Technical Manual

VingCard Classic RFID

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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.

Exposure statement:
This portable device with its antenna complies with FCC RF exposure limits for general population /
uncontrolled exposure. The antenna used for this device must not be co-located or operating in
conjunction with any other antenna or transmitter. 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 LCU must be labeled to say '**FCC ID: Y7V-LCU6351C1**'.

ISED (IC) statements for LCU

This device complies with Industry Canada licence-exempt RSS standard CAN ICES-3 (B)/NMB-3(B) B.
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 conform 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.

Exposure statement:
This portable device with its antenna complies with FCC RF exposure limits for general population / uncontrolled exposure. The antenna used for this device must not be co-located or operating in conjunction with any other antenna or transmitter. Use only the supplied antenna.

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 radio transmitter **IC:9514A-LCU6351C1** 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.

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

FCC (Federal Communications Commission) statements for ZigBee endnode

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.

Exposure statement:
This portable device with its antenna complies with FCC RF exposure limits for general population /
uncontrolled exposure. The antenna used for this device must not be co-located or operating in
conjunction with any other antenna or transmitter. 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 endnode must be labeled to say '**FCC ID: Y7V-683081150C1**'.

ISED (IC) statements for ZigBee endnode

This device complies with Industry Canada licence-exempt RSS standard CAN ICES-3 (B)/NMB-3(B) B.
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 conform 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.

Exposure statement:
This portable device with its antenna complies with FCC RF exposure limits for general population /
uncontrolled exposure. The antenna used for this device must not be co-located or operating in
conjunction with any other antenna or transmitter. Use only the supplied antenna.

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 radio transmitter **IC9514A-683081150C1** 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.

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.

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.
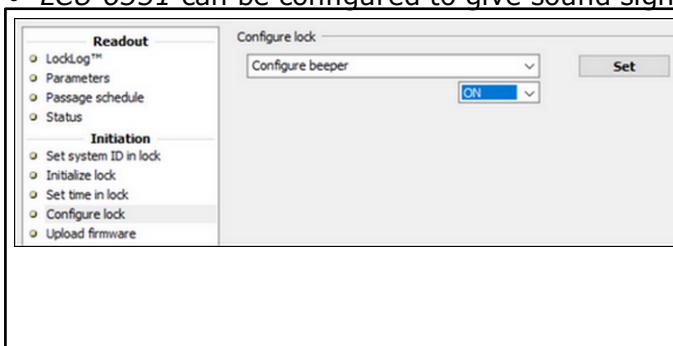
1. Introduction

The *VingCard Classic RFID* lock is a standalone electronic lock with RFID (*radio frequency identification*) technology, which can also be online by ZigBee [1]. *VingCard Classic RFID* is compatible with the Visionline system. The lock has LED signals and can also be configured for sound signals [2]; see information about configuring the beeper in *section 1.1* below. **_Note:_** The *VingCard Classic RFID* lock can be used at new installations, or as an upgrade from *VingCard Classic mag;* in the latter case, only add the RFID reader by replacing the top cover.

1.1 Introduction to LCU 6351

LCU 6351 has the same dimensions and service contact as the previous LCU version (6334), but there are also some differences which are described below.

- Instead of having a separate BLE module, the LCU now includes the BLE radio. Initialization of BLE is however done in the same way as for previous LCU, i.e. mark 'Include BLE configuration data' under **Initialize lock** in *Lock Service 3G* when initializing the lock/elevator controller/remote controller. As for previous LCU, if the signal strength should be changed from the default value 0 dBm and/or if seamless mode is applicable go to **Configure lock** in *Lock Service 3G;* choose 'Send configuration data (BLE)' and make the necessary settings for 'Tx power' and 'seamless mode'. See *Quick reference guide Lock Service 3G* for details about the **Initialize lock** and **Configure lock** operations.

