

# LOCKSETS & HANDLES

Designed specifically for Mental Health with patient and staff safety in mind.





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# **TOGETHER WE DESIGN FOR GOOD**

At Safehinge Primera, our purpose is clear:

Together, we design for good. We help to protect people through vulnerable times.

We believe in the greater good; if it doesn't do good, we don't design it. Working together as a team, and with input from clinicians, estates teams, experts by experience and architects, we help to facilitate recovery in mental health inpatient environments.

By developing doorsets that maintain physical safety, uphold privacy and dignity and promote independence and autonomy, we don't simply provide a 'quick fix'. We support people on their journey.



# **OUR ZERO TOLERANCE MINDSET**



90% of inpatient suicides occur in the patient's bedroom or bathroom



91% occur under intermittent observations



51% of ligature-based suicides occur on doors or door hardware

At 51%, doors now represent the single biggest cause of ligature-based suicides in mental health inpatient environments. With this figure rising year on year, we all have to demand more from doors.

Inpatient suicides are not inevitable - especially not on doors. That's why we're asking you to join us in challenging complacency.

Our doorsets are available with the world's first and only full-door ligature alarm, which alerts clinical staff to a ligature attempt via the live status monitoring system - allowing them to act immediately in a situation where seconds are crucial.

### **ELIMINATE**

Our mindset: Why manage risk in areas where you can design it out?

That's why our award-winning en-suite door has no-known ligature points - addresses the biggest unsupervised risk.

### **ALERT**

Smart technology can alert staff quicker with fewer false alarms – protecting clinical resources.

Our intelligent full-door alarm senses ligature attempts across the whole door – not just the outer edges

### OVERCOME

Our collapsible anti-barricade stop and locksets with integrated override ensure staff can overcome even the most determined barricades reliably and quickly – helping to save lives.



Sources: "NCISH: Inpatient suicide under observation", 2021.

# **LOCKSETS AND HANDLES**

Tried, tested and proven, our locksets are all anti-ligature to keep service users safer. They're intuitive to use, making life easier for staff and ensuring quick operation – especially in stressful situations. Plus, they're robust and ideal for retrofitting, keeping maintenance and installation costs to a minimum.

Because it's essential for staff to always have access, we developed the most complete override locking system on an anti-ligature lockset – 5-way SOS (Staff Override System). Our patented mechanisms are designed to overcome barricades of any type – providing peace of mind and saving lives.



### INDEPENDENTLY ANTI-LIGATURE TESTED

Using the Door & Hardware Federation specification TS001, Exova independently test and classify our locksets as anti-ligature hardware, with all of them passing at the highest level in their respective classifications.

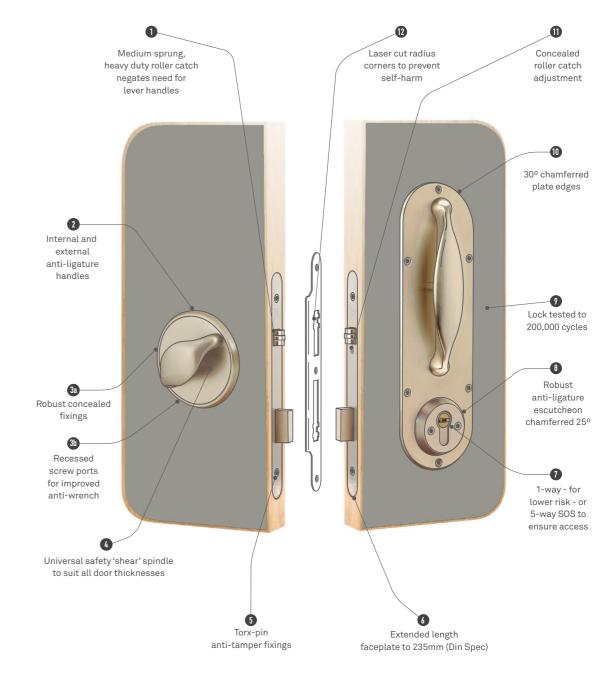
This rigorous, measurable and repeatable testing offers a reliable indicator in any product assessment process.



### DESIGNED TO COUNTERACT ANY BARRICADE

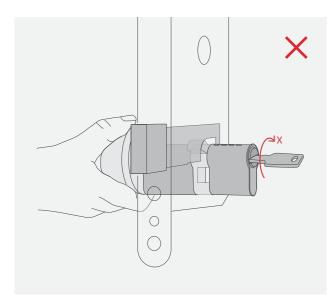
We know that barricades are a reality of inpatient Mental Health environments. That's why we designed our Staff Override System (SOS), with five override methods. So you can always gain access, even if a service user tampers with the lockset or is holding the internal turn/pull.

