User Manual

VingCard Signature RFID

ASSA ABLOY Hospitality

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FCC/IC statements

FCC (Federal Communications Commission) statements for LCU

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference; in which case, correction of the interference is at the user's expense.

Important: **Changes or modifications to an intentional or unintentional radiator not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

The LCU must be labeled to say 'FCC ID: Y7V-LCU6334' or 'FCC ID: Y7V-LCU6333', depending on which LCU (*lock controller unit*) that is applicable.

ISED (IC) statements for LCU

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The LCU is labeled 'IC:9514A-LCU6334' or 'IC:9514A-LCU6333', depending on which LCU (*lock controller unit*) that is applicable.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

Le terme "IC" devant le numéro de certification signifie seulement que les specifications techniques Industrie Canada ont été respectées.

1. Introduction

The purpose of this document is to give the distributors of *VingCard Signature RFID* locks sufficient information to install and support this type of lock.
This document covers the following *VingCard Signature RFID* variants:

- RFID for *Visionline*
- RFID for *VingCard Vision*

Where nothing else is stated, the information in this manual is common for all the above variants. All dimensions (where applicable) are given in mm and inches.

Note: For older types of *VingCard Signature RFID* locks, see *User manual VingCard Signature RFID (older platforms)*. For *VingCard Signature* locks of types combo and magstripe, see *User manual VingCard Signature (combo and magstripe)*.

Important: LCU 6334 (*lock controller unit*) contains *Visionline* lock firmware at delivery. If instead *VingCard Vision* is applicable, a *Fail Safe Programming card* encoded in *VingCard Vision* must be presented to the lock before first initialization. The swap is performed by reading *VingCard Vision* firmware from the EEPROM and then overwriting *Visionline* firmware in the LCU. For LCU 6333, see Appendix F.

Note: This document gives some basic information about cylinder installation, but for details about recoding cylinders etc, see the document *Classic/Signature/ Essence cylinder option*.

Appendix G in this manual contains a summary of the tips, important notes and cautions from the different sections of this manual. It can be used as an overview and a reference for different phases of *VingCard Signature RFID* installation, from site survey to completion.

Important note for Visionline: If the power is lost too long (typically around 1 minute but it can also be shorter, especially for online locks), there will be a *soft reset* of the lock. If a soft reset has occurred, the following measures must be taken:

- the time must be reprogrammed into the lock
- if any of the functions stand open (set by card) and/or privacy were used, they must be set in the lock again

If the RFID LCU is activated during the power loss, using any card or operating the lock in any other way, the clock may also reset.

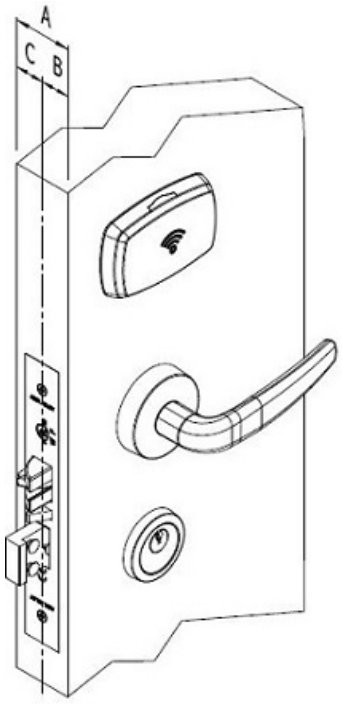
2. Site survey

Before any order is placed, a site survey must be performed. Details that are determined during the site survey are e.g.

- length of screws, pins and cylinders
- opening direction
- lock case type
- lock case dimensions
- striker plate
- cover plates; where applicable

A thorough and accurate site survey for every door is absolutely essential for the successful execution of the order and the installation itself. Appendix B contains a form where site survey notes can be filled in.

2.1 Door dimensions



- The A-dimension is the entire door thickness.
- The B-dimension is the dimension from the outside door edge to the center of the lock case.
- The C-dimension is the dimension from the inside door edge to the center of the lock case.

Figure 1: A-, B- and C-dimensions

The A-, B- and C-dimensions are important to know when ordering *VingCard Signature RFID* or certain parts for it. See Appendix A: Part dimensions table for detailed information about length of screws, spindles etc according to the A-, B- and C-dimensions.

Important: Always make the A- and B-dimensions without calculating for any cover plates or spacers. Also check if it is a wooden door or a steel door. This will decide what kind of tools you will need for the installation.

Minimum door thickness without spacers and cover plates:

	A-Dimension	B-Dimension
All ANSI types	38 mm; 1.50"	16 mm; 0.63"
All EURO types	38 mm; 1.50"	16 mm; 0.63"

Table 1: Minimum door dimensions

Tip: A special 6 mm (0.24") spacer under the battery cover can be used on the inside of the doors that are less than 40 mm (1.57") thick. The A-dimension must be minimum 34 mm (1.34"). **Note that the spacer is 2 mm (0.079") wider and higher than the battery cover and RFID LCU.**

Maximum door thickness (including cover plates):

	A-Dimension	B-Dimension
All ANSI types	129 mm; 5.087"	56 mm; 2.205"

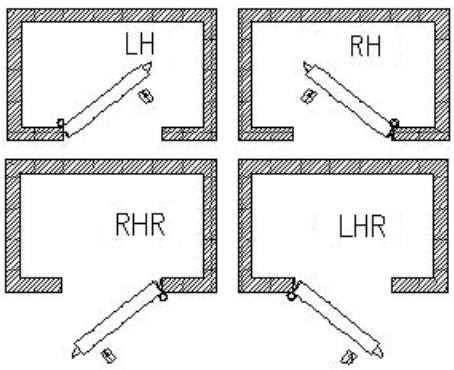
Table 2: Maximum door dimensions

2.2 Door handing

Always make sure to have the correct handing on all the doors.

Left hand door (LH or LHR, see details in Figure 2):
- to open the door, the handle is pressed to the left of the rose with the left hand
- the door hinges are on your left side

Right hand door (RH or RHR, see details in Figure 2):
- to open the door, the handle is pressed to the right of the rose with the right hand
- the door hinges are on your right side



LH = left handle

RH = right handle

RHR = right handle, retract

LHR = left handle, retract

Figure 2: Door handing (the naming in the picture refers to the outside of the door; a door which is LH on the outside is RH on the inside etc)

2.3 Type of lock case to be ordered (EURO/ANSI)

Always take the A-dimension in account for the type of lock case to be ordered. Find out which standard (ANSI or EURO) that applies for the property. If the door already has a cut-out, check if the width and shape of the lock front fit any of the standard ANSI or EURO lock front dimensions.

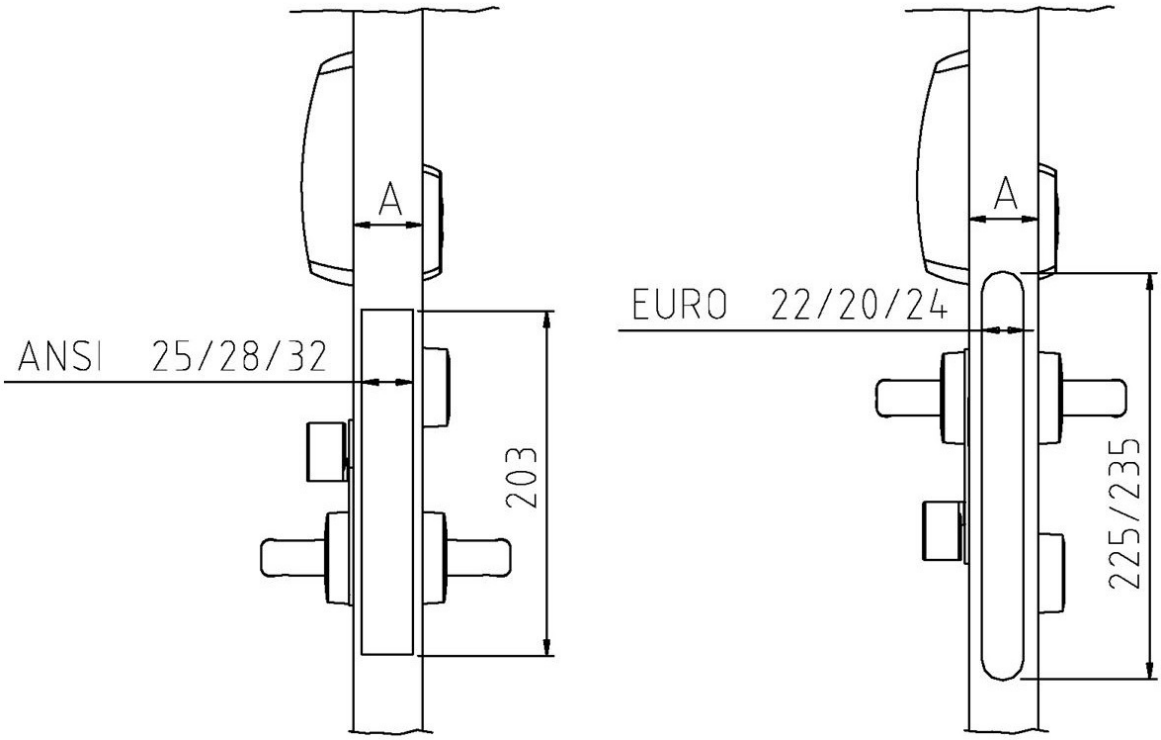


Figure 3: Lock case types and their dimensions

2.3.1 ANSI lock case orientation

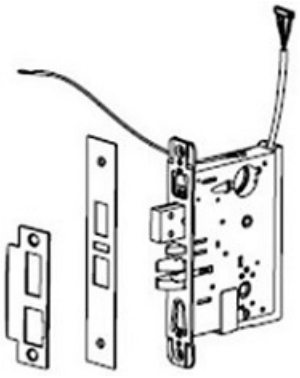


Figure 4: ANSI (DA) lock case;
*DA = the **D**ead-bolt is **A**bove the latch*

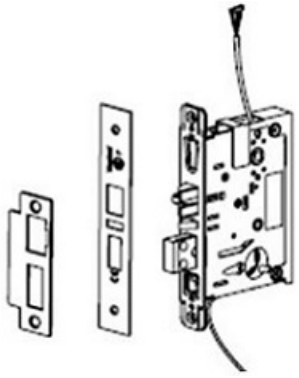


Figure 5: ANSI (DB) lock case;
*DB = the **D**ead-bolt is **B**elow the latch*

2.4 Dimension requirements

Check the following dimension requirements (see notes 1-4 in Figure 6 on next page):

1. The gap between lock front and striker plate must not exceed 3 mm; 0.118".

2. For all types of ANSI lock cases, allow at least 25.4 mm (1") depth behind the striker plate hole for the deadbolt. (Except ANSI AUS = 0 mm and ANSI JPN = 21 mm). Allow 21 mm for EURO lock cases.

3. For all types of ANSI lock cases, allow at least 19 mm (0.748") depth behind the striker plate hole for the latch. Allow 14 mm for EURO lock cases.

4. Make sure that the lock case, RFID LCU, door handles, cylinder and battery cover do not get in conflict with i.e. glass windows or ornaments/decor on the door. For steel doors, be aware of the internal structure of the door such as steel frames, etc.

If needed, the RFID LCU on the outside and battery cover on the inside can be moved 30 mm (1.181") upwards to avoid conflict, e.g. an internal steel frame in a steel door. The dimension 191 mm (7.519") in the left part of Figure 6 can therefore vary up to 221 mm (8.701").

Note: Cut-out drawings are listed in section 3.1. There is also a paper template available; see Figure 13.

Tip: The mortise jig for steel doors (see the chapter To mortise the door) allows elevating the RFID LCU on the outside and battery cover on the inside 0-30 mm (0-1.18") upwards. This may be useful in cases of conflict, e.g. an internal steel frame in a steel door.

Note: **If you use cover plates, any deviations here will affect the cover plate dimensions as well.**

Tip: In cases of conflict, consider a wall-mounted remote controller as an alternative.

Important: The hole for the cylinder is optional and is only to be cut out for locks equipped with cylinders and only from the outside of the door to the center of the lock case; i.e. not through the entire door.

Important: If you are going to install the security cylinder Hydra, remember to make space for the *cylinder fastening clip* (available in different variants for ANSI and EURO) when making the cut-out for the lock case. See the document *Classic/ Signature/Essence cylinder option* for more details about cylinders.

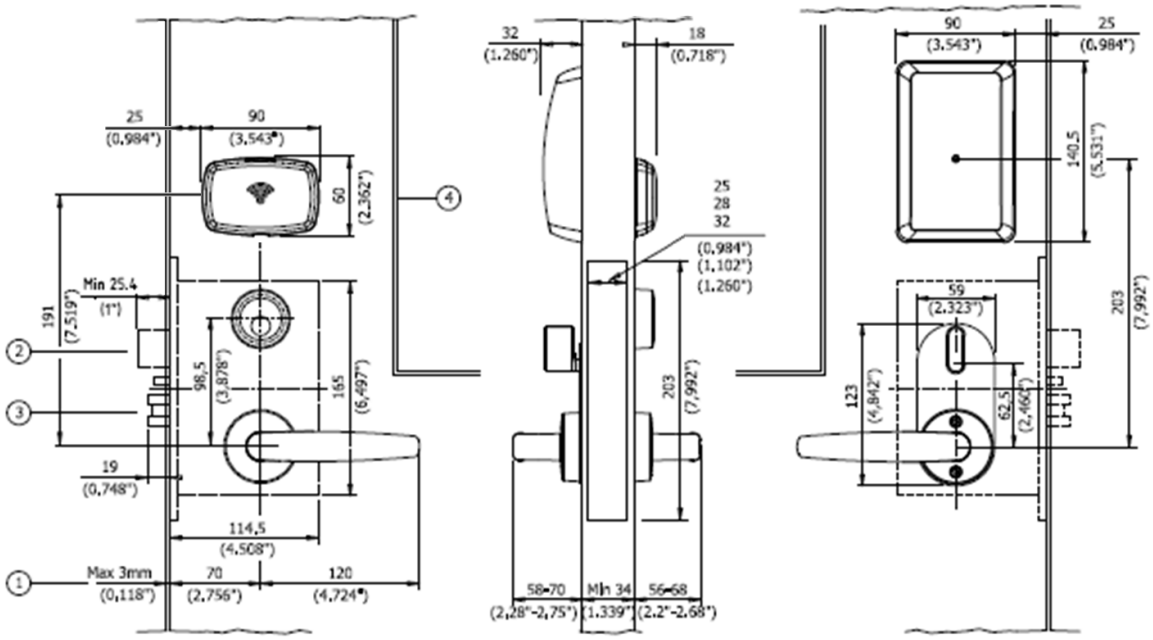


Figure 6: Main dimensions for VingCard Signature RFID; ANSI (DA) lock case and cylinder

2.5 Cover plates

Consider the necessity of cover plates in order to cover previous cut-out or paint lines. The following standard cover plates are available with and without cylinder:

- ANSI (DA) Trend
- ANSI (DB) Trend
- EURO Trend

	Height	**Width**	**Thickness**
Outside	267,5 mm; 10.53"	90 mm; 3.54"	1 mm; 0.39"
Inside	328,5 mm; 12.93"	90 mm; 3.54"	1 mm; 0.39"
Table 3: External dimensions for Trend cover plates			

Important: Make sure that the cover plate does not protrude to a door area covered by the door frame.

2.6 To check the door frames/striker plates

- Check if you can use ANSI or EURO standard striker plate or if you need to order a customized striker plate.
- Check if the door frame is a wooden frame or steel frame. This will decide what kind of tools you will need for the installation.

The lock case and the striker plate dimensions in Figure 7 show the lock case center line (CL); see dot and dash line through the picture. The CL is important for the positioning of the lock case, striker plate and RFID LCU onto the doors.

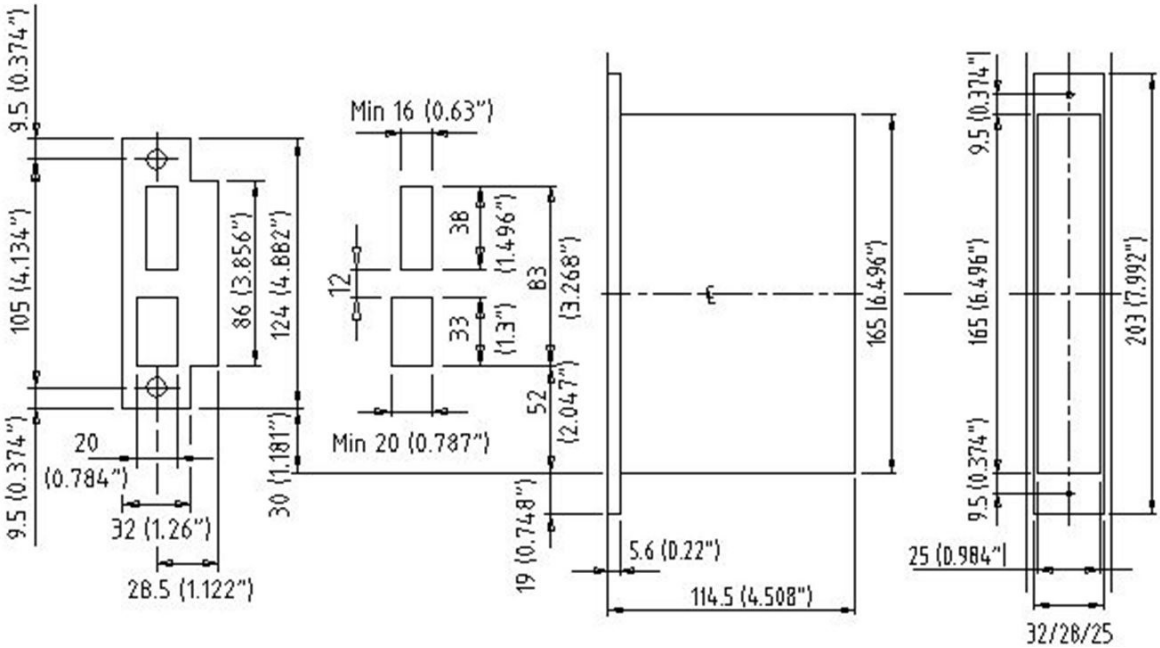


Figure 7: Positioning of ANSI (DA) Standard striker plate. ***Note****: The dimension 30 mm (1.181") from the edge of the lock case to the edge of the striker plate.*

The ANSI standard striker plate is positioned in the frame so that the bottom of the striker plate is 30 mm (1.181") above the bottom of the lock case; see Figure 7. Horizontally, the B- or C-dimension (see Figure 1) will apply depending on the direction of the door and the center/rebate orientation. ***Tip:*** Be aware if there is any door gasket.

