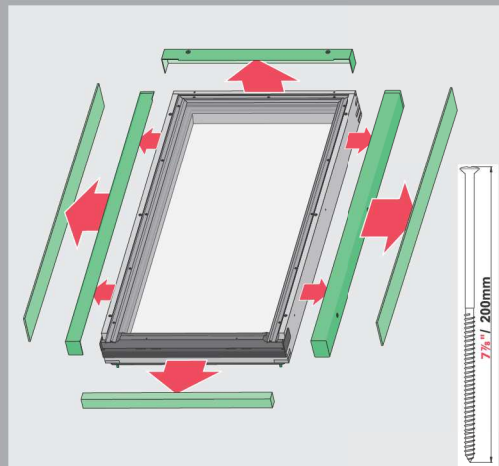


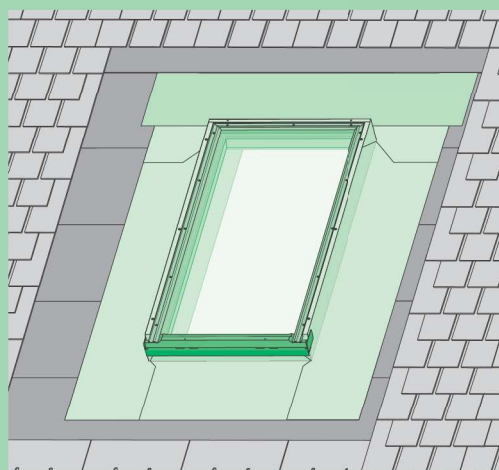


# FX

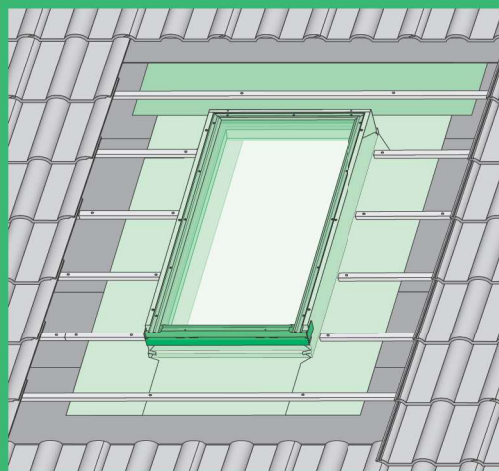
US	FX deck mounted skylight installation instructions.
FR	Instructions d'installation d'une fenêtre de toit FX sur une sous-toiture.
ES	Instrucciones de instalación para el montaje del tragaluz con la cubierta FX.
KR	FX 천장 설치 매뉴얼.



US	Skylight preparation. See pages 2 and 5.
FR	Préparation de la fenêtre de toit. Reportez-vous aux pages 2 et 5.
ES	Preparación del tragaluz. Consulte las páginas 2 y 5.
KR	설치준비는 2~5페이지를 참조하세요.

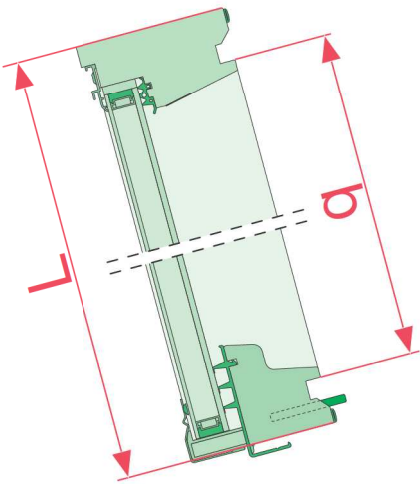
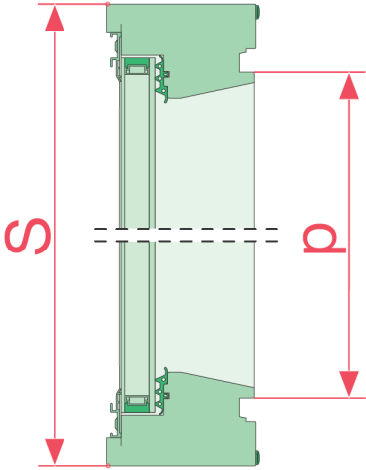
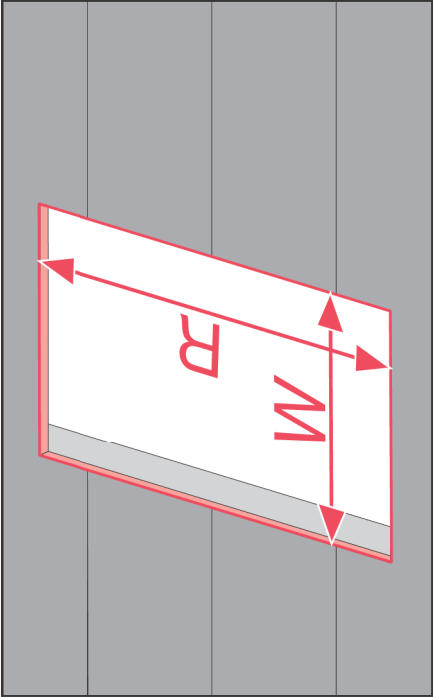


US	Installation on a plywood roof. See pages 6 to 13.
FR	Installation sur un toit en contreplaqué. Reportez-vous aux pages 6 à 13.
ES	Instalación en un techo de madera contrachapada. Consulte las páginas 6 a 13.
KR	각재 없는 지붕(합판지붕)에서 설치하는 6~13페이지를 참조하세요.



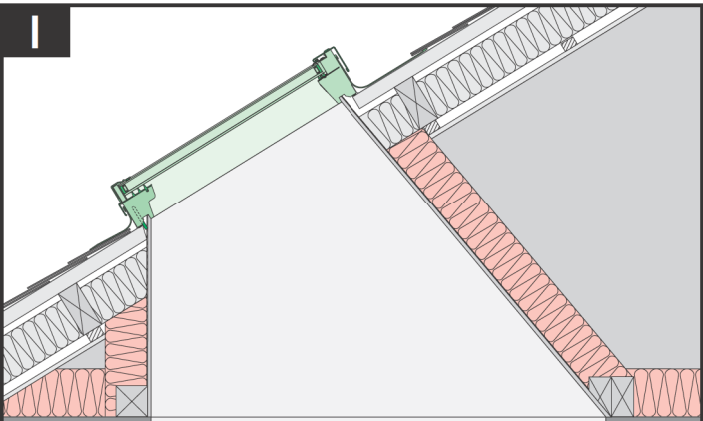
US	Installation on roof with battens. See pages 14 to 22.
FR	Installation sur un toit avec liteaux. Reportez-vous aux pages 14 à 22.
ES	Instalación en techo con listones. Consulte las páginas 14 a 22.
KR	각재(기와걸이)가 포함된 지붕에서 설치하는 14~22페이지를 참조하세요.

Size	14½" x 45¾"	21" x 26⅞"	21" x 37⅞"	21" x 45¾"	21" x 54⅞"	21" x 70¼"	30⅞" x 37⅞"	30⅞" x 45¾"	30⅞" x 54⅞"	44¼" x 26⅞"	44¼" x 45¾"
Symbol	106R	301R	304R	306R	308R	312R	504R	506R	508R	801R	806R
Outside frame <b>S x L</b>	[in]	23⅞ x 28	23⅞ x 39	23⅞ x 46⅞	23⅞ x 55½	23⅞ x 71⅜	32⅞ x 39	32⅞ x 46⅞	32⅞ x 55½	46¼ x 28	46¼ x 46⅞
	[mm]	427 x 1190	586 x 710	586 x 1190	586 x 1410	586 x 1812	816 x 990	816 x 1190	816 x 1480	1176 x 710	1176 x 1190
Rough opening <b>W x R</b>	[in]	14½" x 45¾"	21" x 26⅞"	21" x 37⅞"	21" x 45¾"	21" x 54⅞"	30⅞" x 37⅞"	30⅞" x 45¾"	30⅞" x 54⅞"	44¼" x 26⅞"	44¼" x 45¾"
	[mm]	372 x 1169	531 x 689	531 x 969	531 x 1169	531 x 1389	761 x 969	761 x 1169	761 x 1389	1121 x 689	1121 x 1169
<b>p x q</b>	[in]	13⅞ x 44¼"	19½ x 25⅞	19½ x 36⅞	19½ x 44¼"	19½ x 52⅞	28⅞ x 36⅞	28⅞ x 44¼"	28⅞ x 52⅞	42⅞ x 25⅞	42⅞ x 44¼"
	[mm]	336 x 1124	495 x 644	495 x 924	495 x 1124	495 x 1344	725 x 924	725 x 1124	725 x 1344	1085 x 644	1085 x 1124



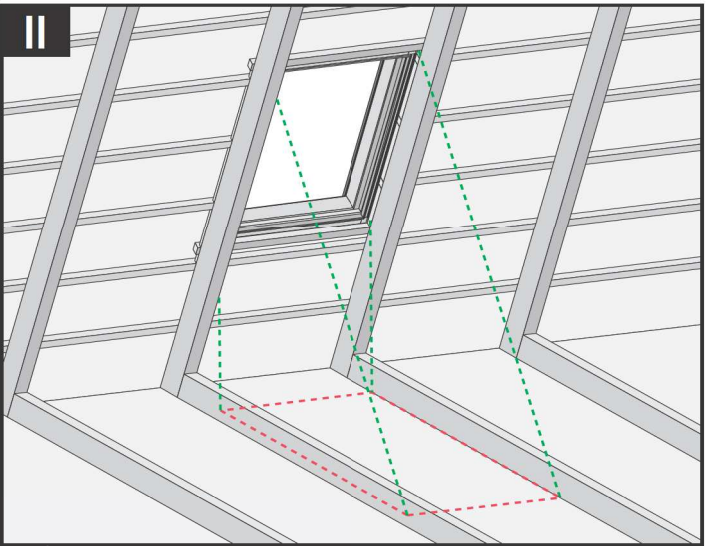
US	Installation by a professional is highly recommended Please review the instructions and carefully follow all the installation steps. Incorrect installation of the skylight will void the warranty.
FR	L'installation par un professionnel est fortement recommandée. Veuillez consulter les instructions et suivre attentivement toutes les étapes de l'installation. Une installation incorrecte du puits de lumière annulera la garantie.
ES	La instalación por un profesional es altamente recomendable. Por favor revise las instrucciones y siga cuidadosamente todos los pasos de instalación. La instalación incorrecta del tragaluz anulará la garantía.
KR	전문가에 의한 설치를 권장함. 설명서를 자세히 읽고 각 단계를 주의 깊게 실행하시오. 잘못된 천창 설치 는 제품에 대한 보증을 무효 시킬 수 있습니다.