- Minimum *Lock Service 3G* version is 2.3.0.2, which includes the below minimum firmware versions:
  - 3.17.37.4 (standard lock)
  - 3.18.37.4 (elevator controller)
  - 3.20.37.4 (remote controller)
  - 3.40.37.4 (*VingCard Allure* standard lock)

- *LCU 6351* can be configured to give sound signals:

1. Connect the service cable to the lock/elevator controller/ remote controller.
2. Choose **Configure lock** in the left pane of *Lock Service 3G*.
3. In the upper drop-down-menu, choose 'Configure beeper'.
4. In the lower drop-down-menu, choose 'ON'.
5. Click the **Set** button.

[1] See *User manual Online option* for more details about the ZigBee network etc.
[2] For information about different LED and sound signals which the lock can give, see the appendix 'Lock LEDs and sounds and what they mean' in *User manual Visionline*.

Continued on next page

• *LCU 6351* can (in addition to the regular green/yellow/red LED signals) be configured to show a flashing blue LED signal when the BLE radio is searching for a mobile device to connect to:

	1. Connect the service cable to the lock/elevator controller/ remote controller. 2. Choose **Configure lock** in the left pane of *Lock Service 3G*. 3. In the upper drop-down-menu, choose 'Configure blue LED'. 4. In the lower drop-down-menu, choose 'ON'. 5. Click the **Set** button.

2. External dimension requirements

Before starting the installation, check the below dimensions (in mm/inches).
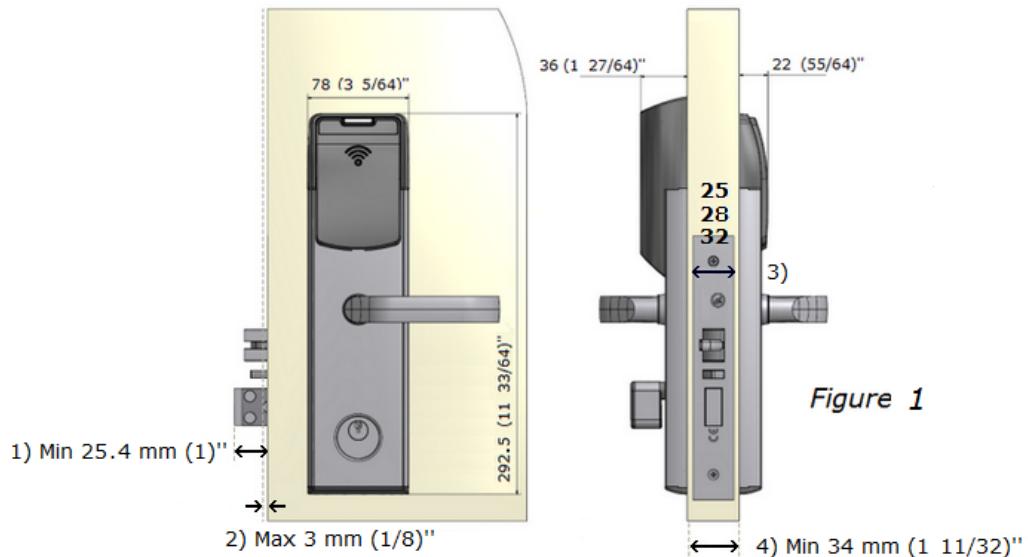
Figure 1

Note 1: *Allow at least 25.4 mm (1)'' in depth for deadbolt.*
Warning: *When the deadbolt is thrown, the door cannot be opened with a metal key in case of emergency, if the cut-out is less than 25.4 mm (1)'' deep.*

Note 2: *Gap between lock front-end and strike must not exceed 3 mm (1/8)''.*

Note 3: *The lock front-end plate can be delivered in either 25 mm (1)'', 28 mm (1 1/8)'' or US Standard 32 mm (1 1/4)'' widths.*