2.7 Beveled doors

If the door is beveled (edge is not at 90º to door), the dimensions should be based on the shortest side. Standard beveling is 3.2 mm; 1/8 ".

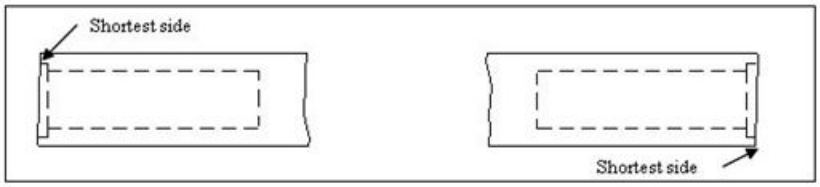


Figure 8

2.8 Rebated doors

When it comes to rebated doors and rebated frames, be extra observant regarding:

- distance between door edge and RFID LCU on the outside/battery cover on the inside.
- total dimensions between door edge and RFID LCU on the outside/battery cover on the inside.
- protrusion for the deadbolt on the frame side.

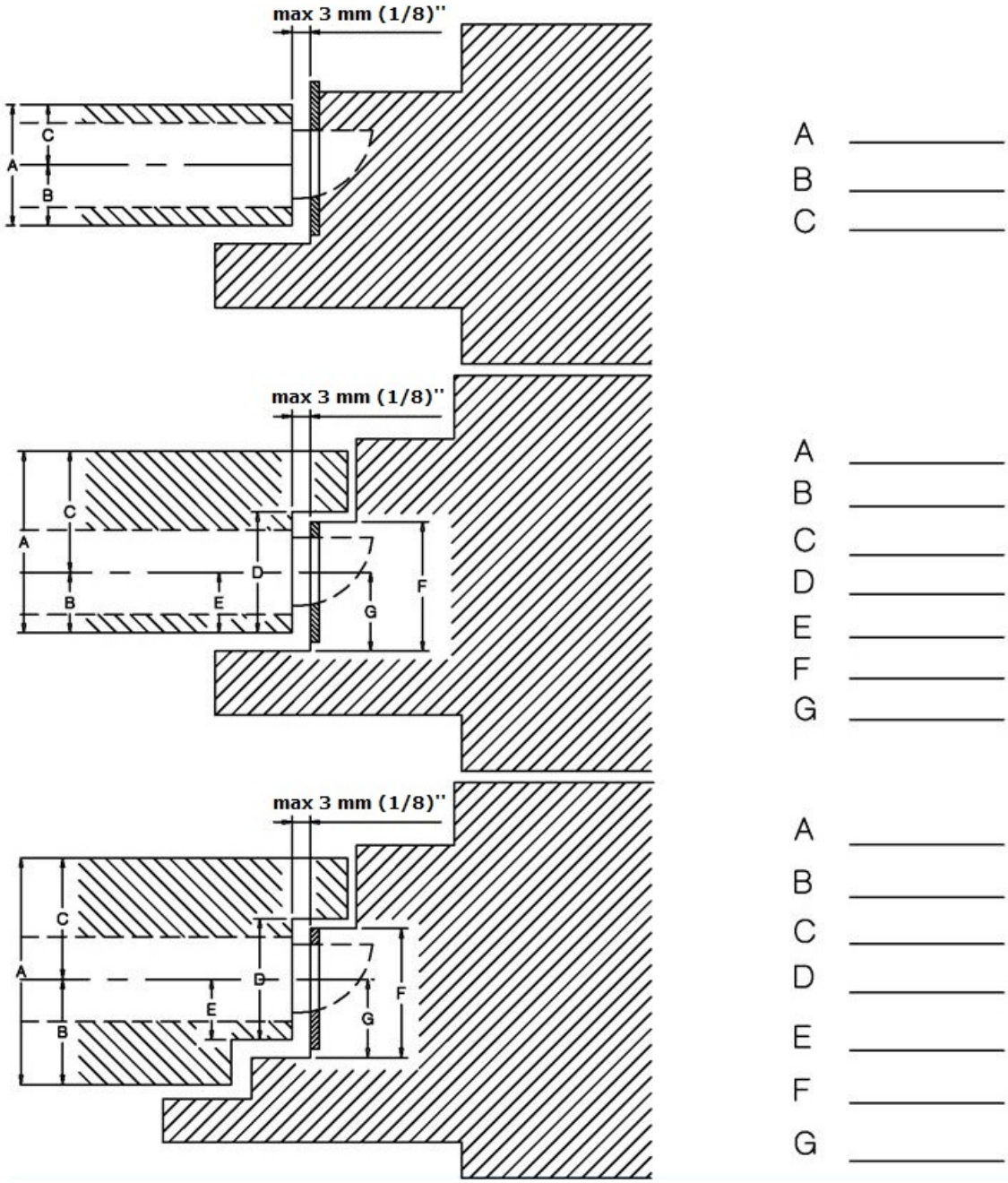


Figure 9: Examples of rebated doors and door frames

3. To mortise the door

Before installing the lock in the door, the door and door frame must be mortised to fit this type of lock. The mortising should be based on the dimensions shown in the applicable cut-out; see section 3.1 for an overview of available cut-outs. There is also a paper templates available; see Figure 13. ***Tip:*** ASSA ABLOY Hospitality is offering a mortise jig for wooden doors, which can be ordered by a ASSA ABLOY Hospitality representative. The mortise jig for wooden doors contains jigs, drills and machines for making cut-outs for the lock case, outside and inside trims, and striker plate. This kit is designed for wooden doors and cannot be used for steel doors. ***Tip:*** ASSA ABLOY Hospitality is offering a mortise jig for steel doors, which can be ordered by a ASSA ABLOY Hospitality representative. The mortise jig for steel doors is a jig for making cut-outs for outside and inside trims. This jig allows elevating the RFID LCU on the outside and battery cover on the inside 0-30 mm (0-1.18") upwards. This may avoid cutting the internal steel frame in a steel door. ***Note:*** **that if you use cover plates, any deviations here will affect the cover plate dimensions as well.** ***Tip:*** When upgrading the lock system from an existing ANSI or EURO lock (from ASSA ABLOY Hospitality or of other type), a mortise jig for steel doors may also be used if the door is a wooden door.

3.1 Cut-outs

Description	Online/offline	Document number
RFID ANSI (DA) with cylinder	Online and offline	AN-61
RFID ANSI (DA) without cylinder	Online and offline	AN-62
RFID ANSI (DB) with cylinder	Online and offline	AN-70
RFID ANSI (DB) without cylinder	Online and offline	AN-71
RFID EURO with cylinder	Online and offline	AN-72
RFID EURO without cylinder	Online and offline	AN-73
RFID EURO 80mm backset with cylinder	Online and offline	AN-96
RFID EURO 80mm backset without cylinder	Online and offline	AN-97

Table 4: RFID cut-outs

See a cut-out example on next page.

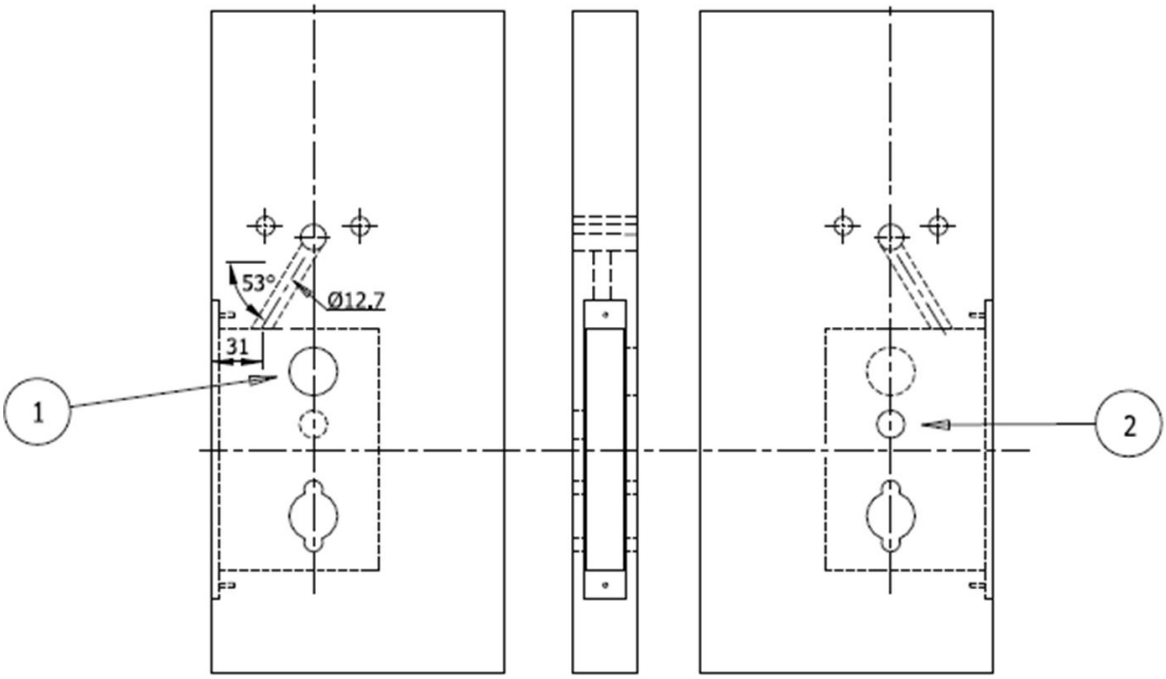


Figure 10: ANSI (DA) cut-out

①The hole for the cylinder must only be drilled from the outside of the door to the center of the lock case. ***Note:*** **The cylinder hole is optional. Do not make hole if cylinder is not ordered.** ②The hole for the *escutcheon thumbturn Signature* must only be drilled from the inside of the door to the center of the lock case. The position of the lock case (lock case center line) must be set according to the ANSI standard and be level from the floor. ***Note:*** *American Disabilities Act* (ADA) requirements demand a maximum of 1220 mm (48") height to the highest point of operation; card slot.

3.2 To mortise for the lock case

Determine where the positioning of the lock case center line (CL) shall be, and make the cut-out according to Figure 11.

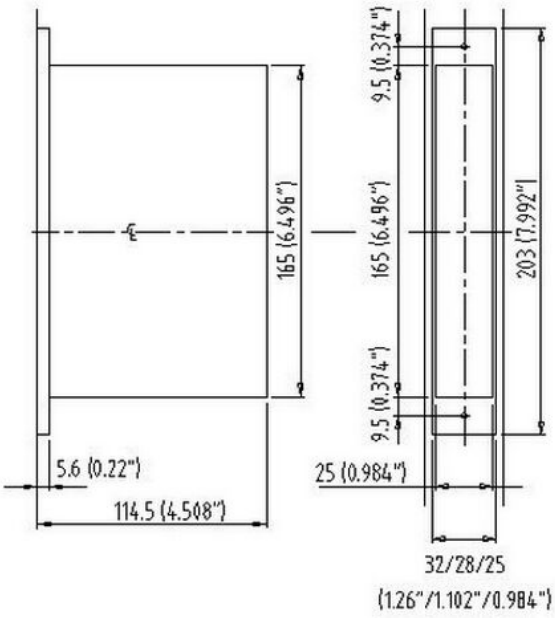


Figure 11: Cut-out for ANSI (DA) lock case

Important: The lock front can be delivered with a width of 32 mm (1.260"), 28 mm (1.102") or 25 mm (0.984"). Make sure that you mortise the door to the correct dimensions for your lock dimensions. Check the lock dimensions before you start cutting.

Important: If you are going to install the security cylinder Hydra, remember to make space for the *cylinder fastening clip* (available in different variants for ANSI and EURO) when making the cut-out for the lock case. See the document *Classic/Signature/Essence cylinder option* for more details about cylinders.

3.2.1 Tools needed to make the cut-out for the lock case

Wooden doors: Recommended tool to make the cut-out for the lock case and lock front is the ASSA ABLOY Hospitality customized drilling kit. Hammer and chisel are needed to make the corners for the lock front.

Steel doors: The ASSA ABLOY Hospitality customized drilling kit is not for steel doors. Normally tools like a drill, grinder and reciprocating saw are used to make the cut-out for the lock case and lock front.

3.3 To mortise for the outside/inside trim

Before mortising the side view, make sure to align the side template vertically and horizontally according to Figure 12. Use the center line (CL) for the lock case as a reference.

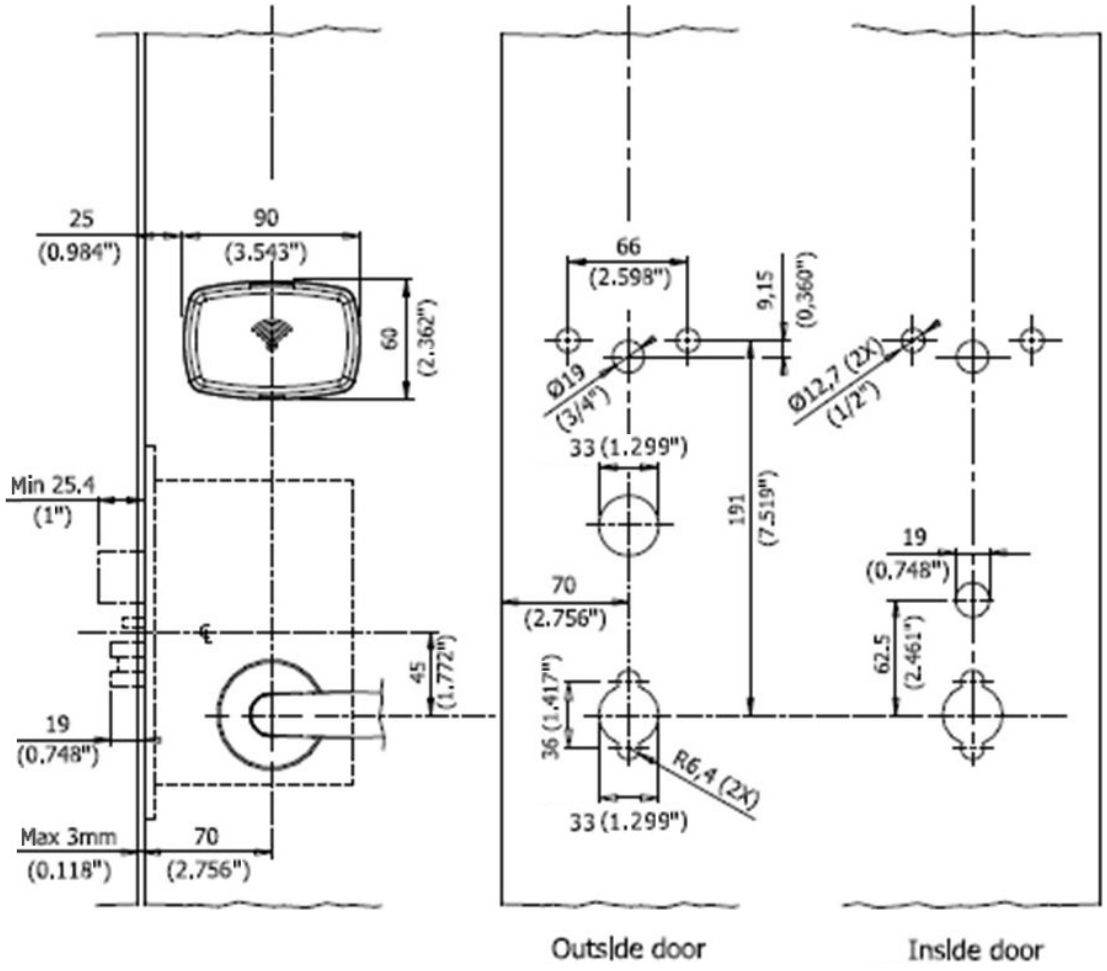


Figure 12: Dimensions in relation to the side view for ANSI (DA)

Important: The hole for the cylinder is optional and is only to be cut-out for locks equipped with cylinders and only from the outside of the door to the center of the lock case; i.e. not through the entire door.

3.3.1 Tools needed to make the cut-outs for the sides

Wooden doors: Recommended tool to make the cut-out for the sides is the ASSA ABLOY Hospitality customized drilling kit. *Alternatively:* use an ordinary drilling machine together with 12 mm (0.5"), 19 mm (0.75") and 38 mm (1.5") drills and a paper template or a metal jig for the side cut-outs. Hammer and chisel may also be useful if the recommended drilling kit is not used.

