User Manual

VingCard Essence (v2)

ASSA ABLOY Hospitality

ASSA ABLOY

The global leader in
door opening solutions

Copyrights

The information in this document is subject to change at the sole discretion of ASSA ABLOY without notice.

Any use, operation or repair in contravention of this document is at your own risk. ASSA ABLOY does not assume any responsibility for incidental or consequential damages arising from the use of this manual.

All information and drawings in this document are the property of ASSA ABLOY. Unauthorized use and reproduction is prohibited.

VingCard and Elsafe are registered trademarks of ASSA ABLOY.

Table of contents

FCC and IC statements

FCC (Federal Communications Commission) statements

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 (*lock controller unit*) must be labeled to say 'FCC ID: Y7V-4827610CC1'.

IC (Industry Canada) statements

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 (*lock controller unit*) is labeled 'IC:9514A-4827610CC1'.

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 Essence (v2)* locks sufficient information to install and support this type of lock. This manual contains descriptions and drawings needed for installation, maintenance and troubleshooting of *VingCard Essence (v2)*. Site survey before installation is also covered in this document. The *VingCard Essence (v2)* lock can be used together with the *Visionline* system. All dimensions in this manual (where applicable) are given in mm and inches.

Important: *VingCard Essence (v2)* can only be installed in non-metallic doors.

Appendix F 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 Essence (v2)* installation, from site survey to completion.

1.1 Lock Controller Unit (LCU) label

Figure 1: Labeling of LCU

2. Site survey

Before any order is placed, a site survey must be performed. Details which 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

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
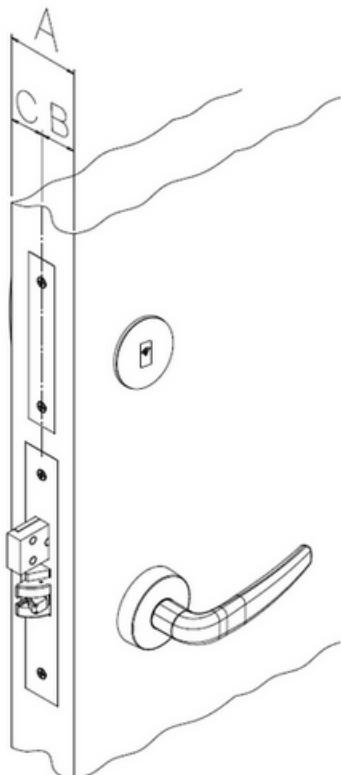
Figure 2: A-, B- and C-dimensions

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

The A-, B- and C-dimensions are important to know when ordering *VingCard Essence (v2)* or certain parts for it. See [Appendix A: Part dimensions table for Signature/Essence](#) for detailed information about length of screws, spindles etc according to the A-, B- and C-dimensions.

Minimum door thickness:

A-Dimension	B-Dimension
38 mm; 1.50"	16 mm; 0.63"

Table 1: Minimum door dimensions; applicable for all ANSI types and all EURO types

Maximum door thickness:

A-Dimension	B-Dimension
129 mm; 5.087"	56 mm; 2.205"

Table 2: Maximum door dimensions; applicable for all ANSI types and all EURO types

2.2 Door handing
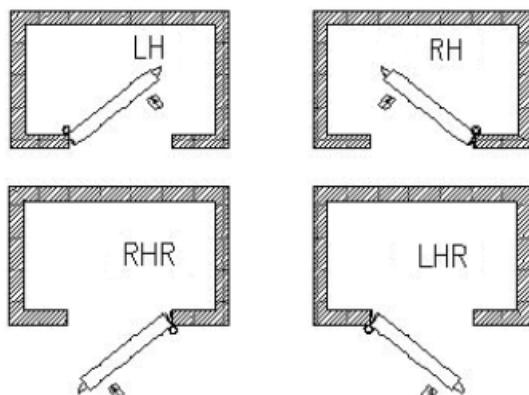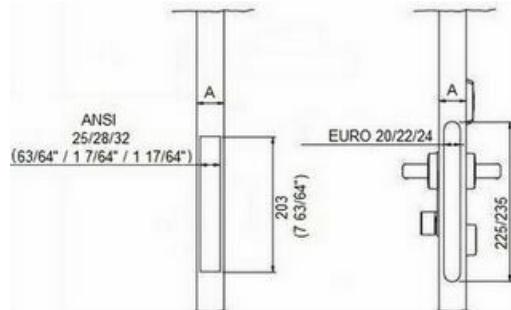
Figure 3: Door handing; for explanation, see Table 3 below.

Note: Always make sure to have the correct handing for all doors.

LH	Left handle
RH	Right handle
RHR	Right handle, retract
LHR	Left handle, retract

Table 3: Explanation of door handing abbreviations

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 4: Available heights and widths for ANSI and EURO lock cases

2.3.1 ANSI lock case orientation

*Figure 5: ANSI (DA) lock case; the **D**ead-bolt is **A**bove the latch.*	*Figure 6: ANSI (DB) lock case; the **D**ead-bolt is **B**elow the latch.*

2.4 Dimension requirements

Check the following dimension requirements:
1. The gap between lock front cover 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, door handles or cylinder does not get in conflict with i.e. glass windows or ornaments/decor on the door.

Note: See section 3.1 for an overview of available cut-outs. **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* when making the cut-out for the lock case.

2.5 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 a steel frame. This will decide what kind of tools you will need for the installation.
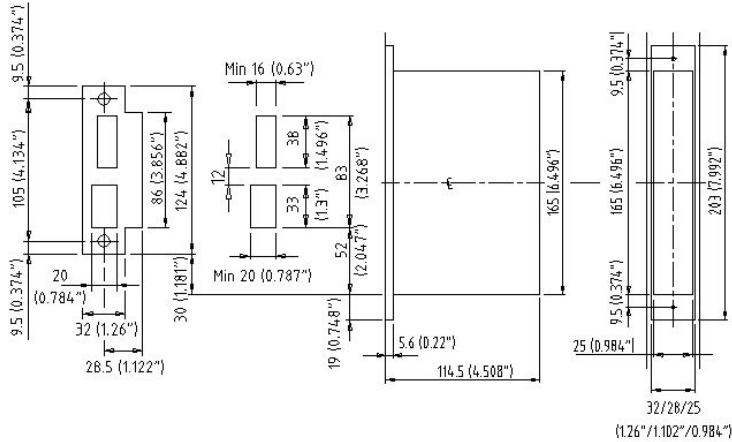
Figure 7: Positioning of ANSI (DA) standard striker plate.
Note the dimension 30 mm (1.181") from the edge
of the lock case to the edge of the striker plate.

Figure 7 above shows the lock case center line (CL); see dot and dash line through the figure above. The CL is important for the positioning of the lock case, striker plate and escutcheon onto the doors.

Position of the ANSI standard striker plate:
The striker plate is positioned in the frame so that the bottom of the striker plate is 30 mm (1.18'') above the bottom of the lock case; see Figure 7. Horizontally, the B- or C-dimension (see Figure 2) will apply depending on the direction of the door and the center/rebate orientation.

Note: Be aware if there is any door gasket.

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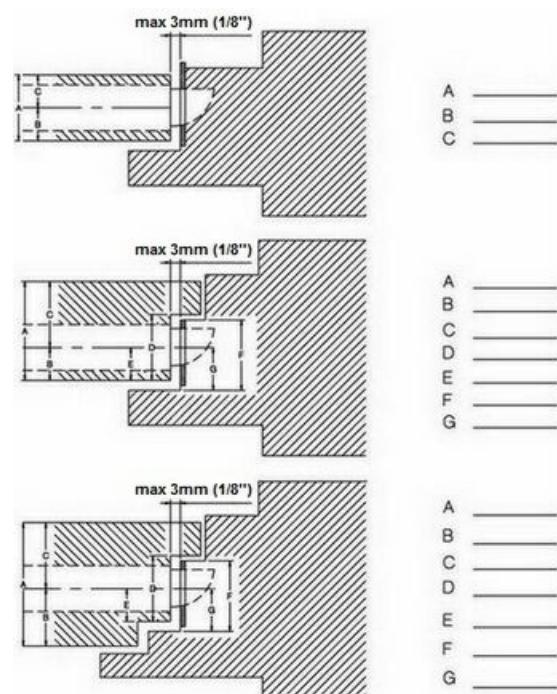
If the door is beveled (edge is not at 90º to door), the dimensions should be based on the shortest side. Standard beveling is 3.2 mm; 1/8".

Figure 8: Beveled doors

2.7 Rebated doors

When it comes to rebated doors and rebated frames, be extra observant regarding protrusion for the deadbolt on the frame side. See Figure 9 for examples of rebated doors and door frames.

*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. The position of the lock case (lock case center line) has to be set according to the ANSI standard and be level from the floor. *American Disabilities Act* (ADA) requirements demand a maximum of 1220 mm (48") height to the highest point of operation.

3.1 Cut-outs
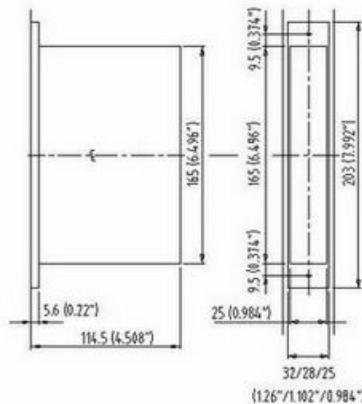
The following cut-outs are available:

Description	Online/offline	Document number
ANSI (DA) with cylinder	Online	AN-236
ANSI (DA) with cylinder	Offline	AN-244
ANSI (DA) without cylinder	Online	AN-238
ANSI (DA) without cylinder	Offline	AN-243
ANSI (DB) with cylinder	Online	AN-241
ANSI (DB) without cylinder	Online	AN-239
EURO with cylinder	Online	AN-242
EURO without cylinder	Online	AN-240
		Table 4

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 10.

*Figure 10: Cut-out for
ANSI (DA) lock case*

Important: The lock front can be delivered with a width of 32 mm (1.26"), 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 dimensions of the lock before you start cutting.

Important: If you are going to install the security cylinder Hydra, remember to make space for the *cylinder fastening clip* when making the cut-out for the lock case.

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

Hammer and chisel are needed to make the corners for the lock front.

3.3 To mortise for the striker plate
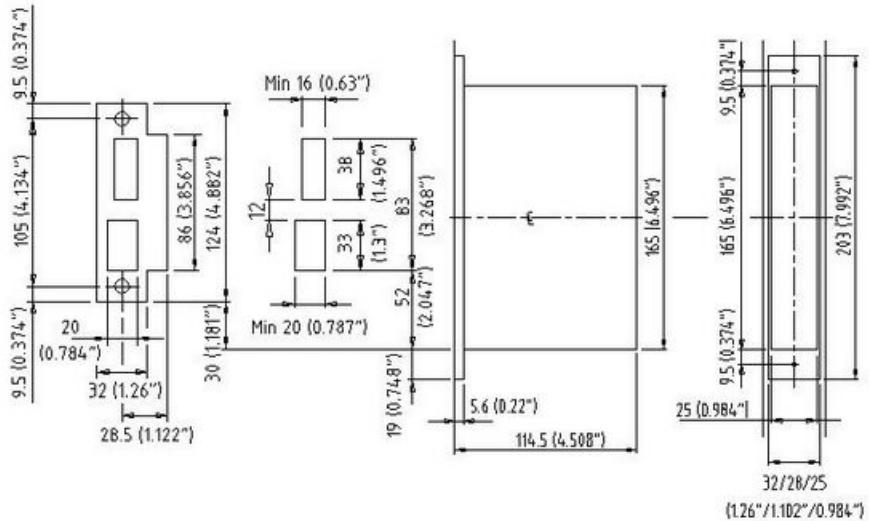
Figure 11: External striker plate dimensions and
cut-out dimensions for ANSI (DA).

Note: Be aware of the dimension 30 mm (1.181") from the edge of the lock case to the edge of the striker plate.

Before mortising for the striker plate, make sure to align the side template vertically and horizontally according to Figure 11. 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.

3.3.1 Tools needed to make the cut-out for the striker plate
Use an ordinary drilling machine, hammer and chisel.

4. To install the lock

4.1 Necessary tools for the installation

Pozidriv 2 screwdriver   Cross-head screwdriver   Wrench 8 mm (5/16)"   Hexagon pipe   If cylinder is applicable: Unbrako 2 mm (5/64)"
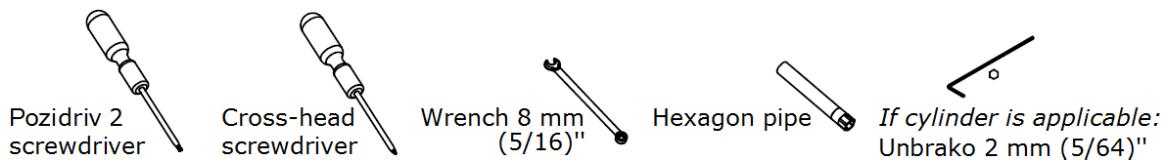
Figure 12: Tools needed for installing the lock;
the Unbrako is only needed if cylinder is applicable

The tools shown in Figure 12 are needed for assembly of the lock:
- Pozidriv 2 screwdriver
- Cross-head screwdriver
- Wrench 8 mm (5/16)"
- Hexagon pipe
- *If cylinder is applicable*: Unbrako 2 mm (5/64)"; 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 and a variety of door handles from the Designers Collection from Valli & Valli.