Note 4: *Minimum door thickness required is 34 mm (1 11/32)''. Spacer must be on doors that are less than 34 mm (1 11/32)'' thick.*
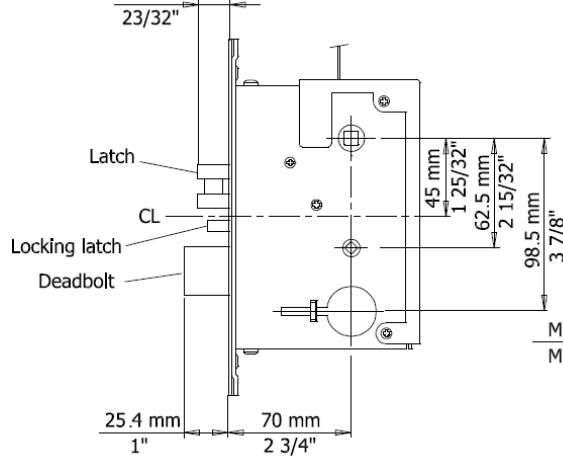
Figure 2: Lock case dimensions

Note: CL is lock case center line.
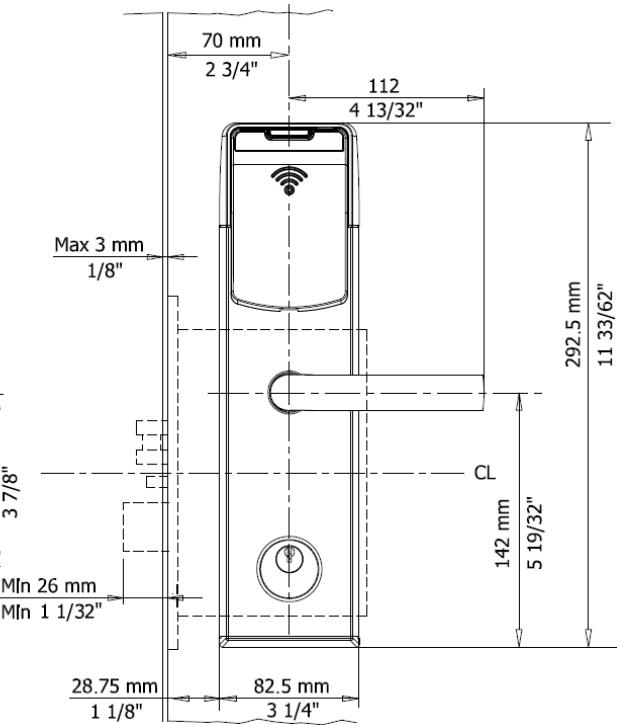
Figure 3: Escutcheon dimensions

Note: The cylinder hole is to be cut only for locks equipped with cylinder. Only one side of the door is to be mortised, i.e. the cut-out should not go through the entire door as the other cut-outs.

2.1 External strike dimensions

Wooden frame: First install lock in door (see chapter 3), then position the strike (Figure 4) in frame so that top of the strike is 49 mm below top of the outside front (19+30 mm).

Steel frame/standard strike not used: First make sure that cut-out in door confirms to the dimensions in Figure 5. Then install lock in door and position the top of the lock case (step 1, chapter 3.3) in relation to the cut-out as shown in Figure 5.