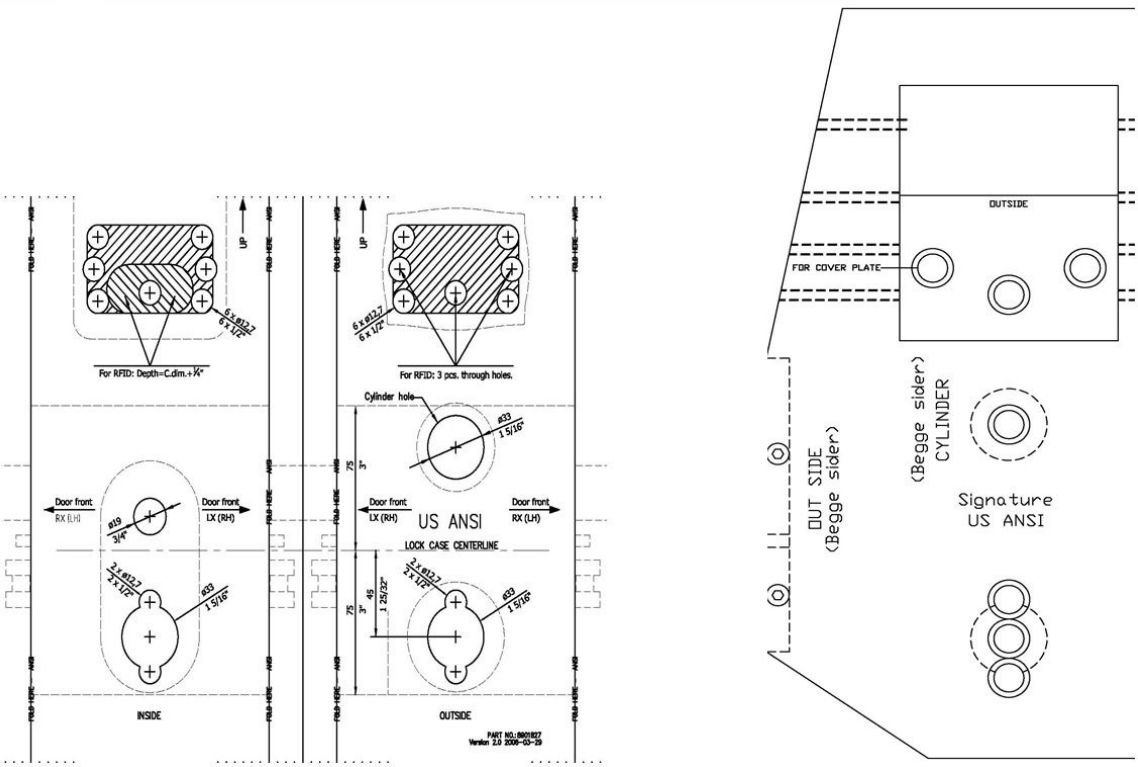


Figure 13: Paper template and metal jig

Steel doors: Use an ordinary drilling machine together with 12 mm (0.5"), 19 mm (0.75") and 38 mm (1.5") drills and a paper template or a metal jig for the side cut-outs. Grinder and reciprocating saw may also be useful.

3.4 To mortise for the striker plate

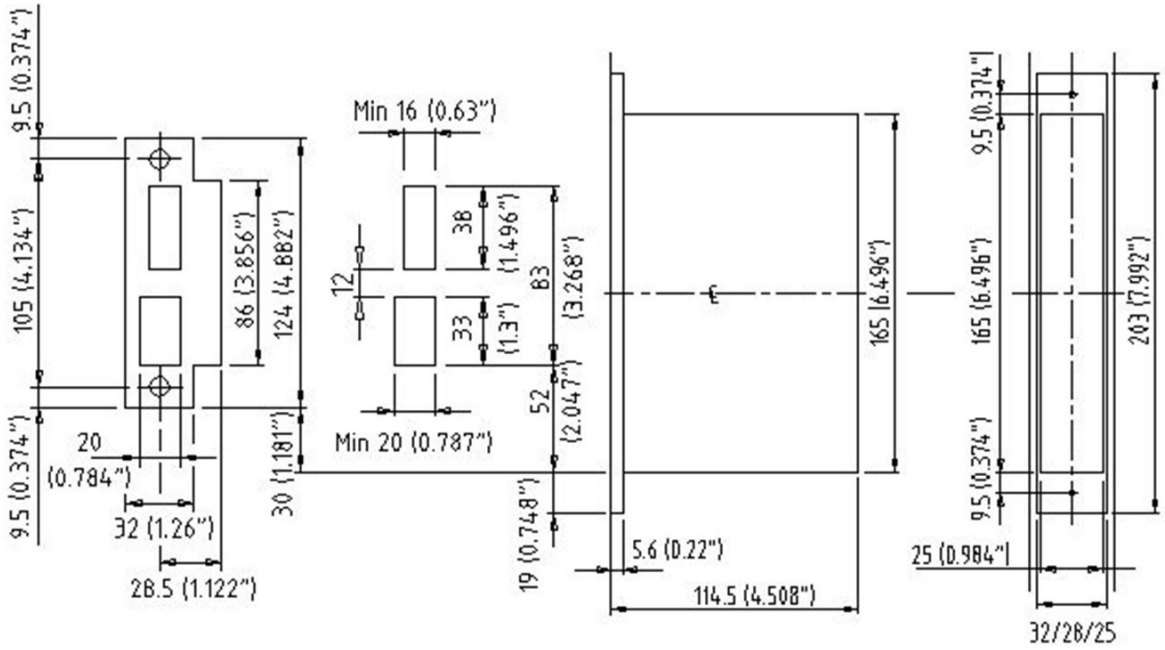


Figure 14: The external striker plate dimensions and cut-out dimensions for ANSI (DA). Note the dimension 30 mm (1.18") from lock case edge to striker plate edge.

Before mortising for the striker plate, make sure to align the side template vertically and horizontally according to Figure 14. Use the center line (CL) for the lock case as a reference. Position the striker plate so that the bottom of the striker plate is 30 mm (1.18") above the bottom of the lock case.

Caution: If the cut-out for the deadbolt is less than 25.4 mm (1") deep, the deadbolt may not be retracted by use of a metal key in case of an emergency when the door is double locked (ANSI AUS = 0, ANSI JPN = 21).

Caution: Be aware if there is any door gasket. If so, compensation must be made by adjusting the horizontal positioning of the striker plate.

Important: If the striker plate is not used (example: steel frame), it is important that the distance between the latch (lower) cut-out and the deadbolt cut-out must be 12 mm (0.47") in order for the auxiliary latch to work.

3.4.1 Tools needed to make the cut-out for the striker plate

Wooden doors: recommended tool to make the cut-out for the striker plate is the ASSA ABLOY Hospitality customized drilling kit. Alternatively, use an ordinary drilling machine, hammer and chisel.

Steel doors: use an ordinary drilling machine and grinder or reciprocating saw.

4. To install the lock

4.1 Necessary tools for the installation

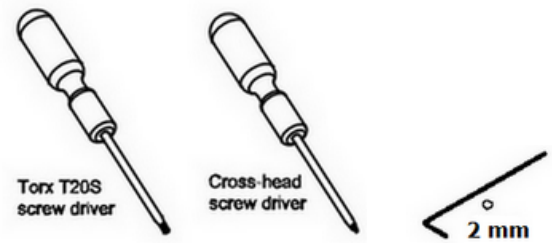


Figure 15: Tools needed for installing the lock

The tools shown in Figure 15 are needed for assembly of the lock:

- Torx T20S screwdriver
- cross-head screwdriver
- *if cylinder is applicable*: 2 mm Allen key (only used to fasten the cylinder fastening screw)

4.2 Door handle selection

It is possible to choose between a variety of standard door handles.

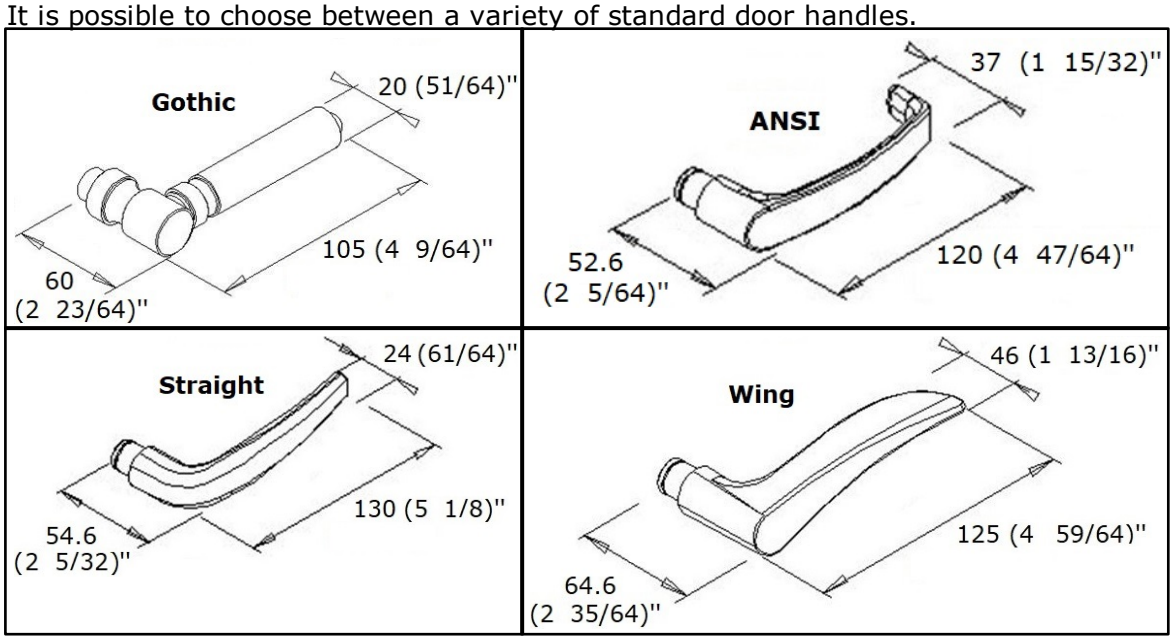


Figure 16

4.3 Exploded view

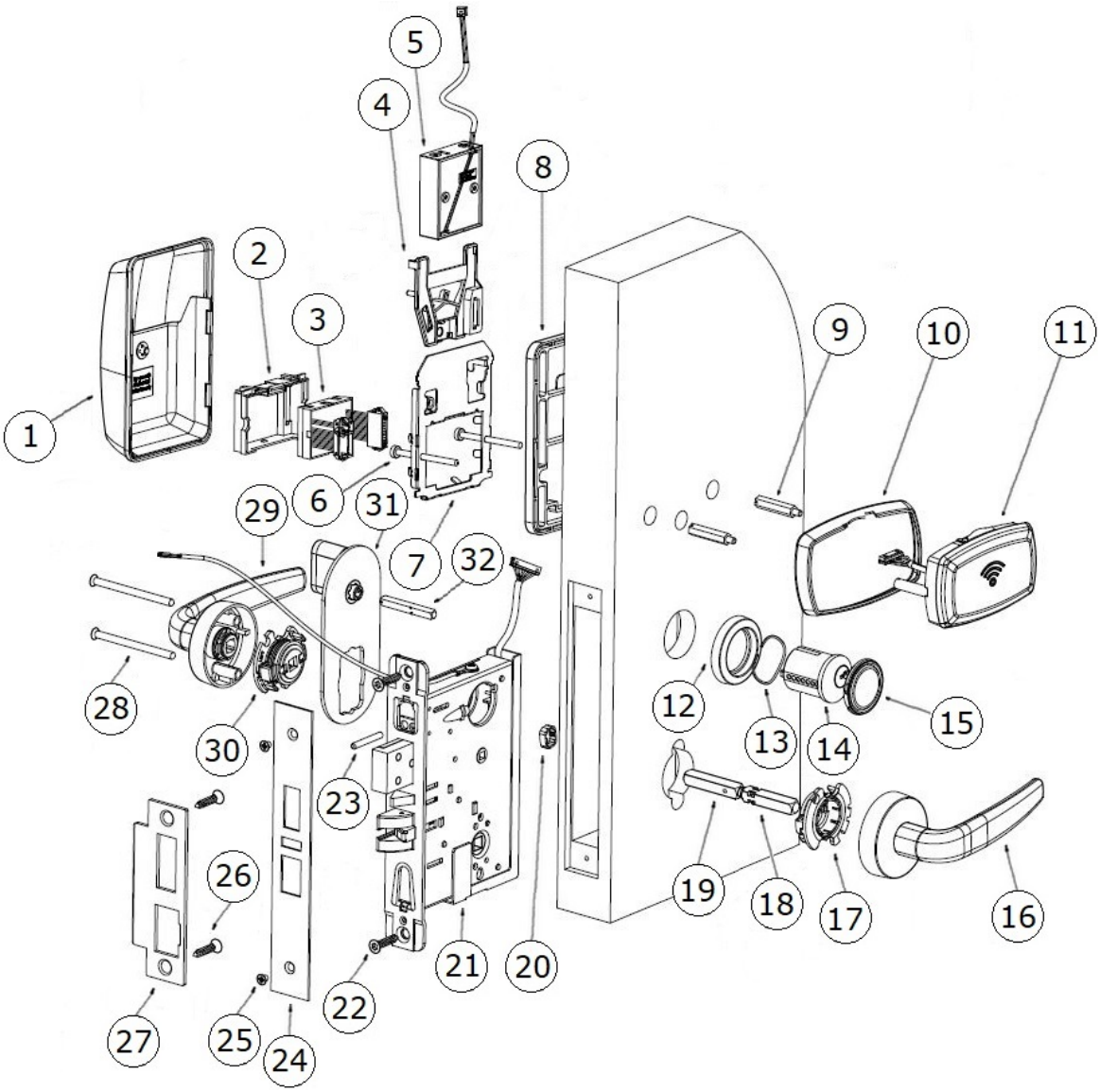


Figure 17: Lock components for ANSI (DA) with cylinder; some parts are mounted together at delivery

Pos	Description	Available as single item	Available as part of kit
1	Battery cover Signature		Signature online battery cover kit
2	Plastic frame for Signature RFID LCA		LCA 6343 kit
3	LCA 6343; LCA = *lock case adapter*		LCA 6343 kit
4	Battery protection		Signature online battery cover kit
5	Battery holder 4.5V		Signature online battery cover kit
6	Screw M4*Torx*	X	

7	Mounting frame inside Signature		Signature online battery cover kit
8	Spacer battery cover Signature 6mm plastic; *not included as standard*	X	
9	Spacer, M4 x 33,2		LCU 633X Signature RFID assy
10	Skirt for Signature RFID reader		RFID reader
11	LCU 633X Signature RFID assy		RFID reader
12	Cylinder rose	X	Cylinder ring kit Signature
13	Spring cylinder rose Signature	X	Cylinder ring kit Signature
14	Cyl 5-lev Std thread front prof R	X	
	Cyl 5-lev A ADB thread front prof R	X	
	Cyl 5-lev E ADB thread front prof R	X	
15	Cylinder sealing assy	X	Cylinder ring kit Signature [finish] XXmm w/seal
16	Handle on outside rose Signature		Handle set
17, 30	Handle retainer*Signature		Handle set
18	Spindle handle male Signature	X	Square spindle assy Signature 1)
19	Spindle handle female Signature	X	Square spindle assy Signature 1)
20	Spindle locking clip	X	HW kit Essence/Sig 1000-series
21	Lock case ANSI DA	X	
	Lock case ANSI DA ADB	X	
	Lock case ANSI DB	X	
	Lock case ANSI DB ADB	X	
	Lock case EURO	X	
	Lock case EURO ADB	X	
22	Screw wood, countersunk 5x25mm	X	Screw kit for ANSI lock case, brass & chrome
23	Cylinder set screw for cylinders ex threaded ANSI ADB	X	
	Cylinder set screw for threaded ANSI ADB	X	
24	Lock front ANSI	X	
	Lock front ANSI ADB	X	
25	Screw, M4x5	X	Screw kit for ANSI lock case, brass & chrome
26	Screw 5,00x12 st 4,8 Zinc color		Screw kit for ANSI lock case, brass & chrome
	Screw 5,00x12 st 4,8 Yellow color		Screw kit for ANSI lock case, brass & chrome
	Screw, wood, countersunk, 5x25mm, Metal zinc color		Screw kit for ANSI lock case, brass & chrome
	Screw, wood, countersunk, 5x25mm, Metal yellow color		Screw kit for ANSI lock case, brass & chrome
27	Striker plate ANSI	X	
	Striker plate ANSI ADB	X	
	Striker plate EURO	X	
28	Screw Signature M5	X	• HW kit Signature • HW kit Essence/Sig 1000-series
29	Handle on inside rose Signature	X	
30	See 17, 30		Handle set

31	Escutcheon thumbturn Signature	X	
32	Thumb turn spindle Signature	X	• HW kit Signature • HW kit Essence/Sig 1000-series

Table 5: VingCard Signature RFID lock components for ANSI (DA) variant with cylinder

[1] 'Square spindle assy Signature' is sold as a separate kit, but is also included in 'HW kit Signature' and 'HW kit Essence/Sig 1000-series'.

4.4 Parts included for a complete lock

Note: Online parts are not included below; they are sold separately as a *Zigbee end node kit with Signature/Essence cable,* see this section for details.