# **LOCKSET SAFETY FEATURES**



# LIMITATIONS OF EXISTING OVERRIDE SYSTEMS

### **CLUTCH CYLINDERS**

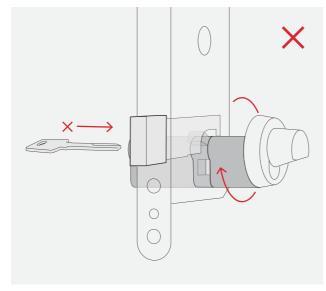


When a service user holds the internal turn/pull to create a barricade, the catch is designed to slip at a higher torque. Operating on a spring and ball-bearing mechanism, the key then turns and unlocks the door.

Over time however, doors move, expand or distort, limiting clutch effectiveness and making entry times longer in stressful situations.

Wear and tear can also cause the clutch to permanently slip – trapping service users inside and causing distress and fire safety issues.

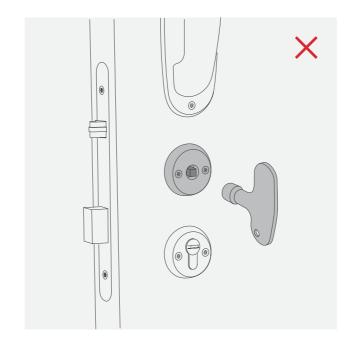
### **GEARED CYLINDERS**



When the key is put into a geared cylinder, it mechanically disengages the internal turn/pull, allowing the door to be opened.

However, service users can easily rotate the turn/pull past its maximum closed position, preventing the key fully engaging. Although the key can eventually be forced home, it can damage the cylinder and the key may snap, causing risk of injury and prolonging the barricade because of a blocked keyway.

Issues also arise in rehabilitation or step-down units, where service users may have their own key. This can be inserted into another service user's lock, disengaging the turn/pull and locking them inside, resulting in anxiety, disruption and fire safety risks.



### **SQUARE DRIVE OVERRIDE**

Square drive mechanisms are sometimes used on anti-barricade locksets to unlock the door when the keyway is blocked. However, the small square drive key doesn't always provide enough turn leverage—allowing a strong service user to prolong a barricade by tightly holding or wedging the turn/pull.

Because the square drive key simply pulls out, it provides no pull advantage or improved grip to open a door outwards.

Plus, the insecure square mechanism can easily be rotated – with two spoons, for example – minimising security and creating privacy concerns. Circular shaped mechanisms can reduce this particular risk.

### GOODBYE 'PRIMARY' AND 'SECONDARY' OVERRIDE

Barricade override locksets have traditionally been referred to in terms of primary and secondary — but customers tell us they just want to know they can get access when they need it. That's why we've created a complete Staff Override System (SOS) which addresses the limitations of existing override mechanisms. It provides a simple override for day-to-day situations, with the backup of multiple emergency override methods for worst-case scenarios.

# INTRODUCING THE STAFF OVERRIDE SYSTEM (SOS)

Our Staff Override System gives staff confidence they can overcome barricades – whether that's a simple barricade where a service users is holding the turn turn/pull, or a more determined attempt.

Available in two versions, 1-way SOS (formerly 'primary override') and 5-way SOS (formerly 'secondary override'), both use the same patented technology to overcome simple barricades – the key overrides the turn/pull.

### **OVERRIDE METHODS**

1 KEY

With two independent spindles, the lock and the internal turn/pull operate independently, so the key always dominates. It's a direct mechanical override, so there's no geared cylinder to disengage the turn/pull or clutch mechanism involved.

Concealed backup override bypasses the keyway, allowing you to directly turn the spindle and unlock the door if keyway is blocked with foreign objects, like chewing gum or paper.

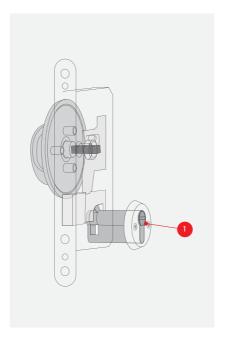
T-bar emergency tool provides superior leverage to rotate the turn/pull, even if the service user has more physical strength.

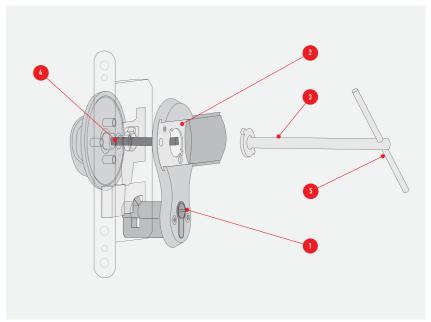
Spindle shears under heavy resistance, ensuring entry if turn/pull is immobilised. So even in the most serious barricade attempts, where the service user attempts to jam the turn/pull with their bed or body, swift access is achieved without lockcase damage.

T-bar provides significant power advantage to pull the door open – offering better grip than an anti-ligature handle and foiling attempts by a service user to hold the door shut.