Gothic   **ANSI**

Straight   **Wing**
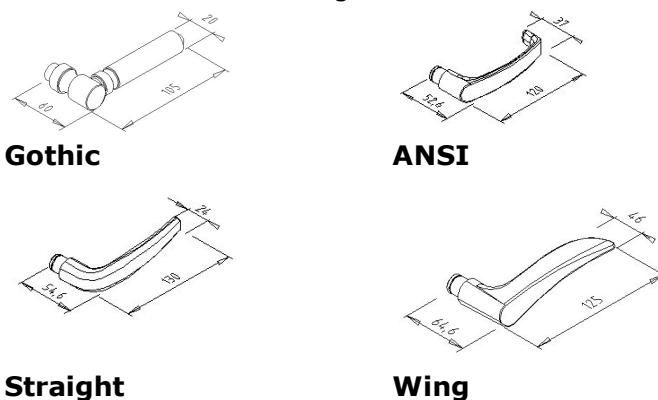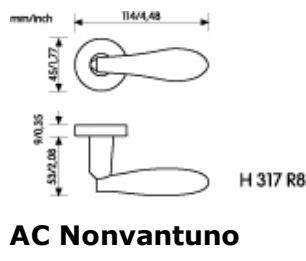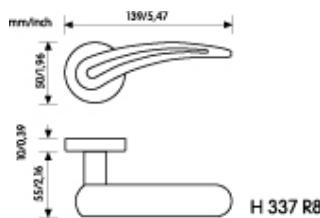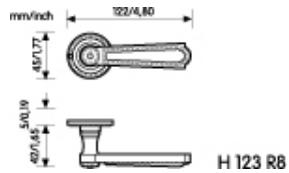
Figure 13: Standard Essence door handles

AC Nonvantuno

H 317 R8

GP Novantotto

H 337 R8
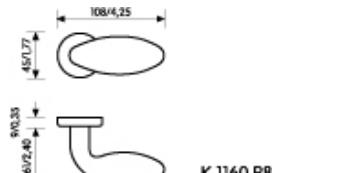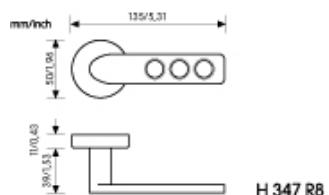
H123 R8 (Valli & Valli)
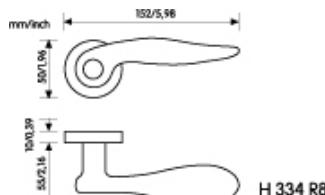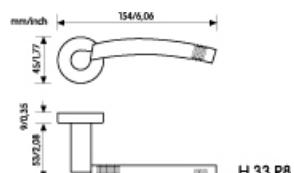
H 123 R8

K1160 R8 (Valli & Valli)

K 1160 R8

MDF Duemiladue

H 347 R8

NF Novantotto

H 334 R8

Quattro S

H 33 R8

Quattro S

H 38 R8

S Novanta

H 314 R8
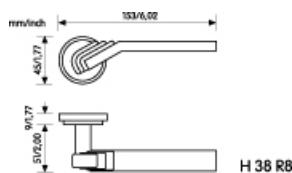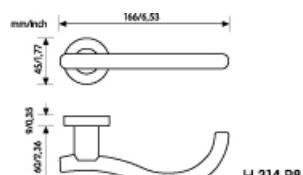
Figure 14: Door handles from the Designers Collection from Valli &Valli

4.3 Exploded view

4.3.1 ANSI (DA)
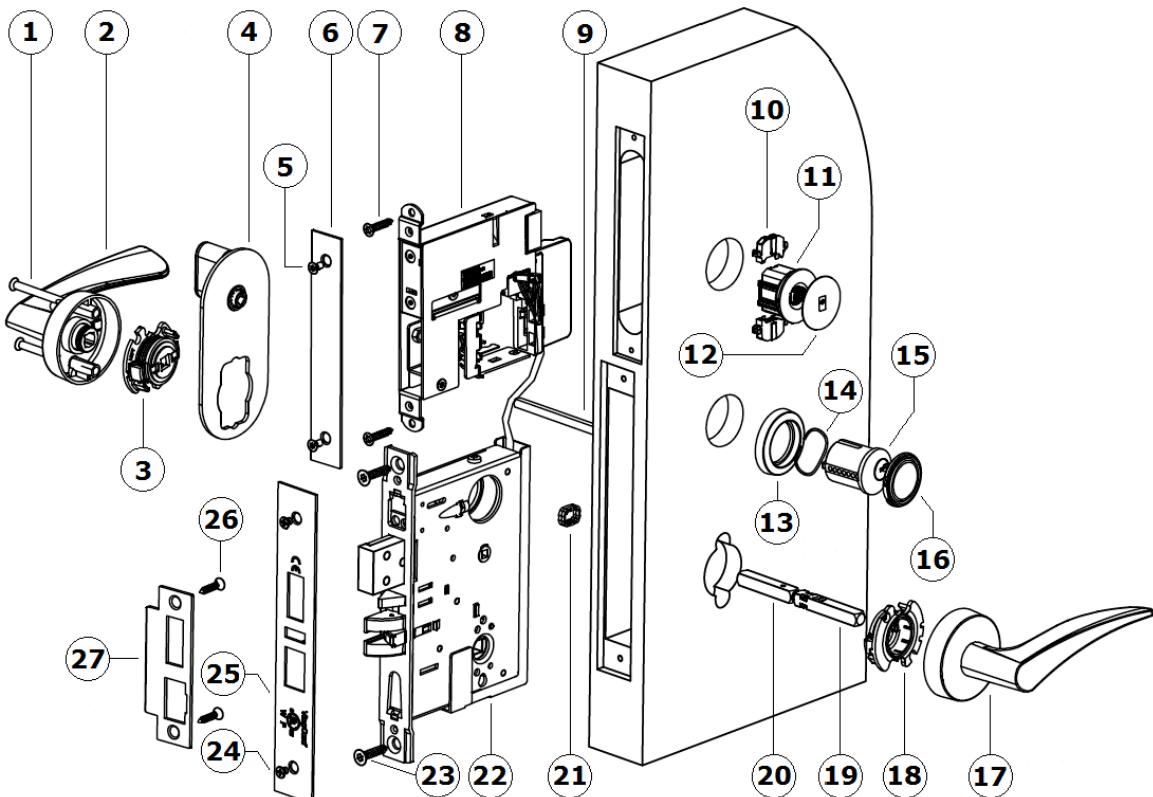
Figure 15: Components for a VingCard Essence (v2) lock, ANSI (DA) variant with cylinder

Pos	Description	Available as single item	Available as kit
1	Screw Signature M5	X	HW kit Essence/Sig 1000-series
2	Handle on inside rose Signature	X	
3, 18	Handle retainer*Signature	X	HW kit Essence/Sig 1000-series
4	Escutcheon thumbturn Signature	X	
5	Screw, M4x5	X	• Front end kit, square, for Essence • Screw kit for ANSI lock case, brass & chrome
6	Front for Essence cassette	X	Front end kit, square, for Essence cassette
7	Screw 4,5 x 22		Front end kit, square, for Essence cassette
8	Essence cassette	X	VingCard Essence (v2) main assembly
9	Thumbturn spindle Signature	X	HW kit Essence/Sig 1000-series
10	Spacer	X	VingCard Essence (v2) main assembly
			Table is continued on next page

Pos	Description	Available as single item	Available as kit
11	LCU 5350	X	VingCard Essence (v2) main assembly
12	Service cover	X	VingCard Essence (v2) main assembly
13	Cylinder rose	X	Cylinder ring kit Signature
14	Spring cylinder rose Signature	X	Cylinder ring kit Signature
15	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	
16	Cylinder sealing assy	X	Cylinder ring kit Signature [finish] XXmm w/seal
17	Handle on outside rose Signature	X	
18	See 3, 18	X	HW kit Essence/Sig 1000-series
19	Spindle handle male Signature	X	Square spindle assy Signature *)
20	Spindle handle female Signature	X	Square spindle assy Signature *)
21	Spindle locking clip	X	HW kit Essence/Sig 1000-series
22	Lock case ANSI DA	X	
	Lock case ANSI DA ADB	X	
23	Screw wood, countersunk 5X25 mm	X	Screw kit for ANSI lock case, brass & chrome
24	Screw, M4x5	X	• Front end kit, square, for Essence cassette • Screw kit for ANSI lock case, brass & chrome
25	Lock front ANSI	X	
	Lock front ANSI ADB	X	
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	

Table 5

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

4.3.2 ANSI (DB)
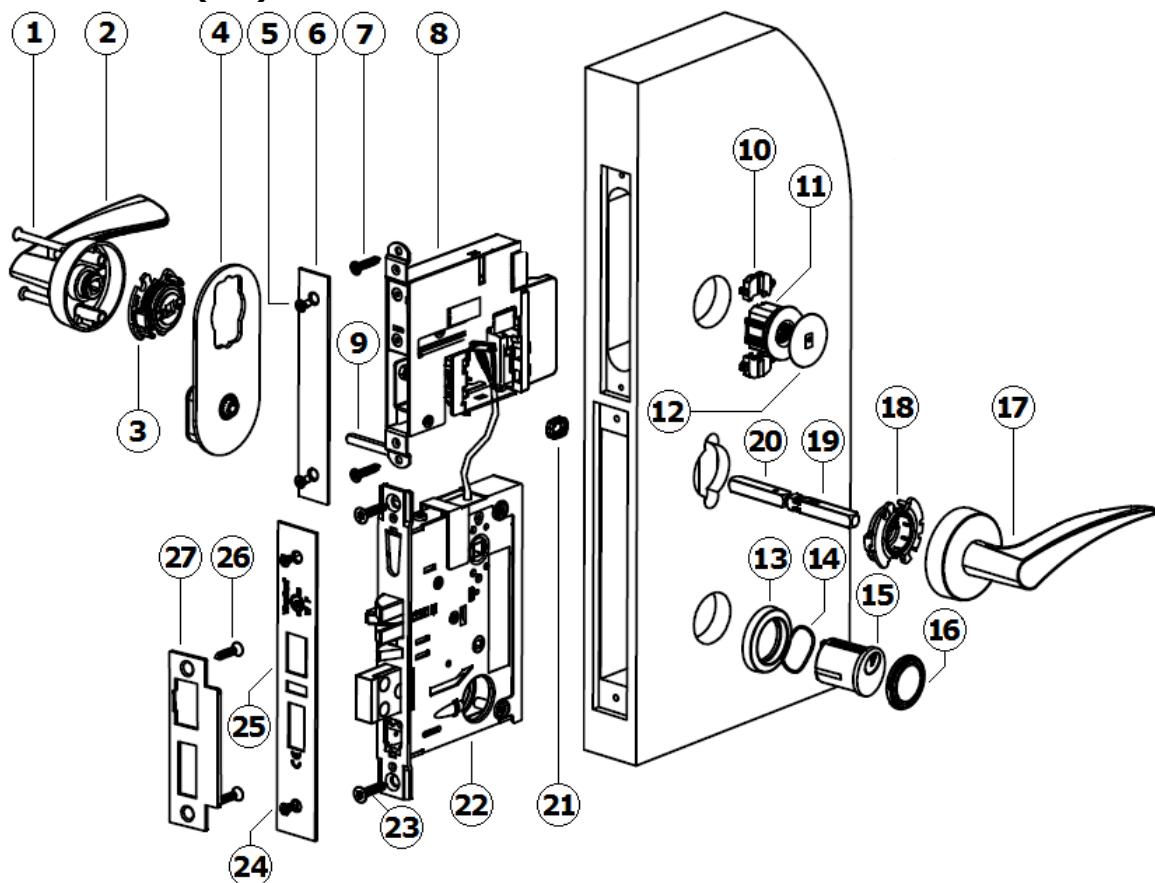
Figure 16: Components for a VingCard Essence (v2) lock, ANSI (DB) variant with cylinder

| Pos	Description	Available as single item	Available as kit
1	Screw Signature M5	X	HW kit Essence/Sig 1000-series
2	Handle on inside rose Signature	X	
3, 18	Handle retainer*Signature	X	HW kit Essence/Sig 1000-series
4	Escutcheon thumbturn Signature	X	
5	Screw, M4x5	X	• Front end kit, square, for Essence • Screw kit for ANSI lock case, brass & chrome
6	Front for Essence cassette	X	Front end kit, square, for Essence cassette
7	Screw 4,5 x 22		Front end kit, square, for Essence cassette
8	Essence cassette	X	VingCard Essence (v2) main assembly
9	Thumbturn spindle Signature	X	HW kit Essence/Sig 1000-series
10	Spacer	X	VingCard Essence (v2) main assembly
			Table is continued on next page

Pos	Description	Available as single item	Available as kit
11	LCU 5350	X	VingCard Essence (v2) main assembly
12	Service cover	X	VingCard Essence (v2) main assembly
13	Cylinder rose	X	Cylinder ring kit Signature
14	Spring cylinder rose Signature	X	Cylinder ring kit Signature
15	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	
16	Cylinder sealing assy	X	Cylinder ring kit Signature [finish] XXmm w/seal
17	Handle on outside rose Signature	X	
18	See 3, 18	X	HW kit Essence/Sig 1000-series
19	Spindle handle male Signature	X	Square spindle assy Signature *)
20	Spindle handle female Signature	X	Square spindle assy Signature *)
21	Spindle locking clip	X	HW kit Essence/Sig 1000-series
22	Lock case ANSI DB	X	
	Lock case ANSI DB ADB	X	
23	Screw wood, countersunk 5X25 mm	X	Screw kit for ANSI lock case, brass & chrome
24	Screw, M4x5	X	• Front end kit, square, for Essence cassette • Screw kit for ANSI lock case, brass & chrome
25	Lock front ANSI	X	
	Lock front ANSI ADB	X	
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	
			Table 6