US	Do not use silicone
FR	Ne pas utiliser de silicone
ES	No utilice silicon
KR	실리콘을 사용하지 마세요



US	<p>PLANNING THE CONSTRUCTION OF A LIGHT SHAFT FOR YOUR FAKRO SKYLIGHT</p> <p>Building a light shaft is an integral part of finishing your FAKRO skylight installation. In the case of home with a flat ceiling it will bring the light through your attic into the room below. Construction of the shaft will govern the light distribution within the room. It is recommended to make the opening in the ceiling larger than the size of the skylight. The purpose is to create both, the visually pleasing effect of a larger room and to distribute the incoming light more widely within the room. Light shafts can also be used to direct light to work spaces such as kitchen benches or mirrored areas in bathrooms. Finishing the light shaft in pale shades or ceiling white will improve the light transmission from your skylight into the room.</p>
FR	<p>PLANIFICATION DE LA FABRICATION D'UN PASSAGE DE LUMIÈRE POUR VOTRE PUIITS DE LUMIÈRE FAKRO</p> <p>La construction d'un puits de lumière fait partie intégrante de l'installation de la fenêtre de toit FAKRO. Dans le cas d'une maison avec un plafond plat, le lanterneau laisse passer la lumière du grenier dans la pièce au-dessous.</p> <p>La construction du puits détermine la manière dont la lumière se propage dans la pièce. Il est recommandé que l'ouverture au plafond soit plus grande que le lanterneau. L'objectif du puits est de créer l'illusion d'un espace plus grand, visuellement agréable et de diffuser la lumière entrante dans la pièce. Les puits de lumière peuvent également être utilisés pour diriger la lumière vers des espaces de travail, tels que des plans de travail dans la cuisine ou des surfaces miroir dans la salle de bain. La finition du puits dans des tons pastel ou blancs améliore la transmission de la lumière dans la pièce.</p>
ES	<p>PLANIFICANDO LA CONSTRUCCIÓN DE UN CONDUCTO DE LUZ PARA SU TRAGALUZ FAKRO</p> <p>La elaboración de un vano o claro de luz constituye una parte integral para terminar la instalación de un tragaluz FAKRO.</p> <p>En el caso de viviendas con techos planos, el tragaluz permite que la luz del ático entre en la habitación de abajo y su construcción determina la distribución de la luz dentro de la habitación. Se recomienda que la apertura del techo sea mayor que el tragaluz. El propósito del tragaluz es crear un efecto agradable de una habitación de mayor tamaño y propagar la luz que entra en la habitación. Los tragaluces también se pueden usar para dirigir la luz a los espacios de trabajo, tales como alacenas de cocina o espejos en el baño. El acabado del tragaluz en tonos pastel o blancos mejora la transmisión de la luz desde el mismo a la habitación.</p>
KR	<p>파크로 천창을 이용한 채광통로 설계</p> <p>라이트 샤프트를 짓는 것은 FAKRO 채광창 설치를 끝내기 위해 필수적입니다.</p> <p>평평한 천장을 가진 집의 경우, 다락방을 통해 아래의 방으로 빛을 가져올 것입니다. 샤프트 공사는 실내 배광에 영향을 미칠 것입니다. 천장의 개구부를 채광창의 크기보다 크게 만드는 것이 좋습니다. 그 목적은 큰 방의 시각적으로 쾌적한 효과를 만드는 것과 들어오는 빛을 방 안에서 더 넓게 분포하도록 하는 것입니다. 또한 라이트 샤프트는 부엌 벤치나 욕실의 반사되는 구역과 같은 작업 공간으로 빛을 향하도록 할 수 있습니다. 연한 색조의 라이트 샤프트와 흰색 천</p>

## II



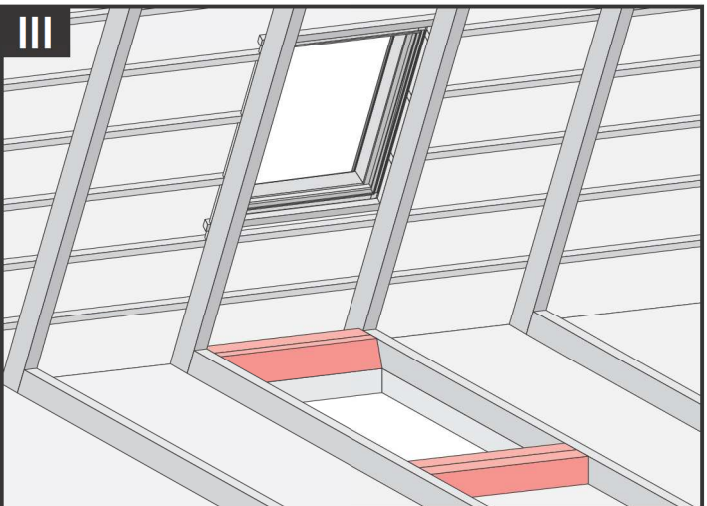
US Decide the location and size of the light shaft relative to the skylight and the room.

FR La première étape consiste à sélectionner l'emplacement et la taille du puits de lumière par rapport au lanterneau et à la pièce.

ES El primer paso consiste en elegir la ubicación y el tamaño del tragaluz con respecto espacio de la habitación.

KR 천창과 방을 고려하여 채광통로의 사이즈 및 위치를 결정하세요.

## III



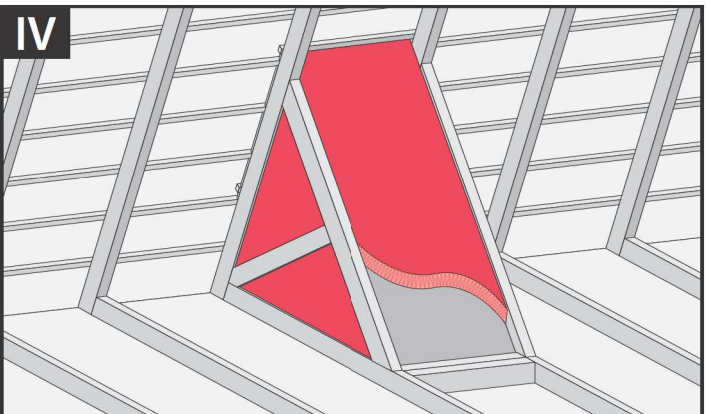
US Prepare the hole in the ceiling using headers and trimmers. Follow the rules used in roof and wall construction.

FR Préparer le trou à l'aide de solives et suivre les mêmes règles que celles utilisées dans la construction de murs et de toits.

ES A continuación, prepare el vano o claro en el techo con ayuda de vigas auxiliares y viguetas. Se deben respetar las normas utilizadas en la construcción de techos y paredes.

KR 헤더와 트리머를 사용하여 천장에 구멍을 만듭니다. 지붕과 벽 공사에 사용되는 규정을 따릅니다.

## IV



US Frame out the shaft, line with plasterboard, and ensure that the shaft is clad with roofing insulation in the roof cavity. This will reduce heat transmission from the roof cavity into the home in summer, and help reduce heat loss from the home in winter.

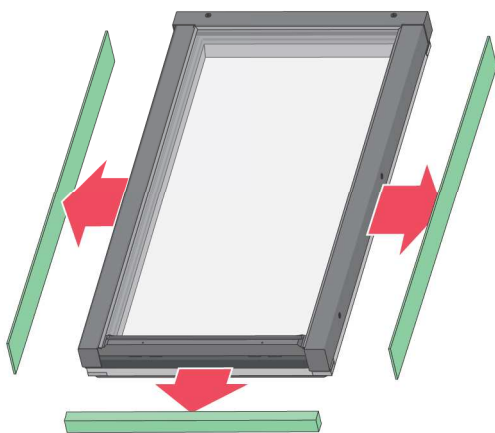
FR Bâtit le cadrage du passage de lumière et le revêtir de placoplâtre tout en vous assurant d'entourer la cavité du toit avec d'un isolant de toiture. Cela contribuera à réduire la transmission de la chaleur provenant de la cavité du toit vers la maison en été et réduire la perte de chaleur en hiver.

ES Marque los conductos, raye con yeso y asegure que el conducto este revestido con el aislamiento del techo en la cavidad del techo. Esto reducirá la transmisión de calor de la cavidad del techo dentro de la casa en el verano, y ayuda a reducir la pérdida de calor de la casa en el invierno.

KR 채광통로 설치를 위한 프레임 세우고 석고보드 등으로 통로 면을 만드세요. 단열재로 채광통로를 감싸세요. 단열재 시공은 여름철 천장의 열기가 실내로 유입되는 것을 줄이고, 겨울철 열 손실을 줄입니다.

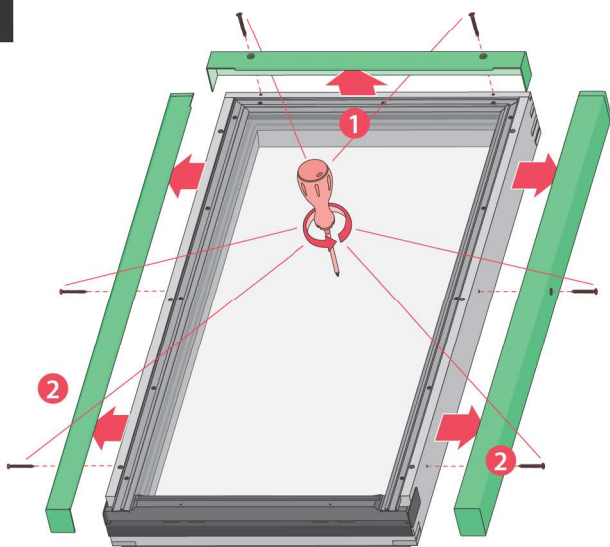


# A



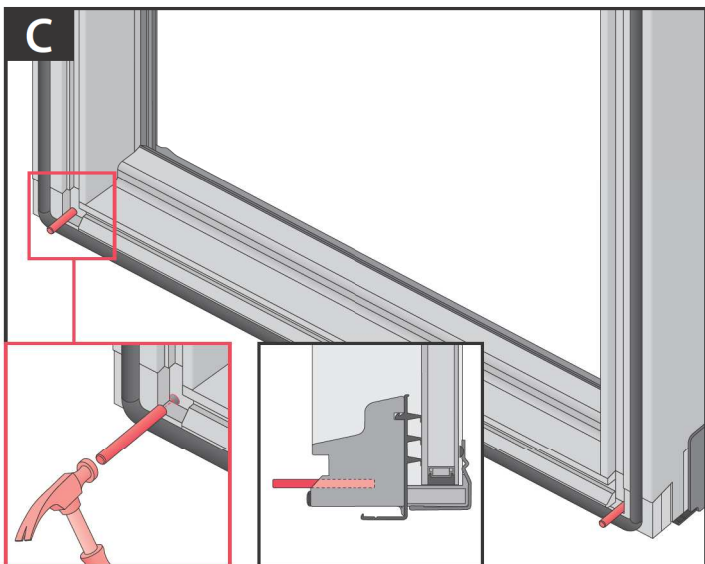
US	Remove protective materials (NOTE: Check contents of the box: skylight, installation screws - 5 to 7 pcs, two metal pins, drill bit, nails).
FR	Retirer les matériaux protecteurs. (REMARQUE : Vérifier le contenu de la boîte : puits de lumière, vis d'installation - de 5 à 7 pièces, deux goupilles métalliques, un foret, des clous).
ES	Retire los materiales de protección (NOTA: verifique el contenido de la caja: tragaluz, tornillos de instalación - 5 a 7 piezas, 2 pernos de metal, brocas, clavos).
KR	천창 보호용 부품을 제거하세요. (박스 개봉 후, 내용물을 확인하세요 : 천창, 설치용 나사 5~7개, 메탈핀 2개, 드릴비트, 못).