### 1-WAY SOS

5-WAY SOS





### LOCKSET OVERRIDE COMPARISON

OVERRIDE METHOD	5-WAY SOS	1-WAY SOS	CLUTCH / Geared Cylinder	ROLLER-BOLT (Square override)	AUTO-LOCKING
1 Key	<b>✓</b>	✓	<b>√</b> -	✓	✓
2 Keyway	<b>✓</b>			✓	✓
Turn leverage	<b>✓</b>				✓
4 Spindle	<b>✓</b>				✓
Pull advantage	<b>✓</b>				

# **OVERCOMING SIMPLE BARRICADES**

With either our 1-way SOS or 5-way SOS locksets, the majority of barricades are easily resolved by staff operating the lock with their key – ending potentially stressful situations quickly, safely and without damage.



Our patented direct mechanical override system prevents service users from holding the internal turn/pull to create a barricade – because the key always has priority.

Because this turn/pull operates independently from the key, it removes the need for a clutch cylinder, which can slip under side pressure. It also means that a geared cylinder, which can be manipulated by over-rotating the turn/pull, is no longer required.



Modern twin-engined jet planes are meticulously maintained, yet on rare occasions an engine can fail. When that happens, there's always a back-up plan to ensure the plane can land safely using the remaining engine. It's an invaluable alternative that ultimately saves lives.

Our 5-way SOS embodies the same principle. So the various override methods might be rarely used, but if the unthinkable happens, they're still there as back-up. Especially when used with our electronic locks, which minimise tampering to overcome barricade attempts in just five seconds\*.

It means that if a determined service user has stopped the key override working, the additional options quickly come into their own – and could be the difference between life and death.

\* Using Safehinge Primera's collapsible anti-barricade stop.

# **OVERCOMING DETERMINED BARRICADES**

Designed to provide complete peace of mind, our 5-way SOS locksets provide multiple ways to overcome even the most determined barricade attempt.

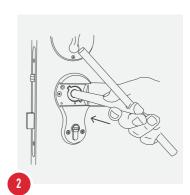
While these situations are rare, clinical staff know they are properly prepared to keep service users safe in their care.

### **EMERGENCY OVERRIDE PROCEDURE**



Remove the single anti-tamper screw and slide the cover plate to reveal the spindle.

Note: On electronic locks there are two anti-tamper screws.



Slide the emergency tool over the spindle until it stops.



Rotate the emergency tool clockwise to unlock the door.



The T-bar can also be used to pull the door outwards, overcoming resistance by the service user.



# **ELECTRONIC LOCKSET**

Unlocking Independence: Our Locks, Your System, No Compromise.

The Electronic Lockset designed for mental health bedrooms offers the efficiency of electronic locking while ensuring safe access in just 2 seconds, even during power outages or determined barricades. It seamlessly integrates with your preferred access control system, including Paxton - as used by most NHS Trusts - for a unified, time-saving solution.

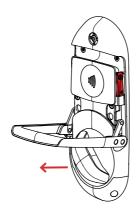
### **OPERATION OF THE INTEGRATED OVERRIDE SYSTEM**







Once activated, the emergency lever will automatically eject. You then push down on the lever to the horizontal position to unlock the door



Use the emergency lever to pull the door open



### **ELECTRONIC LOCKSET**

Reduces restrictive practices in line with Care Quality Commission (CQC) guidance

- Promotes patient independence and helps to facilitate recovery
- Built-in emergency override ensures staff can overcome the most determined barricades in 2 seconds using lifeline key - no toolkit required
- One staff access card operates any number of doors
- Lock can be operated with an access card, key fob or wristband

# 5-WAY STAFF OVERRIDE SYSTEM (SOS) PR-3S

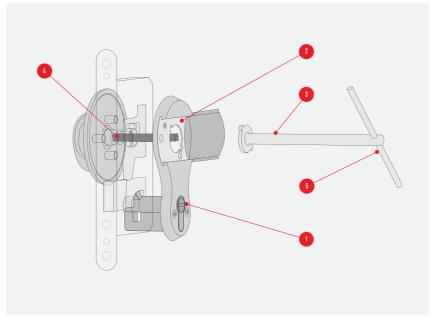
The most complete override locking system on an anti-ligature lockset, our 5-way SOS lockset provides five override methods to ensure you gain access – regardless of keyway damage or tampering.

### STANDARD KEYWAY



Ideal for master key systems, 5-way SOS locksets can be provided for use with standard euro-cylinders.

### **FIVE OVERRIDE METHODS**



In the most common barricade scenario, the staff key dominates the internal turn/pull, ending the barricade quickly and simply.

It also contains additional emergency override methods to overcome determined barricades. We hope you rarely use them, but when you do, they might just save a life.