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

4.3.3 EURO
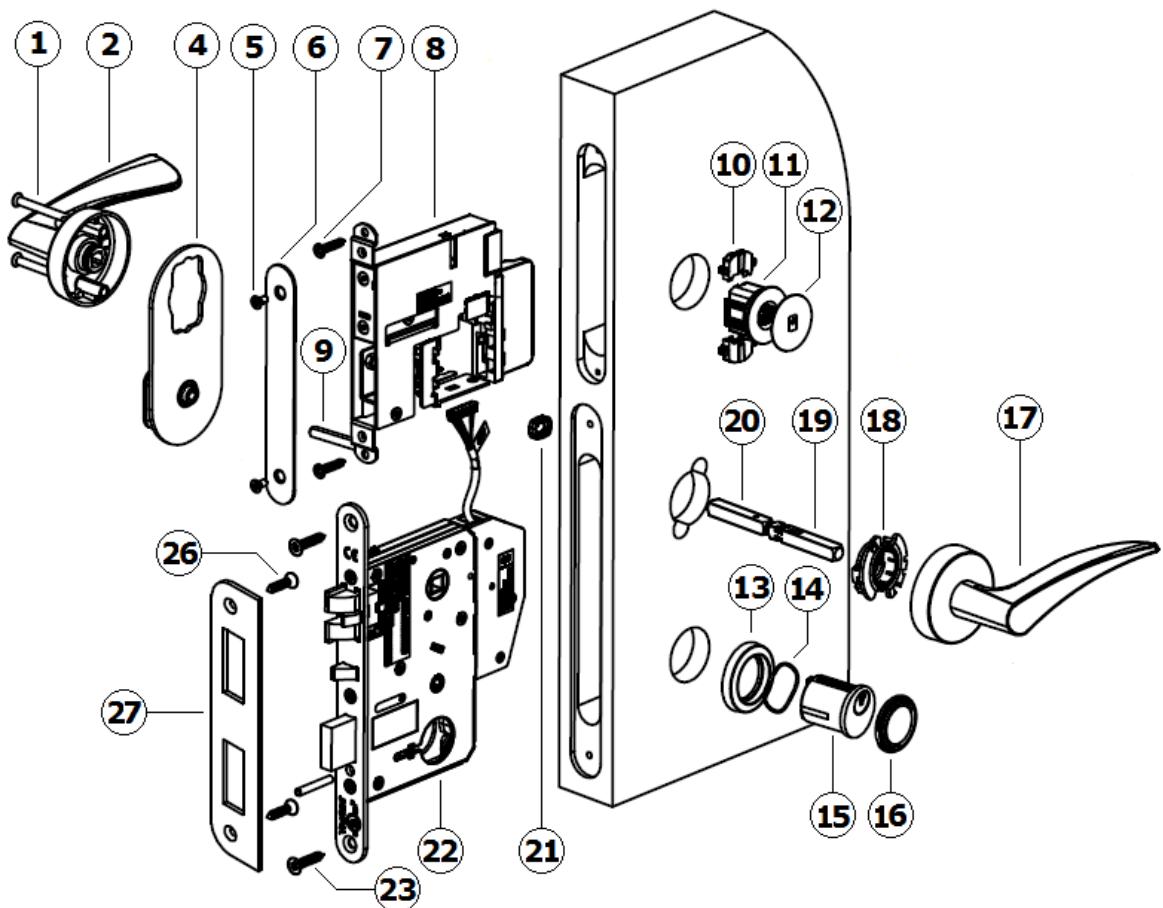
Figure 17: Components for a VingCard Essence (v2) lock, EURO variant with cylinder

Pos	Description	Available as single item	Available as kit
1	Screw Signature M5	X	HW kit Essence/Sig 1000-series
2	Handle on inside rose Signature	X	
3, 18	Handle retainer*Signature	X	HW kit Essence/Sig 1000-series
4	Escutcheon thumbturn Signature	X	
5	Screw, M4x5	X	• Front end kit, square, for Essence • Screw kit for ANSI lock case, brass & chrome
6	Front for Essence cassette	X	Front end kit, square, for Essence cassette
7	Screw 4,5 x 22		Front end kit, square, for Essence cassette
8	Essence cassette	X	VingCard Essence (v2) main assembly
9	Thumbturn spindle Signature	X	HW kit Essence/Sig 1000-series
10	Spacer	X	VingCard Essence (v2) main assembly
			Table is continued on next page

Pos	Description	Available as single item	Available as kit
11	LCU 5350	X	VingCard Essence (v2) main assembly
12	Service cover	X	VingCard Essence (v2) main assembly
13	Cylinder rose	X	Cylinder ring kit Signature
14	Spring cylinder rose Signature	X	Cylinder ring kit Signature
15	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	
16	Cylinder sealing assy	X	Cylinder ring kit Signature [finish] XXmm w/seal
17	Handle on outside rose Signature	X	
18	See 3, 18	X	HW kit Essence/Sig 1000-series
19	Spindle handle male Signature	X	Square spindle assy Signature *)
20	Spindle handle female Signature	X	Square spindle assy Signature *)
21	Spindle locking clip	X	HW kit Essence/Sig 1000-series
22	Lock case EURO	X	
	Lock case EURO ADB	X	
23	Screw wood, countersunk 5X25 mm	X	Screw kit for ANSI lock case, brass & chrome
24	Not applicable for EURO		
25	Not applicable for EURO		
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 EURO	X	
			Table 7

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

4.4 Parts included for a complete lock
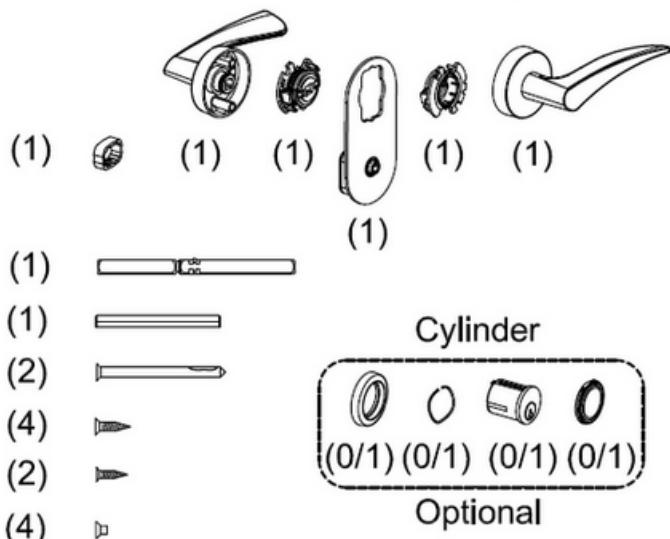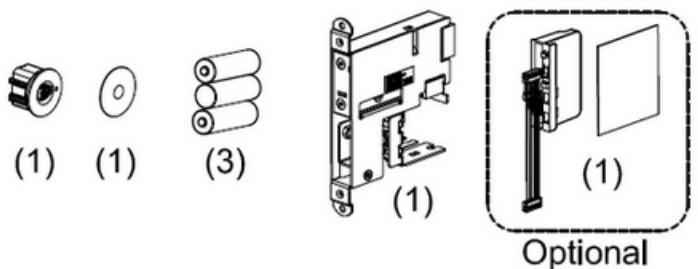
Figure 18: Parts included for a complete Essence lock; see details in Table 6 (ANSI DA), Table 7 (ANSI DB) and Table 8 (EURO). **The online kit and cylinder kit are purchased separately, when applicable.**

4.4.1 ANSI specific parts

The below parts are specific for ANSI (DA) and ANSI (DB); the striker plate is however turned the other way for ANSI (DB).
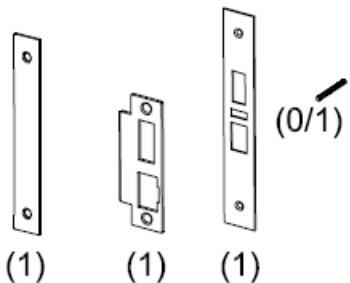
Figure 19, from the left: front for Essence cassette, striker plate ANSI, lock front ANSI and cylinder set screw for cylinders ex threaded ANSI ADB.

4.4.1.1 ANSI (DA) specific part
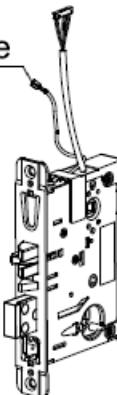
Remove the ground cable
before installation!

Figure 20: The lock case is the only part which is specific for ANSI (DA).

4.4.1.2 ANSI (DB) specific part
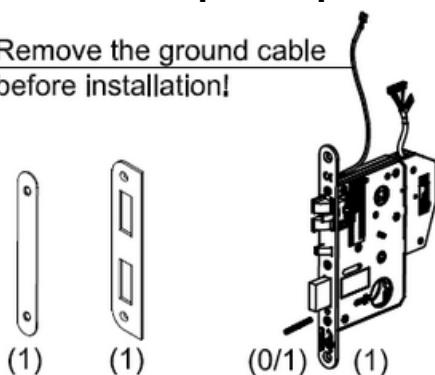
Remove the ground cable
before installation!

Figure 21: The lock case is the only part which is specific for ANSI (DB).

4.4.2 EURO specific parts

Remove the ground cable
before installation!

(1)   (1)   (0/1) (1)

Figure 22, from the left: front cover rounded, striker plate EURO 5994 steel, cylinder set screw for cylinders ex threaded ANSI ADB and lock case EURO.

4.5 Installation
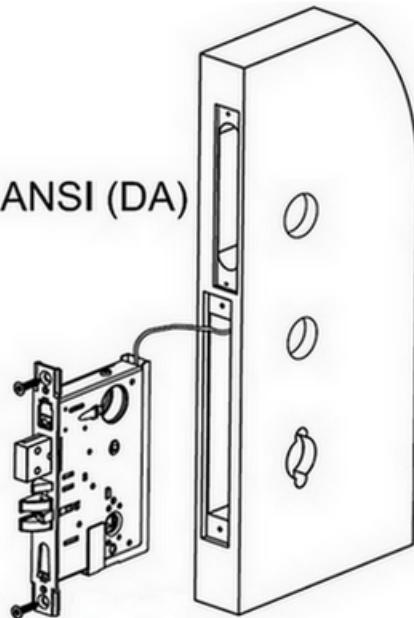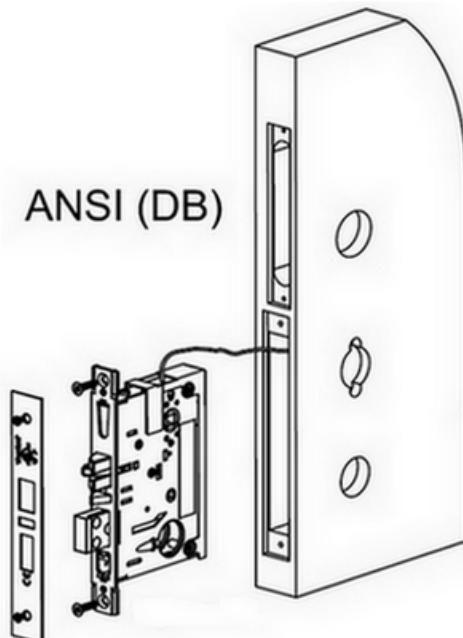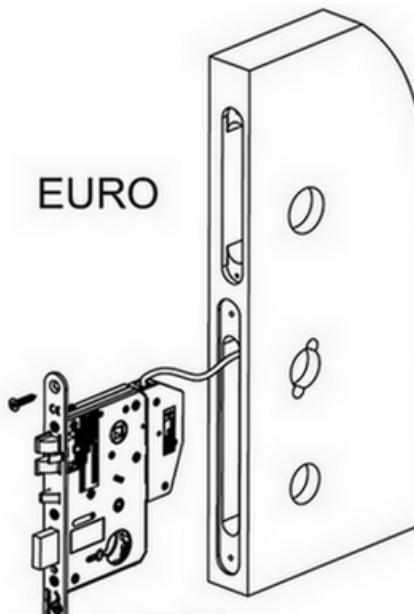
Figure 23

Figure 24

Figure 25

Note: For information about online related parts of the installations, see Appendix D.

Note: The position numbers in bold refer to the exploded views in section 4.3.

1. Position the cables into the door before inserting the lock case (**22**). The connector on the cable must be bent before being threaded into the hole through the door. ***Important:*** Do not lubricate the lock case.
2. Position the lock case into the edge of the door and fasten it with two *screws wood, countersunk 5X25 mm* (**23**).
   Note: If applicable, do not forget to install the *cylinder fastening clip* before inserting the lock case.
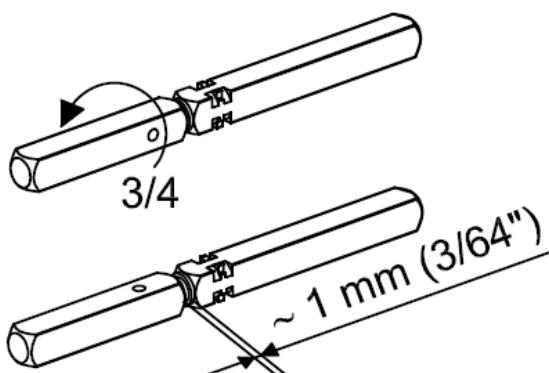
Figure 26
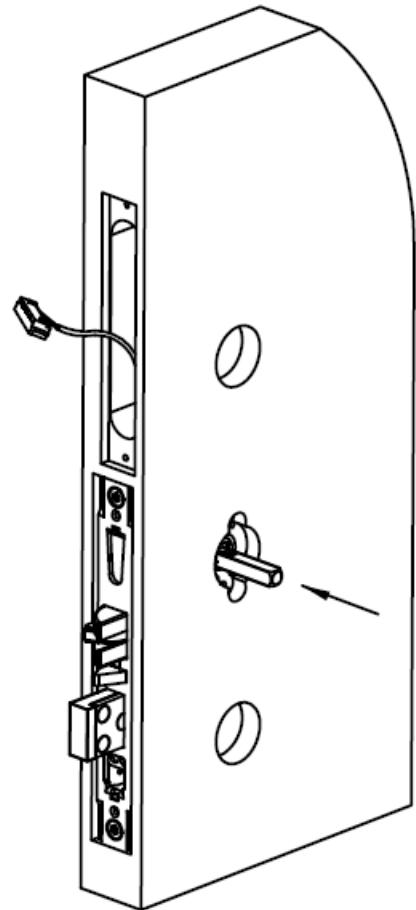
Figure 27

3. Before inserting the *spindle handle female Signature* (**20**) and the *spindle handle male Signature* (**19**) into the lock case, check that the spindle threads are lubricated with grease.
4. Screw the *spindle handle female Signature* onto the *spindle handle male Signature* and then reverse it (3/4 turn).
5. Insert the spindle handles into the lock case from the outside of the door so that the hole that goes through the spindle handle is visible on the inside (room side) of the door. **_Note:_** The spindle handle marked 'EXT' must be on the outside of the door.
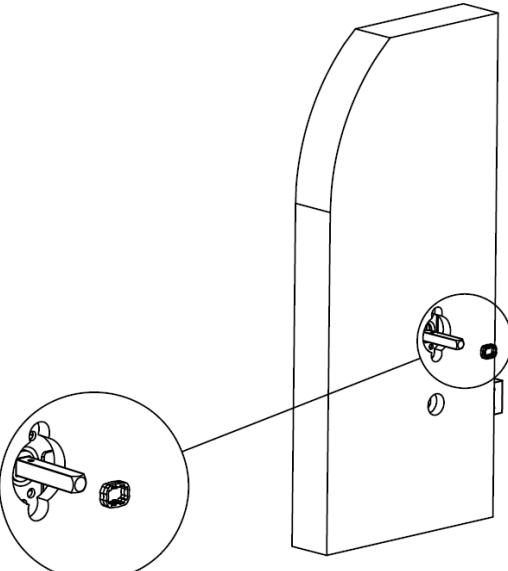
Figure 28

6. Thread the *spindle locking clip* (**21**) onto the *spindle handle female Signature* (**20**; on the inside of the door) by squeezing hard on the spindle locking clip. Make sure that the clip clicks onto the hole in the spindle handle.