# B

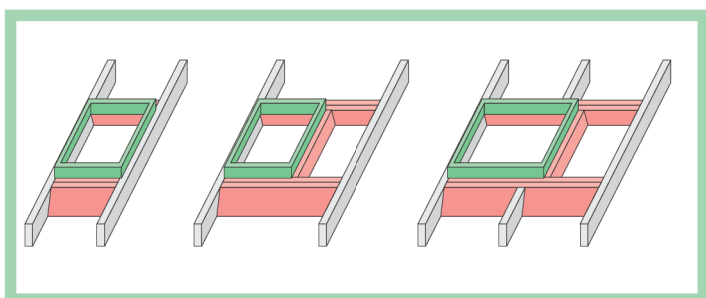
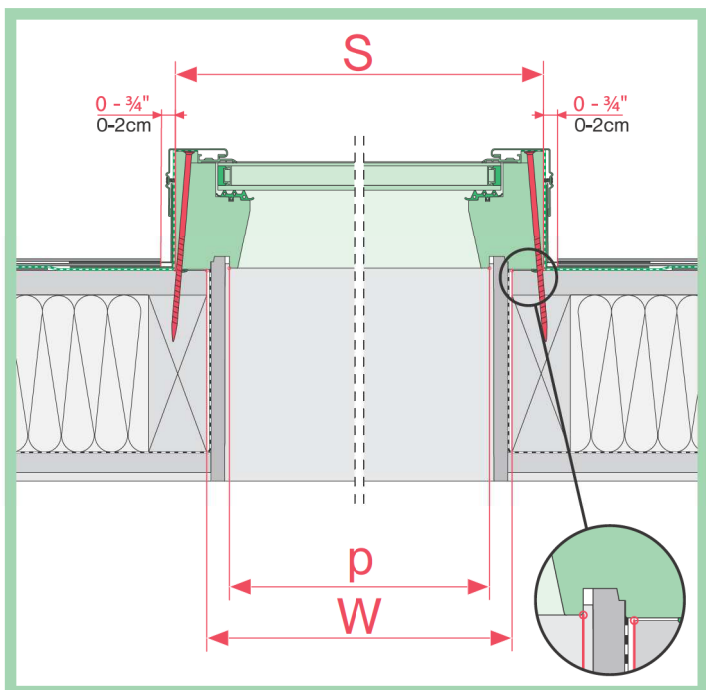
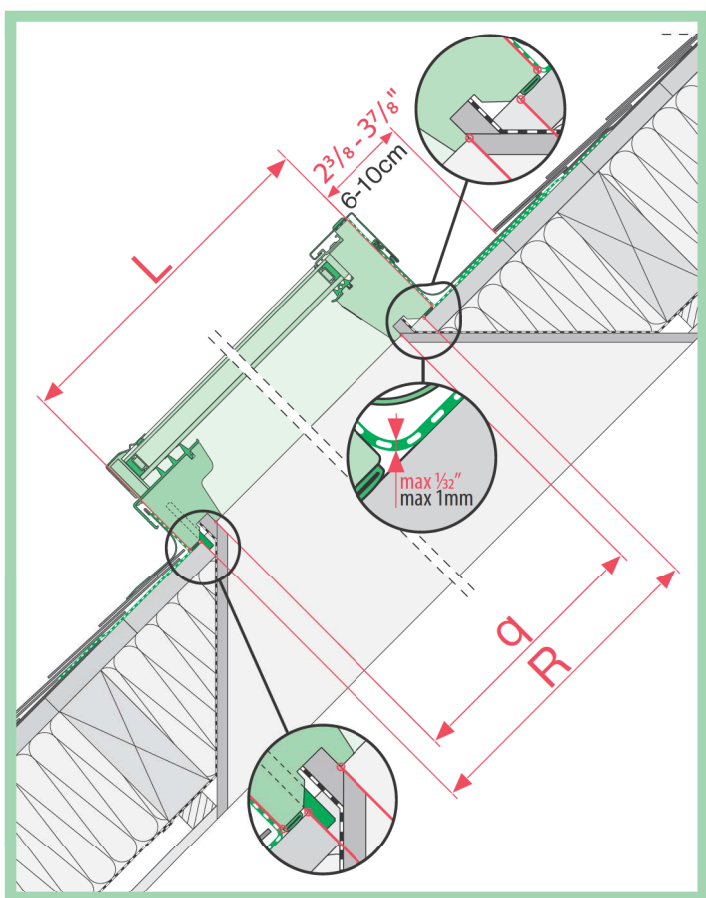


US	Remove profiles covering the frame.
FR	Retirer les profilés recouvrant le cadre.
ES	Retire los perfiles que cubren el marco.
KR	천창 프레임 덮개를 떼어내세요.

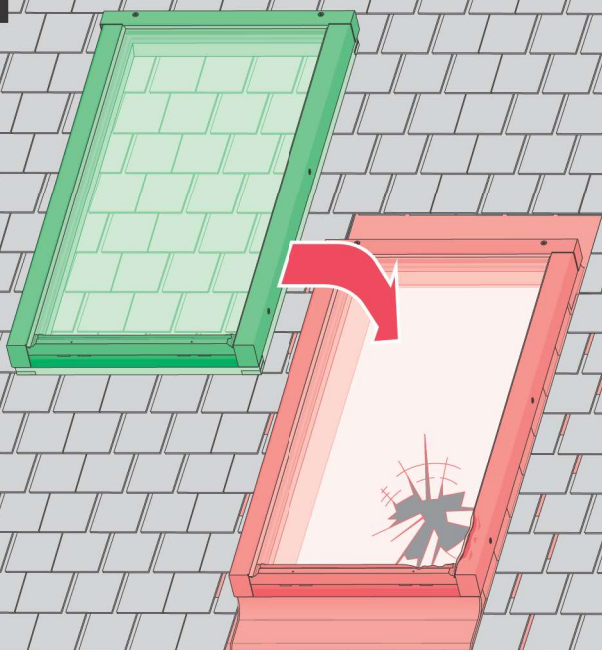
# C



US	Insert metal pins into pre-drilled holes at the bottom of the skylight.
FR	Insérer une goupille métallique dans les deux avant-trous à la base du puits de lumière.
ES	Inserte las pijas de metal dentro de los agujeros previamente perforados en la parte inferior del tragaluz.
KR	동봉된 메탈 핀을 천창 하부의 구멍에 삽입하세요.

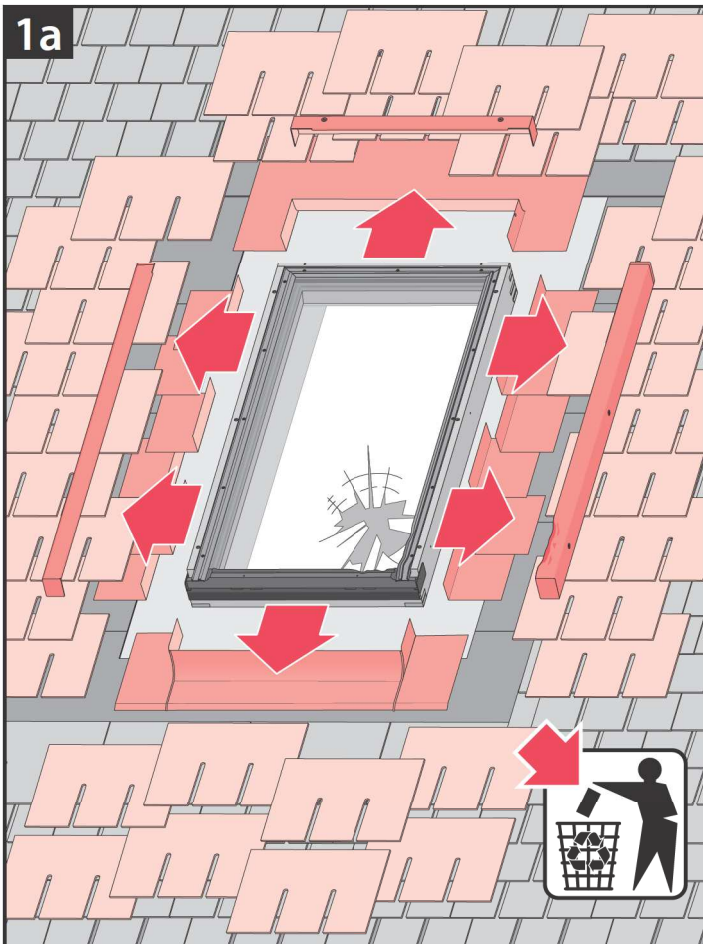


1



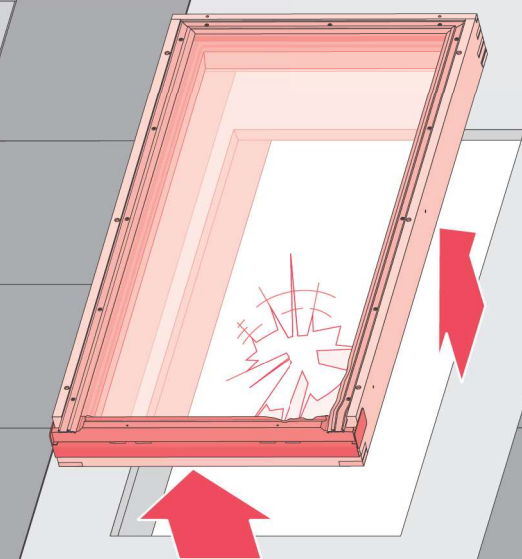
US	Before replacing the window review all the instructional steps in this manual.
FR	Avant de remplacer le puits de lumière, veuillez passer en revue toutes les étapes de ce manuel d'instructions.
ES	Antes de reemplazar la ventana, revise todos los pasos instructivos en este manual.
KR	창문을 교체하기 전에, 매뉴얼에 있는 모든 설치단계를 다시 확인하십시오.

1a



US	Remove the roofing material and flashings.
FR	Enlever les matériaux de toiture et les solins.
ES	Retire el material del techo y los tapajuntas.
KR	지붕재와 후레싱을 제거 하십시오.

1b



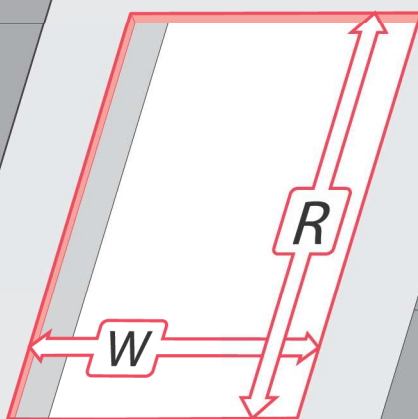
US Remove the screws and take off the window.

FR Retirer les vis et enlever le puits de lumière.

ES Retira los tornillos y quita la ventana.

KR 나사를 제거하고 청문을 빼십시오.

2



US Check dimensions of rough opening according to the table at the beginning of the instruction.

