturer's instructions to secure the fastener properly.

(Figure E) Using the appropriate drive socket for the fastener, install the fastener.



You can reach us toll free at 1-800-676-7734 for Consumer Assistance or online at www.wayne-dalton.com

C



8 Attach Panels

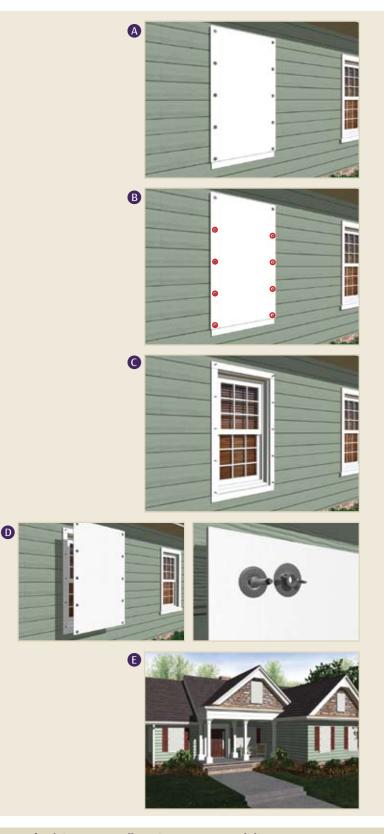
(Figure A) Attach the storm panel to the top left and top right fasteners.

(Figure B) Holding the storm panel in place, use the grommet holes on each side of the panel as templates to mark the remaining fastener positions on the wall of the house.

(Figure C) Either use the panel as a drill guide or remove the storm panel so it is not in the way while setting the remaining fasteners.

(Figure D) After the remaining fasteners have been set, place the storm panel over the window by attaching and tightening all the wing-nuts to properly secure the storm panel.

(Figure E) The storm panel is now in place and ready to protect your home from damaging winds.





CLEANING, MAINTENANCE & STORAGE

- Make certain the product is clean and dry before storage.
- · If product needs cleaning, use only soapy water and a clean sponge or rag. Do not use abrasive cleaners
- Lubricate Wing Nuts and Studs with White Lithium Grease at least once a year. Additional applications of lubricant may be needed if the product is in a highly corrosive environment.
- · Vertical storage off the ground, in a dry, protected and easily accessible area is recommended.
- Do not store wingnuts outside on the stud or in any type of a corrosive environment.

Fabric-Shield[™] Storm Panels LIMITED WARRANTY

Wayne-Dalton Corp. (the Manufacturer) warrants that Fabric-Shield Storm Panels will be free from defects in materials and workmanship for a period of **ONE YEAR** from the date of installation, provided it is properly maintained and cared for under normal use and service.

This Limited Warranty extends to the original homeowner, providing the Fabric-Shield Storm Panels are installed in his/her place of primary residence. It is not transferable. The warranty applies to residential property only and is not valid on commercial or rental property.

NO EMPLOYEE, DISTRIBUTOR, OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THE FOREGOING WARRANTIES IN ANY WAY OR GRANT ANY OTHER WARRANTY ON BEHALF OF MANUFACTURER.

The Manufacturer shall not be responsible for any damage resulting to or caused by its products by reason of installation, improper storage, unauthorized service, alteration of products, neglect or abuse, chemicals, any acts of nature beyond Manufacturer's control, or any attempt to use the products for other than their customary usage or for their intended purposes. The above warranty does not cover normal wear or any damage beyond Manufacturer's control or field replacement labor.

THIS WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS WARRANTY ACT. NO WARRANTIES, EXPRESSED OR IMPLIED, (INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), SHALL EXTEND BEYOND THE APPLICABLE TIME PERIOD STATED IN BOLD FACE TYPE ABOVE.

Claims for defects in material and workmanship covered by this warranty shall be made in writing, within the warranty period, to the dealer from whom the product was purchased. Manufacturer may either send a service representative or have the product returned to the Manufacturer at Buyer's expense for inspection. If judged by Manufacturer to be defective in material or workmanship, the product will be replaced or repaired at the option of the Manufacturer, free from all charges except authorized transportation and replacement labor.

THE REMEDIES OF BUYER SET FORTH HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER REMEDIES, THE LIABILITY OF MANUFACTURER, WHETHER IN CONTACT, TORT, UNDER ANY WARRANTY OR OTHERWISE, SHALL NOT EXTEND BEYOND ITS OBLIGATION TO REPAIR OR REPLACE, AT ITS OPTION, ANY PRODUCT OR PART FOUND BY MANUFACTURER TO BE DEFECTIVE IN MATERIAL OR WORK SHALL NOT BE RESPONSIBLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE.

This Warranty gives you specific legal rights and you may have other rights, which may vary from state to state. However, some states do not allow limitation on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you.

Thank you for your purchase.