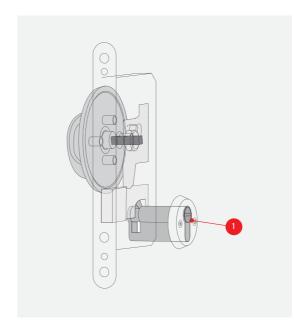


# 1-WAY STAFF OVERRIDE SYSTEM (SOS) PR-1

Suitable for low-risk doors where tampering is unlikely, these locksets provide just one override method – key override. The patented direct mechanical override means the key and turn/pull operate independently – allowing staff to unlock the door, even if a service user holds the turn/pull.

It addresses the limitations of 'primary' override systems, like clutch cylinders – which are susceptible to wear and tear and can malfunction, trapping service users in their rooms, and geared cylinders – which rely on a key to disengage the internal turn/pull and can be over-rotated to delay access to the room.

### **ONE KEY OVERRIDE**



With two independent spindles, the lock and the internal turn/pull operate independently, so the key always dominates. It's a direct mechanical override, so there's no geared cylinder to disengage the turn/pull or clutch mechanism involved.

# CHESHIRE AND WIRRAL PARTNERSHIP NHS FOUNDATION TRUST



Designed by Gilling Dod Architects, Ancora House is an award-winning 30-bed CAMHS unit built round an aluminium curtain wall structure. The en-suite rooms needed simple, practical and safe anti-ligature locksets that were also consistent with window and door handles. The solution was Safehinge Primera's 1-way SOS and standard pull handles. Safehinge Primera's 5-way SOS locksets and handles were also fitted elsewhere throughout the two-storey facility.



# **SPECIFYING MECHANICAL LOCKSETS**

Designed to save lives, our products are independently tested to TS001, passing at the highest level in their respective categories.

### MECHANICAL LOCK PRODUCT CODES

### Override Type

PR-3S 5-way SOS (Staff Override System)
PR-1 1-way SOS (Staff Override System)

### Application

- Service Riser LockBedroom Lock
- 56 Indicator Lock
- 66 Automatic Night-latch (Key/Turn)
- **76** Ensuite Lock
- 76X Service Riser Lock (1 Pull Only)86 Automatic Night-latch (Key/Key)
- Communal Lock

### Handle Type

- 7" Pinch Grip Radius Flat Plate
  7" Pinch Grip Square Flat Plate
- 7" Pinch Grip 1 Piece Plate
- 729G 7" Pinch Grip Slimline Shaped Flat Plate 731A Recessed Grab - Radius Flat Plate
- 731C Recessed Grab 1 Piece Plate
  731F Recessed Grab Recessed Dish
- 732H\* Suregrip Pull Invisible Plate
   732A Suregrip Pull Radius Flat Plate
   732C Suregrip Pull 1 Piece Plate

### Additional 5-way SOS only options

- 729AEP 7" Pinch Grip Radius Escutcheon Plate 731AEP Recessed Grab - Radius Escutcheon Plate 731FEP Recessed Grab - Recessed Dish
- Recessed Grab Recessed Dis

R-1 4

46

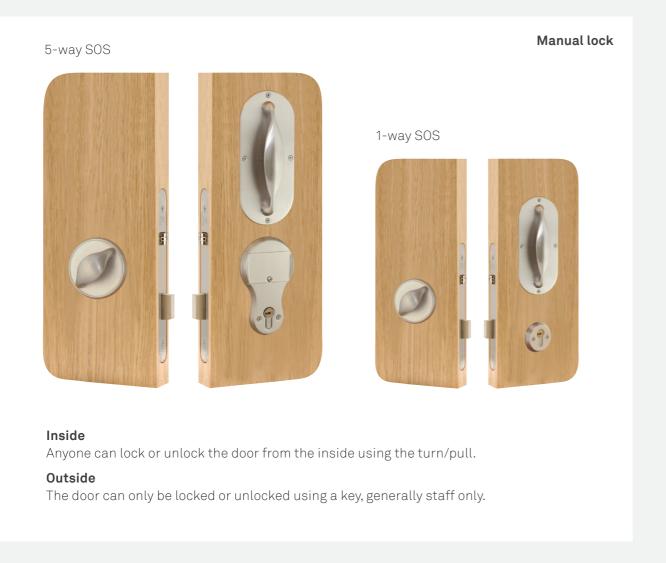
729A

 Cannot be used in combination with PR-1-46, PR-1-56, PR-1-66 All Safehinge
Primera's locksets
are identified
by simple to
understand
product codes
that indicate the
override type, the
application, the
handle type and
the finish.

# MECHANICAL LOCKING OPTIONS

All locks have keys on the corridor side. With the exception of the service riser lockset (16), all are available as 5-way or 1-way SOS locksets.