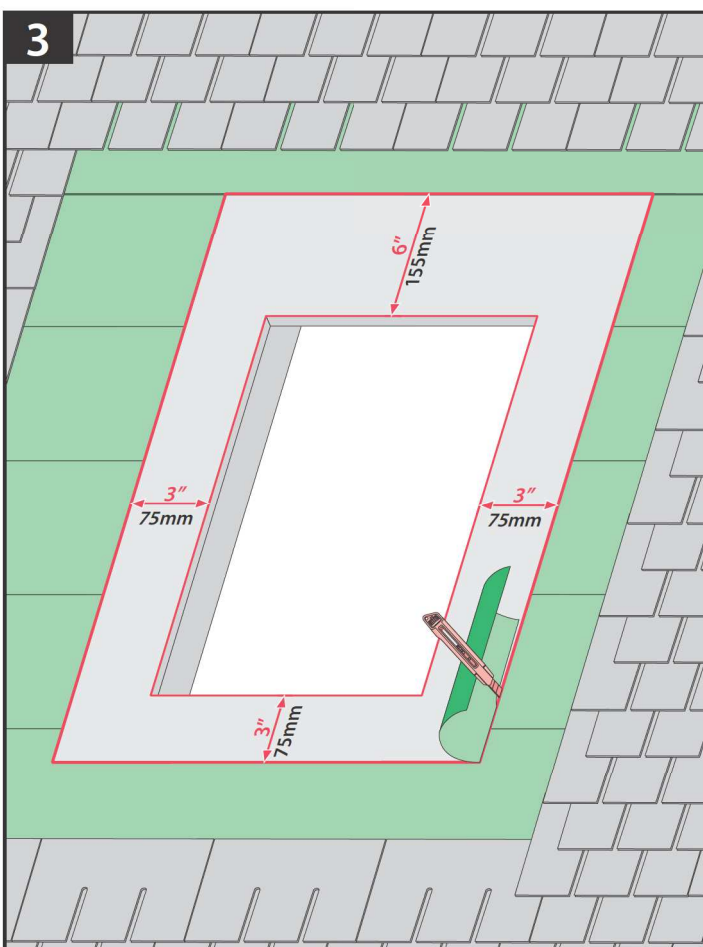
FR Vérifier les dimensions de l'ouverture brute d'après le tableau indiqué au début des instructions.

ES Verifique las dimensiones de la abertura de acuerdo con la tabla al inicio de la instrucción.

KR 매뉴얼 앞부분에 표기된 규격별 개구부 치수와 잘라낸 개구부 크기를 확인하세요.



3



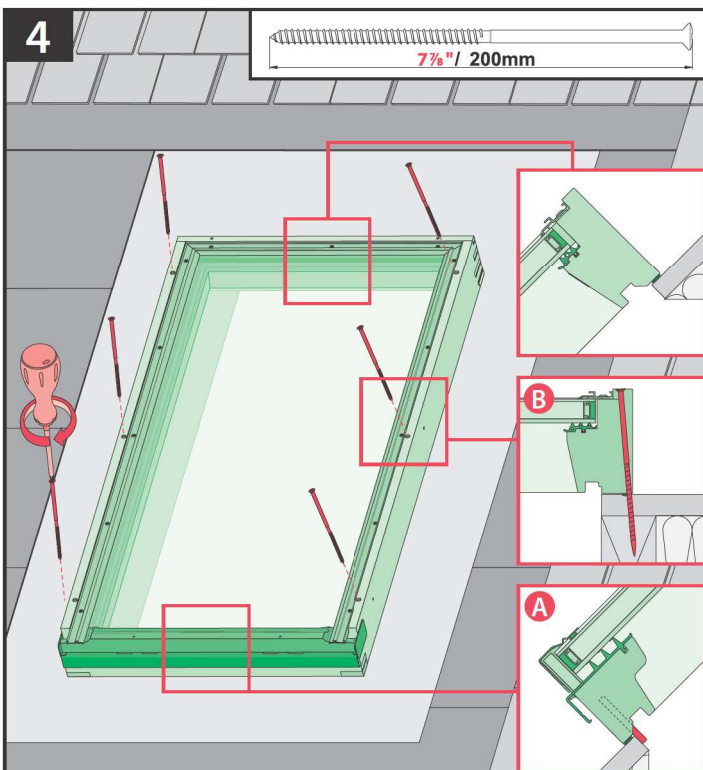
US Remove existing roofing underlayment around the opening.

FR Enlever la membrane (sous-couche) existante de la toiture autour de l'ouverture.

ES Retire el contrapiso existente del techo alrededor de la abertura.

KR 개구부 주위의 빙수지를 일정부분 질라주세요.

4

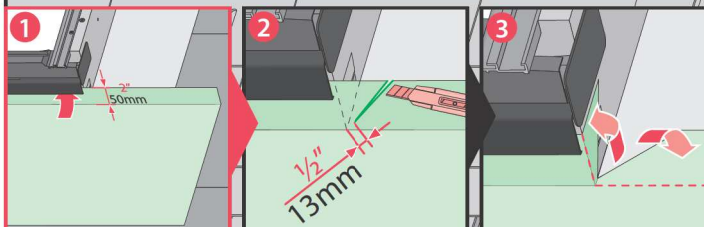
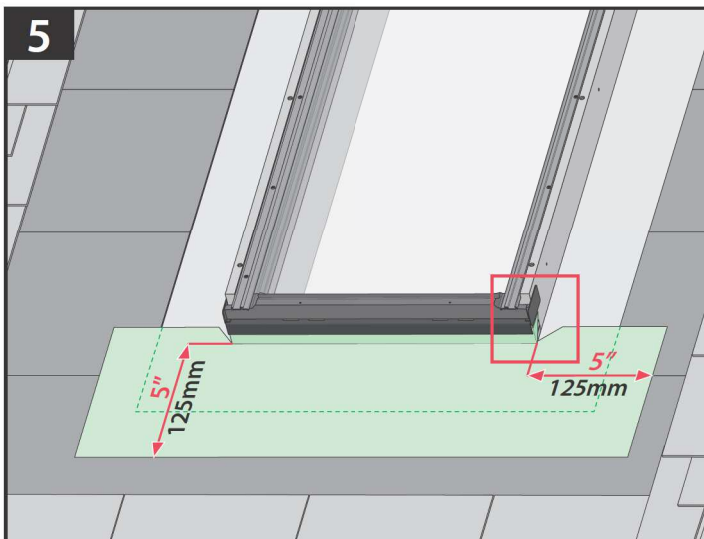


US Place the skylight's frame over the rough opening with the pins (A) resting on a bottom edge of the opening. Screw in provided screws (B) through the pre-drilled holes to secure the frame in place. Make sure the diagonals are equal.

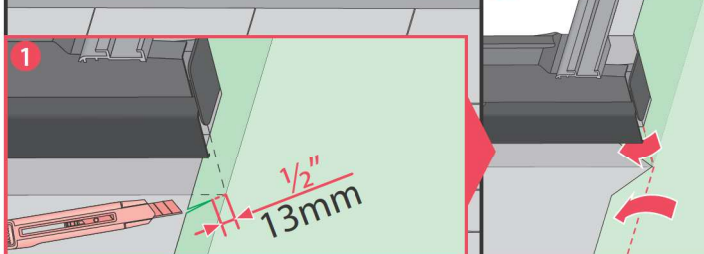
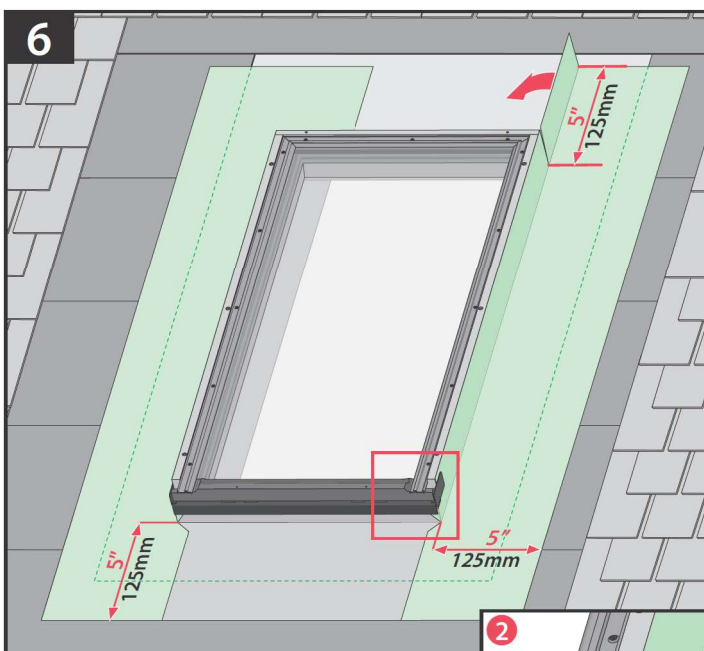
FR Placer le cadre dormant du lanterneau sur l'ouverture de sorte que les goupilles (A) reposent sur le bord inférieur de l'ouverture. Serrer les vis fournies (B) dans les ouvertures percées pour fixer le cadre dormant. S'assurer que les diagonales soient égales.

ES Coloque el marco del tragaluz sobre la apertura de tal forma que los pernos (A) se encuentren en el borde inferior de la abertura. Apriete los tornillos incluidos (B) en los orificios perforados para sujetar el marco. Asegúrese de que las diagonales son iguales.

KR 핀 (A)이 개구부의 하단 가장자리에 놓여 있는 상태에서 채광창의 프레임을 대략적인 개구부에 놓습니다. 미리 뚫어 놓은 구멍에 제공된 나사 (B)를 끼워 프레임을 제자리에 고정합니다. 대각선이 동일하지 확인합니다.

