







CALDWELL

SOLUTIONS THAT SET NEW STANDARDS

Telephone 024 7643 7900

Guide To Travel Stops

Travel stops are essential whenever spring balances are in use. Travel stops ensure that the spring balances do not become damaged or prematurely worn. Travel stops are required at both the top of the window & at the bottom.

Travel stops are available from most of the major window system companies and these are usually profile specifiic. Caldwell also offer a range of travel stops.

The principal failure mode on spring balances where travel stops are not fitted are over extension & under extension. Both of these failure modes result in the balances being damaged beyond repair and will almost certainly mean that the balances will have to be replaced.

Over extension occurs when the upper sash is pulled downwards beyond the working range of the balance, this can result in internal damage within the spring balance. Travel stops prevent this from happening by limiting the travel of the sash.

Under extension occurs if the lower sash is lifted up until it hits the bottom of the balances, again this can result in internal damage within the spring balance. Travel stops prevent this by limiting the travel of the sash.



DO NOT OPERATE THE WINDOW UNTIL THE UPPER AND LOWER TRAVEL STOPS ARE FITTED.

Travel stop lengths

Caldwell recommend the minimum size of travel stops to be fitted to an equally split vertical slider are:

Upper sash travel stop = 220mm Lower sash travel stop = 130mm

The above sizes should always be used with Caldwell spring balances, however longer stops can be used if required.

For every 25mm that the upper sash is smaller than equally split, 50mm must be added to the upper sash travel stop length.

If horns are used, reduce the calculated length of the travel stop by the length of the horn.

For further information, please contact Caldwell Technical Department.

CONVENTIONAL TIMBER SYSTEM TRAVEL STOPS

On a conventional timber system, a UK190N-Upper Sash Travel Stop and a UK191N-lower Sash Travel Stop can be used (see datasheet 00333). NOTE: If the UK190N & UK191N are used, they need to be positioned correctly to limit travel adequately (method shown below). Alternatively, a block of timber cut to length can be used. All stops should be fitted as described below.

Carefully lift the lower sash until resistance is felt i.e. the balance is fully retracted. Pencil mark one jamb in line with the top of the sash.

Fix a limit stop with its bottom edge 13mm below the mark. Raise the sash to the limit block and fix a second block to the opposite jamb.



Carefully lower the upper sash until resistance is felt i.e. the balance is fully extended. Pencil mark one jamb in line with the bottom of the meeting rail.

Fix a limit stop with its bottom edge 13mm above the mark. Lower the sash to the limit block and fix a second block to the opposite jamb.



pencil mark / line -

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DATASHT-00332



Telephone 024 7643 7900 WEATHERSEAL ACCESSORIES

Brush Pile

A high quality brush pile with a central weather fin manufactured from polypropylene giving low friction properties and offering additional weather performance and sealing characteristics. The pile can either be used in the following three ways:-

1) Fitted directly to grooves in pvc or aluminum profiles,

2) fitted to the timb-a-tilt jamb liner (timb-a-tilt only) or

3) fitted to the brush pile holder as detailed below (for both conventional or timb-a-tilt windows).

Pile base width:	4.8mm
Pile height:	7mm
Caldwell Part No:	UK687





Brush Pile Holder

A brush pile holder suitable for brush piles with a 4.8mm base width. The holder is manufactured from rigid pvc and is available in both white or brown and simply pushes into a 'T' slot when machined in timber profiles (see fig 2).

Caldwell Part No. UK688

Bubble Seal

A 7mm diameter rubber bubble seal for horizontal sealing of top & bottom sashes on vertical sliding windows. Seal simply pushes into a 3mm x 5mm groove when machined in timber profiles (see fig 3).

Caldwell Part No. UK689



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DATASHT REF. 00457





Caldwell's range of brass hardware is supplied in a lacquered finish. If this is to be used externally then it should be waxed weekly to protect the lacquered finish. Over time, and subject to the environment it operates within plus the type of use it undergoes, the lacquer coating will be eroded. When the lacquer coating is no longer present then the brass surface will need to be maintained with a propriety brass cleaner on a regular basis to maintain appearance and prevent visible corrosion.

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DATASHT REF. DATASHT-00117





Page 12 of 35



PREPARATION OF THE BOTTOM SASH RAILS FOR UK166 PIVOT BARS

The diagram shows the recommended machining detail to accept the UK166 pivot bar. This detail should be repeated at both ends of the bottom rail on each sliding sash when a UK166 pivot bar is required.

If upper sash has horns, refer to page 11.



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INSERTION OF 16H70 / UK132 PIVOT SHOES INTO JAMB LINER

The pivot shoe should be fitted into the jamb liner before the liner is fixed into the timber outer frame.