### 46 — Bedroom

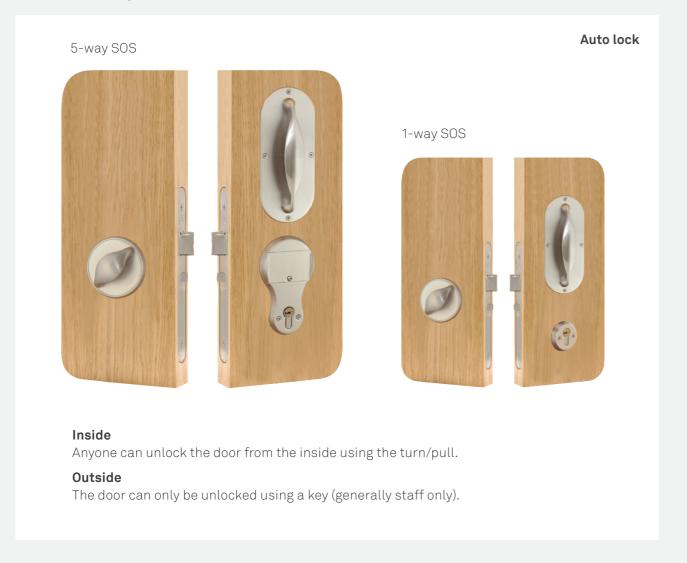




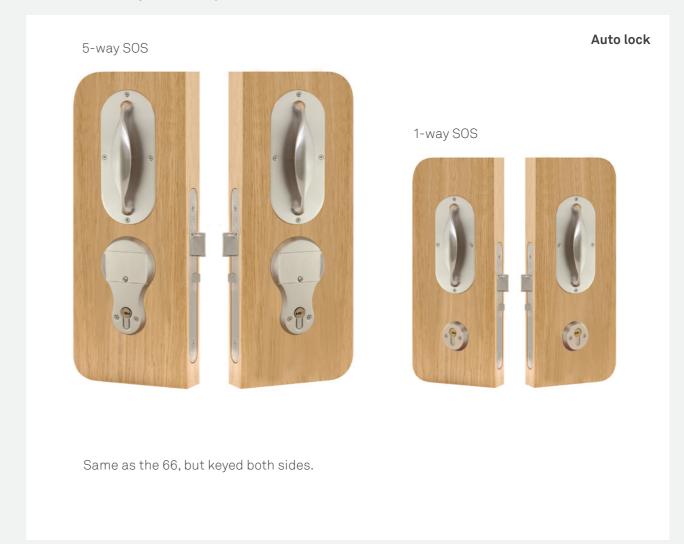
### 56 — Indicator



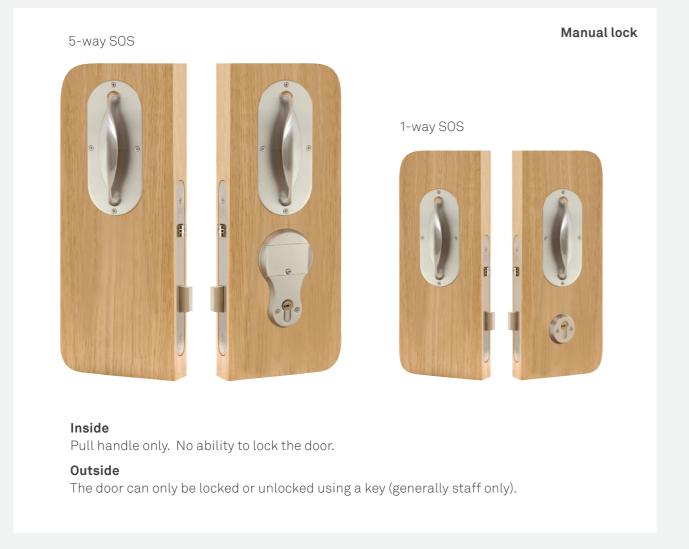
### 66 — Automatic night latch (handle inside)



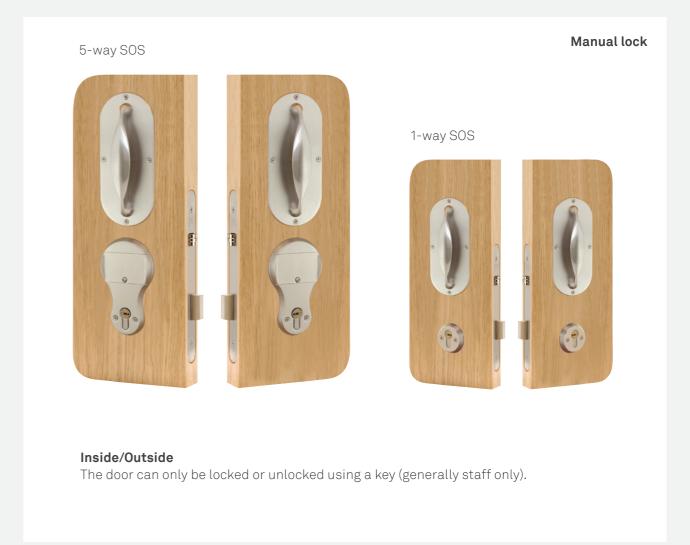
### 86 — Automatic night latch (keyed both)