LH and LHR   RH and RHR
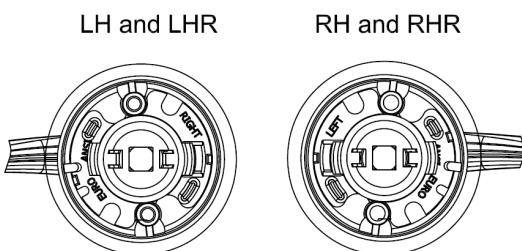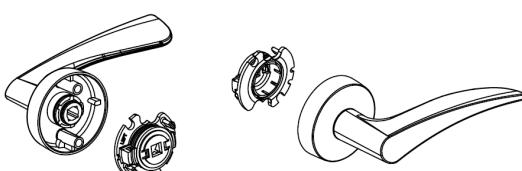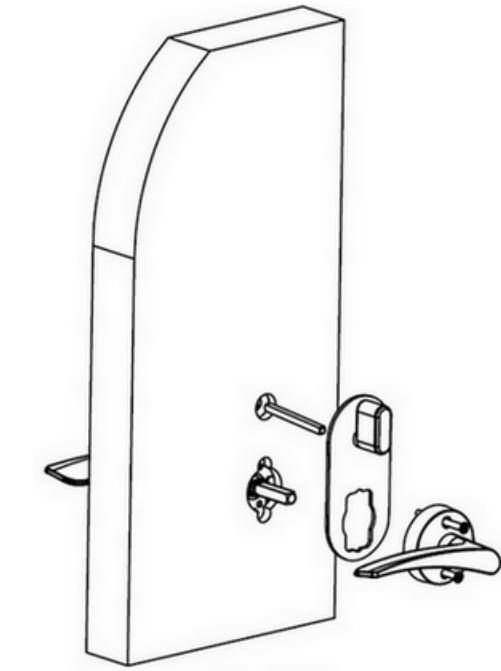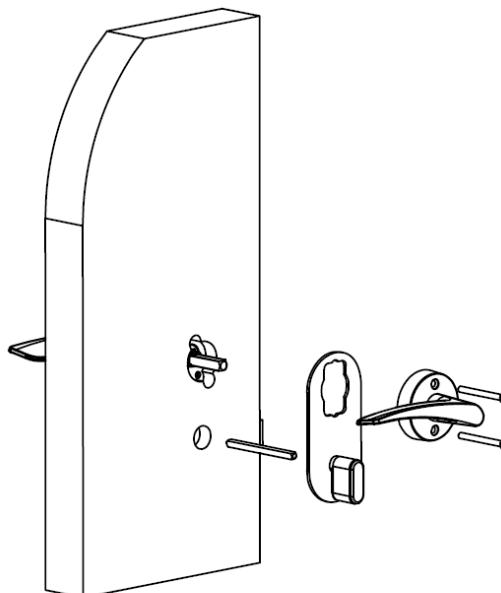
Figure 29

Figure 30

7. At delivery, the *handle retainers* Signature* (**3** and **18**) are not mounted into the *handle on inside rose Signature* (**2**) and *handle on outside rose Signature* (**17**), and they must be prepared according to the door handing. If the *handle on inside rose Signature* is a left handle (i.e. pointing to the left), the white retainer should be mounted on the inside handle. If the *handle on inside rose Signature* is a right handle, the black retainer should be mounted on the inside handle.
Important: For both left handles and right handles, make sure that the *handle retainer*Signature* is in the "click" position within the groove on the shank of the handle.
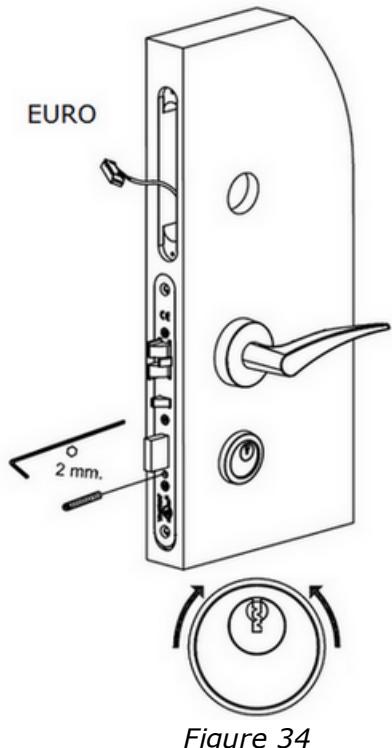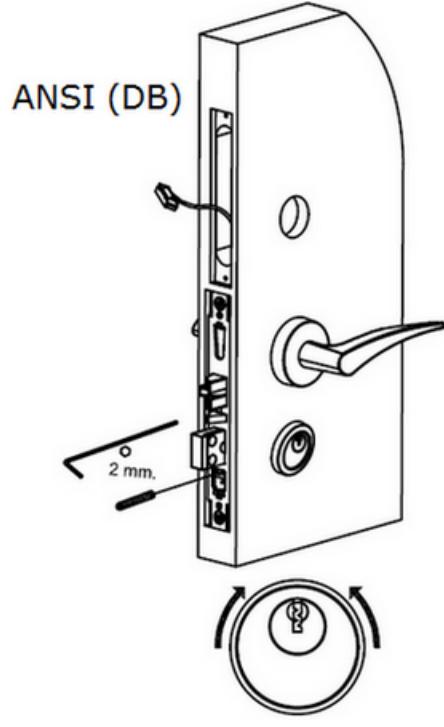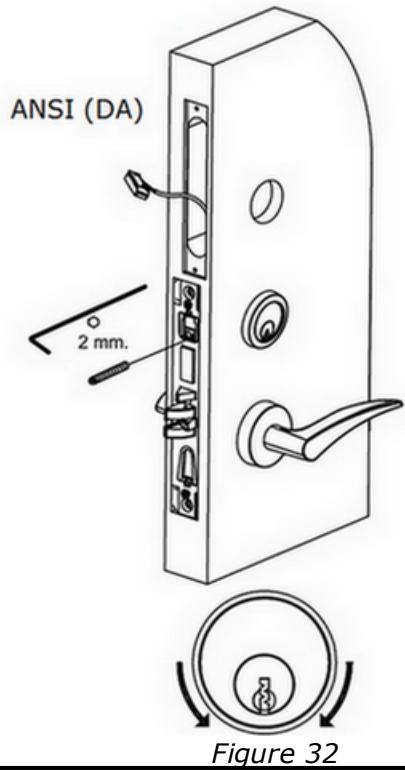
ANSI (DA)

ANSI (DB) / EURO

Figure 31

8. Insert the *thumbturn spindle Signature* (**9**) into the lock case from the inside. The marked end on the spindle handle must be inserted into the thumb turn knob. **_Important:_** For ANSI (DB) and EURO, the thumb turn knob should be pointing downwards. Insert the inside handle onto the spindle handle and screw the handles together.
Important: For ANSI (DA), the thumb turn knob should be pointing upwards. Insert the inside handle onto the spindle handle and screw the handles together.

9. Insert the inside handle including the *handle retainer*Signature* (**3**) onto the spindle handle. Fasten the handles together using *screws Signature M5* (**1**).

ANSI (DA)

2 mm.

Figure 32

ANSI (DB)

2 mm.

Figure 33

EURO

2 mm.

Figure 34

10. **If cylinder is used:**
   - Thread the *spring cylinder rose Signature* (**14**) onto the cylinder (**15**; see full names of the cylinder variants here) from the cylinder-arm side.
   - Insert the cylinder into the cylinder rose.
   - Use a key and screw the cylinder into the lock case.
   - Tighten the cylinder until the cylinder rose is tight to the door.
   - Fix the cylinder into the lock case.
   - The keyhole should always point towards the handle.
11. There are two ways for installing the cylinder fastening screw:
   - The nomal way; insert the *2 mm Unbrako* into the screw, and insert the screw in the hole facing towards the lock front. Tighten the cylinder in the lock case as illustrated in Figures 32-34.

 Figure 35	- A more secure way; fix the cylinder in place 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 Figure 35. Using the T-tool, 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. 12. After installation of the cylinder, fix for ANSI (DA) and ANSI (DB) the face plate to the lock case after installation of the cylinder.
 Figure 36	13. Assemble the *Essence cassette* (**8**) before installation. 14. Depending on whether the handing is left or right (see details here), the fire shield plate shall be attached on the opposite side of the LCU (the drawing shows right handing).
 Figure 37	15. To match the B-measurement of the door leaf, it is possible to increase the length of the LCU in order to reach the sprocket*) inside the Essence cassette. This can be done by adding spacers (expansion modules), which consist of two halves sliding into the slot on the back of the LCU. The two halves will meet and by a "snap-lock" functionality lock onto the LCU. Additional spacers can be added on top of the other spacers. *) The sprocket is only partly locking the LCU in place after installation.
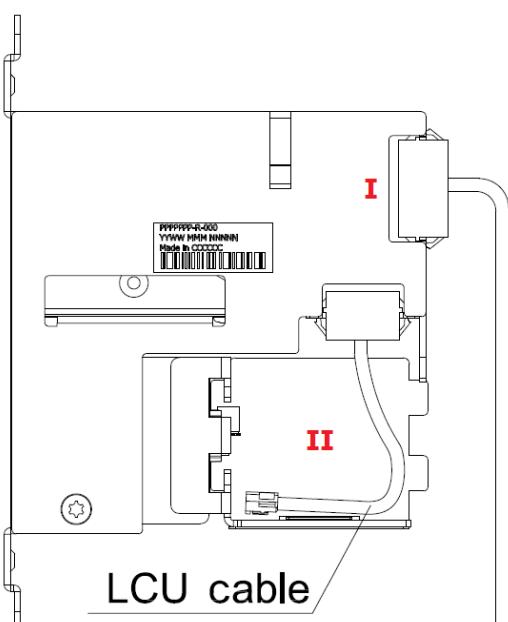
 Figure 38	16. Connect the lock case cable to the Essence cassette (I in Figure 38). ***Important before mounting the Essence cassette in the door:*** Make sure that the LCU cable is well positioned in the space marked with II in Figure 38, to avoid pinching of the cable.
 Figure 39	17. Insert the Essence cassette into the door.
 Figure 40	18. Loose the bracket with a wrench (8 mm) until it moves freely.
 Figure 41	19. Connect the LCU cable to the LCU and adjust the bracket in order to enter the LCU against the sprocket. ***Important:*** Arrange the cables to prevent pinching them.
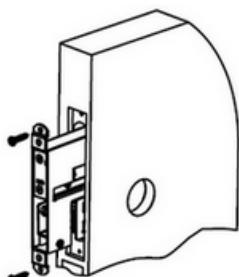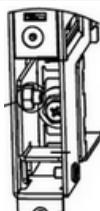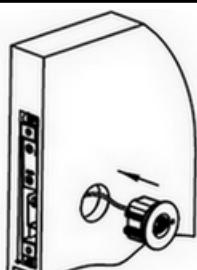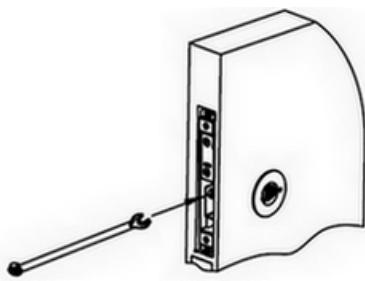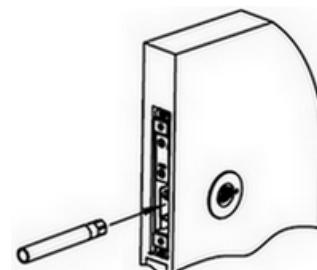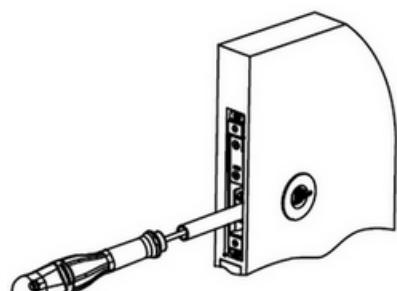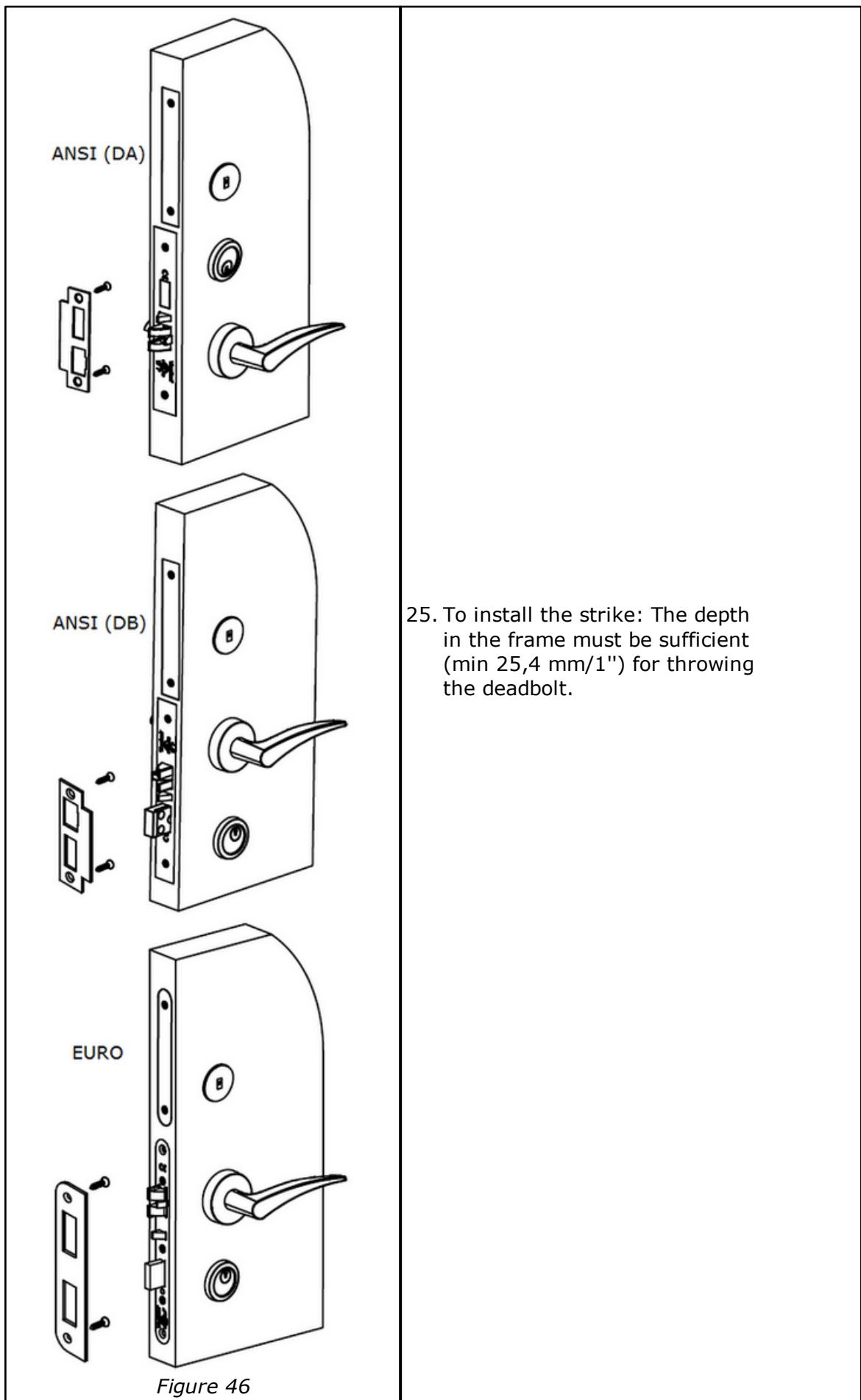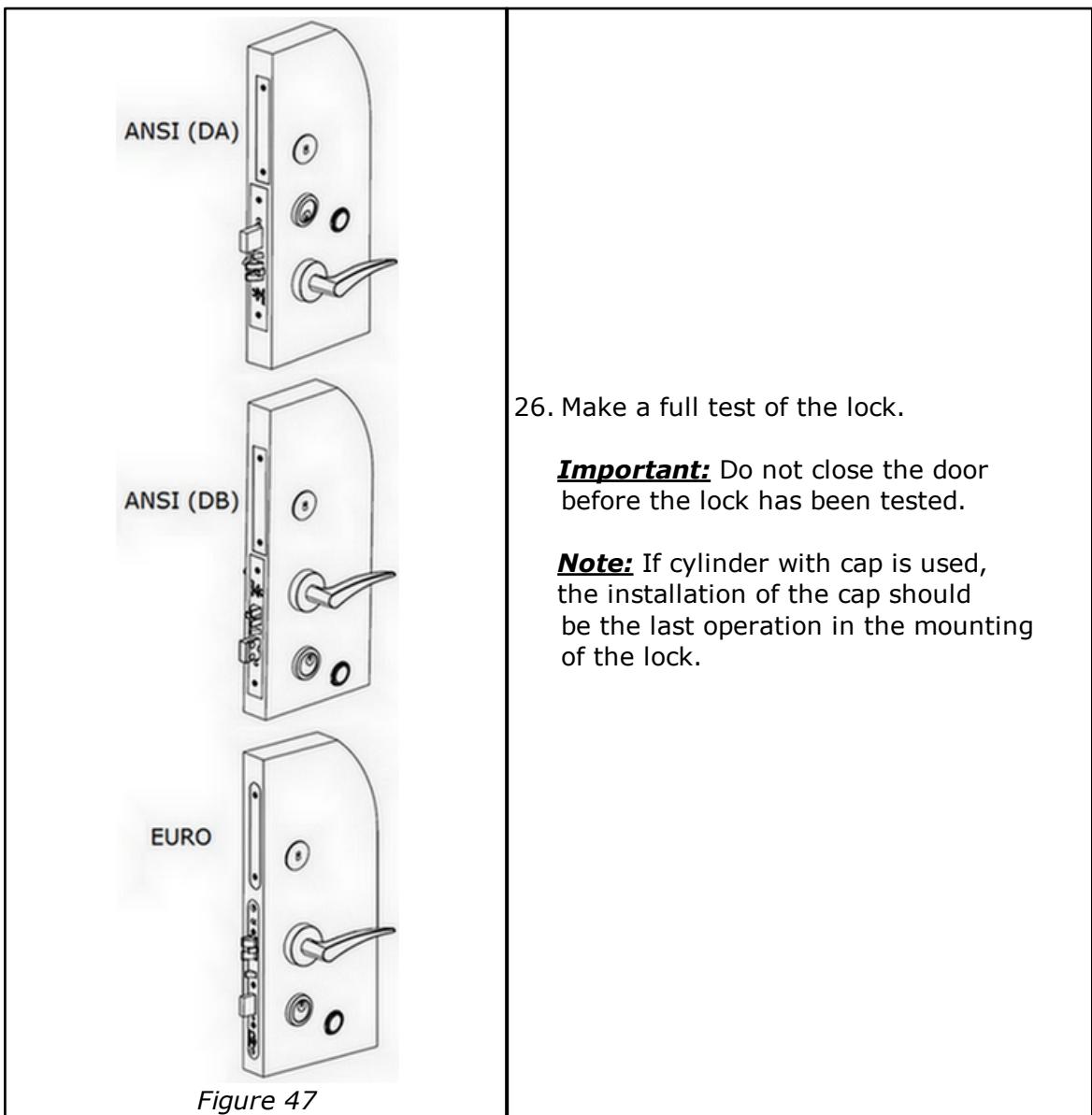
Figure 42	20. Fasten the bracket with the wrench (8 mm). ***Note:*** Tighten gently.
Figure 43	21. When the LCU has entered the bracket, use the hexagon pipe to turn the sprocket in order to pull the LCU in place. ***Note:*** Tighten gently.
Figure 44	22. When the LCU is pulled all the way into the door leaf, fasten the screw in the centre of the sprocket by using a *Pozidriv 2* screwdriver. ***Note:*** Tighten gently.
Figure 45	23. Insert 3 AA batteries. 24. Fix the face plate of the case, upload the firmware and attach the service cover of the LCU. The service cover shall be inserted 90 degrees to the left and then be turned 90 degrees clockwise in order to fasten.