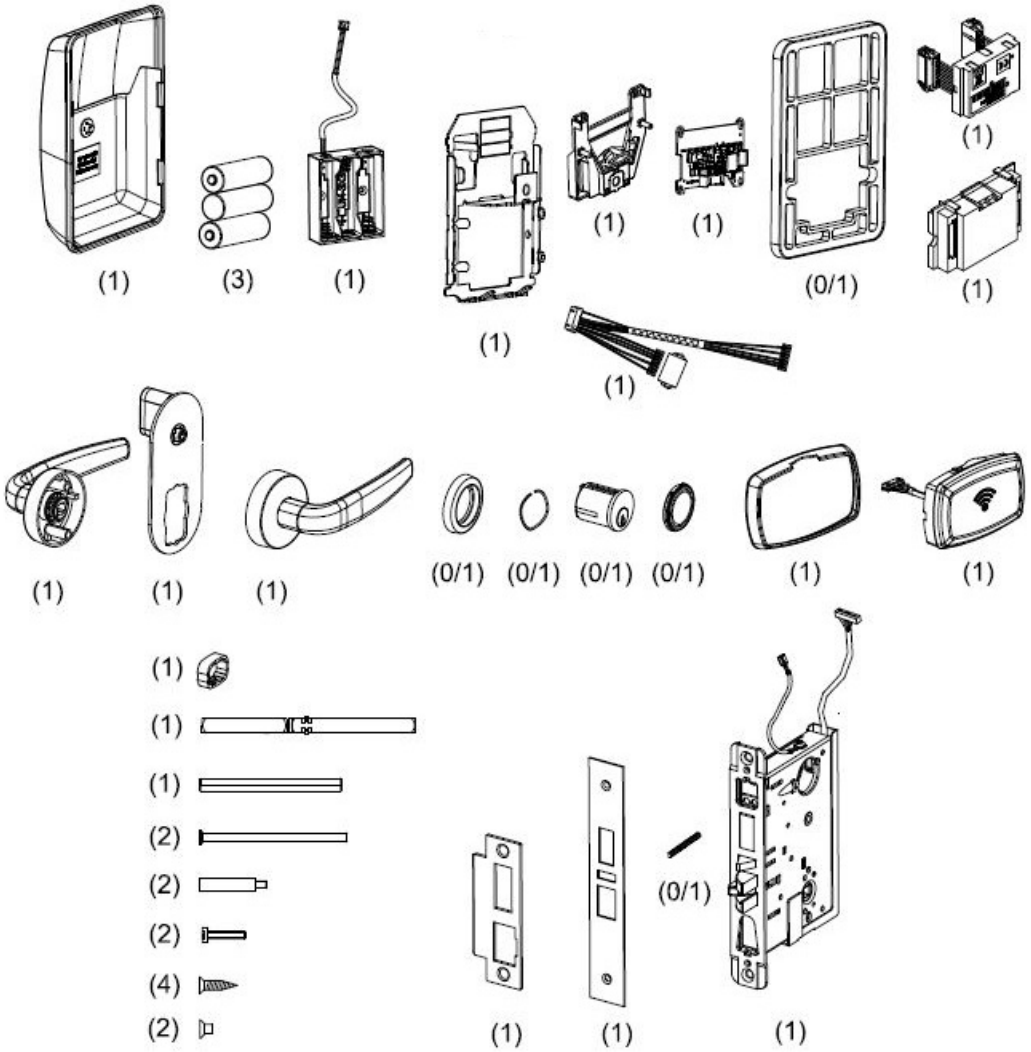
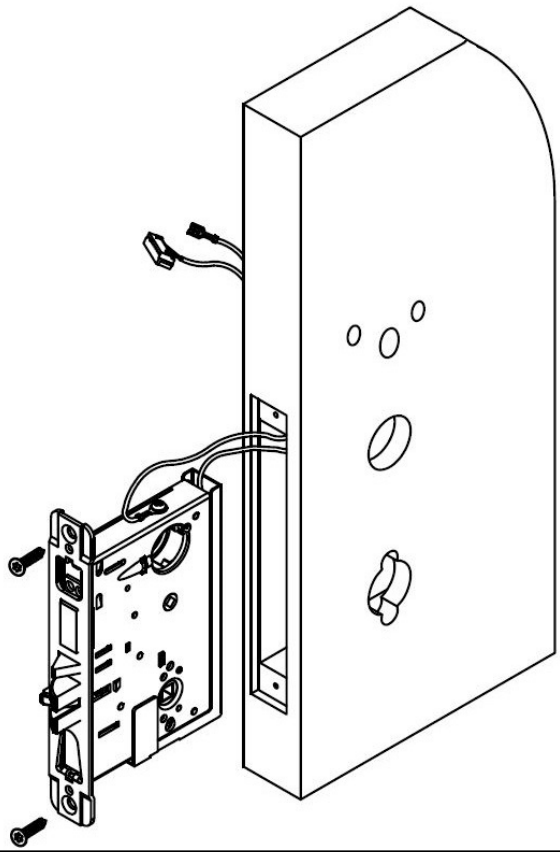
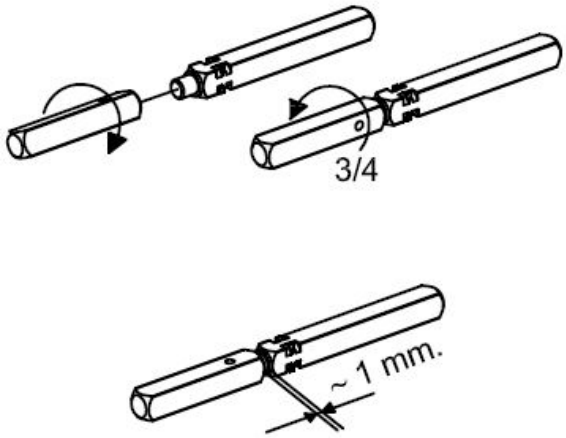


Figure 18: Parts included for a complete VingCard Signature RFID lock

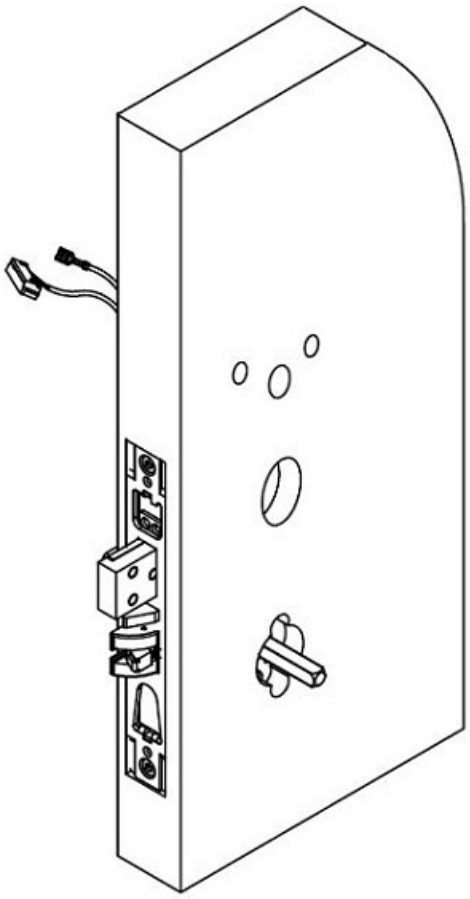
Note: Spacers are not included as standard. They are only needed if the door thickness is less than 40 mm (1.57").

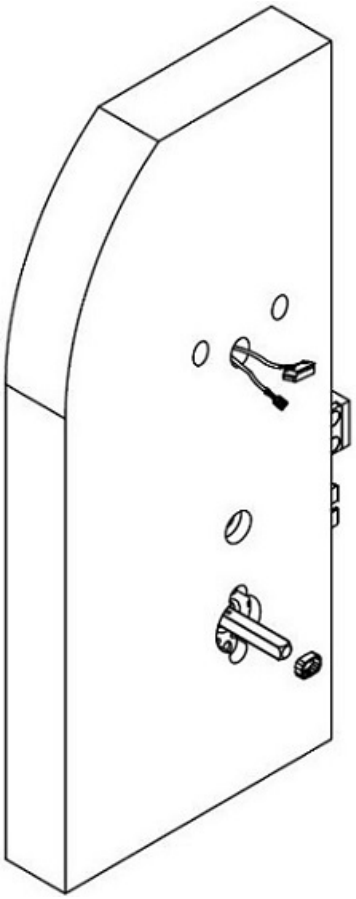
4.5 Installation

Note: For information about online installations, see Appendix C.
Note: The position numbers below refer to the position numbers in Figure 17 and Table 5.

<table>
<tr>
<td>  </td>
<td> 
</td>
</tr>
<tr>
<td>1. Position the cables in the door before inserting the lock case. The connector(s) on the cable(s) has to be bent before being threaded into the hole through the door.
Note: If installing on a steel door, make sure that the hole where the cable will pass through the door has no metal burrs that can damage the cable.

2. Position the lock case (**21**) into the edge of the door and fasten it with two *screws wood, countersunk 5x25mm* (**22**). If applicable, do not forget to install the *cylinder fastening clip* before inserting the lock case.</td>
<td>3. The *spindle handle female Signature* (**19**) is at delivery screwed onto the *spindle handle male Signature* (**18**) and greased. Make sure that the spindles are reversed 3/4 turn as shown in the above picture.</td>
</tr>
</table>



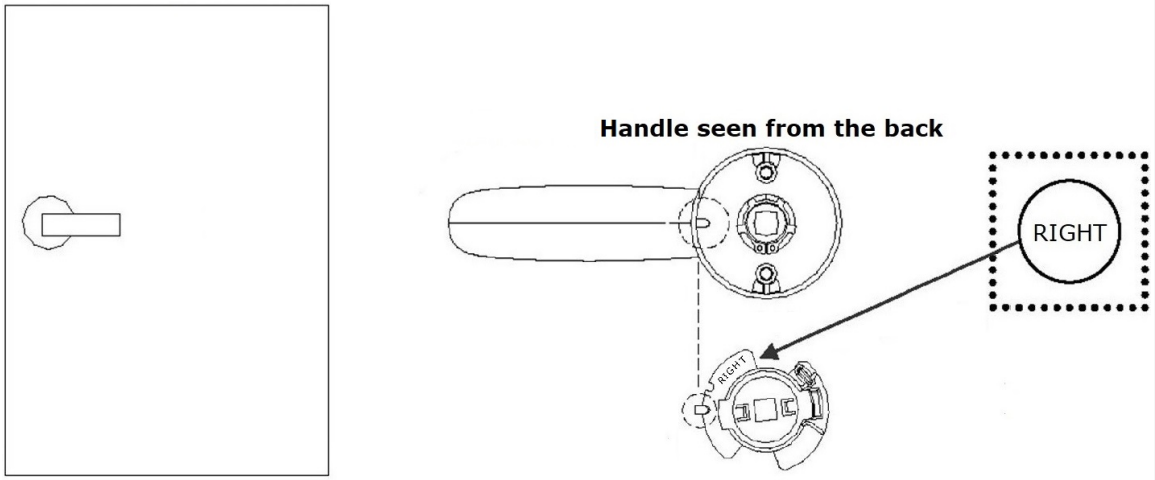


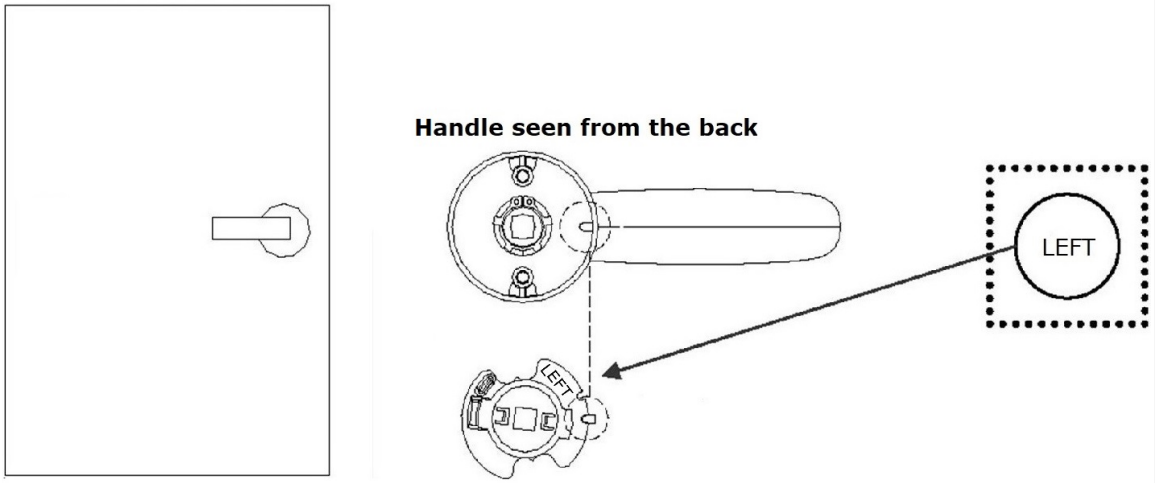
4. Insert the spindles into the lock case from the outside of the door so that the hole that goes through the spindle is visible on the inside (i.e. room side) of the door. The spindle marked 'EXT' (**18**) must be facing the outside of the door.

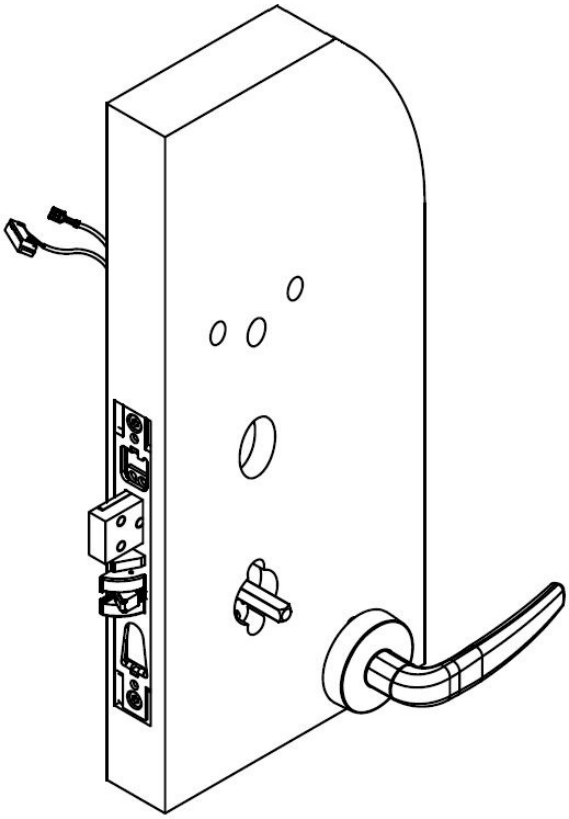
5. Thread the *spindle locking clip* (**20**) onto the *spindle handle female Signature* (on the inside) by squeezing hard on the *spindle locking clip*. Thread the *spindle locking clip* so that it clicks onto the holes in the spindle.

6. At delivery, the *handle retainers*Signature* (**17** and **30**) are normally mounted into the *handle on inside rose Signature* (**29**) and *handle on outside rose Signature* (**16**) respectively. If a handle retainer is e.g. purchased as a spare part, it must however be prepared according to the details on next page.

- If the handle is a right handle, i.e. when standing in front of the door the handle is pressed to the right of the rose with your right hand, the *right handle retainer*Signature* (black and white, and marked 'RIGHT') should be mounted in the handle.
- If the handle is a left handle, i.e. when standing in front of the door the handle is pressed to the left of the rose with your left hand, the *left handle retainer*Signature* (white and marked 'LEFT') should be mounted in the handle.
- In both the above cases, make sure that the *handle retainer*Signature* is in the correct notch; ANSI or EURO. ***Important:*** The handle retainer must be checked so that it is in the "click" position within the groove on the shank of the handle.
- If the handle retainer 'RIGHT' is used for the outside handle, mount the handle retainer 'LEFT' in the inside handle.
- If the handle retainer 'LEFT' is used for the outside handle, mount the handle retainer 'RIGHT' in the inside handle.

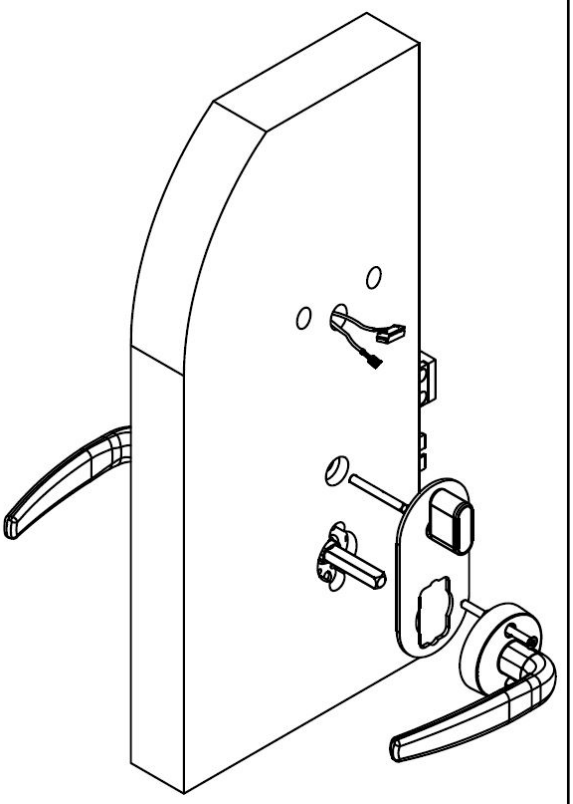






7. Insert the *handle on outside rose Signature* (**16**), including the *handle retainer*Signature* (**17**), onto the spindle.

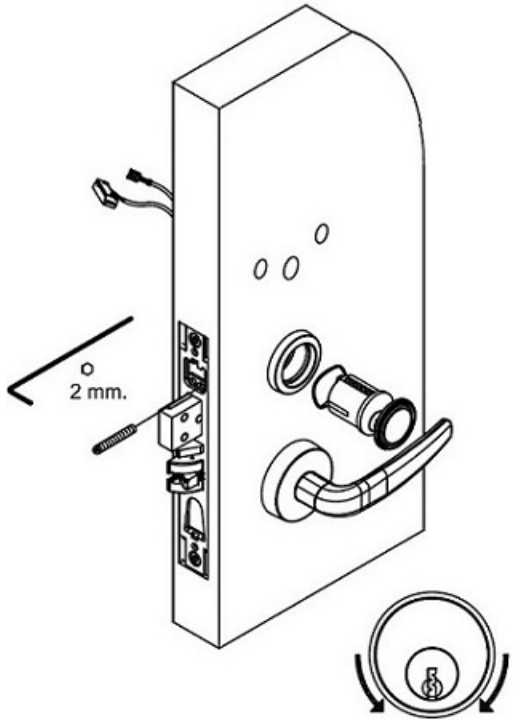
Important: The *screws Signature M5* (**28**) must always be installed from the inside of the door.



8. Insert the *thumb turn spindle Signature* (**32**) into the lock case from the inside. The marked end on the spindle has to be inserted into the thumb turn knob.

9. Insert the *escutcheon thumbturn Signature* (**31**) onto the *thumb turn spindle Signature*.
Note: The thumb turn knob should always be pointing upwards if ANSI (DA) lock case is used, and downwards if ANSI (DB) lock case or EURO lock case is used.

10. Insert the *handle on inside rose Signature* (**29**), including the *handle retainer* Signature* (**30**), onto the spindle and fasten the handles together using the *screws Signature M5* (**28**).