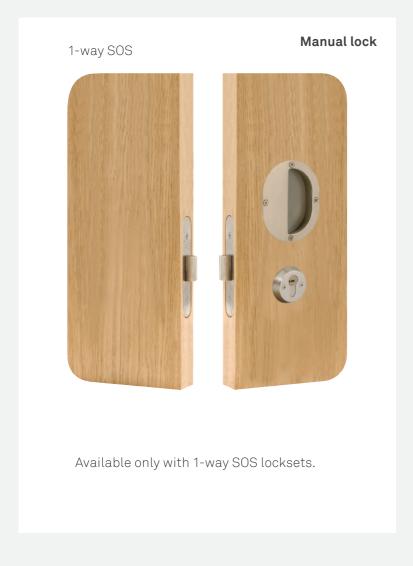
### 76 — En-suite



### 96 — Communal



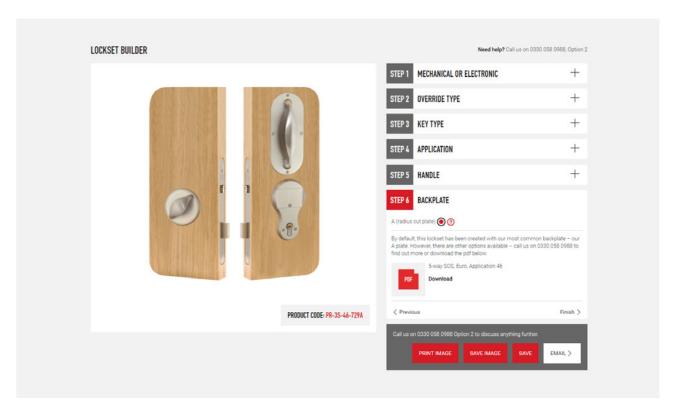
### 16 — Service riser



# **LOCKSET BUILDER**

Locksets provide vital room access – with the right lockset and handle combination keeping service users safer and enabling clinical teams to perform their roles effectively. 5-way SOS locksets are recommended for bedroom areas, while 1-way SOS locksets are for low-risk doors, staff-only doors or to provide a lock-off function.

To help simplify lockset selection for your project, we created an interactive lockset builder that allows you to select the right lockset, save the details and share it with colleagues and partners for approval purposes.







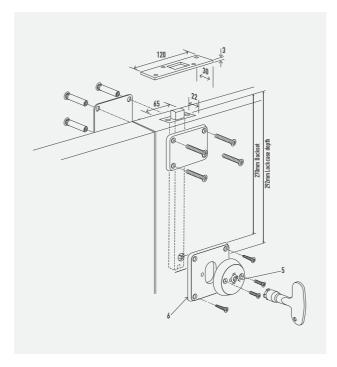
# SECONDARY-LEAF LOCKING Rhino

Secondary-leafs are installed where extra-wide leaf doors can't be used. For normal traffic, only the main section of the door is used, with the slave-leaf unlocked only when a wider aperture is required. However, this presents a weak point in a door's security and is vulnerable to abuse, which can damage the small leaf. Our secondary-leaf bolt offers a robust solution.

- ✓ Lifeline closed keyway to minimise tampering
- ✓ Lowers the keyway and brings it within convenient reach
- ✓ Release secondary-leaf with a quarter turn
- ✓ Anti-tamper fittings
- ✓ Easy-clean floor sockets available

### RHINO BOLT

PR-6304-RB-RK-LL



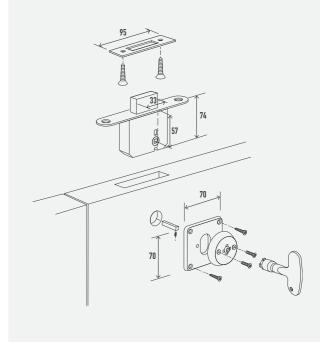
Designed for the most extreme environments, the Rhino Bolt's extended mortice lock bolt secures the secondary-leaf to the door frame. Steel deadbolts, high-impact strike plates, bolt-through reinforcing plates and anti-tamper fixings are also used.

It also lowers the keyway and brings it within easy reach.

Plus the 3mm reinforcing plates and back-to-back fixings provides higher impact protection to protect the lock mechanism.

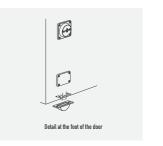
### **RHINO JUNIOR BOLT**

PR-6308-BR-LL



When securing secondary-leaf doors is a priority over impact resistance, the Junior Rhino is suitable.