If a bar restrictor is to be fitted, please see page 19. Please note that the restrictor must be fitted into the channel above the pivot shoe before the liner is fixed into the timber outer frame.

Slide one shoe assembly into each liner, ensuring that the black pivot moulding is lowermost and the pivot bar retaining pocket is visible. (See diagram)

16H70 SHOE

ALUMATILT REGULAR OR HEAVY DUTY BALANCES ONLY.

UK132 SHOE ULTRALIFT/TORSO BALANCES ONLY



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DATASHT-00110





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FITTING THE SASHES

Load the top sash onto the pivot bars, allowing the top rail to overrun the head profile. Ensure pivot bars are located into the machined recess.

Insert one screw into the slotted hole. Centralise the sash and insert the other two screws, ensuring that the one nearest the pivot shoe passes through the shackle. Pull the sash down and allow the guide latches to locate in the outer channel.

Fit the bottom sash in the same manner again making sure the shackles are correctly fitted. (Note:- if upper sashes have horns please refer to page 12).

FIT TRAVEL STOPS BEFORE CHECKING OPERATION OF THE SASHES. SEE PAGE 22.

ISSUE LEVEL 02

Approved Manual Ref. MAN-0001-16











CALDWELL

OFSLIDELATCH SOLUTIONS THAT SET NEW STANDARDS

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Bar Restrictor Details

POSITION CHANNEL ON CENTRE LINE OF SASH PROFILE & DIM'A' FROM BOTTOM OF SASH, PAN HEAD FIXING SCREWS MUST BE USED TO FIX THE CHANNEL INTO THE SASH PROFILE. (WHEN USING UPVC WINDOWS SCREWS ARE TO BE FITTED INTO REINFORCEMENT).

NOTE: THE GAP BETWEEN SASH AND OUTER FRAME SHOULD BE INCREASED TO 3.5± # WHEN FITTING THESE RESTRICTORS. ENSURE THAT BAR RESTRICTORS ARE NOT FITTED ON SASHES ABOVE 35kg IN WEIGHT.

WINDOW SYSTEM	SASH HEIGHT	DIM	SASH HEIGHT	DIM	SASH HEIGHT	DIM	
	250mm - 450mm	'A'	451mm - 650mm	'A'	651mm - 1200mm	'A'	
ANODIL	RA 150A N	278mm	RA 250A N	435mm	RA350AN	535mm	
ALCOA SYSTEM 80	RA150TT	278mm	RA250TT	435mm	RA350TT	535mm	
CLEARVIEW	RA150RU	278mm	RA250RU	435mm	RA350RU	535mm	
DECEUNINCK	RA150JC	278mm	RA250JC	435mm	RA350JC	535mm	
SPECTUS*	RA150RU	278mm	RA250RU	435mm	RA350RU	535mm	
SPECTUS (security)*	RA150SP	278mm	RA250SP	435mm	RA350SP	535mm	3 Y
JELD WEN	RA150RJ	278mm	RA250RJ	435mm	RA350RJ	535mm	
ARDEN KINWARD	RA150AR	278mm	RA250AR	435mm	RA350AR	535mm	
LB PLASTICS SHEERFRAME	RA150LB	278mm	RA250LB	435mm	RA350LB	535mm	
MITRE-MASTER	RA150TT	278mm	RA250TT	435mm	RA350TT	535mm	
PLASTMO/EUROCELL*	RA150RU	278mm	RA250RU	435mm	RA350RU	535mm	
PLASTMO/EUROCELL (security)*	RA150SP	278mm	RA250SP	435mm	RA350SP	535mm	NOTE:
PLUS PLAN	RA150PP	278mm	RA250PP	435mm	RA350PP	535mm	IF HORNS ARE FITTED,
REHAU 719	RA150RU	278mm	RA250RU	435mm	RA350RU	535mm	DIM A SHOULD INCLUDE
REHAU HERITAGE MK1	RA150RU	278mm	RA250RU	435mm	RA350RU	535mm	THE HORN. (EXCEPT FOR
REHAU HERITAGE MK2	RA150PP	278mm	RA250PP	435mm	RA350PP	535mm	REHAU).
SAPA	RA150GP	278mm	RA250GP	435mm	RA350GP	535mm	,
SAPA DUALSLIDE	RA 150A N	278mm	RA 250A N	435mm	RA350AN	535mm	
SMARTS SYSTEM	RA150RU	278mm	RA250RU	435mm	RA350RU	535mm	
SWISH	RA150PP	278mm	RA250PP	435mm	RA350PP	535mm	
TIMB-A-TILT (with mk3 jamb)	RA150TT	278mm	RA250TT	435mm	RA350TT	535mm	// 9 K
TIMB-A-TILT (with mk4 jamb)	RA 150A N	278mm	RA250AN	435mm	RA350AN	535mm	
VEKA MATRIX	RA150VK	278mm	RA250VK	435mm	RA350VK	535mm	
VEKA MATRIX 2007	RA150VS	278mm	RA250VS	435mm	RA350VS	535mm	
WHSMITH SYSTEM 10	RA 150W H	278mm	RA 250W H	435mm	RA350WH	535mm	

* The RA150SP, RA250SP & RA350SP should be used for Spectus and Plastmo/Eurocell when security jamb packers are used.