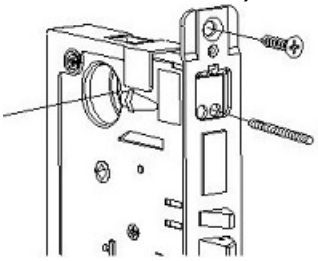


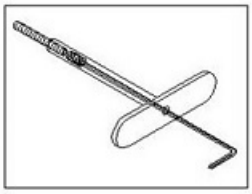
11. If cylinder (full name *cyl 5-lev*thread front prof R*; see Table 5 for available variants) is used: thread the *spring cylinder rose Signature* (**13**) onto the cylinder (**14**) from the cylinder-arm side. Insert the cylinder into the *cylinder rose* (**12**). Use a key and screw the cylinder into the lock case. Tighten the cylinder until the cylinder rose is tight to door. Fix the cylinder into the lock case. The keyhole should always point towards the handle.

12. There are two ways for installing the cylinder fastening screw.

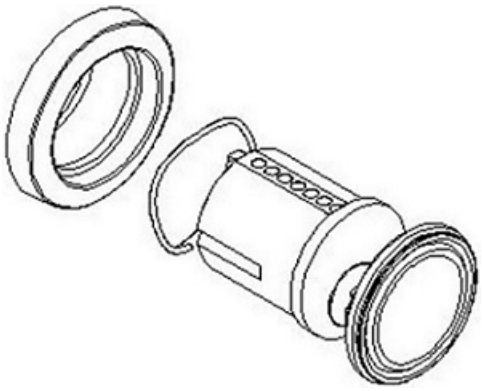
a. *The normal way:* Insert the 2 mm Allen key into the screw and insert the screw in the hole facing towards the lock case front. Tighten the cylinder in the lock case as illustrated in the drawing above.

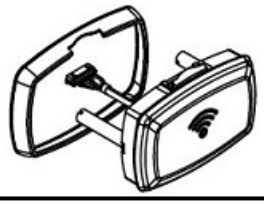
b. *A more secure way:* Fix the cylinder by using the fixing-screw tool kit.





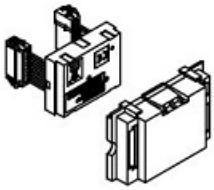
Use the L-shaped Allen key to lock the headless fixing screw (cylinder screw is turned upside down) to the T-shaped tool as illustrated in the drawing above. Use the T-tool to screw the fixing screw in place as shown earlier, to fix the cylinder in place. Make sure that the cylinder fixing screw is tightened in the cylinder. Release the T-tool from the fixing screw by holding the T-tool rigid while turning the Allen key counter-clockwise until the Allen key is released from the screw; then unscrew the T-tool.



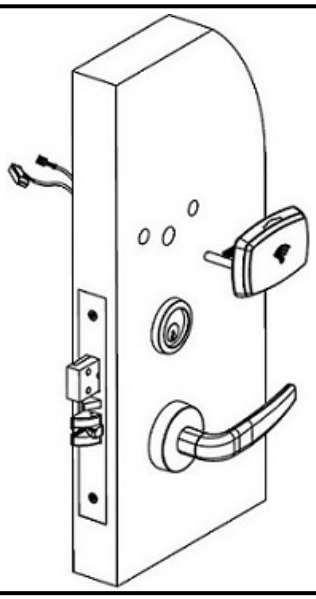


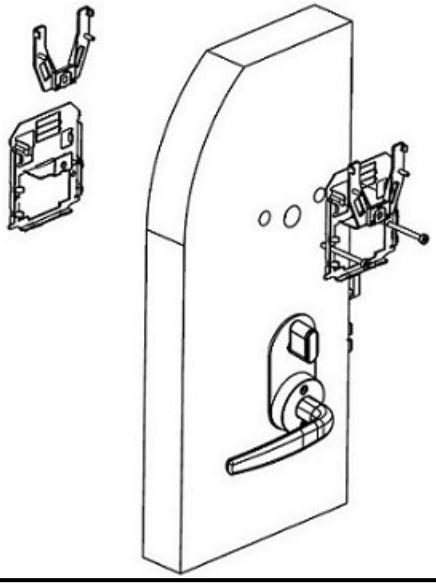
14.The parts above are normally assembled at delivery (except for the spacers which are delivered on the side), but if they are not, e.g. if they are ordered as spare parts: assemble the *skirt for Signature RFID reader* (**10**) onto the *LCU 633X Signature RFID assy* (**11**).

13.If using the *cylinder sealing assy* (**15**): Installing the assy should be the last operation in the installation of the lock. To access the cylinder or remove this sealing assy, the *cylinder sealing assy* must be broken if it has been mounted properly. Therefore, a full test should be executed before mounting it. When installing the *cylinder sealing assy*, depress it onto the cylinder ring until a "click" indicates that the assy is in position.



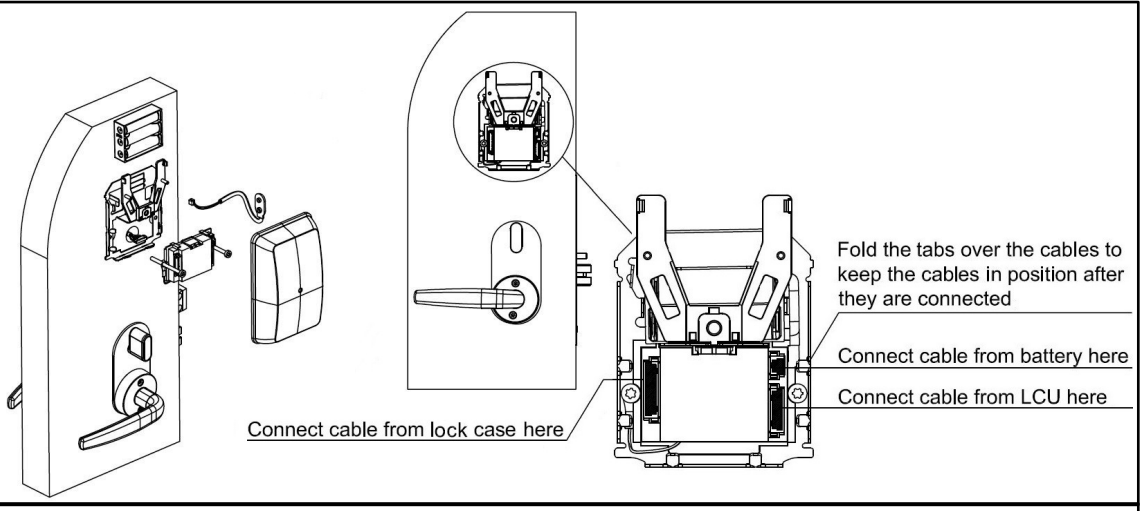
15.The parts above are normally assembled at delivery, but if they are not (e.g. if they are ordered as spare parts): assemble the LCA (**3**) into the *plastic frame for Signature RFID LCA* (**2**).





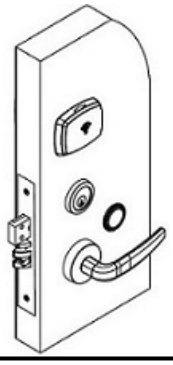
16.Mount the assembly from step 11 onto the door.

17. Install the *mounting frame inside Signature* (**7**) on the door by using two *screws M4*Torx** (**6**).
Important: Make sure that the frame is aligned on both sides.

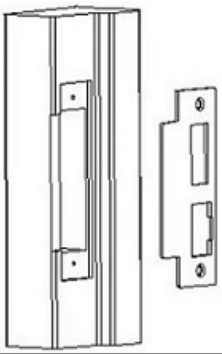


18.Insert the battery holder (**5**) into the *mounting frame inside Signature* (**7**). The battery holder must be inserted with the connector located at the right side. Mount the *plastic frame for Signature RFID LCA* (**2**) including the LCA (**3**) on the *mounting frame inside Signature*. The drawing above shows the cabling:

- Connect the ground cable to the ground tab at the mounting frame.
- Connect the lock motor cable to the 10-pin connector on the left side of the LCA.
- Connect the LCU cable to the 7-pin connector to the right side of the LCA.
- Fix the cables by bending the fixing points as shown above.
- Insert the battery cassette.
  Important: To avoid short circuit, the back of the battery cassette must face the door blade, i.e. the batteries should be visible under the battery protector.
- Snap the battery protector into place according to the above picture.
- Load the battery holder with 3 AA batteries.
- Connect the *battery cable Signature/Classic 4.5V/Classic 9V* to the 2-pin connector at the right side of the LCA.
- Thread the *battery cover Signature* (**1**) onto the mounting frame. A "click" indicates that the battery cover Signature is in position.



19.Mount the *lock front* (**24**) with two *screws M4x5* (**25**). After testing the lock, mount the *cylinder sealing assy* (**15**).***Note:*** There is no lock front for EURO lock cases.



20.Install the *striker plate* (**27**) into the mortised position in the frame and tighten the striker plate with two screws (**26**; see Table 5 for available screw variants).

21.***Important:*** Do not close the door before the lock has been tested. This warning is even more important if the lock is without cylinder.

5. To check the lock installation

A quick check of the installation and operation is important in order to discover any problems related to the installation or the lock itself.

5.1 Checklist for installation and cut-out

5.1.1 Lock mortise

The lock front should be flush with the door edge.

5.1.2 Cylinder

The cylinder (full name *cyl 5-lev*thread front prof R*; * is *Std*, *A ADB* or *E ADB*) should be flush with the cylinder rose and properly fixed.

5.1.3 Roses/door handles, battery cover and outside RFID LCU

All should be aligned vertically, horizontally and firmly tightened. Make sure there are no gaps between the door surface and the lock installation.

5.1.4 Striker plate

The depth in the frame must be sufficient for throwing the deadbolt with small clearance (min. clearance 26.4 mm; 1.04") and releasing the latch (min. clearance 20 mm; 0.79").

5.2 Operational check

5.2.1 Outside and inside handle

Handles must return to a horizontal position after being depressed and slowly released. The *handle on outside rose Signature* (see pos **17** in Figure 17) can only be depressed when the lock is in an unlocked position; for *VingCard Vision* use a construction keycard to unlock the door for 6 seconds.

5.2.2 Latch

The latch must release freely into the striker plate. When the latch is released into the striker plate there should be minimal door movement.

5.2.3 Thumbturn

The *escutcheon thumbturn Signature* (see pos **32** in Figure 17) must throw and retract the deadbolt freely, also when thrown into the striker plate.

5.2.4 Cylinder

When using an emergency key (mechanical), the latch and the deadbolt must throw and retract freely.

5.2.5 Latch, auxiliary latch and deadbolt

When the deadbolt has been retracted by the *escutcheon thumbturn Signature* (see pos **32** in Figure 17) - or the *handle on inside rose Signature* (see pos **30** in Figure 17) - and the *handle on inside rose Signature* is fully depressed, the latch, auxiliary latch and deadbolt should be flush with the lock front.

5.3 Security function check

5.3.1 Auxiliary latch function

When depressing the auxiliary latch, the latch should be blocked. Make sure the latch is not snagged by the striker plate when the door is closed. According to the ANSI standard, the latch shall be blocked when depressing the auxiliary latch 0-9.5 mm (0-0.37") measured from lock front. For EURO locks, the requirement is 0-3 mm (0-0.118"); the actual dimension is typically 0-6 mm (0-0.236").

5.3.2 Panic release function

When the door is closed and the deadbolt is thrown, depress the *handle on inside rose Signature* (see pos **30** in Figure 17). The deadbolt and the latch must be retracted.

5.4 Electronic check

Always check that the electronics works before closing the door. The easiest way to check this is for *VingCard Vision* to use a construction key card; the lock should unlock for 6 seconds.

To check the privacy function you need to have a card without deadbolt override:

- *for Visionline*: use a staff card issued when the *Visionline* system setup has been performed.
- *for VingCard Vision*: use a keycard without deadbolt override, issued when the system setup has been performed. The construction cards do have deadbolt override, so they are no good for this test.

If the deadbolt is thrown, you should get

- *for Visionline*: three very short yellow flashes
- *for VingCard Vision*: one yellow flash if the construction card is used

The *handle on outside rose Signature* (see pos **17** in Figure 17) should still be blocked. If the deadbolt is not thrown, you should for *Visionline* get a green light. The *handle on outside rose Signature* can easily be depressed.

6. Maintenance

For a reliable operation of the lock, a certain level of maintenance is required.

6.1 Lubrication

All parts that need lubrication are already lubricated by ASSA ABLOY Hospitality, so there is no need any further lubrication. ***Caution:*** The use of lubricants containing solvents or graphite will void the lock warranty.

6.2 Loose screws and functional test

Check for loose screws, especially the door handle fastening screws, at scheduled times. Also, perform a functional test (see chapter 5) at scheduled times; at least once per year is recommended.

6.3 To replace the batteries

The RFID LCU checks the battery voltage when a staff card (*Visionline*)/employee card (*VingCard Vision*) is used. The check is performed when the lock motor is activated.

If the battery voltage is below the acceptable, the RFID LCU signals with

- *for Visionline*: four short yellow flashes. The door will still unlock as long as the battery voltage is high enough to operate the lock motor; this gives a green flash. If there is no green flash at the end, the battery voltage is below next critical level and will not operate the lock motor.
- *for VingCard Vision*: three yellow flashes. The door will still unlock as long as the battery voltage is high enough to operate the lock motor. If the battery level is below next critical level so it cannot operate the lock motor, there will be three red flashes and one green flash.

Important: Battery check and/or replacement should be performed at scheduled intervals.

Important note for Visionline: It is recommended to always make a read-out of the time in the lock after a battery exchange to make sure that it is correct. Use a service cable and a service PC with the software *Lock Service 3G*; see *Quick reference guide Lock Service 3G* for details. If the time is not correct, a soft reset has occurred; see details on how to proceed in step 6 below.

Note: The position numbers below refer to the position numbers in Figure 17 and Table 5.

1. ***Important:*** Make sure to have three fresh AA batteries ready since the *battery holder 4.5V* (**5**) with new batteries must be connected as quickly as possible

(for *VingCard Vision* locks 3 minutes; for *Visionline* locks typically 1 minute or less) after the old batteries have been disconnected, else a soft reset may for *Visionline* take place; see details below. Do not insert any card during the battery exchange. If other batteries than those provided by ASSA ABLOY Hospitality are used, make sure that they are alkaline or long life batteries.

2. Remove the *battery cover Signature* (**1**) on the inside of the door using the Torx T20S tool.
3. Remove the *battery holder 4.5V* and swap the old batteries with the new batteries. ***Important:*** The old batteries should be treated in accordance with local regulations regarding recycling. ***Important note for Visionline:*** If a short green flash is seen when the battery is connected, a soft reset has been done since the lock has been without power too long. Be observant on the green flash; it can be hard to see due to surrounding light. If a soft reset has occurred, see step 6 below for measures that must be taken.
4. Reinstall the *battery holder 4.5V*.
5. Fasten the *battery cover Signature*.
6. *For Visionline:* make a read-out of the time in the lock with *Lock Service 3G* to make sure that the time is correct. If it is not, use *Lock Service 3G* to set the time. If stand open and/or privacy are applicable, these parameters must by set in the lock again with a *stand open card* and *privacy card* respectively; see *User manual Visionline* for details. If the *Online* option is applicable in *Visionline*, the parameters are also sent online, but not instantly.

6.4 To troubleshoot mechanical operation

If a lock does not work properly when a card is used, you must determine whether the malfunction is due to a card error or to a mechanical error. Many mechanical malfunctions can be detected by a visual inspection. If a lock cannot be operated when a card is used – even though the reader displays a green LED – or if the lock is difficult to operate, check the items stated in the following sections.

6.4.1 Latch retraction

Depress the latch with your thumb. If it does not depress easily, either the lock case is in binding or the lock case components are malfunctioning. Remove the lock case from the door and depress the latch. If the latch depresses easily when the lock case is removed from the door, reinstall the lock case carefully testing at each stage of assembly. After installation of a lock, check for full extension of the latch. If the latch does not extend completely, binding between the lock case and the mortise pocket or other lock parts may be interfering with operation.

6.4.2 Handle return

If the *handle on outside rose Signature* (see pos **17** in Figure 17) does not return to a horizontal position after the door has been operated, the handle return spring (which is located inside the *handle on outside rose Signature*) may be broken or displaced. Remove the door handle roses to check the handle return spring. If the

handle on inside rose Signature (see pos **30** in Figure 17) sags, door alignment may be causing binding. In this case, loosen the door handle screws and depress the *handle on inside rose Signature*. If the handle returns freely with the *screws Signature M5* (see pos **29** in Figure 17) loosened, align the lock so that the handle continues to return after the screws are tightened. The *handle on inside rose Signature* may also sag if the hub spring, in the lock case, is broken or weak.

6.4.3 Lock operation

If it is difficult to depress the handles, loosen the door handle screws and try again. If the lock is still difficult to operate, loosen the lock case screws. This procedure may help detect binding. Sometimes binding is caused by improperly drilled holes for the door handle screws. Be careful if enlarging the screw holes to reduce the binding. The door handle roses may not cover enlarged screw holes, and the enlarged holes could cause recurring alignment problems.

6.4.4 Thumbturn

The *escutcheon thumbturn Signature* (see pos **32** in Figure 17) should extend and retract the deadbolt easily; difficulty in turning usually results from poor striker plate alignment. Operate the thumbturn with the door open. If the thumbturn operates easily with the door open but is difficult to operate with the door closed, the striker plate is not well aligned. Reduce or add door silencing pads to avoid re-positioning the striker plate. Sometimes filing the striker plate slightly can alleviate striker plate binding. Adjusting the striker plate may be a good solution. Loosening the door handle screws and re-tightening may correct the alignment. However, difficulty with thumbturn can indicate more serious malfunction in the lock case. If the deadbolt is difficult to operate, even when the lock case is removed from the door, replace the lock case.

6.4.5 Auxiliary latch

Press and hold the auxiliary latch and then try to press the latch. You should not be able to depress the latch bolt when the auxiliary latch is engaged. If the auxiliary bolt never disengages (the latch bolt cannot be retracted), check for binding. If the mortise pocket is not wide enough, the auxiliary latch cannot move correctly.

6.5 To power open the lock

It is possible to power open the RFID LCU with service cable and the software *Lock Service 3G*; see *Quick reference guide Lock Service 3G* for detailed information.