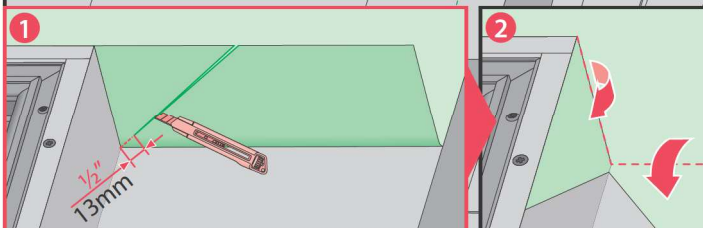
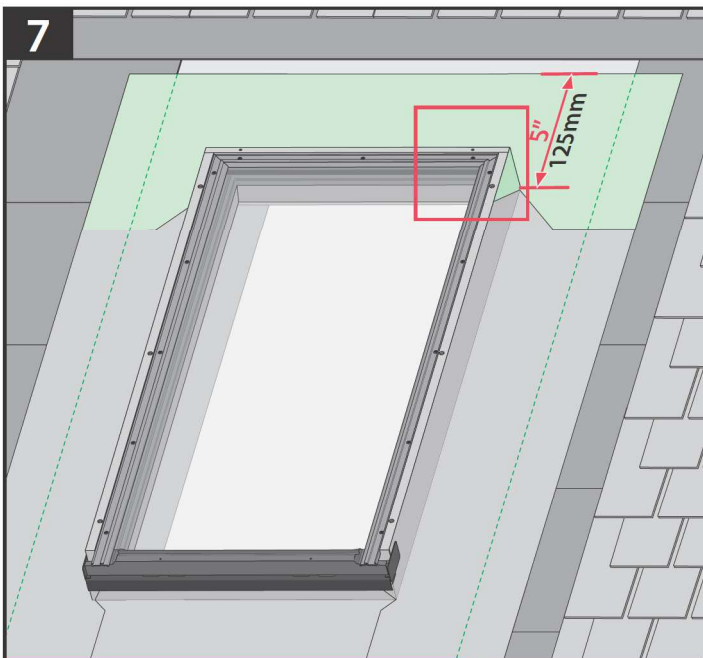


US	For complete waterproofing, apply self-adhesive roofing underlayment also called Ice & Water Guard. Wrap the bottom frame with corners first. Keep minimum 3" (75mm) overlap with existing roofing underlayment.
FR	Pour protéger la fenêtre contre la pénétration d'eau, utiliser un matériau de revêtement, également appelé protecteur contre la glace et l'eau. Commencer par traiter l'élément inférieur du cadre dormant. Garder au moins 3" (75mm) de réserve par rapport au matériau de revêtement existant.
ES	Para una completa impermeabilización, aplique un material de revestimiento de techos para evitar infiltraciones de hielo y agua. En primer lugar, envuelva el elemento inferior del marco. Mantenga un traslape mínimo de 3" (75mm) con respecto al material revestimiento existente.
KR	완전한 방수 처리를 위해 아이스 앤 워터 가드(Ice & Water Guard)라고도 하는 접착식 지붕 밀갈개를 설치합니다. 하부 프레임을 먼저 감쌉니다. 기존의 지붕 밀갈개와 최소 3" (75mm)가 겹치도록 유지합니다.



US	Wrap the sides and corners of the frame overlapping 3" (75mm) over the underlayment.
FR	Envelopper les côtés et les coins du cadre en respectant un chevauchement de 3" (75mm) sur la membrane (sous-couche).
ES	Envuelva los lados y las esquinas del marco, superposición de 3" (75mm) sobre el contra piso.
KR	프레임 측면과 모서리 부분도 방수시트로 감싸주세요. 지붕방수지와 3" (75mm) 겹쳐서 시공하세요.

7



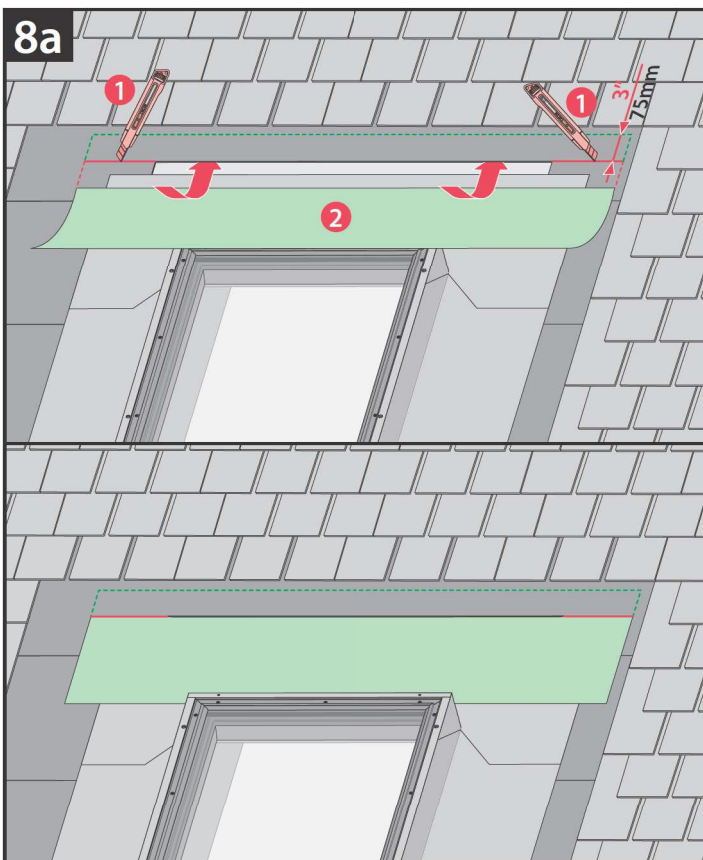
US Wrap the top and corners of the frame overlapping 3" (75mm) over the underlayment. Make the water shedding laps.

FR Envelopper le haut et les coins du cadre en respectant un chevauchement de 3" (75mm) sur la membrane (sous-couche). Réaliser des chevauchements pour favoriser l'écoulement de l'eau.

ES Envuelva la parte superior y las esquinas del marco, superposición de 3" (75mm) sobre el contrapiso.

KR 프레임 상부와 모서리 부분도 방수시트로 감싸주세요. 지붕방수지와 3" (75mm) 겹쳐서 시공하세요.

8a



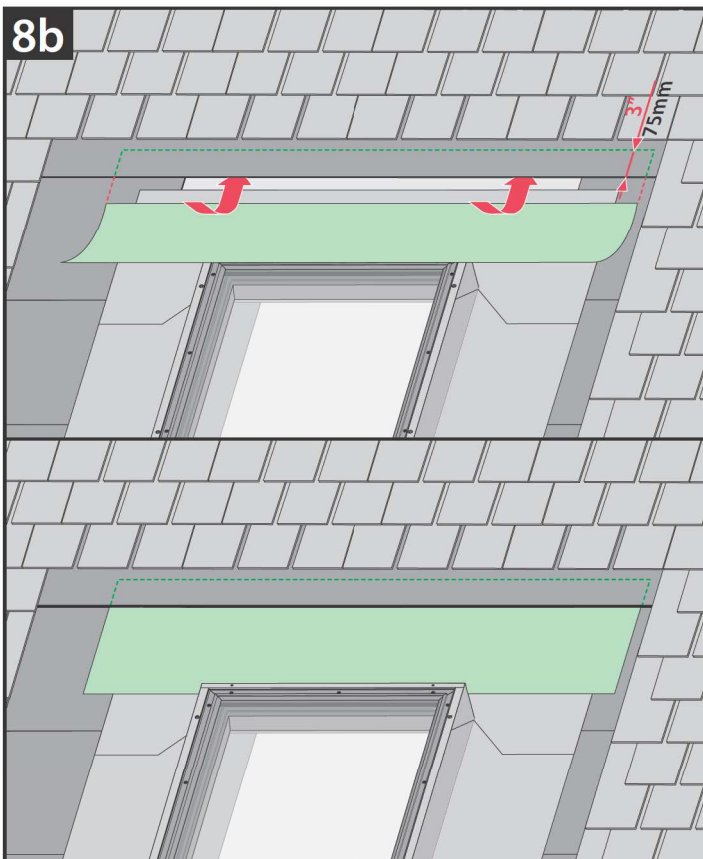
US To ensure proper water drainage, interweave the skylight's underlayment with the existing roof underlayment (retrofit).

FR Pour assurer un drainage adéquat, veiller à entrecroiser la membrane (sous-couche) du puits de lumière avec la membrane (sous-couche) existante de la toiture (rénovation).

ES Para asegurar el drenaje adecuado se entrelaza el contra piso del tragaluz con el contra piso del techo existente (retrofit).

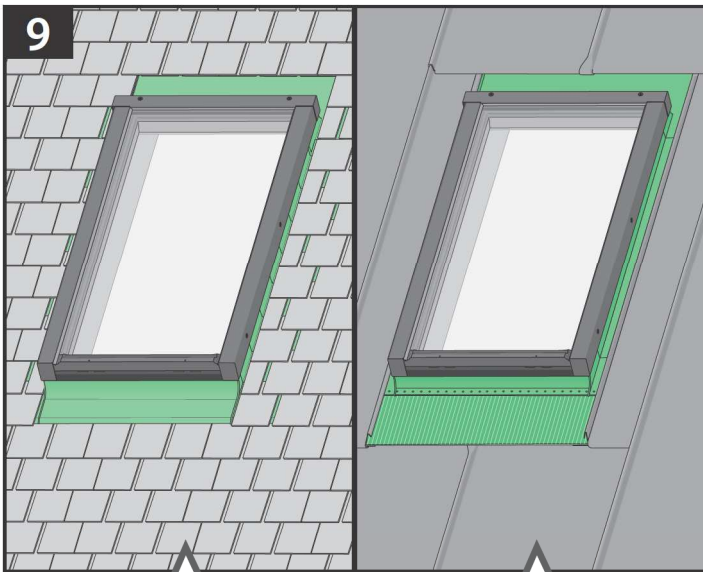
KR 확실한 배수를 위해, 그림과 같이 천창 방수시트를 기존 지붕 방수지 밑으로 넣어주세요. (리모델링의 경우).

8b



US	To ensure proper water drainage, interweave skylight's underlayment with the new roof underlayment (new construction).
FR	Pour assurer un drainage adéquat, veiller à entrecroiser la membrane (sous-couche) du puits de lumière avec la nouvelle membrane (sous-couche) de la toiture (nouvelle construction).
ES	Para asegurar el drenaje adecuado, se entrelaza el contra piso del tragaluz con el contra piso nuevo del techo (nueva construcción).
KR	확실한 배수를 위해, 그림과 같이 천창 방수시트를 기존 지붕 방수지 밑으로 넣어주세요. (신축의 경우).