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ISSUE LEVEL 14

SASH SHOWN TILTED

OUTER FRAME JAMB

25.00 75.00

OUTER FRAME CILL

UK241 NYLON RING

ALONE.

SOLD SEPARATELY. THE UK241 SHOULD BE USED WHEN LOW HEAD SCREWS ARE USED. IT

ALSO OFFERS AN IMPROVED BUFFER OVER USING SCREWS

RESTRICTOR SIZE

40° - 45°

REF.

THE BAR SHOULD

NOT COME UP TO THE HORIZONTAL

POSITION.

N.B.





LATCH IN LOCKED POSITION



LATCH IN UNLOCKED POSITION



When fitting the tilt latches, ensure that the grooves at the top of the rails are free from wood shavings and the latches are not a tight fit or this will inhibit the operation. Check that the latches do not protrude past the ends of the top rails & fix into position using No6 x 32mm countersunk head woodscrews. DO NOT OVERTIGHTEN.

FITTING TRAVEL STOPS TT220STOP & UK233 WINDOWS WITH EQUAL SASH HEIGHTS Fit UK233 (130mm long) both sides at top of inner channel and UK232 (220mm long) both sides at the bottom ot the outer channel.

WINDOWS WITH UNEQUAL SASH HEIGHTS (Smaller top Sash) Caldwell will supply the lower travel stops cut to the nearest 100mm above the required length. They can be used as supplied or should you wish to gain maximum opening of the top sash they can be cut down as follows:-

After fitting the top sash balances, gently slide the top sash down until resistance is felt. Slide the sash back up 15mm, note the distance between the cill and the underside of the top sash and cut the stop to this length. UK233 should still be used at the head.

WINDOWS WITH SMALLER BOTTOM SASHES Consult Caldwell Hardware.

FITTING SASH LOCK AND KEEP (447LBPL

Ensure that the keep is fitted central to the sash

On sashes over 800mm wide, two sash locks

Fix the sash lock and keep using No6 countersunk head woodscrews.

TRAVEL STOPS ARE FITTED 54mm

DO NOT OPERATE THE WINDOW UNTIL THE UPPER AND LOWER

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SHOWN)

should be used.

lock. NOTE:



When fitting UK793 draught plug, ensure that the bottom sash is tilted forward. Ensure the bottom balance is disconnected from the pivot shoe. Insert UK793 into the MK3 channel below the retracted balance as shown in fig 1 & fig 2.

Once UK793 is inserted into the MK3 channel, slide it up over the balance so that it is just under the tilt latch when the bottom sash is in the closed position, as shown in fig 3. The UK793 draught plug can be inserted directly over the balance without disconnecting the balance. However this may not give the best seal. When this item is installed into the window jamb, it must be taken into account that other items that run in the jamb could come into contact with the draft plug.

In some cases the top travel stop may need to be longer. This draught plug can be used on Ø14 Spiral, Ø17 Ultralift & Ø17 & Ø19 Torso balances. If the draught plug is being used on Ø14 Spiral balances, a PVC-U balance tube is recommended to help seal.

Page 30 of 35

SOLUTIONS THAT SET NEW STANDARDS

Telephone 024 7643 7900 EGRESS TIMBER WINDOW KIT - OVERVIEW

The Caldwell Egress Window solution allows window fabricators to produce smaller windows which will allow them to conform to the clear opening sizes as stated in "The Building Regulations 2010" document covering fire safety. Utilising this system, and fitting the egress components, the bottom sash can be lifted upward and inward so that it becomes clear of the bottom of the top sash leaving a clear opening for egress purposes.

NOTE: The tilting function is purely for fire escape purposes, so should not be used as an everyday function (i.e. it should not be used for increasing ventilation purposes). The arms will need be reset when fully locked out, please refer to DATASHEET-00665 for more information (or see www.caldwell.co.uk/pdf.1817.pdf). Extra care should be taken if cleaning takes place, ensuring the sash is fully supported at all times.

As the system is a safety feature, it should be routinely tested by the user. The maximum lower sash weight to use this system is 20kg.

Caldwell recommend using a "D" handle to safely hold the sash when tilting inwards. This is not included in the kit (UK650 shown).

Tilt Latch cover plates are also available (UK842). These are not included in the kit.