Pictures on next page: external strike dimensions (Figure 4) and cut-out dimensions (Figure 5) shown in relation to side view (Figure 6) and edge view (Figure 7) of mortise.
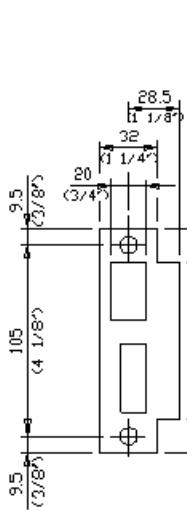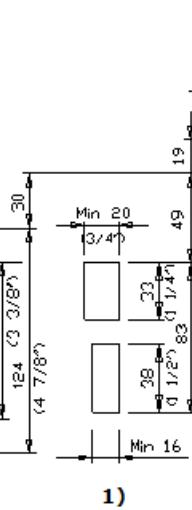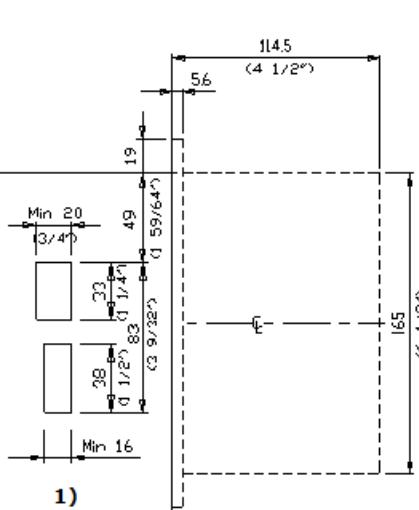
Figure 4   Figure 5   Figure 6   Figure 7
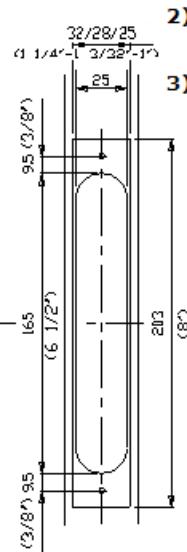
Note 1, Figure 5: *Distance between latch (upper) cut-out and deadbolt cut-out must be 12 mm (1/2)" in order for locking latch function to work.*

Note 2, Figure 7: *The lock front-end plate can be delivered in 25 mm (1)", 28 mm (1 1/8)" or US Standard 32 mm (1 1/4)" widths.*

Note 3, Figure 7: *The lock case will be delivered with lock front 25 mm (1)", 28 mm (1 1/8)" or US Standard 32 mm (1 1/4)" widths, depending on the dimension of the lock front-end plate.*
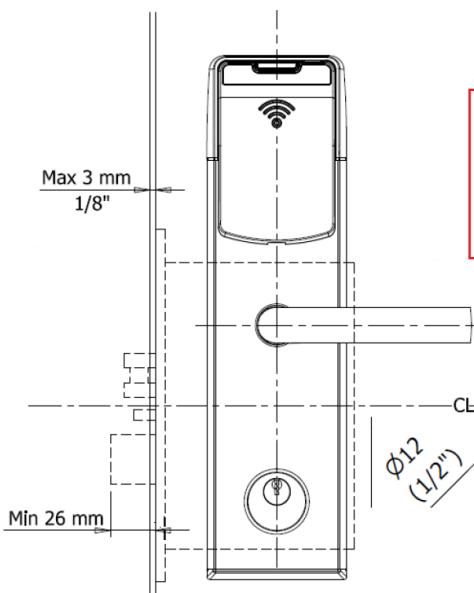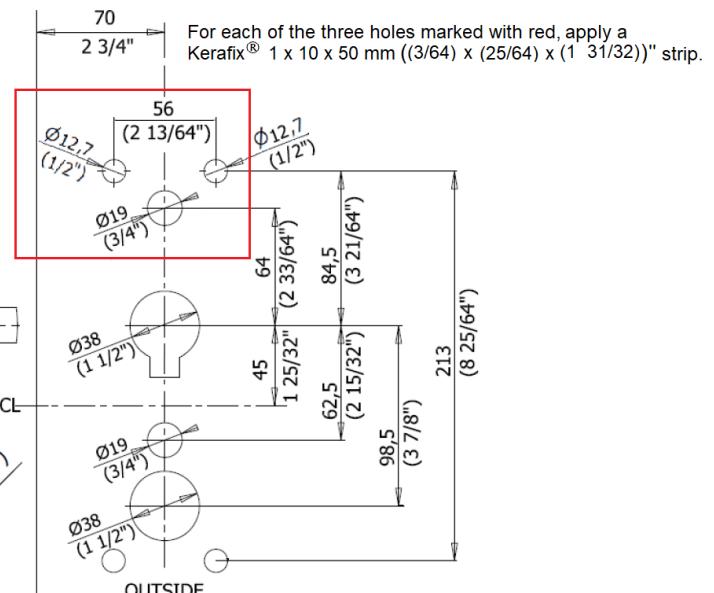

Figure 8   Figure 9
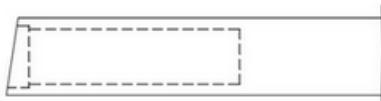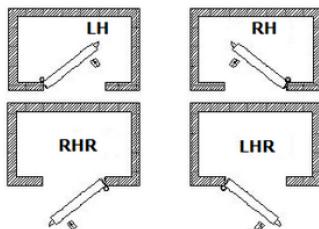
Figure 10

Figure 8: Position of lock in relation to door cut-out and frame.