ANSI (DA)

ANSI (DB)

EURO

Figure 46

25. To install the strike: The depth in the frame must be sufficient (min 25,4 mm/1'') for throwing the deadbolt.

Figure 47

26. Make a full test of the lock.

    Important: Do not close the door
    before the lock has been tested.

    Note: If cylinder with cap is used,
    the installation of the cap should
    be the last operation in the mounting
    of the lock.

4.5.1 To access the service jack

Figure 48

When access to the service jack is needed, twist by hand the service cover counterclockwise and lift it off. To mount it again, twist it clockwise until the RFID card symbol looks as in Figure 48.

5. To check the 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/face plate should be flush with the door edge.

5.1.2 Cylinder
The cylinder should be flush with the cylinder rose and properly fixed.

5.1.3 Roses/door handles
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 the exploded views of section 4.3) can only be depressed when the lock is in an unlocked position.

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* (pos **4** in the exploded views of section 4.3) 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* (pos **4** in the exploded views of section 4.3) - or the *handle on inside rose Signature* (pos **2** in the exploded views of section 4.3) - 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 inside handle. The deadbolt and the latch must be retracted.

5.4 Electronic check

Always check that the electronics works before closing the door.

To check the privacy function you need to have a card without deadbolt override, use a staff card issued when the Visionline system setup has been performed.

If the deadbolt is thrown, you should get three very short yellow flashes.

The outside door handle should still be blocked. If the deadbolt is not thrown, you should get a green light. The outside door handle 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. No parts should therefore need any further lubrication.

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

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 *LCU 5350* (pos **11** in the exploded views of section 4.3) checks the battery voltage when a staff card is used. The check is performed when the lock motor is activated. If the battery voltage is below the acceptable, the *LCU 5350* signals with 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.

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

Important: 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 9 below.

To replace the batteries:

1. ***Important:*** Make sure to have fresh batteries ready since the *battery holder 4.5V* with new batteries must be connected as quickly as possible after the old batteries have been disconnected, else a soft reset may take place. Do not present 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 front end by loosening the two screws.
3. Drag out the *battery holder 4.5V*.
4. Exchange the batteries in the *battery holder 4.5V* with fresh ones.
   <u>**Important:**</u> The old batteries should be treated in accordance with local regulations regarding recycling.
5. Reinstall the *battery holder 4.5V*.
   <u>**Important:**</u> 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. See in step 9 below how to proceed if a soft reset has taken place.
6. Mount the front end with the two screws.
7. 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; if the *Online* option is applicable in Visionline, they are sent online, but not instantly. These parameters can also be set with a *stand open card* and *privacy card* respectively; see *User manual Visionline* for details.

6.4 To troubleshoot the 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 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* (pos **17** in the exploded views of section 4.3) 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* (pos **2** in the exploded views of [section 4.3](#)) sags, door alignment may be causing binding. In this case, loosen the door handle screws and depress the handle. If the handle returns freely with the *screws Signature M5* (pos **1** in the exploded views of [section 4.3](#)) loosened, align the lock so that the handle continues to return after the screws are tightened. The handle may also sag because 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* (pos **4** in the exploded views of [section 4.3](#)) should extend and retract the deadbolt easily. Difficulty in turning usually results from poor striker plate alignment. Operate the *escutcheon thumbturn Signature* with the door open. If the *escutcheon thumbturn Signature* 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, *escutcheon thumbturn Signature* difficulty can indicate more serious lock case malfunction. 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 *LCU 5350* (pos **11** in the exploded views of [section 4.3](#)) with a service cable and a service PC with the *Lock Service 3G* software; 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, refer to the Installation section, 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 an LCU Essence RFID assy (3G) or LCA
To replace an *LCU Essence RFID assy (3G)* or LCA, see the Installation section.

Appendix A: Part dimensions table for Signature/Essence

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

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"

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

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"

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

Thumb turn spindle Signature

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

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

Spacer, 6mm

No.
1
0
0
0
0
0
0
0
0
0

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

Figure A1

Appendix B: Site survey form

Figure B1

Appendix C: To install ADB

This appendix contains drawings needed for an installation or upgrade of

ANSI (DA) ADB, striker plate

When installing or upgrade to ANSI DA ADB lock case, the external striker plate must be installed as shown in Figure C1; dimensions in mm (inches).
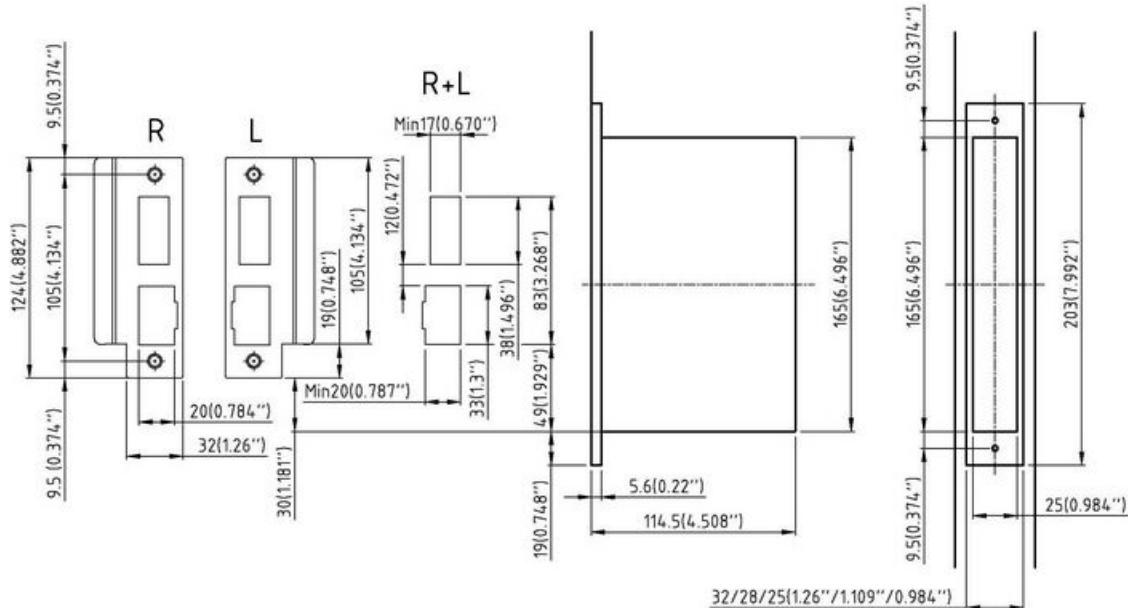
Figure C1: Striker plate and cut-out

Important: When installing an ADB lock case, the ADB striker plate with curved lip must always be used (hands of door L and R).

Door handing	Striker plate L	Striker plate R
LH (Rx)	X	
RHR (Ro)	X	
RH (Lx)		X
LHR (Lo)		X

Table C1: Striker plates for different door handings
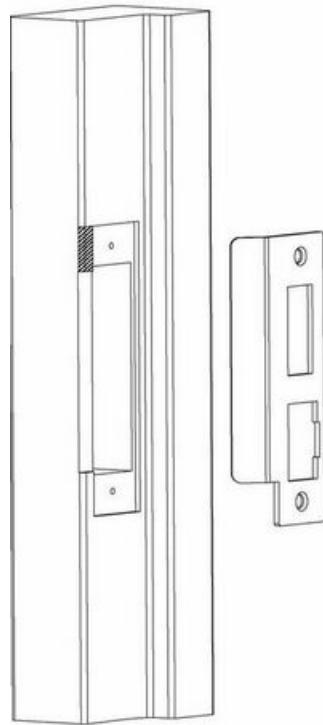
All frames (wooden and steel frames)
1. Install the lock in the door according to the Installation section.
2. Place the ADB striker plate in the frame as shown in Figure C1, 49 mm (1 30/32") above the bottom of the lock front (30mm + 19mm, i.e. 3/4"+1 3/16").