The mortice lock is located at the top or bottom edge – or both – and locks the secondary-leaf to the floor or door frame. Plus no specialist equipment is required, making it convenient to retrofit onsite.





# **CASE STUDY**

## FITZROY HOUSE, ST ANDREW'S HEALTHCARE (CAMHS)



Opened in Northampton in January 2017, FitzRoy House was purpose-built to provide residential care for up to 110 children and adolescents on 11 wards. An entirely new build, it was designed with people in mind, setting new standards for Mental Health with an emphasis on welcoming, friendly and nurturing environments.

The medium-secure unit cares for a diverse range of needs, and is home to some of the UK's most complex Mental Health needs. Creating a safe and secure environment was, therefore, a priority – with a homely, welcoming feel also vital.

With such a delicate balance between aesthetics, safety and security, the designers looked to Safehinge Primera's 5-way SOS (Staff Override System). Combining multiple override functions, it gives staff peace of mind, knowing they have permanent access to rooms, regardless of keyway damage or tampering.

The result? Staff can protect the vulnerable young people in their care, yet still address the challenging realities of inpatient Mental Health environments.

# **ANTI-LIGATURE HANDLES**

- ✓ Anti-ligature (DHF TS001)
- ✓ Robust

- ✓ Anti-tamper fixings
- ✓ Anti-wrench (specifically the Pinch Grip and Turn/Pull)

Robust and anti-ligature, our handles are tried, tested and proven in the Mental Health environment. They're also designed for service users with different needs and varying levels of strength and manual dexterity.

With no formal British Standards for anti-ligature products, the Door & Hardware Federation drew up a method of classifying products – specification TS001 – that has been adopted by the Guild of Architectural Ironmongers to assess ligature risk.

We use this specification to independently test all our handles – and they pass at the highest levels. For example, our Grab, Pinch Grip and Turn/Pull handles, designed for higher risk environments, achieved A4 status. And our Oryx handles, which make door opening easier but are less ligature resistant, achieved B4 status.

The laser-cut back-plates minimise the potential for self-harm or injury to staff, and mean our handles are robust. With anti-tamper fixings, rounded corners and chamfered edged back-plates, they're also designed to withstand everyday use in potentially abusive environments. Plus, they're corrosion-resistant, so they can be used internally or externally – providing a consistent look throughout the unit and making surroundings familiar for service users.

### INDEPENDENTLY ANTI-LIGATURE TESTED

We've proved that our fixed door hardware won't support ligature attachments with a 0.475kg load on a 0.5mm ligature. Our handles pass at the highest levels.



Passed multi-directional ligature tests.



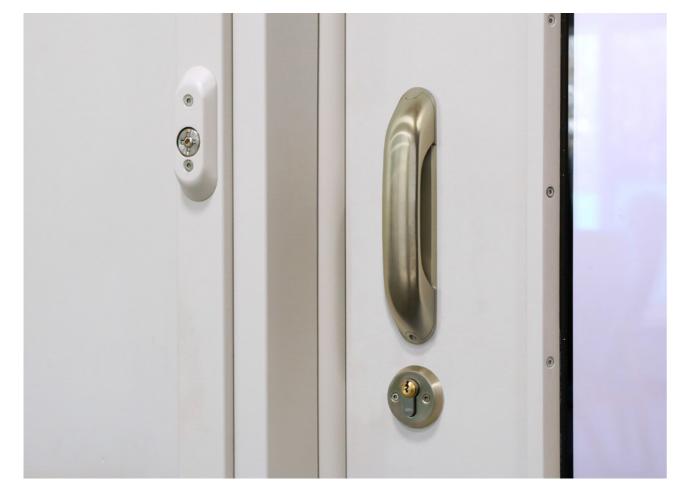
Passed vertical (downwards) ligature tests. Suitable for use in lower-risk environments.



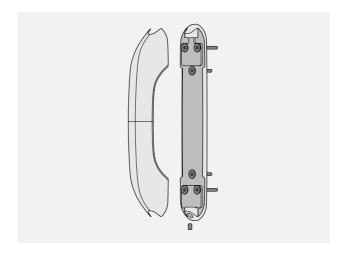
# NEW SUREGRIP (732)

Robust handle with twice the grip and no visible fixings

With input from more than 40 groups and individuals – from clinical staff and architects to estates teams and service users – our new set of anti-ligature handles have a modern, contemporary aesthetic, without losing the robustness and durability of our existing market-leading options.