Figure 9: Cut-out dimensions to be made for escutcheon. **<u>Note:</u>** The hole with diameter 38 mm (1 1/2)"
is only to be made if cylinder is applicable. For the cylinder hole, only one side of the door is to be
mortised, i.e. the cut-out should not go through the entire door as the other cut-outs.

Figure 10: Cross-section from top, showing mortises position if door is beveled. **<u>Note:</u>** If the door is
beveled, i.e. if edge is not at 90° to door, dimensions should be based on the shortest side (upper side
in Figure 10).

2.2 Direction of opening

Figure 11

LH	Left handle
RH	Right handle
RHR	Right handle, reversed
LHR	Left handle, reversed
	Table 1

2.3 Cut-outs

For new installations of *VingCard Classic RFID*, the cut-out drawings
named 'Classic RFID' in Table 2 are applicable. For upgrade installations
from VingCard Classic mag, the cut-out drawings named 'Classic mag'
are applicable.

Model/version name	Cut-out drawing
Classic RFID ANSI DA with cylinder	AN-91
Classic RFID ANSI DA without cylinder	AN-92
Classic RFID ANSI DB with cylinder	AN-59
Classic RFID ANSI DB without cylinder	AN-89
Classic RFID EURO with cylinder	AN-60
Classic RFID EURO without cylinder	AN-90
Classic mag ANSI DA (with and without cylinder)	AN-112
Classic mag ANSI DB (with and without cylinder)	AN-110
Classic mag EURO (with and without cylinder)	AN-111
	Table 2