Appendix C: To install ADB

ANSI (DA) ADB, mortise
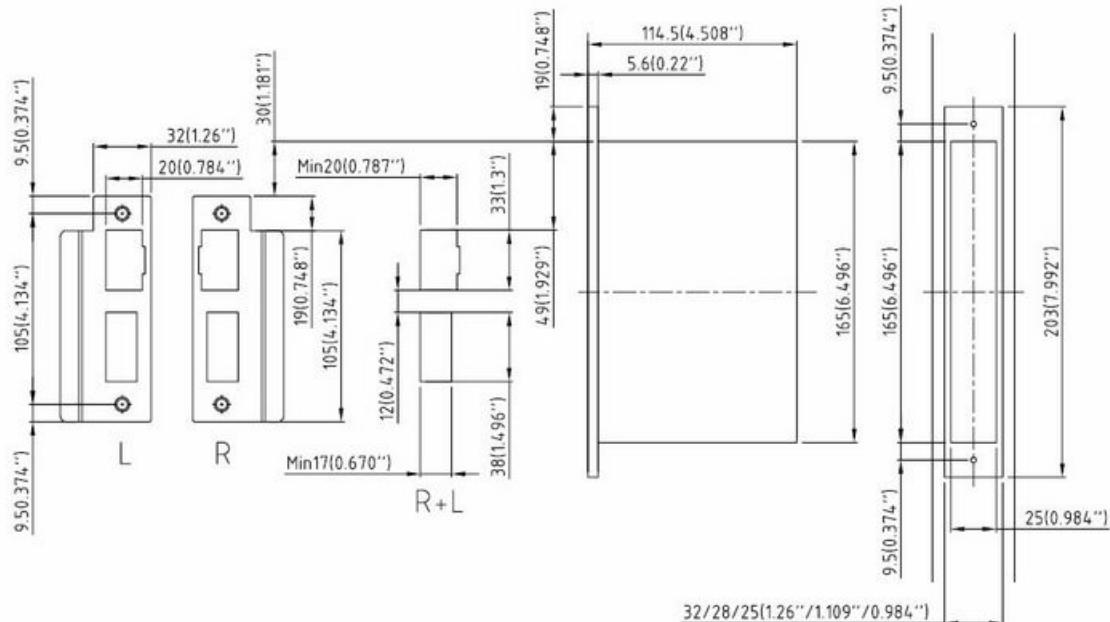
If the frame is mortised for a standard ANSI striker plate, the frame must be modified as shown in Figure C2.

Figure C2: Remove the hatched area

ANSI (DB) ADB, striker plate

When installing or upgrade to ANSI DB ADB lock case, the external striker plate must be installed as shown in Figure C3; dimensions in mm (inches).


Figure C3: Striker plate and cut-out

Important: When installing an ADB lock case, the ADB striker plate with curved lip must always be used (hands of door L and R).

Door handing	Striker plate L	Striker plate R
LH (Rx)	X	
RHR (Ro)	X	
RH (Lx)		X
LHR (Lo)		X

Table C2: Striker plates for different door handings
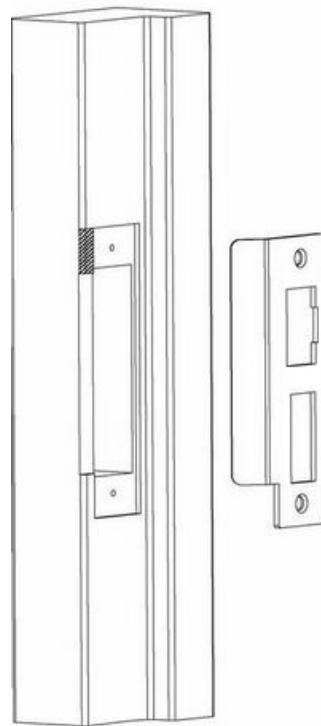
**All frames (wooden and steel frames)**
1. Install the lock in the door according to the Installation section.
2. Place the ADB striker plate in the frame as shown in Figure C3, 49 mm (1 30/32") below the top of the lock front (30mm + 19mm, i.e. 3/4"+1 3/16").

Appendix C: To install ADB

ANSI (DB) ADB, mortise

If the frame is mortised for a standard ANSI striker plate, the frame must be modified as shown in Figure C4.

Figure C4: Remove the hatched area

Appendix C: To install ADB

ADB lock case, EURO

When installing or upgrade to EURO lock case, the external striker plate must be installed as shown in Figure C5; dimensions in mm.
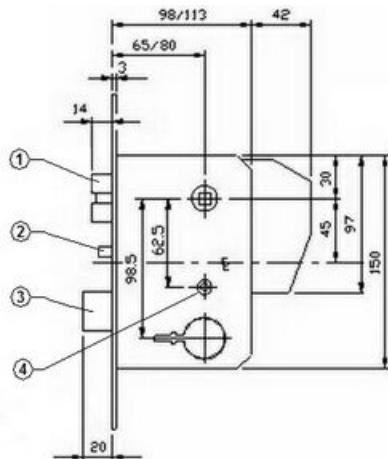

Figure C5: EURO ADB lock case

The notes below refer to Figure C5.

Note 1: Latch - same function as standard ASSA ABLOY Hospitality EURO lock.
Note 2: Auxiliary latch/deadbolt trigger - when the door is closed and the auxiliary latch hits the striker plate/frame, the automatic deadbolt will be thrown and the latch will be blocked. Always install a striker plate before installing the lock case in the door. If the door with lock case is closed without a striker plate, the auxiliary latch will be jammed in the frame cut-out. The dimension from the front of the lock case to the striker plate must not exceed 4mm to obtain automatic deadbolt function.
Note 3: Automatic deadbolt - the deadbolt throws automatically when the door is closed.
Note 4: Privacy hub - with the thumbturn, the privacy hub can be rotated 45°. When the *escutcheon thumbturn Signature* (pos **4** in the exploded views of section 4.3) is pointing downwards, the privacy function is off. When the *escutcheon thumbturn Signature* is rotated 45°, the privacy function is on. The deadbolt cannot be retracted with the thumbturn.
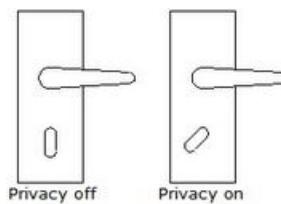

Figure C6: Thumb turn position at 'privacy off' and 'privacy on'

Appendix D: Online

Introduction

This appendix contains information about the online variant of *Essence*.
For general information about *Essence*, see earlier in this manual. There is
also an easy 4-page quick reference, covering both online and offline version.

For full online functionality, *Essence* is used with an ANSI 4-switch lock case.
If full online functionality is not needed, *Essence* can be used with lock cases
that are not 4-switch.
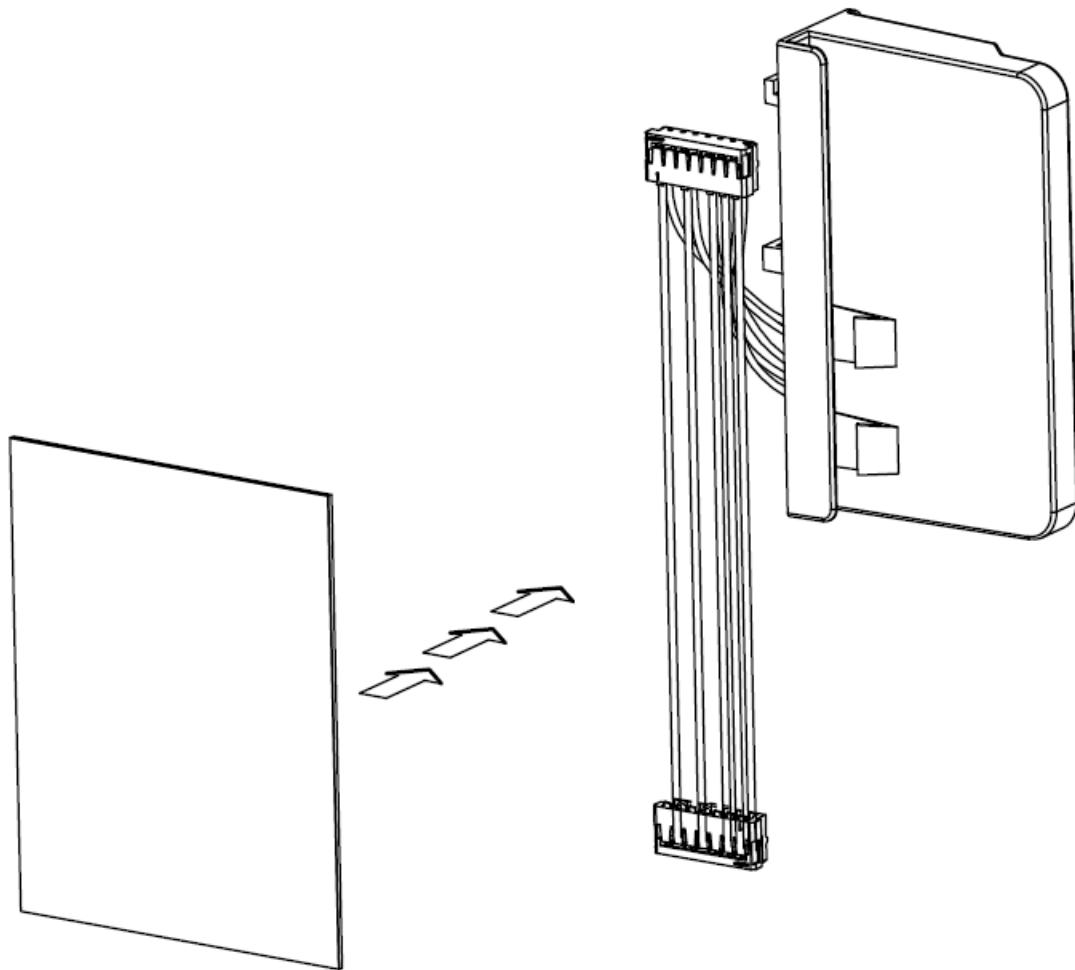
A *battery holder 4.5V* with 3AA batteries is used.

Technical specification

| Power	4.5V - 3AA batteries	
Reader option	RFID	
Online type	RF	
Lock case options (all 4.5V)	ANSI (DA) with 2 switches	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	ANSI (DA) with ADB	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	ANSI (DA) with 4 switches	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	ANSI (DB) with 2 switches	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	ANSI (DB) with ADB	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	ANSI (DB) with 4 switches	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	ANSI AUS	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	ANSI JPN	70 (2 3/4") 25/28/32 (63/64" 1 7/64" 1 17/64")
	EURO with 2 switches	65/80 20/22/24
	EURO with ADB	65 20/22/24
Audit trail	2000 events	
Cylinder option	Yes	
System compatibility	Visionline	
		Table D1

Appendix D: Online

Online kit

Figure D1: The online kit is purchased separately and contains ZigBee endnode, plastic cover, Y-cable and cooling material.

Appendix D: Online

To install an online lock

Note: The position numbers in bold refer to the exploded views in section 4.3.

ANSI (DA)
Figure D2

ANSI (DB)
Figure D3
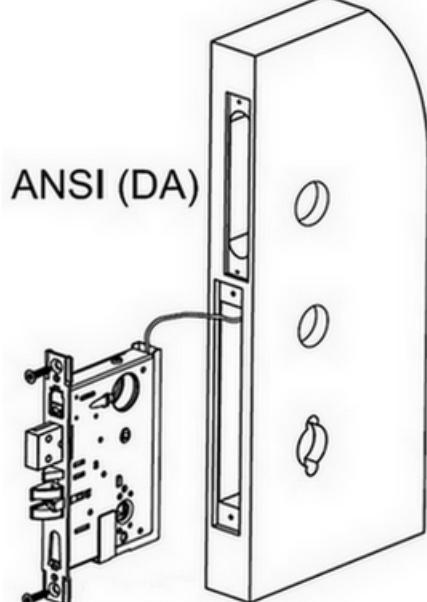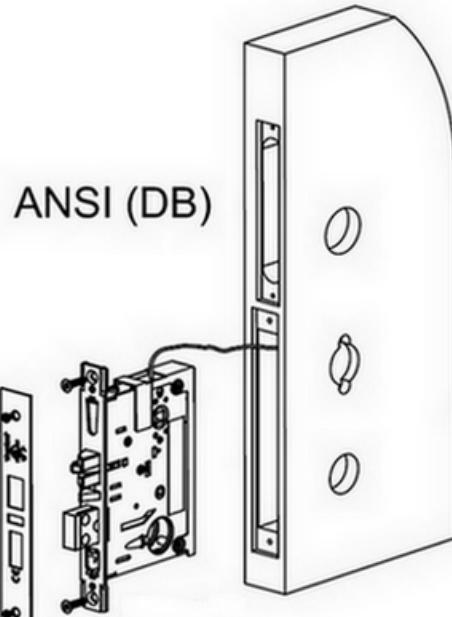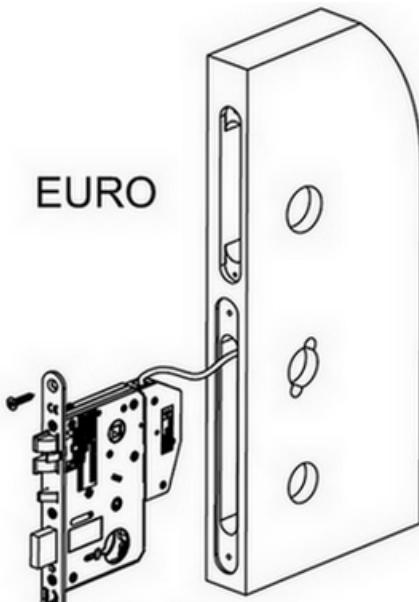
EURO
Figure D4

Note: The position numbers in bold refer to the exploded views in section 4.3.