9



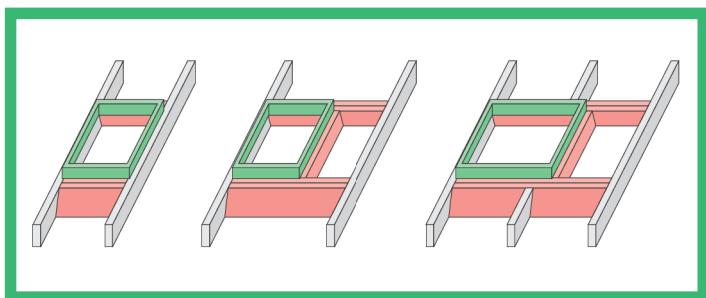
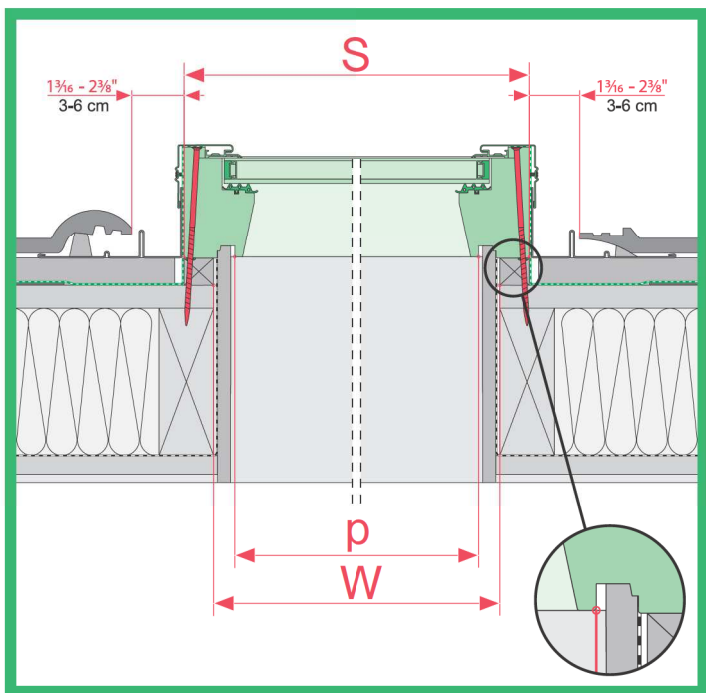
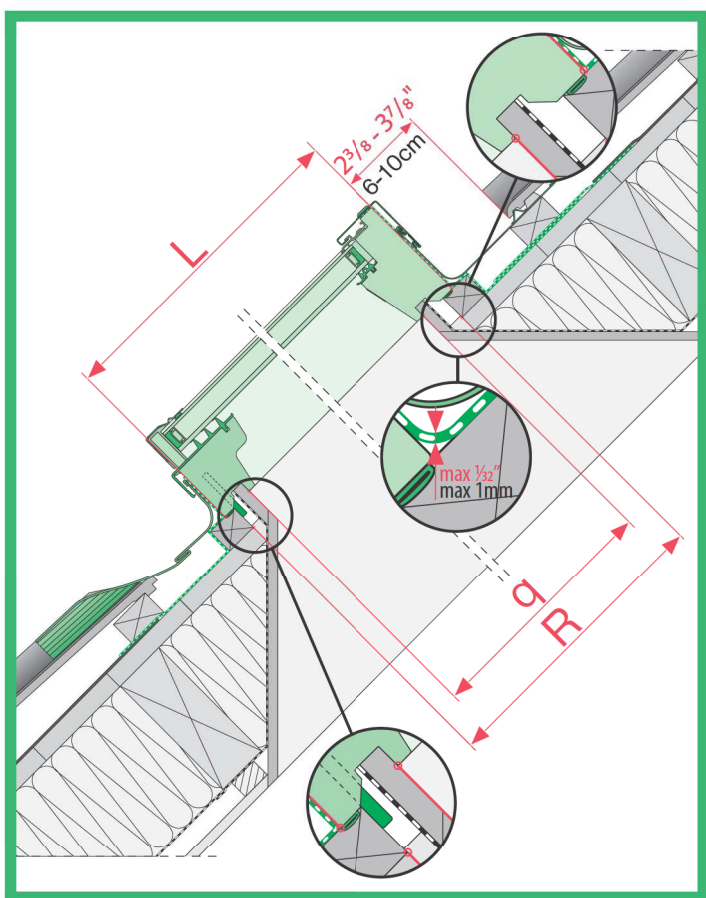
NC 2AB

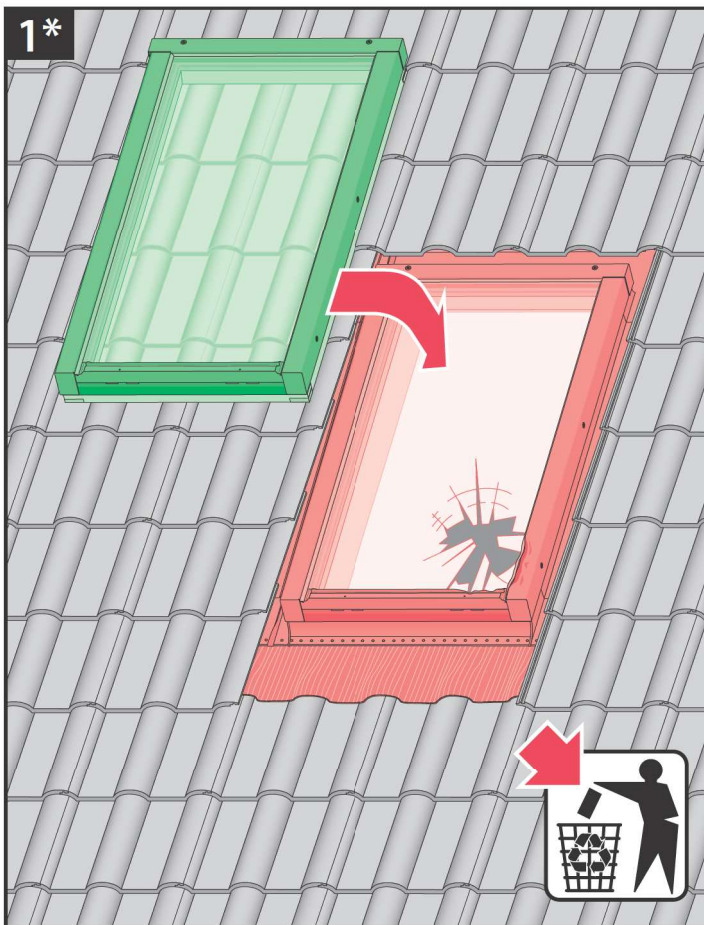


NC 2AA

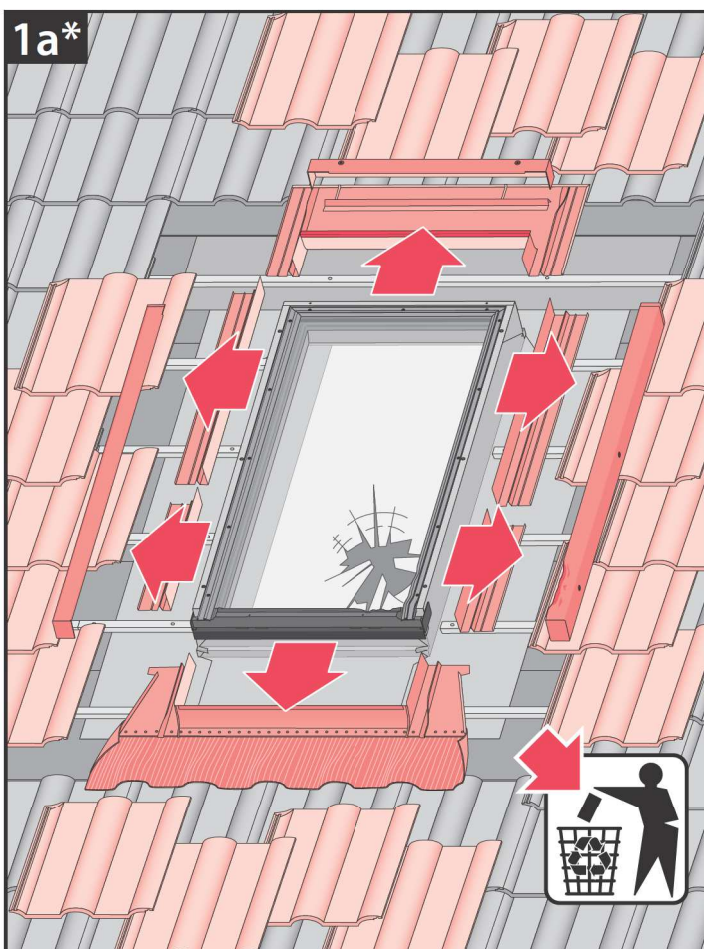
US	Use a suitable flashing type to complete installation. Follow the instructions included with the flashing.
FR	Pour compléter l'installation, utiliser une bride de montage approprié. Suivre les instructions de montage jointes à la bride.
ES	Para completar la instalación, se debe utilizar el tipo de tapajuntas adecuado. Siga las instrucciones del tapajuntas.
KR	적절한 비홀림 타입을 사용하여 설치를 완료합니다. 비홀림과 함께 포함된 지침을 따르십시오.







US	Before replacing the window review all the instructional steps in this manual.
FR	Avant de remplacer le puits de lumière, veuillez passer en revue toutes les étapes de ce manuel d'instructions.
ES	Antes de reemplazar la ventana, revise todos los pasos instructivos en este manual.
KR	창문을 교체하기 전에, 매뉴얼에 있는 모든 설치단계를 다시 확인하십시오.



US	Remove the roofing material and flashings.
FR	Enlever les matériaux de toiture et les solins.
ES	Retire el material del techo y los tapajuntas.
KR	지붕재와 후레싱을 제거 하십시오.

**1b\***

Diagram 1b\* illustrates the removal of the skylight frame. The frame is shown being lifted out of the roof opening, with red arrows indicating the direction of movement. A red starburst symbol indicates the removal of the frame. A red arrow points to a recycling symbol, indicating that the frame should be recycled.

FR	Retirer les vis et enlever le puits de lumière.
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KR	나사를 제거하고 청문을 빼십시오.
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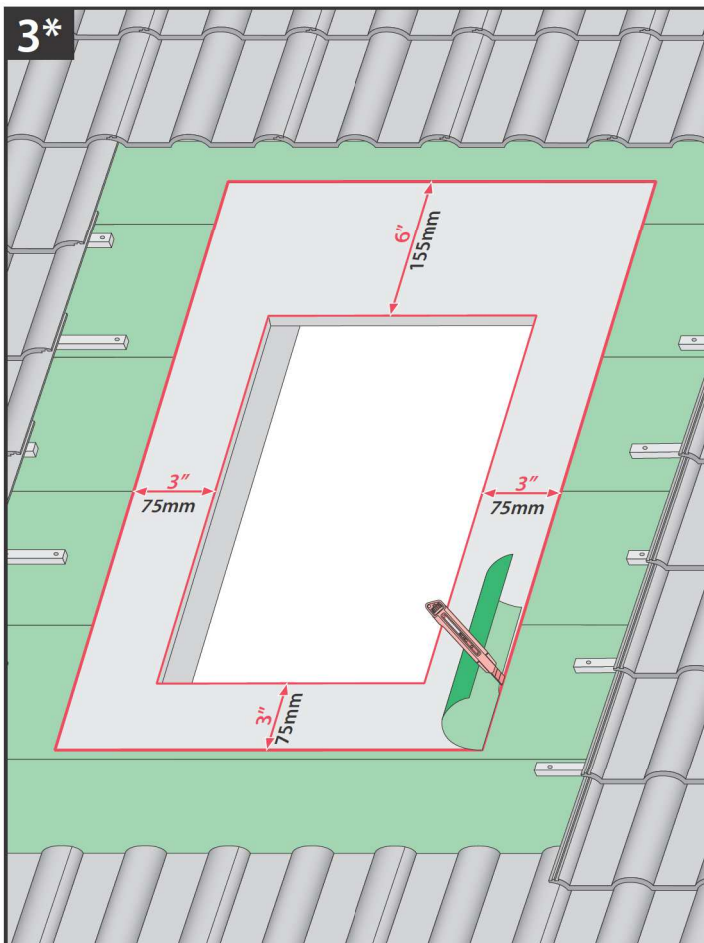
KR	나사를 제거하고 칭문을 빼십시오.
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Diagram illustrating a rectangular skylight on a roof. The skylight is labeled with dimensions  $W$  (width) and  $R$  (length). The roof is shown with corrugated metal siding.