3. To install the lock

3.1 Exploded view

3.1.1 RFID cut-out
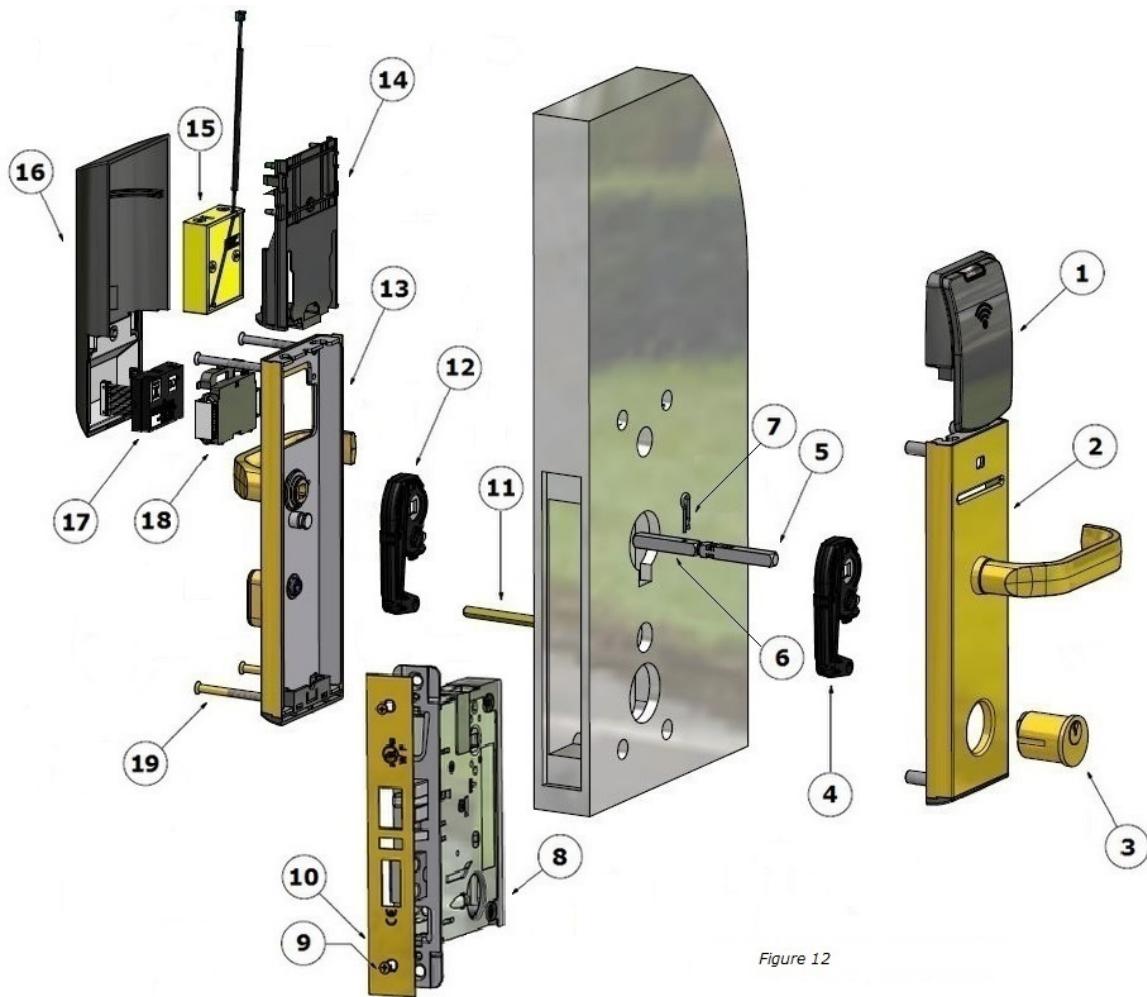
Figure 12

Pos	Description	Pos	Description	Pos	Description
1	RFID module (see details in pos 1-7 of section 3.1.3)	8	Lock case	15	Battery holder
2	Escutcheon outside	9	Lock front screw	16	Classic battery lid, large
3	Cylinder assy	10	Lock front	17	LCA (*lock case adapter*) 6343
4, 12	Handle retainer	11	Thumb turn spindle	18	Adapter for LCA
5	Outside spindle	12	See 4	19	Escutcheon screw
6	Inside spindle	13	Escutcheon inside		
7	Safety pin	14	Bracket		*Table 3*