1. Position the cables into the door before inserting the lock case (**22**). The connector on the cable must be bent before being threaded into the hole through the door. ***Important:*** Do not lubricate the lock case.
2. Position the lock case into the edge of the door and fasten it with two *screws wood, countersunk 5X25 mm* (**23**). If applicable, do not forget to install the *cylinder fastening clip* before inserting the lock case.
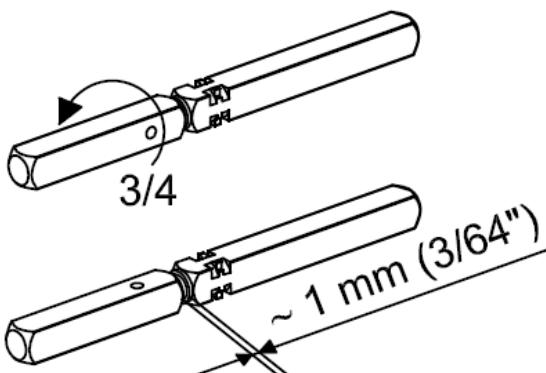
Figure D5
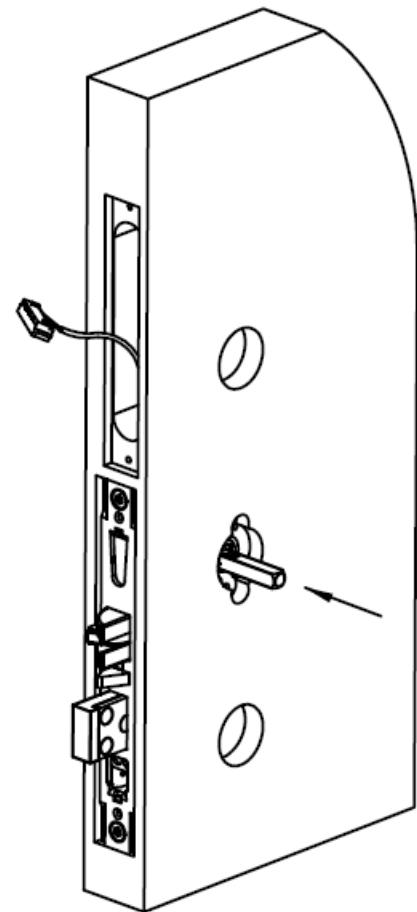
Figure D6

3. Before inserting the *spindle handle female Signature* (**20**) and the *spindle handle male Signature* (**19**) into the lock case, check that the spindle threads are lubricated with grease.
4. Screw the *spindle handle female Signature* onto the *spindle handle male Signature* and then reverse it (3/4 turn).
5. Insert the spindle handles into the lock case from the outside of the door so that the hole that goes through the spindle handle is visible on the inside (room side) of the door. ***Note:*** The spindle handle marked 'EXT' must be on the outside of the door.
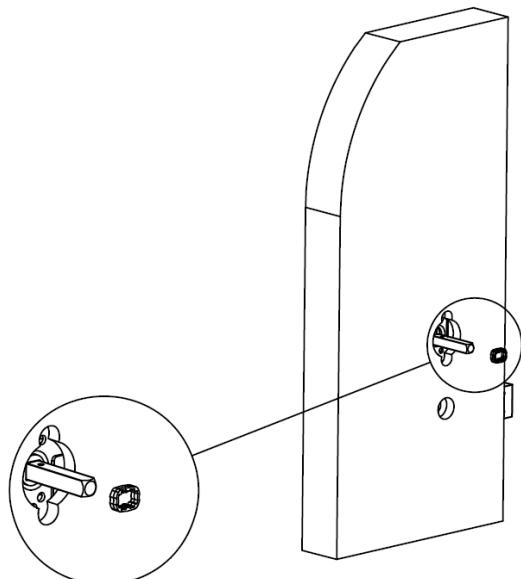
Figure D7

6. Thread the *spindle locking clip* (**21**) onto the *spindle handle female Signature* (**20**; on the inside of the door) by squeezing hard on the spindle locking clip. Make sure that the clip clicks onto the hole in the spindle handle.

LH and LHR   RH and RHR
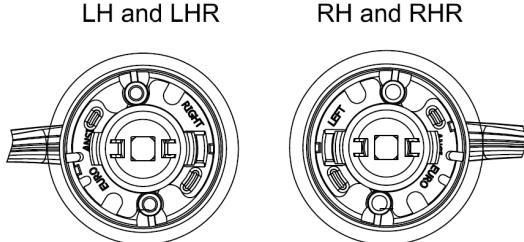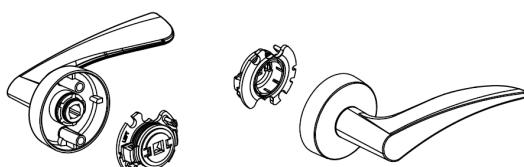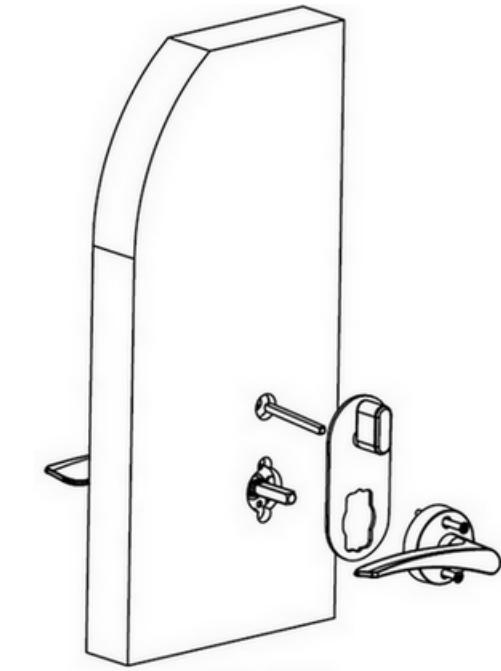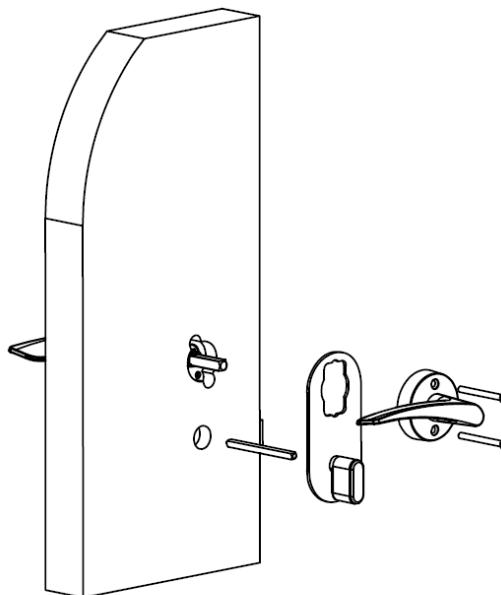
Figure D8

Figure D9

7. At delivery, the *handle retainers* Signature* (**3** and **18**) are not mounted into the *handle on inside rose Signature* (**2**) and *handle on outside rose Signature* (**17**), and they must be prepared according to the door handing. If the *handle on inside rose Signature* is a left handle (i.e. pointing to the left), the white retainer should be mounted on the inside handle. If the *handle on inside rose Signature* is a right handle, the black retainer should be mounted on the inside handle.
Important: For both left handles and right handles, make sure that the *handle retainer*Signature* is in the "click" position within the groove on the shank of the handle.

ANSI (DA)

ANSI (DB) / EURO

Figure D10

8. Insert the *thumbturn spindle Signature* (**9**) into the lock case from the inside. The marked end on the spindle handle must be inserted into the thumb turn knob. **_Important:_** For ANSI (DB) and EURO, the thumb turn knob should be pointing downwards. Insert the inside handle onto the spindle handle and screw the handles together. **_Important:_** For ANSI (DA), the thumb turn knob should be pointing upwards. Insert the inside handle onto the spindle handle and screw the handles together.

9. Insert the inside handle including the *handle retainer*Signature* (**3**) onto the spindle handle. Fasten the handles together using *screws Signature M5* (**1**).
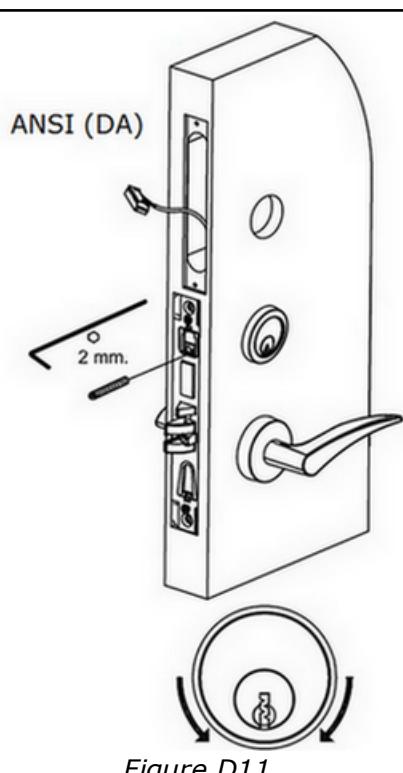
Figure D11
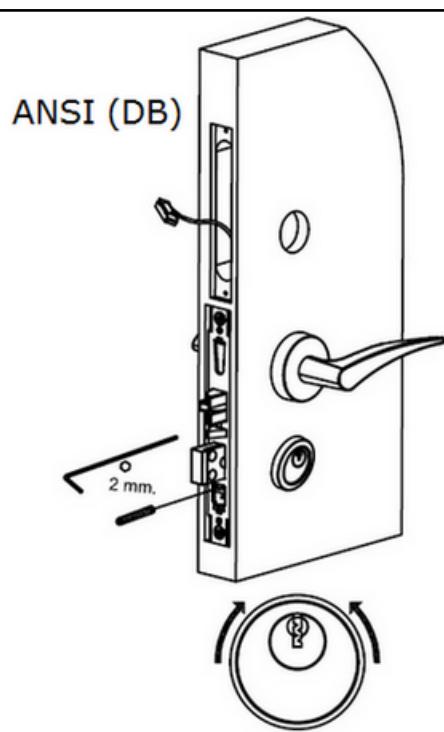
Figure D12
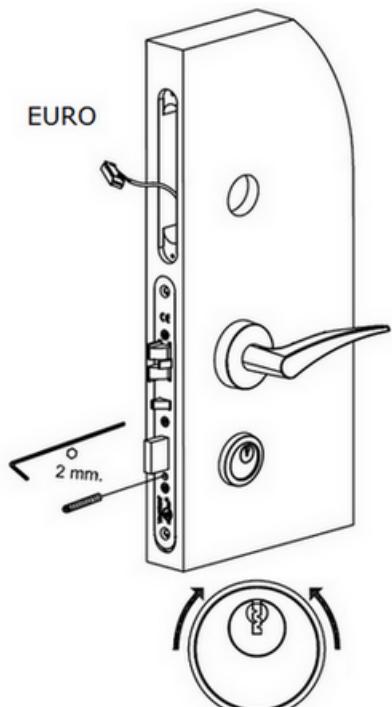
Figure D13

10. **If cylinder is used:**
    - Thread the *spring cylinder rose Signature* (**14**) onto the cylinder (**15**; see full names of the cylinder variants here) from the cylinder-arm side.
    - Insert the cylinder into the cylinder rose.
    - Use a key and screw the cylinder into the lock case.
    - Tighten the cylinder until the cylinder rose is tight to the door.
    - Fix the cylinder into the lock case.
    - The keyhole should always point towards the handle.
11. There are two ways for installing the cylinder fastening screw:
    - The nomal way; insert the *2 mm Unbrako* into the screw, and insert the screw in the hole facing towards the lock front. Tighten the cylinder in the lock case as illustrated in Figures D11-D13.
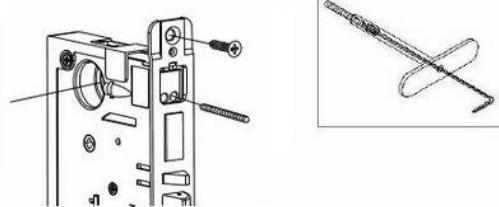
Figure D14

- A more secure way; fix the cylinder in place 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 Figure D14. Using the T-tool, 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.

12. After installation of the cylinder, fix for ANSI (DA) and ANSI (DB) the face plate to the lock case after installation of the cylinder.
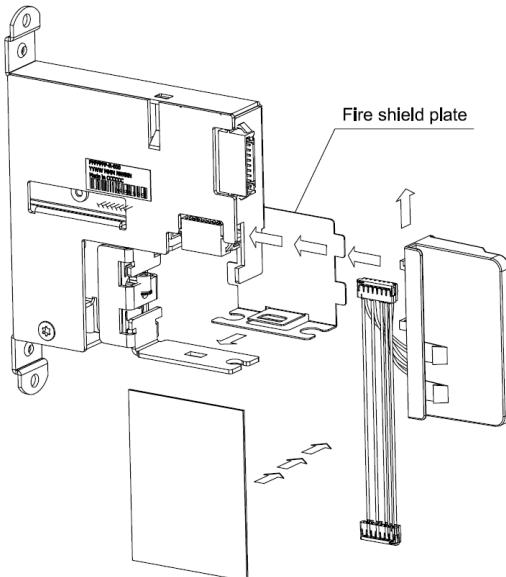

