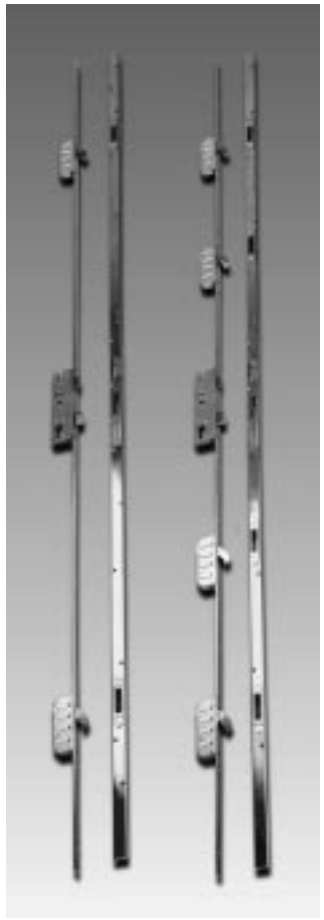
Intelligent Solutions for
Windows and Doors

Winkhaus (UK)

Winkhaus STV High Security Multi-Point Locking Systems
– PVCu Single Residential Doors and French Doors

Installation
Trouble-Shooting Guide



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Symptom	Diagnosis & Solution
1. Sash touches outer frame at the top but not at the bottom (or vice versa)	• **Frame out of plumb** ➢ Check using spirit level to ensure verticals and horizontals are true and accurate • **Check frame by measuring** ➢ Frame length both sides ➢ Frame width same top, bottom and lower edge ➢ Diagonals are equal +/- 2mm
2. Door sash hits/clashes with keeps	• **Check Door sash/frame is square and correct size for frame** ➢ Using tape measure check diagonal dimensions of both sash and frame ➢ Diagonal dimensions should be the same +/- 2mm ➢ Airgap (gap between seating face of keeps and face of lock) should be 12mm +/- 1.5mm ➢ Airgap can be checked by measuring the overlap (The upstand on most systems is 19mm or 20mm so with a 20mm upstand minus the ideal Airgap of 12mm the overlap or cover should be 8mm) ➢ If Airgap incorrect adjust hinges horizontally to compensate ➢ **Check Toeing and Heeling of sealed unit or infill panel** ➢ Check diagonal dimensions and if more than 2mm different re-toeing and heeling will be required ➢ Remove bead using a scraper or blunt chisel ➢ Using glazing packers pack the sealed unit/infill panel tightly in the bottom hinge corner and the top lockstile corner i.e diagonally opposite ➢ This will remove the diagonal distortion and achieve equal diagonal dimensions ➢ **Hinges incorrectly adjusted or fitted** ➢ After checking above points and problem still exists adjust hinges ➢ Adjust to ensure gap between face of lock and the top of the keep adjuster plates is 4mm +/- 2mm
3. Excessive Operating forces	• **Check sash and frame are plumb, square and with correct cover (as per 2. above)** ➢ Check weatherseal is not puckering in corners on both sash and frame ➢ Check sprue has been removed and

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	corners cleaned to ensure weatherseal is seated correctly • **Check to ensure alignment of lock with Centre keep on frame** ➢ The horizontal line below the latch and just below the number 92 on the lock face should coincide with the corresponding line on the Centre keep (or the line on the lock being a maximum of 3mm **ABOVE** the line on the Centre keep) ➢ Check that handle and cylinder routing prep is internally and externally aligned through the Lockstile and not distorted ➢ Check that central gearbox and Hook boxes are flush with the face of the eurogroove (incorrect routing of the Door sash/handle/ cylinder prep can force lock away from the sash eurogroove) ➢ Check Handle fixing screws are not overtightened distorting profile and handle back plate ➢ Check for obstruction by removing lock and then check for accuracy of the routing, build-up of swarf and sprue and interference by reinforcement fixing screws ➢ Remove lock and cylinder and check that swarf/sprue has not entered central gearbox or hook boxes
4. Door sash over compressed	• **Adjust hook pocket adjuster plates to reduce pressure** ➢ Use large flat bladed screwdriver to adjust eccentric cams on keeps (+/- 2mm)
5. Draught /water penetration on Lock side of door	• **Check Airgap/cover as per 2. Above** ➢ Adjust hook pocket adjuster plates to increase weatherseal compression ➢ Check weatherseal seated correctly and undamaged ➢ Refer to Door manufacturers guide to ensure pressure equalisation slots are in the correct location and not blocked with debris
6. Draught /water penetration on hinge side of door	• **Check Airgap/cover as per 2. Above** ➢ Ensure weatherseal gap is consistent over