3.1.2 Mag cut-out (for upgrade from Classic mag)
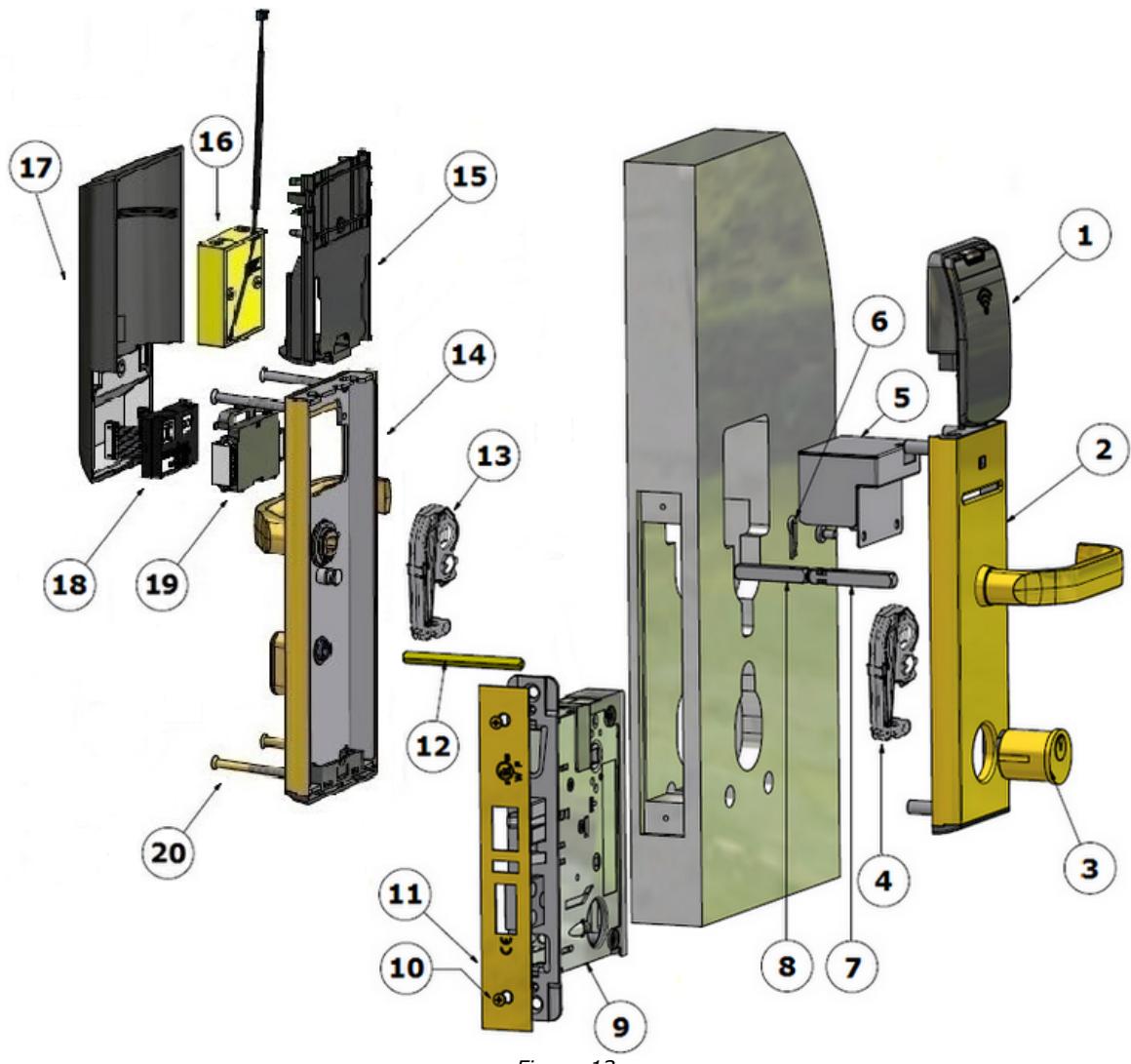
Figure 13

| Pos	Description	Pos	Description	Pos	Description
1	RFID module (see details in pos 1-7 of section 3.1.3)	8	Inside spindle	15	Bracket
2	Escutcheon outside	9	Lock case	16	Battery holder
3	Cylinder assy	10	Lock front screw	17	Classic battery lid, large
4, 13	Handle retainer	11	Lock front	18	LCA (*lock case adapter*) 6343
5	Upgrade plate	12	Thumb turn spindle	19	Adapter for LCA
6	Safety pin	13	See 4	20	Escutcheon screw
7	Outside spindle	14	Escutcheon inside		
					Table 4