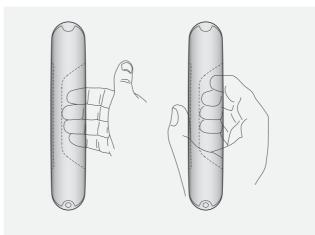


# **PULL HANDLE DETAILS**



### INVISIBLE BACK-PLATE

You asked us to remove or reduce the impact of the metal back-plate on our handles, whilst retaining the robustness of fixing. Many handles in Mental Health have a large back-plate for durability and ease of fitting – we've incorporated both into our invisible back-plate. So, the handle's sturdy, but it looks less institutional.



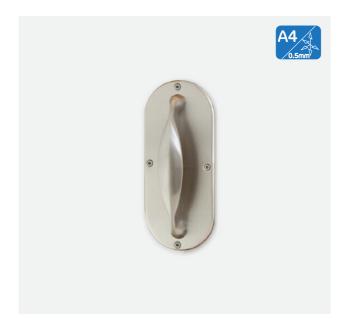
### TWICE THE GRIP

Clinical staff and service users told us they wanted a new handle that offered better grip than existing pull handles, ensuring comfort and practicality on a day-to-day basis.

Regardless of your dominant hand, the hand you use to open a door depends on its swing direction. That's why our handles are handed – providing a more natural grip when pulling the door open. For convenience, they can simply be rotated 180° to change the handing.



### PINCH GRIP (729)



Our most popular handle is engineered to be highly ligature resistant, and is typically used where manual dexterity is not the primary concern.

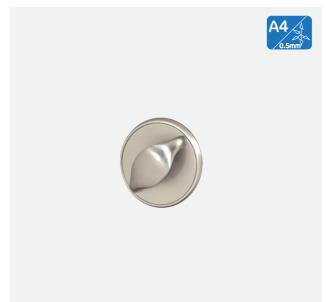
For aluminium doors, there's narrower options for applications where space is limited. And there are wider back-plate options designed for concealing previous door preparation.

### **GRAB (731)**



With the same form and function as a round bar handle, the inside is easier to operate than the Pinch Grip, but still with high ligature resistance. It has a low projection and smooth curvature to minimise the risk of self-harm. Available on a flat or recessed back-plate.

### TURN/PULL (728)



Robust and with no visible fixings, the turn/pull is commonly used on the inside of bedroom doors. It can also be used to operate the lock, allowing service users to create their own private space, with the staff-key still unlocking the door from the corridor.

### ORYX LEVER (724LP)



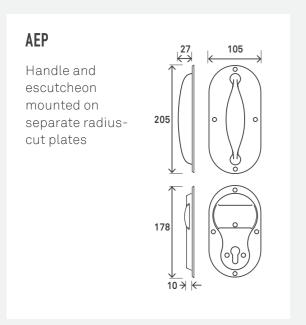
Designed in response to the needs of the ageing population, the Oryx makes door opening easier for those with poor grip or hand co-ordination. Ideal for the infirm or elderly, it looks more like a normal lever handle, so is easily recognised by dementia patients, and is based on the same footprint as turn/pull handles, using 38mm or 70mm bolt-through fixings.

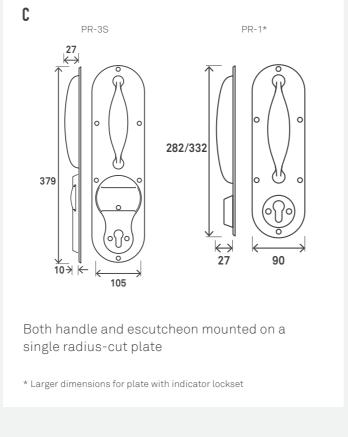


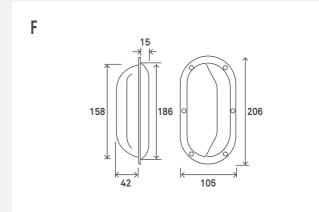
# HANDLE BACK-PLATE OPTIONS

All handle options are compatible with 5-way SOS (PR-3S) locksets. F is not compatible with 1-way SOS (PR-1).

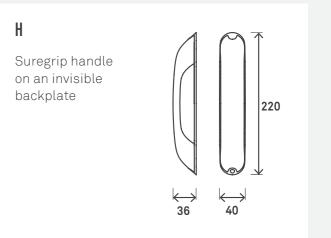
# Handle (only) mounted on a radius-cut plate 205







For Grab, handle only, set inside a recessed dish and escutcheon mounted on a separate radius-cut plate



HANDLE BACK-PLATE OPTIONS
www.shp.help/backplates

# **GET IN TOUCH**

Our customer service and specification teams can help with any queries about our locksets and handles. However you choose to get in touch, we're happy to help.

Because we're experienced in Mental Health environments, our team welcomes the chance to discuss any challenges you might be facing, so we can set to work solving them.

Covering the whole of the UK, we'd be pleased to drop by and introduce you to Safehinge Primera, explain our products in detail, demonstrate mobile samples and listen to your requirements.

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