Fire shield plate

Figure D15

13. Assemble the *Essence cassette* (**8**) before installation.
14. Depending on whether the handing is left or right (see details [here](#)), the fire shield plate shall be attached on the opposite side of the LCU (the drawing shows right handing).
15. Connect the Y-cable to the endnode and LCU and also to the 7-pin connector at the LCA.
16. Snap the plastic cover with ZigBee endnode inside onto the Essence cassette until the locking mechanism locks.
17. When the lock case cable has been connected, fasten the cooling material on the Essence cassette.
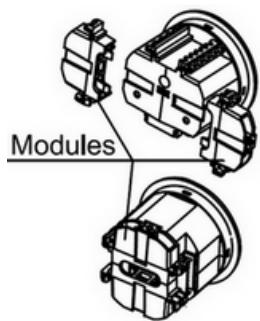
|	
Figure D16	18. To match the B-measurement of the door leaf, it is possible to increase the length of the LCU in order to reach the sprocket*⁾ inside the Essence cassette. This can be done by adding spacers (expansion modules), which consist of two halfs sliding into the slot on the back of the LCU. The two halfs will meet and by a "snap-lock" functionality lock onto the LCU. Additional spacers can be added on top of the other spacers. *) The sprocket is only partly locking the LCU in place after installation.
Figure D17	19. Connect the lock case cable to the Essence cassette (I in Figure D17). 20. Snap the lock case cable into the cable gateway in the endnode housing (II in Figure D17). 21. Fasten the cooling material in the area marked with III in Figure D17. ***Important before mounting the Essence cassette in the door:*** Make sure that the LCU cable is well positioned in the space marked with IV in Figure D17, to avoid pinching of the cable.
Figure D18	22. Insert the Essence cassette into the door.
Figure D19	23. Loose the bracket with a wrench (8 mm) until it moves freely.
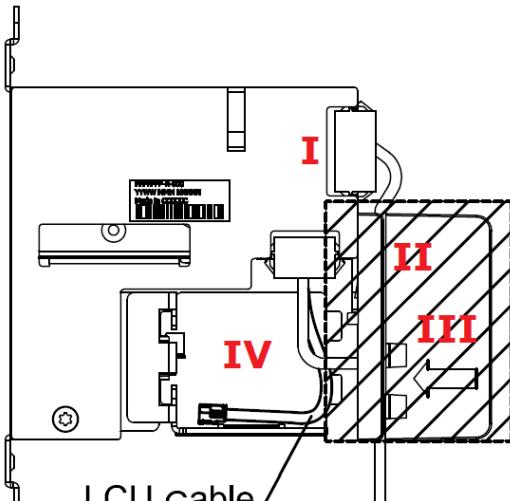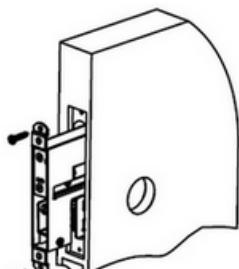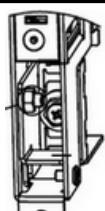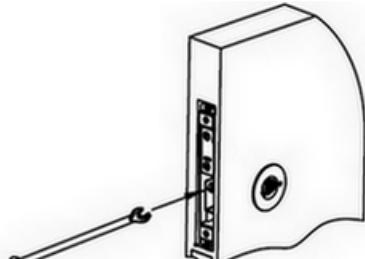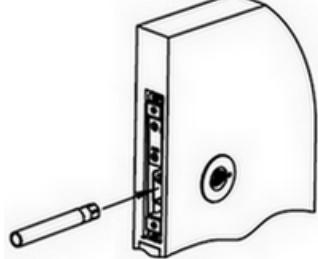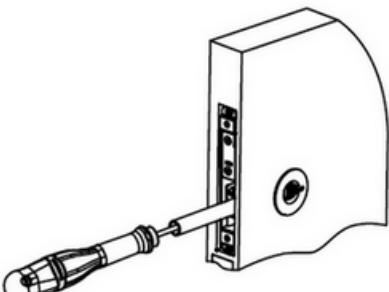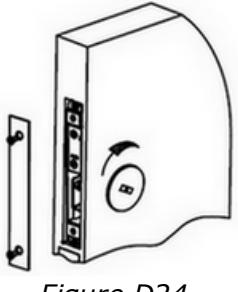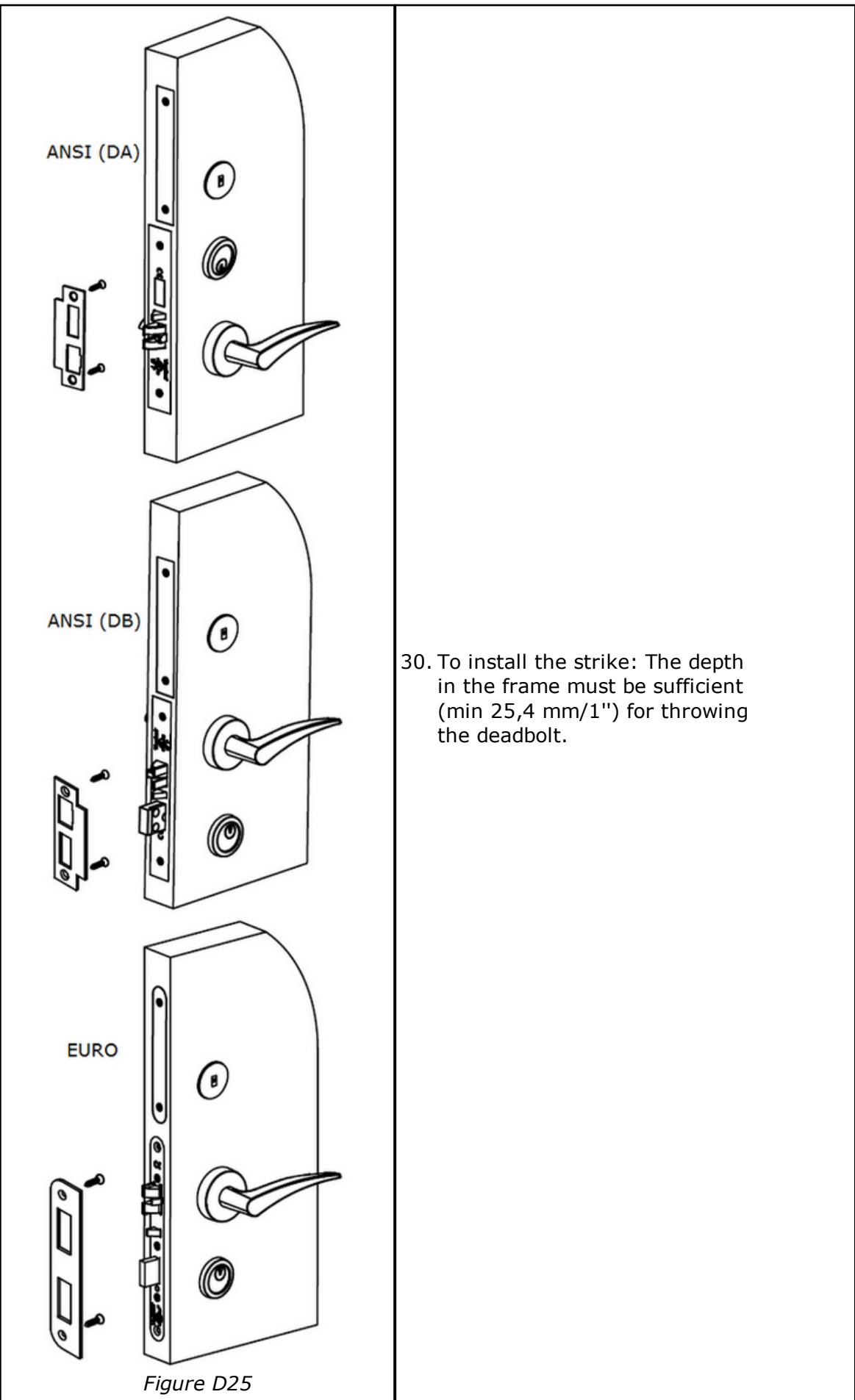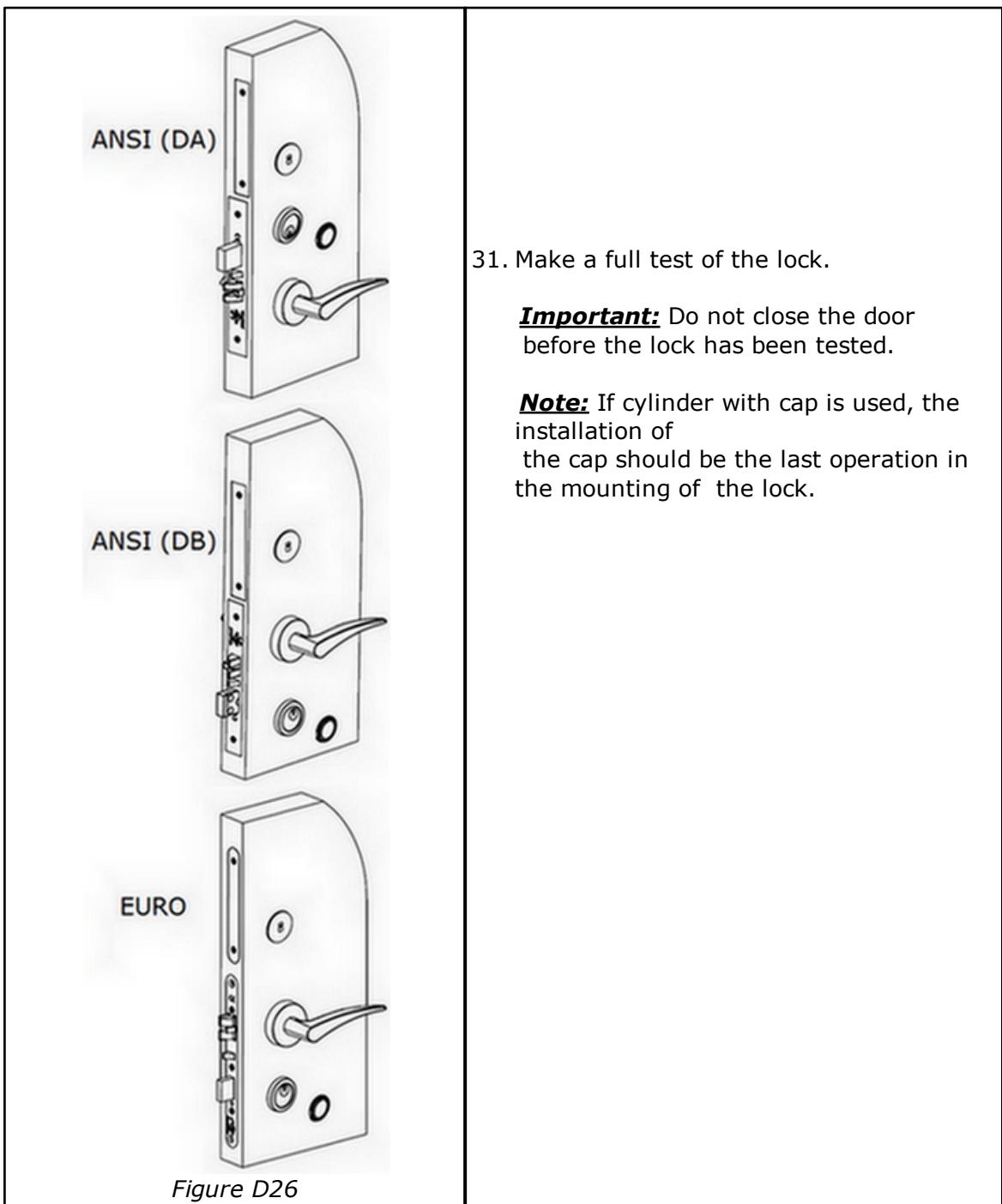
 Figure D20	24. Connect the LCU cable to the LCU and adjust the bracket in order to enter the LCU against the sprocket. ***Note:*** Arrange the cables to prevent pinching them.
 Figure D21	25. Fasten the bracket with the wrench (8 mm). ***Note:*** Tighten gently.
 Figure D22	26. When the LCU has entered the bracket, use the hexagon pipe to turn the sprocket in order to pull the LCU in place. ***Note:*** Tighten gently.
 Figure D23	27. When the LCU is pulled all the way into the door leaf, fasten the screw in the centre of the sprocket by using a *Pozidriv #2* screwdriver. ***Note:*** Tighten gently.
 Figure D24	28. Insert 3 AA batteries. 29. Fix the face plate of the case, upload the firmware and attach the service cover of the LCU. The service cover shall be inserted 90 degrees to the left and then be turned 90 degrees clockwise in order to fasten.

ANSI (DA)

ANSI (DB)

EURO

Figure D25

30. To install the strike: The depth in the frame must be sufficient (min 25,4 mm/1") for throwing the deadbolt.

Figure D26

31. Make a full test of the lock.

   Important: Do not close the door
    before the lock has been tested.

   Note: If cylinder with cap is used, the installation of
    the cap should be the last operation in the mounting of the lock.

Battery maintenance

The procedure to replace batteries is the same for online locks as for offline locks; see <u>section 6.3</u>.

Appendix E: Firmware change in LCU 5350

If a lock needs to have its firmware upgraded due to new firmware features etc, follow the steps below:

1. Choose **Upload firmware** in the *Lock Service 3G* software [1].
2. Mark the applicable lock firmware (and if you have touchpad, move the cursor to be over the **Upload** button).
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 [2].
4. Click **Upload**; a progress bar will show how the upgrade proceeds. 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 F: Summary of notes

Below is a summary of the important notes etc in this manual. It therefore gives a condensed overview of what to think of in different phases for the *Essence* 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: *VingCard Essence (v2)* can only be installed in non-metallic doors.

2. Site survey

Note: Always make sure to have the correct handing for all doors.

Note: See [section 3.1](#) for an overview of available cut-outs.

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* when making the cut-out for the lock case.

Note: Be aware if there is any door gasket.

3. To mortise the door

Important: The lock front can be delivered with a width of 32mm (1.26"), 28mm (1.102") or 25 mm (0.984"). Make sure that you mortise the door to the correct dimensions for your lock dimensions. Check the dimensions of the lock before you start cutting.

Note: Be aware of the dimension 30 mm (1.181'') from the edge of the lock case to the edge of the striker plate.

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.

4. To install the lock

Note: The online kit and cylinder kit are purchased separately, when applicable.

Important: Do not lubricate the lock case.

Note: If applicable, do not forget to install the cylinder fastening clip before inserting the lock case.

Note: The spindle handle marked 'EXT' must be on the outside of the door.

Important: For both left handles and right handles, make sure that the _handle retainer*Signature_ is in the "click" position within the groove on the shank of the handle.

Important: For ANSI (DB) and EURO, the thumbturn knob should be pointing downwards. Insert the inside handle onto the spindle and screw the handles together.

Important: For ANSI (DA), the thumbturn knob should be pointing upwards. Insert the inside handle onto the spindle and screw the handles together.

Important before mounting the Essence cassette in the door:
Make sure that the LCU cable is well positioned in the space marked with II in Figure 38, to avoid pinching of the cable.

Important: Arrange the cables to prevent pinching them.

Note: Tighten gently when fastening the bracket, when turning the sprocket in order to pull the LCU in place and when fastening the screw in the centre of the sprocket.

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

Note: If cylinder with cap is used, the installation of the cap should be the last operation in the mounting of the lock.

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

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

Important: 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 fresh batteries ready since the *battery holder 4.5V* with new batteries must be connected as quickly as possible after the old batteries have been disconnected, else a soft reset may take place. 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: 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.

Appendix C: To install ADB

Important: When installing an ADB lock case, the ADB striker plate plate with curved lip must always be used (hands of door L and R).

Note: Latch - same function as standard ASSA ABLOY Hospitality EURO lock.

Note: Auxiliary latch/deadbolt trigger - when the door is closed and the auxiliary latch hits the striker plate/frame, the automatic deadbolt will be thrown and the latch will be blocked. Always install a striker plate before installing the lock case in the door. If the door with lock case is closed without a striker plate, the auxiliary latch will be jammed in the frame cut-out. The dimension from the front of the lock case to the striker plate must not exceed 4mm to obtain automatic deadbolt function.

Note: Automatic deadbolt - the deadbolt throws automatically when the door is closed.

Note: Privacy hub - with the thumbturn, the privacy hub can be rotated 45°. When the *escutcheon thumbturn Signature* is pointing downwards, the privacy function is off. When the *escutcheon thumbturn Signature* is rotated 45°, the privacy function is on. The deadbolt cannot be retracted with the thumbturn.

Appendix D: Online

See notes for .

Revision history

Date	Change	By
October 11, 2016	Initial version	KG
Janaury 5, 2017	Added cooling material to online kit	KG

ASSA ABLOY Hospitality APAC
E-mail: apac.hospitality@assaabloy.com
Phone: +65 6305 7670

ASSA ABLOY Hospitality EMEA
E-mail: emea.hospitality@assaabloy.com
Phone: +47 69 24 50 00

ASSA ABLOY Hospitality North America
E-mail: northam.hospitality@assaabloy.com
Phone: +1 972 907 2273

ASSA ABLOY Hospitality Latin America
E-mail: lam.hospitality@assaabloy.com
Phone: +52 55 36 40 12 00

www.assaabloyhospitality.com