6.6 Lock repair and part replacement

6.6.1 To replace the lock case

In order to replace the lock case, see the installation section 4.5 but do everything in the reverse order. Everything except the striker plate must be removed from the door. ***Tip:*** Use a long set of pliers to remove the spindle locking clip.

6.6.2 To replace the RFID LCU or LCA

See section 4.5 for details on how to replace the RFID LCU or LCA.

6.7 To reach the service jack

To remove the cover, slide it to the right; see Figure 20.

Figure 19: VingCard Signature RFID with cover

Figure 20: Slide the cover to the right

Appendix A: ZigBee

FCC (Federal Communications Commission) statements for endnode

These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) these devices may not cause harmful interference, and
(2) these devices must accept any interference received, including interference that may cause undesired operation.

Important note: To maintain compliance with FCC´s RF exposure guidelines, this equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. Use only the supplied antenna.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. These transmitters must not be co-located or operating in conjunction with any other antennas or transmitters. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The concerned end product must be labeled to say 'Contains FCC ID: Y7V-683081150C1'.

The concerned end product must be labeled to say 'Contains FCC ID: WYV-EN110'.

The concerned end product must be labeled to say 'Contains FCC ID: WYV-EN055'.

ISED (IC) statements for endnode

These devices comply with Industry Canada licence-exempt RSS standard CAN ICES-3 (B)/NMB-3(B) B. Operation is subject to the following two conditions:

(1) these devices may not cause interference, and
(2) these devices must accept any interference, including interference that may cause undesired operation of the devices.

Les présents appareils sont conformes aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) les appareils ne doivent pas produire de brouillage, et
(2) l'utilisateur des appareils doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Important note: To comply with Industry Canada RF radiation exposure limits for general population, the antennas used for these transmitters must be installed such that a minimum separation distance of 20 cm is maintained between the radiator (antenna) and all persons at all times and must not be co-located or operating in conjunction with any other antenna or transmitter.

Under Industry Canada regulations, these radio transmitters may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

These radio transmitters IC9514A-683081150C1, IC8231A-EN110 and IC8231A-EN055 have been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with these devices.

Name/Model	Gain	Impedance
Inverted F-antenna	3.0 dBi	50 ohm

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

Le terme "IC" devant le numéro de certification signifie seulement que les specifications techniques Industrie Canada ont été respectées.

OEM responsibilities

The endnode module has been certified for integration into products only by OEM integrators under the following conditions:

1. The antenna must be installed such that a minimum separation distance of 20cm is maintained between the radiator (antenna) and all persons at all times.
2. The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter.

As long as the two conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with these modules installed (e.g., digital device emissions, PC peripheral requirements, etc.).
Important note: In the event that these conditions can not be met (for certain configurations or co-location with another transmitter), then Industry Canada certification is no longer considered valid and the IC Certification Number can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end products (including the transmitter) and obtaining a separate Industry Canada authorization.

End product labeling

The endnode module is labeled with its own IC Certification Number. If the IC Certification Number is not visible when a module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following:

'Contains IC: IC9514A-683081150C1'

'Contains IC: 8231A-EN110'

'Contains IC: 8231A-EN055'

The OEM of the respective module must only use the approved antenna listed above, which have been certified with this module. The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module or change RF related parameters in the user's manual of the end products.

Introduction

This appendix contains information about the online configuration of *VingCard Signature RFID.* The online configuration is based on the ZigBee standard, a standard for transmission of data via radio. For general information about *VingCard Signature RFID*, see previous chapters in this manual.

There is also an easy 2-page quick installation guideline available; different versions for ANSI (DA), ANSI (DB) and EURO.

For full online functionality, *VingCard Signature RFID* is used with an ANSI 4-switch lock case and an RFID LCU (for full RFID LCU name, see Table 5). If full online functionality is not needed, *VingCard Signature RFID* can be used with lock cases that are not 4-switch.

For *VingCard Signature RFID* online, a *battery holder 4.5V* (see pos **5** in Figure 17) with 3AA batteries is used.

Quick reference of technical data

Power	4.5V – 3AA batteries	
Reader option	RFID	
Online type	RF	
Lock case options (all 4.5V)	ANSI (DA) with 2 switches ANSI (DA) with ADB ANSI (DA) with 4 switches ANSI (DB) with 2 switches ANSI (DB) with ADB ANSI (DB) with 4 switches ANSI AUS ANSI JPN EURO with 2 switches EURO with ADB	70 25/28/32 70 25/28/32 70 25/28/32 70 25/28/32 70 25/28/32 70 25/28/32 70 25/28/32 70 25/28/32 65/80 20/22/24 65 20/22/24
Audit trail	2000 events	
Cylinder option	Yes	
System compatibility	Visionline	

Table C1: Technical specification; VingCard Signature RFID, online

Exploded view

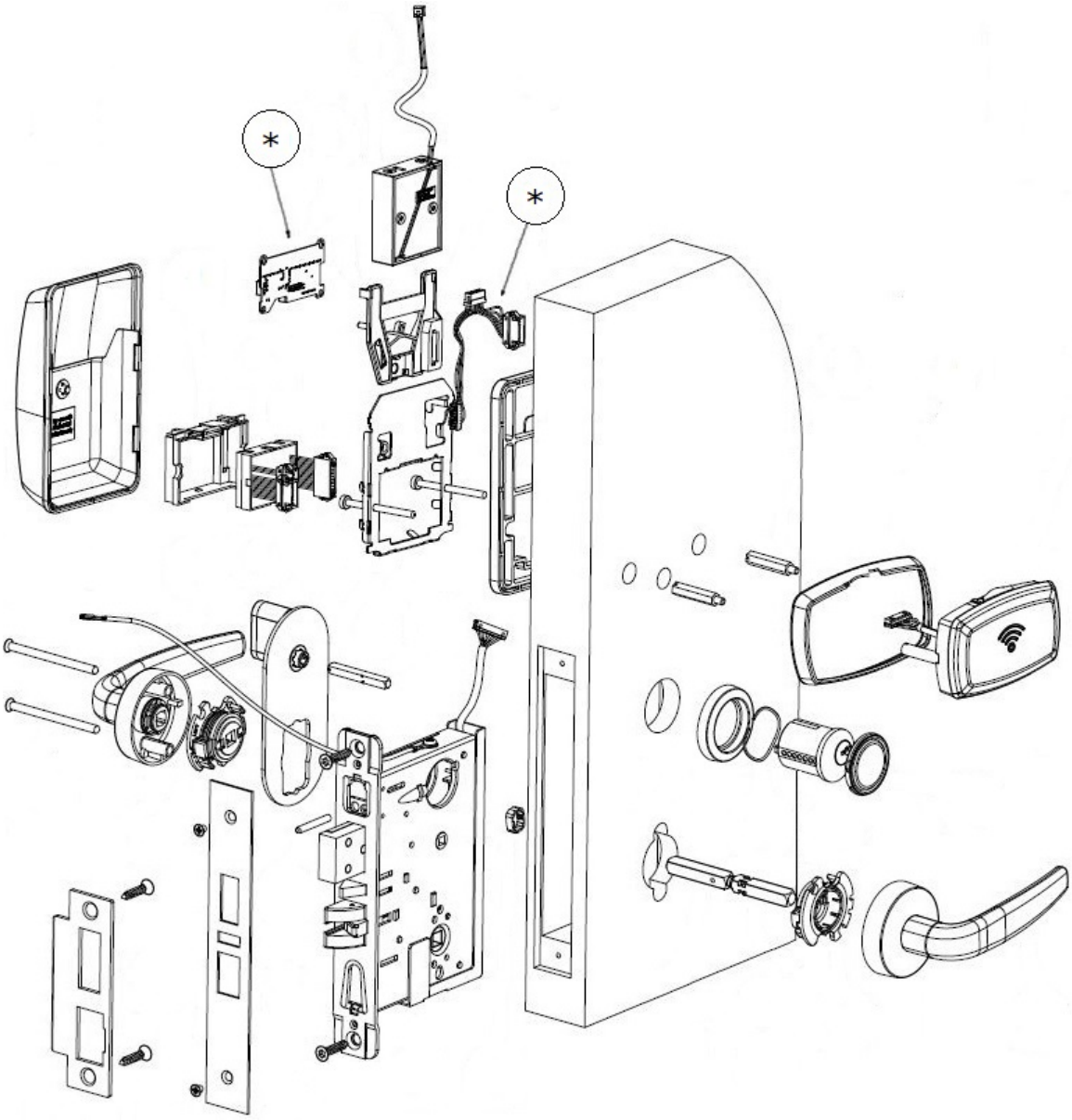


*Figure A1: Lock components for VingCard Signature RFID, online; ANSI (DA) with cylinder. The items marked with * are included in 'Zigbee end node kit with Signature/ Essence cable', which is sold separately. The rest of the spare parts are found in Figure 17 and Table 5 of this manual.*

To install the lock

The installation procedure is the same as described in section 4.5, except for the cabling whick looks as in Figure A2:

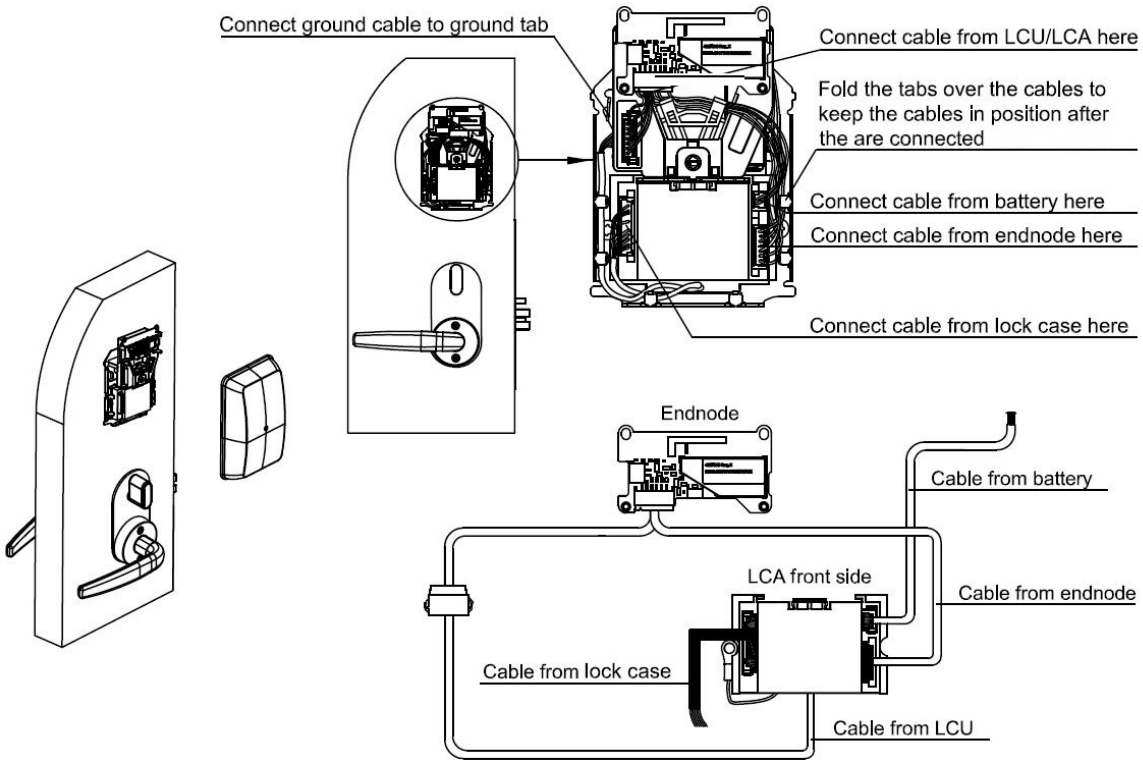


Figure A2

- Connect the ground cable to the ground tab at the mounting plate.
- Connect the lock motor cable to the 10-pin connector at the front of the LCA.
- Connect the battery cable to the 2-pin connector at the front of the LCA.
- Connect the split cable to LCU and endnode, and also to the 7-pin connector at the LCA.
- Fix the cables by bending the fixing points as shown above.
- Insert the battery cassette.
  Important: To avoid short circuit, the back of the battery cassette must face the door blade, i.e. the batteries should be visible under the battery protector.
- Snap the battery protector into place according to Figure C2.
- and connect the battery cable
- Place the battery cover on the inside mounting plate; a "click" indicates that the battery cover is in position.

Also see photos A3-A5 on next page.

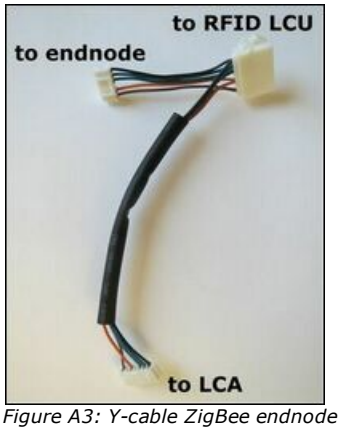


Figure A3: Y-cable ZigBee endnode

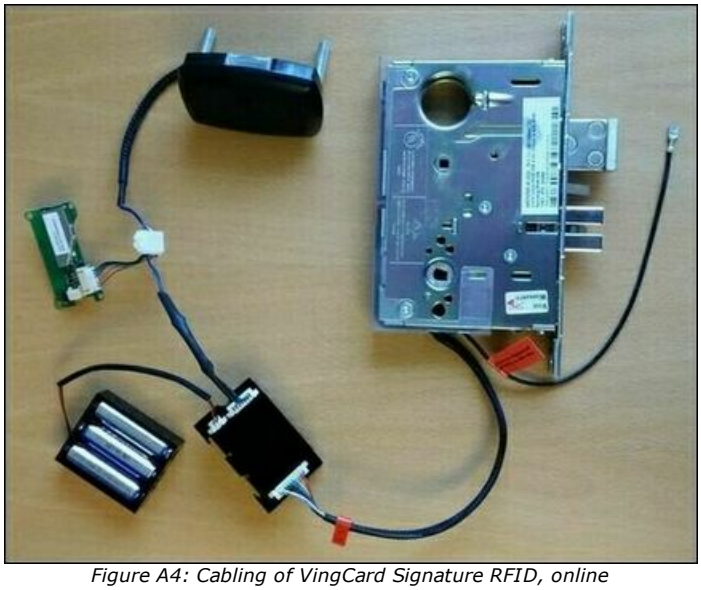


Figure A4: Cabling of VingCard Signature RFID, online

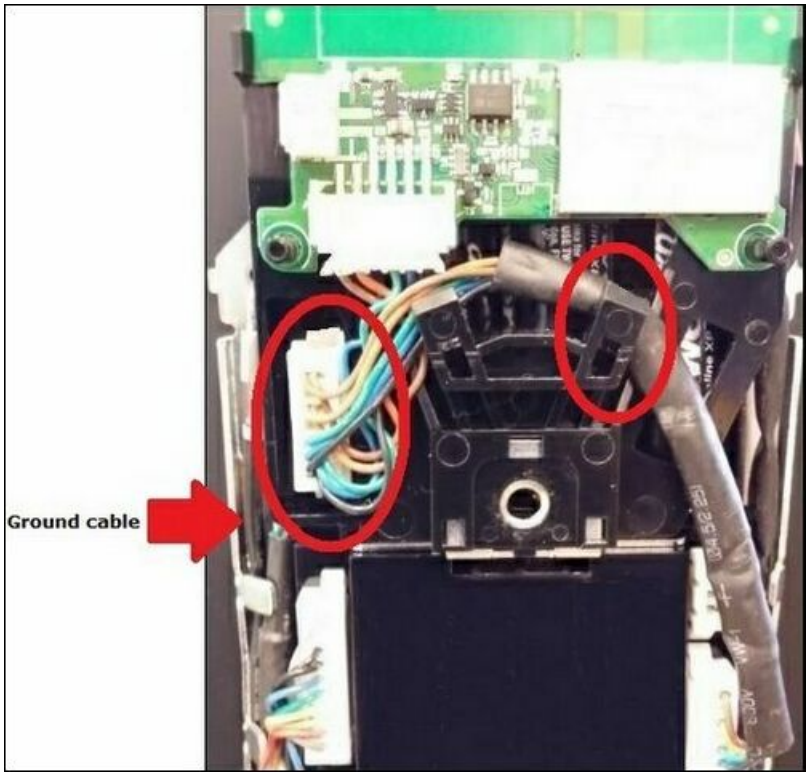


Fig A5: Cable connection and positions for LCA and endnode

Battery maintenance

The procedure to replace batteries is the same for online locks as for offline locks; see section 6.3. Other maintenance information is also the same as for offline locks; see chapter 6.

Appendix B: BLE

FCC statements for BLE module

This device comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) The BLE Module may not cause harmful interference, and
2) The BLE Module must accept any interference received, including interference that may cause undesired operation.

Important note: To maintain compliance with FCC´s RF exposure guidelines, this equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. Use only the supplied antenna.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antennas or transmitters. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The concerned end product must be labeled to say '**Contains FCC ID: Y7V-7001CC1**' or '**Contains FCC ID: Y7V-681402004**', depending on which BLE Module that is applicable.

The label stating this can be seen by opening the back cover of the Host System; the label is attached on the Host System, and is seen directly.

ISED (IC) statements for BLE module

This device comply with Industry Canada licence-exempt RSS standard *CAN ICES-3 (B)/NMB-3(B) B*. Operation is subject to the following two conditions:

1) The BLE Module may not cause interference, and
2) The BLE Module must accept any interference, including interference that may cause undesired operation of the device.

Important note: To comply with Industry Canada RF radiation exposure limits for general population, the antennas used for these transmitters are exempted from *Routine Evaluation Limits – SAR Evaluation* in accordance with *RSS-102 section 2.5.1*.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential

radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This BLE Module '**IC: 9514A-7001CC1**' or '**IC: 9514A-681402004**' has been approved by Industry Canada to operate with the antenna type listed below with the indicated maximum permissible gain and required antenna impedance. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Name/Model	**Gain**	**Impedance**
Inverted F-antenna	3.0 dBi	50 ohm

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met. The concerned end product must be labeled to say '**Contains IC: 9514A-7001CC1**' or '**IC: 9514A-681402004**', depending on which BLE Module that is applicable.