PART NUMBER	EGRESS KIT FOR WINDOW SYSTEM
KP2592	TIMB-A-TILT

For fitting instructions, please see DATASHEET-00658 & DATASHEET-00666. For user information see DATASHEET-00665 (or see www.caldwell.co.uk/pdf.1817.pdf)

To achive a 0.33m² clear opening, it must be at least 450mm in one axis. Therefore the opening dimensions must be at least: 734mm wide / 450mm high

OR 450mm wide / 734mm high

NOTE: If horns are on the window, this should be included in the clear opening calcualtion

EACH KIT CONTAINS:

- 1 x RIGHT HAND EGRESS RESTRICTOR SLIDE 1 x LEFT HAND EGRESS RESTRICTOR SLIDE
- 2 x RESTRICTOR ARMS
- 2 x PIVOT SHOES
- 2 x PIVOT BARS
- 2 x LEFT HAND AND RIGHT HAND TILT LATCHES
- 2 x NYLON TILT LATCH BUTTONS
- 4 x SASH SPACER KITS
- 2 x NYLON RINGS

Note: Spring Balances sold separately. The relevant window sytem order form must be used to calculate (The correct order form must be used - OF364).

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DATASHT-00680

SOLUTIONS THAT SET NEW STANDARDS

TIMB-A-TILT VS BALANCE ORDER FORM

CUS	CUSTOMER DETAILS					0	ORDER No.										
							C	CONTACT:									
	DELIVERY DATE:																
							Т	TEL No. FAX No.									
							F										
					WI	(ND	OW DE	N DETAILS									
W DIMENSIONS REQUIRED DEFINITIONS: A-Under the head onto cill (sash run) B-Height of upper sash excluding horns (if fitted) C-Height of lower sash D-From top of sash to balance fixing position (arch top only) W-Width of sashes					A B A	W W W W W W			NOTE: Sash weights are based on 50mm square profile in softwood unless otherwise stated. For accuracy it is preferable that you provide a fully glazed sash weight. We cannot accept responsibility for goods supplied incorrectly if accurate sash weights have not been provided.								
GEOF	RGIAN BARS (P	LANT ON	TYPE)					YES				NO					
(IF Y	ES- SPECIFY N	O. HORIZO	ONTAL & N	O. VERTIC	al ba	RS)		HORIZONTA	L			VERTI	CAL				
PRE-	TENSIONED BA	ALANCES C	ONLY					YES				NO					
TORS	O BALANCES (ONLY						YES				NO [<u> </u>		
TIMB	ER TYPE						-	SOFTWOOD									
MK3				WHITE			╡──┤	BROWN		<u> </u>			<u>Q</u> D		4		
MK4	JAMB LINER			WHILE		L		BROWN				NUTRE	QD				
REF.	QTY OF WINDOWS	QTY OF DIM DIM DIM "W" "A" "B" WINDOWS (mm) (mm) (mm)		DI °C (m)	DIM DIM "C" "D" (mm) (mm		SIZE OF HORN	GEORG BARS (TICK	iian Gi S Con K) 2		AZING IFIG E.G. GLAZ I-16-4 WEI		ZED S IGHT	ASH (kg)			
														ι	JPPER		
														L	OWER		
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	· · ·		ST		OPF	RA		KIT ACCE	SSORT	ES							
PIVOT BAR KITS - PIVOT SHOES ARE AUTOMATICALLY				STAN RAP	STANDARD PIVOT			SLIDE IN PIVOT BAR KIT			R KIT						
				TCHE	5	WHT	TF			BROWN							
BALANCE TUBES WHITE					$\overline{\Box}$	BRO	BROWN			GREY (NOT SPIRALS)							
BAR RESTRICTORS BOTH LIPPER & LOWER SASH						Ħ	IOW	LOWER SASH ONLY							Ħ		
QUICK RELEASE OPTION FOR BAR RESTRICTORS							YES				10	NO					

ALL OTHER ACCESSORIES CAN BE FOUND ON THE ACCESSORIES ORDER FORM (i.e. SASH LOCKS, SASH LOCK KEEPS & SASH LIFTS) PLEASE CONTACT CALDWELL TECHNICAL FOR MORE INFORMATION.

YES

PLEASE REFER TO DATASHEET 00363 FOR STANDARD WINDOW DIMENSION TERMINOLOGY

THIS ORDER IS ACCEPTED UNDER OUR CURRENT `TERMS & CONDITIONS OF SALE' COPIES AVAILABLE UPON REQUEST.

K:\Technical Services\Order Forms\Systems\Timb-A-Tilt\OF154\Timb-a-Tilt VS Balance Order Form 31.05.13

HEAVY DUTY BAR RESTRICTORS IF REQUIRED?

NO