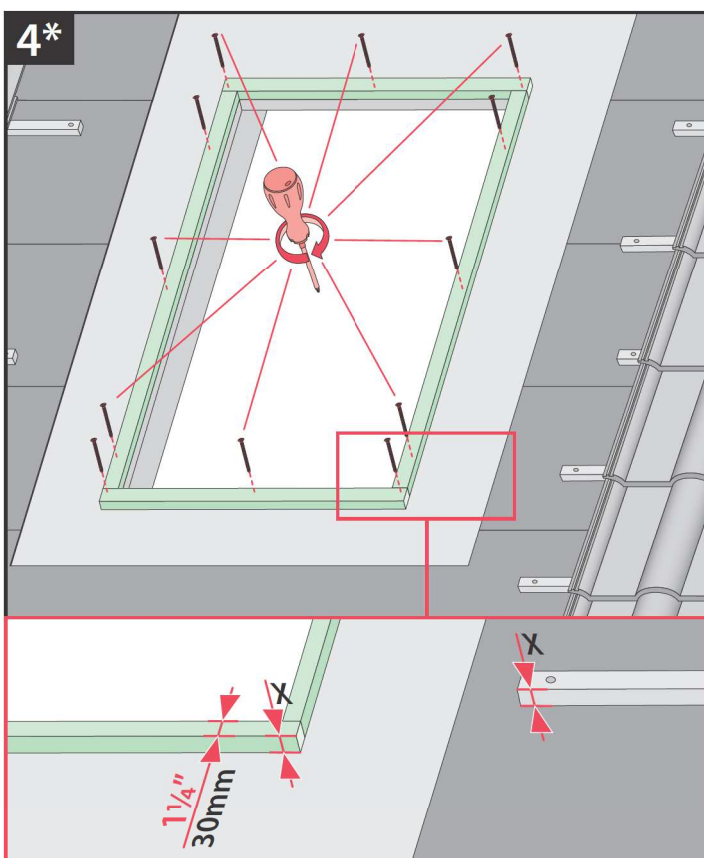
FR Vérifier les dimensions de l'ouverture brute d'après le tableau indiqué au début des instructions.

KR 매뉴얼 앞부분에 표기된 규격별 개구부 치수와 잘라낸 개구부 크기를 확인하세요.

**KR** 매뉴얼 앞부분에 표기된 규격별 개구부 치수와 잘라낸 개구부 크기를 확인하세요.

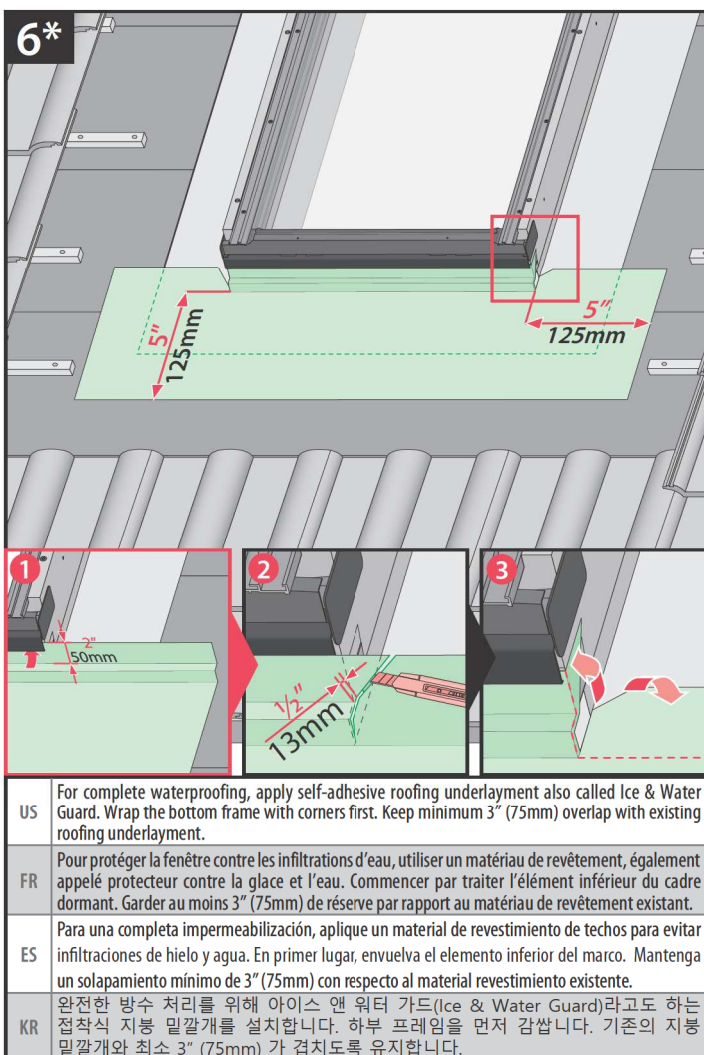
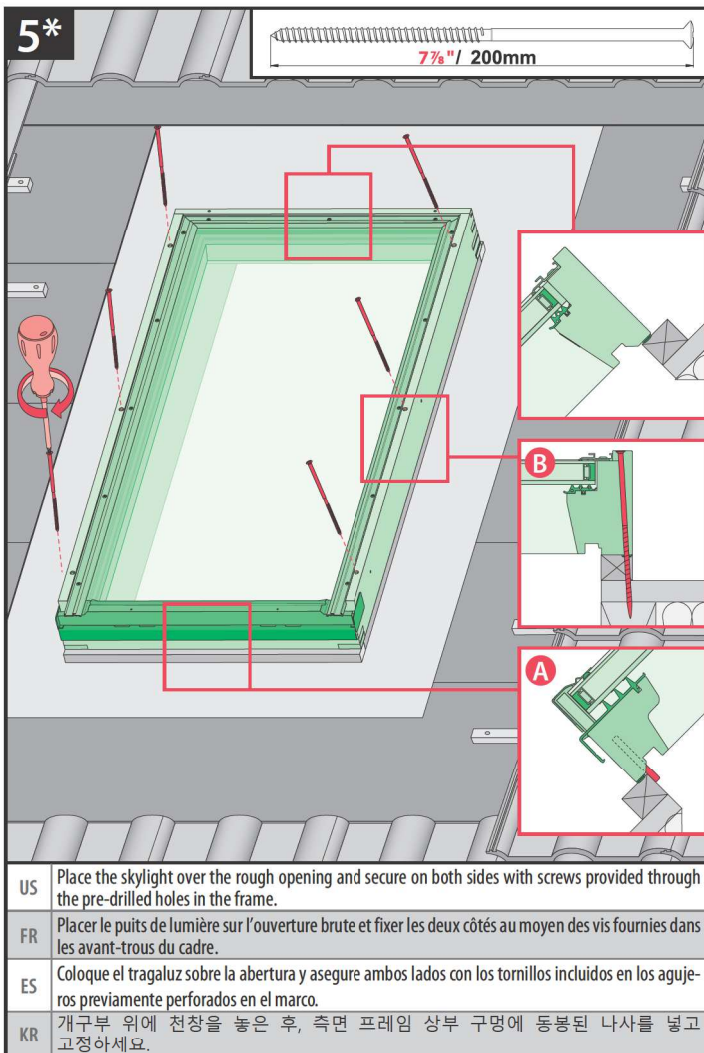


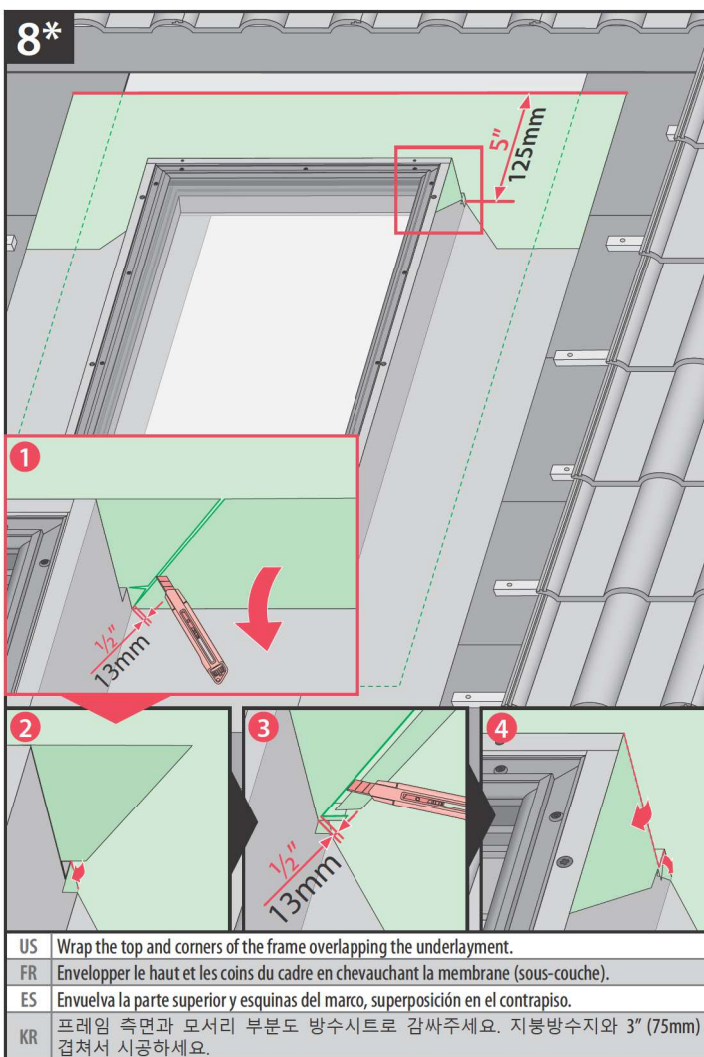
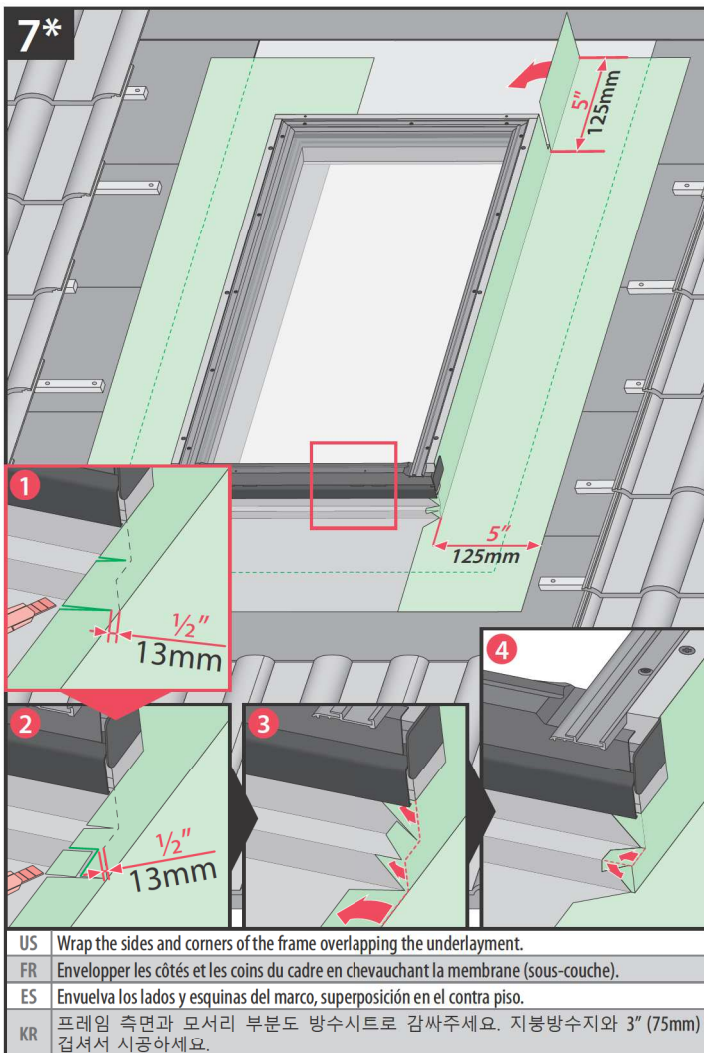
US	Remove existing roofing underlayment around the opening.
FR	Enlever la membrane (sous-couche) existante de la toiture autour de l'ouverture.
ES	Retire el contrapiso existente del techo alrededor de la abertura.
KR	개구부 주위의 빙수지를 일정 부분 질라주세요.