Déclarations d'Industry Canada pour module BLE

Cet équipement est conforme aux normes d'exemption de licence RSS d'Industry Canada *CAN ICES-3 (B)/ NMB-3(B) B*. Son utilisation est soumise aux deux conditions suivantes:

1) Le module BLE ne doit pas provoquer d'interférence, et
2) Le module BLE doit accepter toute interférence, y compris des interférences susceptibles de provoquer un fonctionnement indésirable de l'équipement.

Remarque importante: Pour respecter les limites d'exposition aux radiofréquences d'Industry Canada pour le grand public, les antennes utilisées pour ces émetteurs-transmetteurs sont exemptées des limites d'évaluation de *routine – évaluation SAR*, conformément à la norme *RSS-102 section 2.5.1*.

Conformément aux réglementations d'Industry Canada, cet émetteur radio peut uniquement fonctionner à l'aide d'une antenne dont le type et le gain maximal (ou minimal) pour ces émetteurs-transmetteurs sont approuvés par Industry Canada. Pour réduire le risque d'interférence éventuelle pour les autres utilisateurs, le type
et le gain de l'antenne doivent être choisis de manière à ce que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne soit pas supérieure à la puissance nécessaire à une bonne communication.

Ce module BLE '**IC: 9514A-7001CC1**' ou '**IC: 9514A-681402004**' a été approuvé par Industry Canada pour une utilisation avec les types d'antenne indiqués ci-dessous avec le gain maximum autorisé indiqué et l'impédance d'antenne requise. Il est strictement interdit d'utiliser avec cet appareil un type d'antenne ne figurant pas dans cette liste ou ayant un gain supérieur au gain maximum indiqué pour ce type.

Appellation/Modèle	**Gain**	**Impédance**
Antenne F inversée	3.0 dBi	50 ohm

Le terme "IC" devant le numéro de certification de l'équipement signifie seulement que les spécifications techniques d'Industry Canada ont été respectées. Le produit final concerné doit porter une étiquette avec la mention: '**Contient IC: 9514A-7001CC1**' ou '**Contient IC: 9514A-681402004**'.

Introduction

With the *mobile access* option set in the Visionline software, the BLE technology (*Bluetooth® Low Energy*) is used for exchanging data. Instead of using cards for access, mobile keys are used. The guest must have a Bluetooth® telephone which is registered with an *endpoint ID*, and an app for opening the door.

Parts for the upgrade

Figure B1: BLE module

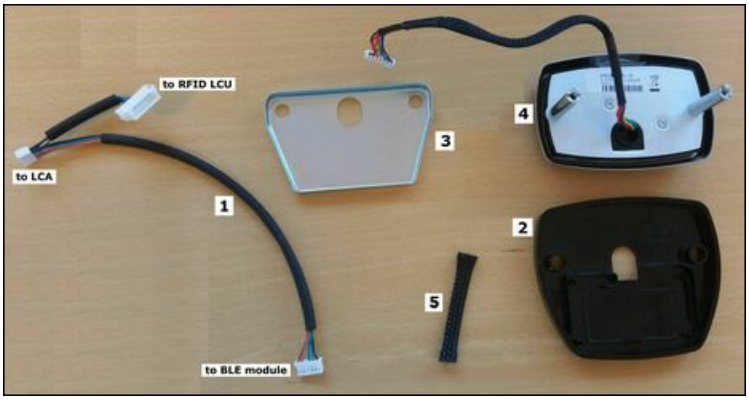


Figure B2: Signature kit, housing BLE

Pos	Description	Quantity	
1	Y-cable ZigBee&BLE for Classic	1	
2	Housing BLE	1	
3	Shield BLE	1	
4	Screw standoff	2	
5	Cable sleeve	1	*Table B1*

Tools for the upgrade

- Flat screwdriver
- Screwdriver *Torx TR20*
- *Lock Service 3G*; minimum version 1.1.1
- *USB interface 3G*; complete ordering name is *cable RJ12 to USB adapter (for 3G)*
- Service cable; complete ordering name is *service cable RJ12 for 3G RFID LCU & E-cylinder*

Upgrade procedure

Figure B3

Figure B4

Figure B5

1. If the door thickness requires it: exchange the regular spacers on the back of the *LCU Signature RFID assy* (from now on called 'LCU assy') with the *screws standoff* (pos **4** in Signature kit, housing BLE).

2. Mount the LCU assy and its *skirt for Signature RFID reader* (from now on called 'skirt') in the *housing BLE* (pos **2** in Signature kit, housing BLE) as shown in Figures B4 and B5.

Figure B6

Figure B7

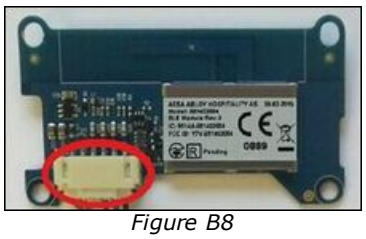


Figure B8

3. Thread the cable sleeve (marked with red in Figure B6) onto the *RFID LCU reader cable*.

4. Thread the Y-cable through the *shield BLE* and through the cable sleeve, which will now contain two cables. Push the cable sleeve all the way down to the *housing BLE*.

5. Connect the Y-cable to the BLE module.

Figure B9

Figure B10

Figure B11

6. Mount the BLE module in the *housing BLE*.

7. Push the *cable sleeve* all the way down to the *housing BLE*.
8. Thread the *shield BLE* over the *screws standoff* (or regular spacers, if they are used) and all the way down to the *housing BLE*.

9. Thread the *cable sleeve* through the middle hole of the door cut-out and the *screws standoff* (or spacers) through the outer holes of the door cut-out.

Figure B12

Figure B13

Figure B14

10. Mount the *housing BLE* including the skirt with LCU assy on the door; the screws standoff (or spacers) on the back of the LCU assy are in step 11 fastened together with the mounting frame.

11. Use a *screwdriver Torx TR20* (or *Torx T20*) to fasten the mounting frame with two screws on the back of the door.

Note: Make sure to align the mounting frame on both sides before fastening it.

12. Snap the *LCA* onto the mounting frame (hide the *lock motor cable* and the *RFID LCU reader cable* behind it).
13. Connect cables; see Fig B14:
    I. Connect the ground cable to the connector at the mounting frame.
    II. Connect the lock motor cable to the 10-pin connector on the left side of the LCA.

Figure B16

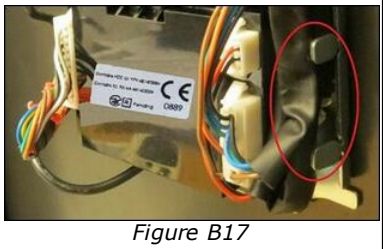


Figure B17

14. Snap the *battery protection* (marked with an arrow in Figure 15) onto the mounting frame. ***Note:*** The plug parking on the left side of the battery protection (marked with an arrow in Figure B16) cannot be used since the cables are too short.
15. Connect the LCA part of the Y-cable to the 7-pin connector on the right side of the LCA; marked 'I' in Figure B16.
16. Mount the *battery holder 4.5V* in the battery protection with the batteries standing as shown in Figure B16.
17. Use the clamps on the sides of the mounting frame to keep the cables in place; see Figure B17.
18. Use the clamps on the sides of the mounting frame to keep the cables in place; see Figure B15.
19. Load the *battery holder 4.5V* with 3 AA batteries.
20. Connect the battery cable to the 2-pin connector on the right side of the LCA; marked 'II' in Figure B16.

21. Thread the battery cover onto the mounting frame.
22. Use a *screwdriver Torx TR20* to fasten the battery cover.

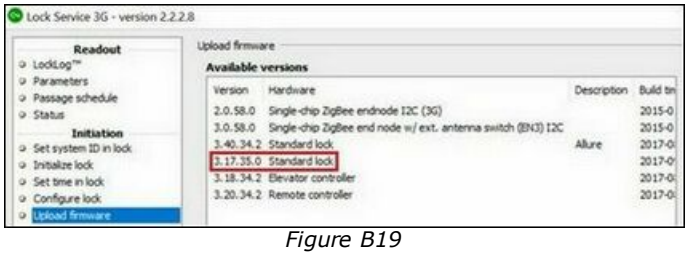


Figure B19

23. If not done before, use a service cable and *Lock Service 3G* to upload the firmware *3.17.XX.X* (included under **Upload firmware** in *Lock Service 3G*). If a later firmware version is available, first use the **Download firmware** alternative; see *Quick reference guide Lock Service 3G* for details.

Appendix C: ZigBee and BLE

FCC statements for endnode

This device comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) The BLE Module may not cause harmful interference, and
2) The BLE Module must accept any interference received, including interference that may cause undesired operation.

Important note: To maintain compliance with FCC´s RF exposure guidelines, this equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. Use only the supplied antenna.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antennas or transmitters. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The concerned end product must be labeled to say '**Contains FCC ID: Y7V-7001CC1**' or '**Contains FCC ID: Y7V-681402004**', depending on which BLE Module that is applicable.

The label stating this can be seen by opening the back cover of the Host System; the label is attached on the Host System, and is seen directly.

ISED (IC) statements for endnode

These devices comply with Industry Canada licence-exempt RSS standard CAN ICES-3 (B)/NMB-3(B) B. Operation is subject to the following two conditions:

(1) these devices may not cause interference, and
(2) these devices must accept any interference, including interference that may cause undesired operation of the devices.

Les présents appareils sont conformes aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) les appareils ne doivent pas produire de brouillage, et
(2) l'utilisateur des appareils doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Important note: To comply with Industry Canada RF radiation exposure limits for general population, the antennas used for these transmitters must be installed such that a minimum separation distance

of 20 cm is maintained between the radiator (antenna) and all persons at all times and must not be co-located or operating in conjunction with any other antenna or transmitter.

Under Industry Canada regulations, these radio transmitters may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

These radio transmitters IC9514A-683081150C1, IC8231A-EN110 and IC8231A-EN055 have been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with these devices.

Name/Model	Gain	Impedance
Inverted F-antenna	3.0 dBi	50 ohm

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

Le terme "IC" devant le numéro de certification signifie seulement que les specifications techniques Industrie Canada ont été respectées.

OEM responsibilities

The endnode module has been certified for integration into products only by OEM integrators under the following conditions:

1. The antenna must be installed such that a minimum separation distance of 20cm is maintained between the radiator (antenna) and all persons at all times.
2. The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter.

As long as the two conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with these modules installed (e.g., digital device emissions, PC peripheral requirements, etc.).
Important note: In the event that these conditions can not be met (for certain configurations or co-location with another transmitter), then Industry Canada certification is no longer considered valid and the IC Certification Number can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end products (including the transmitter) and obtaining a separate Industry Canada authorization.

End product labeling

The endnode module is labeled with its own IC Certification Number. If the IC Certification Number is not visible when a module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following:

'Contains IC: IC9514A-683081150C1'

'Contains IC: 8231A-EN110'

'Contains IC: 8231A-EN055'

The OEM of the respective module must only use the approved antenna listed above, which have been certified with this module. The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module or change RF related parameters in the user's manual of the end products.

FCC statements for BLE module

This device comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) The BLE Module may not cause harmful interference, and
2) The BLE Module must accept any interference received, including interference that may cause undesired operation.

Important note: To maintain compliance with FCC´s RF exposure guidelines, this equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. Use only the supplied antenna.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antennas or transmitters. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The concerned end product must be labeled to say '**Contains FCC ID: Y7V-7001CC1**' or '**Contains FCC ID: Y7V-681402004**', depending on which BLE Module that is applicable.

ISED (IC) statements for BLE module

This device comply with Industry Canada licence-exempt RSS standard *CAN ICES-3 (B)/NMB-3(B) B*. Operation is subject to the following two conditions:

1) The BLE Module may not cause interference, and
2) The BLE Module must accept any interference, including interference that may cause undesired operation of the device.

Important note: To comply with Industry Canada RF radiation exposure limits for general population, the antennas used for these transmitters are exempted from *Routine Evaluation Limits – SAR Evaluation* in accordance with *RSS-102 section 2.5.1*.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This BLE Module '**IC: 9514A-7001CC1**' or '**IC: 9514A-681402004**' has been approved by Industry Canada to operate with the antenna type listed below with the indicated maximum permissible gain and required antenna impedance. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Name/Model	**Gain**	**Impedance**
Inverted F-antenna	3.0 dBi	50 ohm

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met. The concerned end product must be labeled to say '**Contains IC: 9514A-7001CC1**' or '**IC: 9514A-681402004**', depending on which BLE Module that is applicable.

Déclarations d'Industry Canada pour module BLE

Cet équipement est conforme aux normes d'exemption de licence RSS d'Industry Canada *CAN ICES-3 (B)/ NMB-3(B) B*. Son utilisation est soumise aux deux conditions suivantes:

1) Le module BLE ne doit pas provoquer d'interférence, et
2) Le module BLE doit accepter toute interférence, y compris des interférences susceptibles de provoquer un fonctionnement indésirable de l'équipement.

Remarque importante: Pour respecter les limites d'exposition aux radiofréquences d'Industry Canada pour le grand public, les antennes utilisées pour ces émetteurs-transmetteurs sont exemptées des limites d'évaluation de *routine – évaluation SAR*, conformément à la norme *RSS-102 section 2.5.1*.

Conformément aux réglementations d'Industry Canada, cet émetteur radio peut uniquement fonctionner à l'aide d'une antenne dont le type et le gain maximal (ou minimal) pour ces émetteurs-transmetteurs sont approuvés par Industry Canada. Pour réduire le risque d'interférence éventuelle pour les autres utilisateurs, le type
et le gain de l'antenne doivent être choisis de manière à ce que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne soit pas supérieure à la puissance nécessaire à une bonne communication.

Ce module BLE '**IC: 9514A-7001CC1**' ou '**IC: 9514A-681402004**' a été approuvé par Industry Canada pour une utilisation avec les types d'antenne indiqués ci-dessous avec le gain maximum autorisé indiqué et l'impédance d'antenne requise. Il est strictement interdit d'utiliser avec cet appareil un type d'antenne ne figurant pas dans cette liste ou ayant un gain supérieur au gain maximum indiqué pour ce type.

Appellation/Modèle	**Gain**	**Impédance**
Antenne F inversée	3.0 dBi	50 ohm

Le terme "IC" devant le numéro de certification de l'équipement signifie seulement que les spécifications techniques d'Industry Canada ont été respectées. Le produit final concerné doit porter une étiquette avec la mention: '**Contient IC: 9514A-7001CC1**' ou '**Contient IC: 9514A-681402004**'.

Introduction

With the *mobile access* option set in the Visionline software, the BLE technology (*Bluetooth® Low Energy*) is used for exchanging data. Instead of using cards for access, mobile keys are used. The guest must have a Bluetooth® telephone which is registered with an *endpoint ID*, and an app for opening the door. This appendix describes how to mount both BLE module and ZigBee endnode at the same installation.

Parts for the upgrade

Figure C1: ZigBee endnode

Figure C2: BLE module

Figure C3: Additional parts for the upgrade

Pos	Description	Quantity
1	Housing BLE	1
2	Shield BLE	1
3	Screw standoff	2
4	Cable sleeve	1
5	Y-cable ZigBee&BLE for Signature & Essence	1

Table C1

Tools for the upgrade

- Flat screwdriver
- Screwdriver *Torx TR20*
- *Lock Service 3G*; minimum version 1.1.1
- *USB interface 3G*; complete ordering name is *cable RJ12 to USB adapter (for 3G)*
- Service cable; complete ordering name is *service cable RJ12 for 3G RFID LCU & E-cylinder*

Upgrade procedure

Figure C4

Figure C5

Figure C6

1. If the door thickness requires it: exchange the regular spacers on the back of the *LCU Signature RFID assy* (from now on called 'LCU assy') with the *screws standoff* (pos **4** in Signature kit, housing BLE).

2. Mount the LCU assy and its *skirt for Signature RFID reader* (from now on called 'skirt') in the *housing BLE* (pos **2** in Signature kit, housing BLE) as shown in Figures B4 and B5.

Figure C7

Figure C8

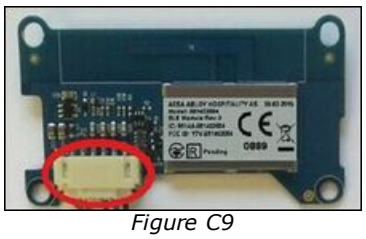


Figure C9

3. Thread the cable sleeve (marked with red in Figure B6) onto the *RFID LCU reader cable*.

4. Thread the Y-cable through the *shield BLE* and through the cable sleeve, which will now contain two cables. Push the cable sleeve all the way down to the *housing BLE*.

5. Connect the Y-cable to the BLE module.

Figure C10

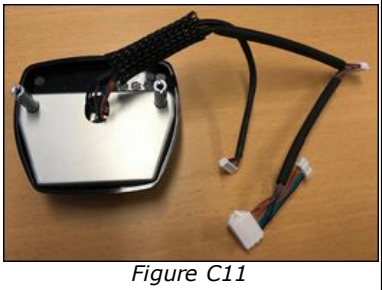


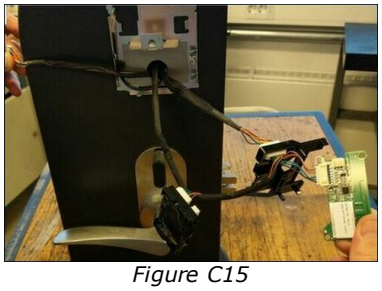
Figure C11

Figure C12

6. Mount the BLE module in the *housing BLE*.

7. Push the *cable sleeve* all the way down to the *housing BLE*.
8. Thread the *shield BLE* over the *screws standoff* (or regular spacers, if they are used) and all the way down to the *housing BLE*.

9. Thread the *cable sleeve* through the middle hole of the door cut-out and the *screws standoff* (or spacers) through the outer holes of the door cut-out.