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	the height of the door over both lock side and hinge side ➢ Check weatherseal seated correctly and undamaged ➢ Adjust by reducing Hinge side compression (refer to Hinge suppliers instructions)
7. Unable to lift handle to fully 45° above horizontal to engage hooks	• **Check lock will operate correctly in the sash open position** ➢ If function correct check that keeps are positioned correctly on outer frame ➢ Ensure the Centre line of the lock corresponds with the line on the Centre keep **(see 2. Above)** ➢ Throw hooks in the sash open position and gently close door so that hooks rest against face of outer frame. Mark position of hooks with a pencil and check visually that hooks are aligned with hook keep pockets ➢ Ensure that there is no gap between the center keep and the top and bottom extension keeps (when a full length keep rail is used) ➢ Check that outer frame is not bowed ➢ If bowed slacken frame fixings and pack accordingly
8. Unable to turn key/thumbturn to deadlock mechanism after hooks have been thrown	• **Check that Lock mechanism can be thrown fully and deadlocked in the sash open position** ➢ If Lock fails to operate check eurogroove, sprue/swarf build-up, routing etc **(As per 2. above)** ➢ Hooks are not being fully thrown to allow for deadlocking ➢ Check keeps, compression ,cover **(As per 2. above)** ➢ Check cylinder retaining screw not overtightened
9. Latch will not retract when operating internal lever	• **If fitted with a Split follower function lock the internal and external handle operation is independent** ➢ With Split follower operation the latch can only be withdrawn from the outside using the key

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	➢ If the latch can be withdrawn externally by the operating pull/lever the handing of the lock is incorrect ➢ Remove Lock from sash ➢ Using small bladed blunt screwdriver insert into small aperture 7mm X 3mm in side plate of central gearbox adjacent to handle spindle ➢ Using screwdriver push black split pin through to the other side of the lock case which changes the handling ➢ Re-install lock ➢ Check handle split spindles are fully engaged in lock with the circlips and springs in place
10. Latch Bolt will not retract fully	➢ Remove handle set and ensure the handle spindle can turn freely in its drilled hole (recommended spindle Hole diameter 20mm)
11. Handle back plate moves excessively when operating lock	➢ Check screws correctly tightened ➢ Remove handle set and check that handle fixing hole bosses are not oversize and more than 10mm
12. Key difficult to insert in cylinder	➢ Check for damage to face of cylinder ➢ Check for damage to end of key or key bent ➢ Apply cylinder manufacturers recommended lubricant to key way ➢ Check that use of incorrect grease/oil has not fouled the cylinder locking pins preventing operation
13. Hook keep adjustment plates will not turn	➢ Ensure adjustment is only carried out with a 7mm wide , flat headed screw driver
14. Door will not latch or rattles	• **Latch keep adjusted incorrectly** ➢ Adjust latch position by slackening the two latch plate adjusting screws in elongated slot ➢ Move latch plate in/out accordingly and re-tighten screws ➢ Adjust using Phillips No. 2 screwdriver and avoid overtightening ➢ If latch plate will not adjust satisfactorily remove Centre keep and ensure sufficient material has been removed to allow for full latch adjustment
15. Door sash clashes with head/cill Shootbolt keeps – French Doors	• **Ensure head/cill is not bowed** ➢ Check using straight edge ➢ Check using tape measure the dimensions

Subject to technical alteration

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	of the vertical inner frame at both the hinge sides and the middle to ensure they are the same ➢ If bowed pack/de-pack accordingly • **Shootbolts not fully retracting (French Door)** ➢ Remove shootbolt extension/s and ensure the location teeth are in the correct position when connected to the lock mechanism. ➢ Check that Lock mechanism fully throws and retracts before re-installation of the Shootbolt extension/s ➢ Ensure the free play on the Shootbolt extension is taken out manually before re-connecting to Lock mechanism ➢ Ensure the Airgap between the Sash and frame is 12mm +/- 1.5mm at the top and bottom
16. French Door lock (main and /or slave) have high operating forces	➢ Remove Shootbolt extension/s and ensure corners of profile are clean and free of sprue/swarf ➢ Check that end cap on top and bottom of dummy mullion is not holding Slave sash off from outer frame ➢ If end cap holding off modify to remove obstruction ➢ Ensure bottom Shootbolt keep pockets are free of dirt, debris or other obstacles preventing Shootbolt fully throwing ➢ Check reinforcement is routed correctly to ensure Shootbolt keep pockets are not distorted ➢ Ensure Shootbolt keeps are parallel to frame edge ➢ Check dummy mullion is fitted correctly to slave sash by ensuring that the sealing face is both tight and consistent throughout the length
17. French Doors sagging in Centre	➢ Check key dimensions **(as per 2. above)** ➢ Fit run-up blocks on bottom of frame beneath both the slave and main door ➢ Position the run-up blocks midway between hinge side and central shootbolt keep ➢ Fit adjustable anti-lift blocks in the head above each door adjacent to the central shootbolt keep