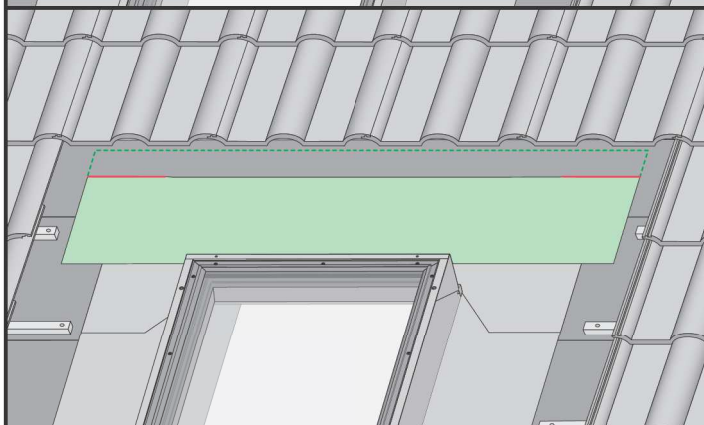
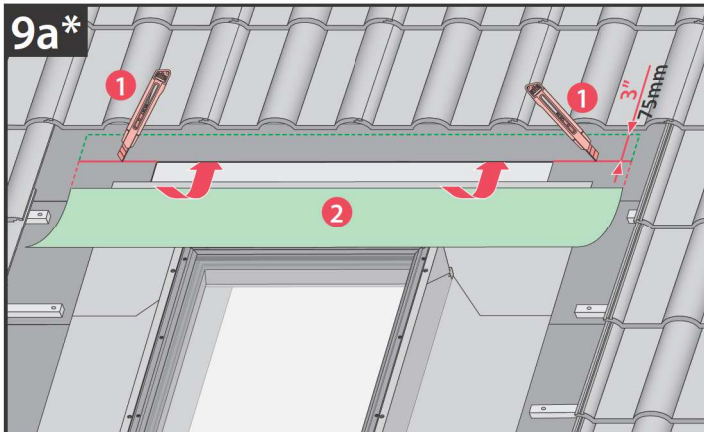


US	Place 1 1/4" (30mm) wide battens around the rough opening. Battens should be of the same thickness as battens used for roofing material.
FR	Mettre en place des linteaux de 30 mm (1 1/4 po) de largeur autour de l'ouverture brute. Les linteaux doivent être de la même épaisseur que celle des linteaux utilisés pour le matériau de couverture.
ES	Coloque listones con un ancho de 1 1/4" (30mm) alrededor de la abertura. Los listones deberán ser del mismo grosor que los listones utilizados para el material de techados.
KR	30 x 30mm 크기의 각재들을 개구부 주위에 놓아주세요. 이때, 각재들은 지붕마감용 하지각재와 동일한 두께로 시공해야 합니다.

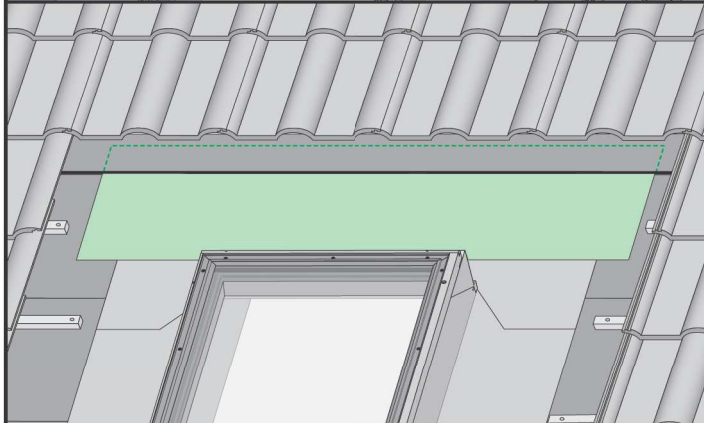
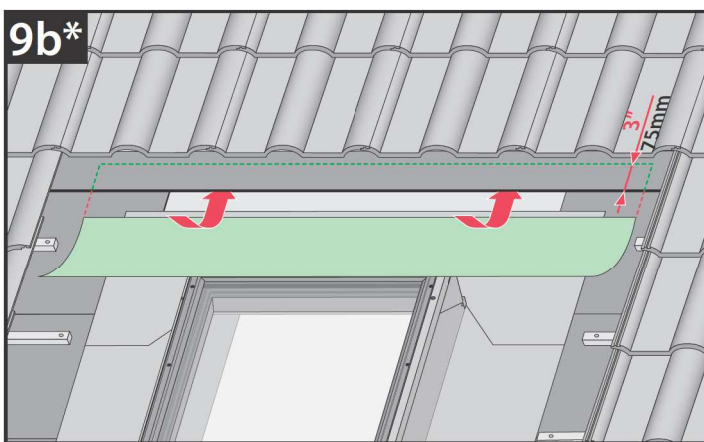






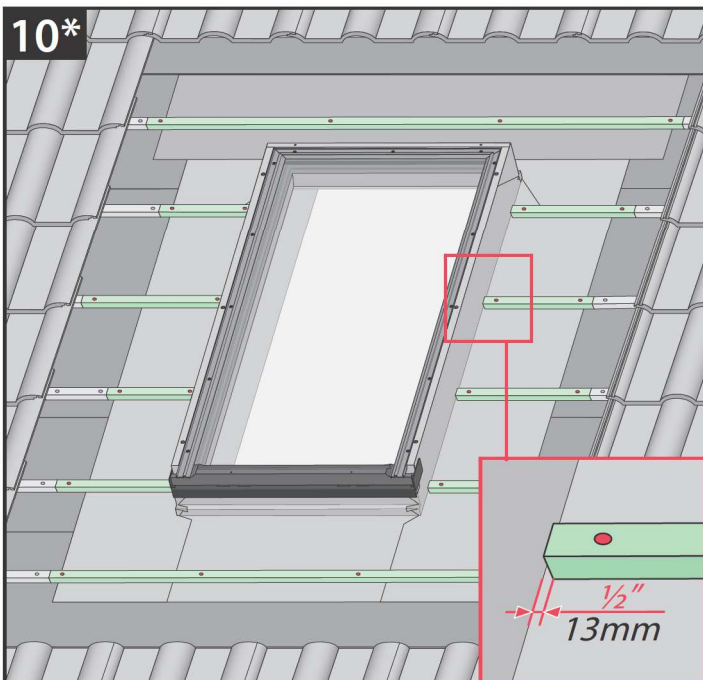


US	To ensure proper water drainage, interweave the skylight's underlayment with the existing roofunderlayment (retrofit).
FR	Pour assurer un drainage adéquat, veiller à entrecroiser la membrane (sous-couche) du puits de lumière avec la membrane (sous-couche) existante de la toiture (rénovation).
ES	Para asegurar el drenaje adecuado, se entrelazan el contrapiso del tragaluz con el contrapiso existente del techo (retrofit).
KR	확실한 배수를 위해, 그림과 같이 천창 방수시트를 기존 지붕 방수지 밑으로 넣어주세요. (리모델링의 경우).



US	To ensure proper water drainage, interweave the skylight's underlayment with the roof underlayment (new construction).
FR	Pour assurer un drainage adéquat, veiller à entrecroiser la membrane (sous-couche) du puits de lumière avec la nouvelle membrane (sous-couche) de la toiture (nouvelle construction).
ES	Para asegurar el drenaje adecuado, se entrelazan el contrapiso del tragaluz con el contrapiso del nuevo techo (nueva construcción).
KR	확실한 배수를 위해, 그림과 같이 천창 방수시트를 기존 지붕 방수지 밑으로 넣어주세요. (신축의 경우).

10\*



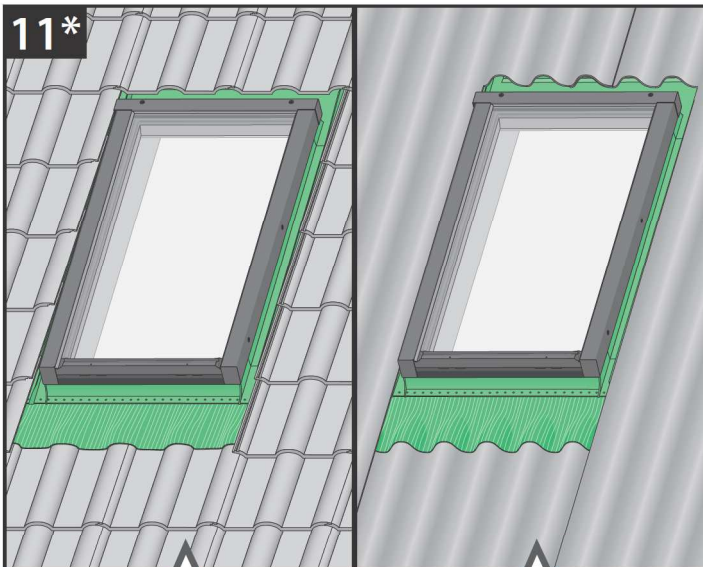
US Replace the battens that were removed earlier.

FR Remplacer les liteaux retirés précédemment.

ES Reemplazar los listones que se retiraron antes.

KR 장 주변 각재를 설치하세요.

11\*



NC 2AA



NC 2AA

US Use a suitable flashing type to complete installation. Follow the instructions included with the flashing.

FR Pour compléter l'installation, utiliser une bride de montage approprié. Suivre les instructions de montage jointes à la bride.

ES Para completar la instalación, se debe utilizar el tipo de tapajuntas adecuado. Siga las instrucciones del tapajuntas.

KR 적절한 비홀림 타입을 사용하여 설치를 완료합니다. 비홀림과 함께 포함된 지침을 따르십시오.

US Manufacturer and Seller shall bear no liability for failure to comply with the applicable laws, building codes and safety requirements by the user of the product, architect, fitter or owner of the building.

FR Le fabricant et le revendeur ne prend aucune responsabilité de ne pas respecter les lois applicables, les règlements sur les bâtiments et les exigences de sécurité par l'utilisateur du produit, l'architecte, l'installateur ou le propriétaire du bâtiment.

ES El fabricante y el vendedor no tienen ninguna responsabilidad por el incumplimiento de la ley vigente, normas de construcción y exigencias de seguridad por parte del usuario del producto, arquitecto, instalador o el propietario del edificio.

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