<table>
<tr>
<td> 
Figure C13</td>
<td> 
Figure C14</td>
<td> 
Figure C15</td>
</tr>
<tr>
<td>10. Mount the housing BLE including the skirt with LCU assy on the door; the screws standoff (or spacers) on the back of the LCU assy are in step 11 fastened together with the mounting frame.</td>
<td>11. Use a screwdriver Torx TR20 (or Torx T20) to fasten the mounting frame with two screws on the back of the door.

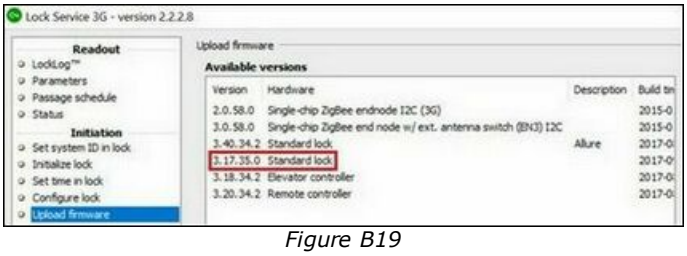
<u>Note:</u> Make sure to align the mounting frame on both sides before fastening it.</td>
<td>12. Snap the LCA onto the mounting frame (hide the lock motor cable and the RFID LCU reader cable behind it).
13. Connect cables; see Fig B14:
I. Connect the ground cable to the connector at the mounting frame.
II. Connect the lock motor cable to the 10-pin connector on the left side of the LCA.</td>
</tr>
<tr>
<td> 
Figure C16</td>
<td> 
Figure C17</td>
<td> 
Figure B18</td>
</tr>
<tr>
<td>14. Snap the battery protection (marked with an arrow in Figure C16) onto the mounting frame. <u>Note:</u> The plug parking on the left side of the battery protection cannot be used since the cables are too short.
15. Snap the ZigBee endnode onto the battery protection.
16. Connect the LCA part of the Y-cable to the 7-pin connector on the right side of the LCA.
17. Mount the battery holder 4.5V in the battery protection.
18. Use the clamps on the sides of the mounting frame to keep the cables in place; see Figure C17.
19. Load the battery holder 4.5V with 3 AA batteries.
20. Connect the battery cable to the 2-pin connector on the right side of the LCA.</td>
<td>21. Thread the battery cover onto the mounting frame.
22. Use a screwdriver Torx TR20 to fasten the battery cover.</td>
</tr>
<tr>
<td> 

Figure B19</td>
<td>23. If not done before, use a service cable and Lock Service 3G to upload the firmware 3.17.XX.X (included under Upload firmware in Lock Service 3G). If a later firmware version is available, first use the Download firmware alternative; see Quick reference guide Lock Service 3G for details.</td>
</tr>
</table>

Appendix D: Firmware change in LCU 6333

The *VingCard Signature RFID* locks come pre-programmed with a lock firmware from the factory, and it is thus for *VingCard Vision* possible to use construction keycards without programming the locks on site; this requires that *VingCard Vision* has been installed in construction mode. For 2800, the ASSA ABLOY Hospitality business unit/business partner issues construction keycards in *VingCard Vision* and send to the installer. For Visionline, the lock firmware must be upgraded to Visionline lock firmware.

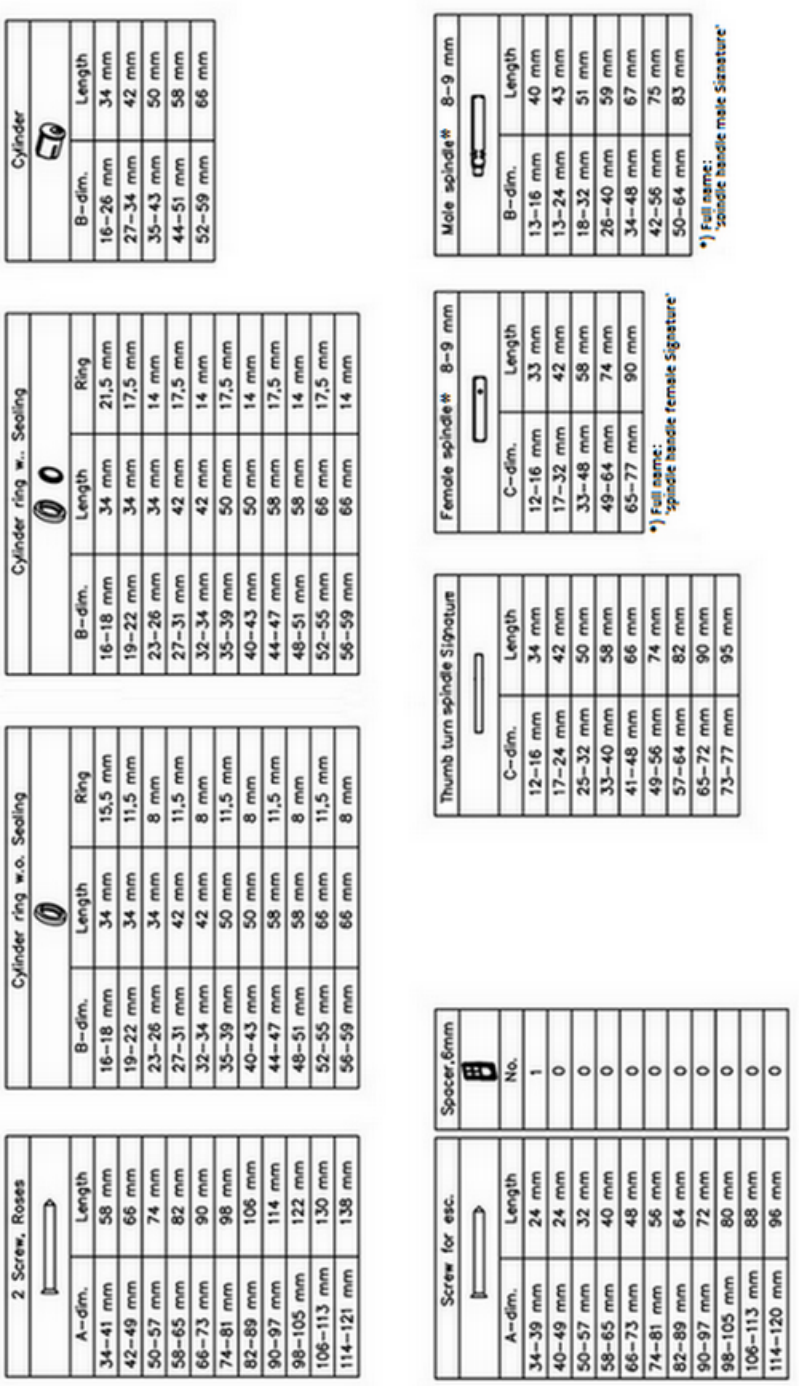
Important note for LCU 6333: At delivery, the lock contains VingCard Vision lock firmware. If Visionline is applicable, the firmware must be upgraded to Visionline lock firmware; follow the steps below. For detailed information about *Lock Service 3G*, see *Quick reference guide Lock Service 3G*.

1. Let the lock be without power.
2. Choose **Upload firmware** in the *Lock Service 3G* software[1)].
3. Connect the service cable to the lock; after a few seconds, the lock LED will be green. Step 4 below must be performed directly after this.
4. At **Upload firmware** in *Lock Service 3G*, mark the applicable lock firmware and click **Upload** within 4 seconds[2)] after the green lock LED was lit in step 3. A progress bar will show how the upgrade proceeds.
5. When the upgrade is complete, a message will be shown.

[1)] Always make sure that the lock firmware which is already included in *Lock Service 3G* is the latest version. If it is not, see the appendix about firmware upgrade in *Setup manual Visionline* for information on how to prepare for lock firmware upgrade, then choose **Download firmware** in *Lock Service 3G* to download the firmware from the Visionline server to *Lock Service 3G*. It is also possible to browse to the firmware file directly from the **Upload firmware** dialog, but it is recommended to go via Visionline.

[2)] If **Upload** is not clicked within 4 seconds, there will be a timeout and the service cable must be disconnected and then connected again.

Appendix E: Part dimensions table



2 Screw, Roses	
A-dim.	Length
34–41 mm	58 mm
42–49 mm	66 mm
50–57 mm	74 mm
58–65 mm	82 mm
66–73 mm	90 mm
74–81 mm	98 mm
82–89 mm	106 mm
90–97 mm	114 mm
98–105 mm	122 mm
106–113 mm	130 mm
114–121 mm	138 mm

Cylinder ring w.o. Sealing		
B-dim.	Length	Ring
16–18 mm	34 mm	15,5 mm
19–22 mm	34 mm	11,5 mm
23–26 mm	34 mm	8 mm
27–31 mm	42 mm	11,5 mm
32–34 mm	42 mm	8 mm
35–39 mm	50 mm	11,5 mm
40–43 mm	50 mm	8 mm
44–47 mm	58 mm	11,5 mm
48–51 mm	58 mm	8 mm
52–55 mm	66 mm	11,5 mm
56–59 mm	66 mm	8 mm

Screw for esc.	
A-dim.	Length
34–39 mm	24 mm
40–49 mm	24 mm
50–57 mm	32 mm
58–65 mm	40 mm
66–73 mm	48 mm
74–81 mm	56 mm
82–89 mm	64 mm
90–97 mm	72 mm
98–105 mm	80 mm
106–113 mm	88 mm
114–120 mm	96 mm

Spacer,6mm	
No.	
1	
0	
0	
0	
0	
0	
0	
0	
0	
0	
0	

Cylinder ring w.. Sealing		
B-dim.	Length	Ring
16–18 mm	34 mm	21,5 mm
19–22 mm	34 mm	17,5 mm
23–26 mm	34 mm	14 mm
27–31 mm	42 mm	17,5 mm
32–34 mm	42 mm	14 mm
35–39 mm	50 mm	17,5 mm
40–43 mm	50 mm	14 mm
44–47 mm	58 mm	17,5 mm
48–51 mm	58 mm	14 mm
52–55 mm	66 mm	17,5 mm
56–59 mm	66 mm	14 mm

Thumb turn spindle Signatum	
C-dim.	Length
12–16 mm	34 mm
17–24 mm	42 mm
25–32 mm	50 mm
33–40 mm	58 mm
41–48 mm	66 mm
49–56 mm	74 mm
57–64 mm	82 mm
65–72 mm	90 mm
73–77 mm	95 mm

Cylinder	
B-dim.	Length
16–26 mm	34 mm
27–34 mm	42 mm
35–43 mm	50 mm
44–51 mm	58 mm
52–59 mm	66 mm

Female spindle* 8–9 mm	
C-dim.	Length
12–16 mm	33 mm
17–32 mm	42 mm
33–48 mm	58 mm
49–64 mm	74 mm
65–77 mm	90 mm

*) Full name: "spindle handle female Signature"

Male spindle* 8–9 mm	
B-dim.	Length
13–16 mm	40 mm
13–24 mm	43 mm
18–32 mm	51 mm
26–40 mm	59 mm
34–48 mm	67 mm
42–56 mm	75 mm
50–64 mm	83 mm

*) Full name: "spindle handle male Signature"

Table G1

Appendix F: Site survey form

System no:

Name:

Adress:

Contractor:

Door #	Dimensions			Door handing				ANSI								EURO										
								lock front			front cover		striker plate			lock front			front height			backset		striker plate		
	A	B	C	LH	RH	RHR	LHR	25	28	32	std. 203	custo-mized	std.	custo-mized		20	22	24	std. 225	std. 235	custo-mized	65	60	std.	custo-mized	

Table H1

Appendix G: Summary of notes

Below is a summary of the tips, important notes and cautions from the different sections of this manual. It therefore gives a condensed overview of what to think of in different phases for the *VingCard Signature RFID* lock, such as site survey and lock installation. Some tips appear in more than one manual section – they are then only mentioned once in this appendix. Some tips have been slightly rewritten to be understandable outside their original context.

1. Introduction

Important: LCU 6334 (*lock controller unit*) contains Visionline lock firmware at delivery. If instead *VingCard Vision* is applicable, a *Fail Safe Programming card* encoded in *VingCard Vision* must be presented to the lock before first initialization. The swap is performed by reading VingCard Vision firmware from the EEPROM and then overwriting *Visionline* firmware in the LCU. For LCU 6333, see Appendix F.

Note: This document gives some basic information about cylinder installation, but for details about recoding cylinders etc, see the document *Classic/Signature/ Essence cylinder option*.

Important note for Visionline: If the power is lost too long (typically around 1 minute but it can also be shorter, especially for online locks), there will be a *soft reset* of the lock. If a soft reset has occurred, the following measures must be taken:

- the time must be reprogrammed into the lock
- if any of the functions stand open (set by card) and/or privacy were used, they must be set in the lock again. If the RFID LCU is activated during the power loss (using any card or operating the lock in any other way), the clock may also reset.

2. Site survey

Important: Always make the A- and B-dimensions **without** calculating for any cover plates or spacers. Also check if it is a wooden door or a steel door. This will decide what kind of tools you will need for the installation.

Tip: A special 6 mm (0.24") spacer under the battery cover can be used on the inside of the doors that are less than 40 mm (1.57") thick. The A-dimension must be minimum 34 mm (1.34"). **Note that the spacer is 2 mm (0.079") wider and higher than the battery cover and RFID LCU.**

Note: Cut-out drawings are listed in section 3.1. There is also a paper template available; see Figure 13.

Tip: In cases of conflict, also consider a wall-mounted remote controller as an alternative.

Important: The hole for the cylinder is optional and is only to be cut out for locks equipped with cylinders and only from the outside of the door to the center of the lock case; i.e., not through the entire door.

Important: If you are going to install the security cylinder Hydra, remember to make space for the *cylinder fastening clip* (available in different variants for ANSI and EURO) when making the cut-out for the lock case. See the document *Classic/Signature/Essence cylinder option* for more details about cylinders.

Important: Make sure that the cover plate does not protrude to a door area covered by the door frame.

3. To mortise the door

Tip: ASSA ABLOY Hospitality is offering a mortise jig for wooden doors, which can be ordered by a ASSA ABLOY Hospitality representative. The mortise jig for wooden doors contains jigs, drills and machines for making cut-outs for the lock case, outside and inside trims, and strike. This kit is designed for wooden doors and cannot be used for steel doors.

Tip: ASSA ABLOY Hospitality is offering a mortise jig for steel doors, which can be ordered by a ASSA ABLOY Hospitality representative. The mortise jig for steel doors is a jig for making cut-outs for outside and inside trims. This jig allows elevating the RFID LCU on the outside and battery cover on the inside 0-30 mm (0-1.18") upwards. This may avoid cutting the internal steel frame in a steel door. **Note that if you use cover plates, any deviations here will affect the cover plate dimensions as well.**

Tip: When upgrading the lock system from an existing ANSI or EURO lock (from ASSA ABLOY Hospitality or of other type), a mortise jig for steel doors may also be used if the door is a wooden door.

Important: The lock front can be delivered with a width of 32 mm (1.260''), 28 mm (1.102'') or 25 mm (0.984''). Make sure that you mortise the door to the right dimensions for your lock dimensions. Check the lock dimensions before you start cutting.

Caution: If the cut-out for the deadbolt is less than 25.4 mm (1") deep, the deadbolt may not be retracted by use of a metal key in case of an emergency when the door is double locked. (ANSI AUS = 0, ANSI JPN = 21).

Caution: Be aware if there is any door gasket. If so, compensation must be made by adjusting the horizontal positioning of the strike.

Important: If the striker plate is not used (example: steel frame) it is important that the distance between the latch (lower) cut-out and the deadbolt cut-out must be 12 mm (0.47") in order for the auxiliary latch to work.

4. To install the lock

Note: Online parts are sold separately as a *Zigbee end node kit with Signature/ Essence cable,* see this section for details.

Note: Spacers are not included as standard. They are only needed if the door thickness is less than 40 mm (1.57").

Note: If installing on a steel door, make sure that the hole where the cable will pass through the door has no metal burrs that can damage the cable.

Important: The handle retainer must be checked so that it is in the "click" position within the groove on the shank of the handle.

Important: The *screws Signature M5* (screws for the door handle roses) must always be installed from the inside of the door.

Note: The thumb turn knob should always be pointing upwards if ANSI (DA) lock case is used, and downwards if ANSI (DB) lock case or EURO lock case is used.

Important: Make sure that the *inside mounting frame Signature* is aligned on both sides.

Note: There is no lock front for EURO lock cases.

Important: Do not close the door before the lock has been tested. This warning is even more important if the lock is without cylinder.

6. Maintenance

Caution: The use of lubricants containing solvents or graphite will void the lock warranty.

Important: Battery check and/or replacement should be performed at scheduled intervals.

Important: For *Visionline*, it is recommended to always make a read-out of the time in the lock after a battery exchange to make sure that it is correct. Use a service cable and a service PC with the software *Lock Service 3G*; see *Quick reference guide Lock Service 3G* for details. If the time is not correct, a soft reset has occurred.

Important: Make sure to have three fresh AA batteries ready since the *battery holder 4.5V* with new batteries must be connected as quickly as possible (for

VingCard Vision locks 3 minutes; for *Visionline* locks typically 1 minute or less) after the old batteries have been disconnected, else a soft reset may take place; see details in the step-by-step-description below. Do not insert any card during the battery exchange. If other batteries than those provided by ASSA ABLOY Hospitality are used, make sure that they are alkaline or long life batteries.

Important: The old batteries shall be treated in accordance with local regulations regarding recycling.

Important note for Visionline: If a short green flash is seen when the battery is connected, a soft reset has been done since the lock has been without power too long. Be observant on the green flash; it can be hard to see due to surrounding light. If a soft reset has occurred, the following measures must be taken:

- the time must be reprogrammed into the lock
- if any of the functions stand open (set by card) and/or privacy were used, they must be set in the lock again.

Tip: Use a long set of pliers to remove the spindle locking clip.

Revision history

Name	Revisio	Date	Reason
KG	0	February 7, 2018	First release (previously included in manual covering all RFID versions)

Stay Smart

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