3.1.3 RFID specific components
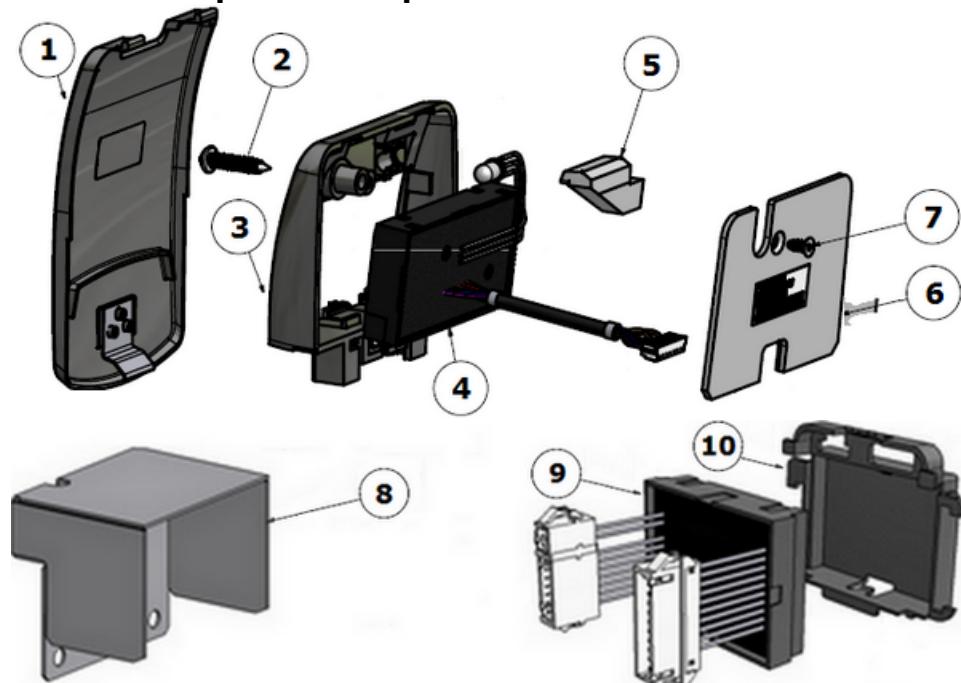
Figure 14: Note that the upgrade plate shown in pos 8 is for upgrades from Classic mag installations.

Pos	Description	AMS part
1	Front cover assy	Pos 1-7 are sold as AMS part 'RFID module, assy'
2	Screw	
3	Frame	
4	LCU (*lock controller unit*)	
5	Light pipe	
6	Shield plate	
7	Screw	
8	Upgrade plate	
9	LCA 6343	Pos 9-10 are sold as AMS part 'LCA 6343 kit'
10	Adapter for LCA	

Table 5

3.1.4 Upgrade kits

Name	Description
VingCard Classic 4G RFID upgrade kit (new projects); LCU & LCA VingCard Classic 3G RFID upgrade kit (AMS); LCU & LCA	
VingCard Classic 9V conversion cable kit	Required in addition to upgrade kit for all 9V installations; contains 9V conversion cable + battery cable
LCUt1 conversion cable	Required in addition to *upgrade kit* & *9V conversion cable kit* when upgrading from LCUt1 installations

Table 6

3.1.5 Online by ZigBee

A *Classic RFID* lock can be online by ZigBee. In this case, a ZigBee endnode is mounted in the bracket as shown in Figure 15.

ZigBee endnode
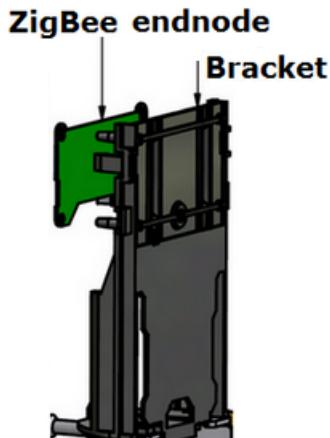
Bracket

Figure 15

3.2 To install the lock

The bold numbers in brackets refer to the exploded views. For upgrade installations from *Classic mag*, remove the top cover from the outside escutcheon and then start the installation from step 19 below.

Note: Gothic style escutcheon is not recommended for *VingCard Classic RFID* upgrades.

Note: For a reliable operation:
- No parts should be lubricated, except for spindle threads
- When cleaning escutcheons, use soft moist cloth without detergent

If Hydra cylinder is in use:
Thread the security clip onto the lock case from bottom side, at 45° and press it upwards so the groove is aligned to the cable cover mounting screw.

1. Position the lock case (RFID:**8**; mag:**9**) into the door edge and fasten it with two lock front screws (RFID:**9**; mag:**10**).
   Note: Position the cable in the door before inserting the lock case.

2. Normally, the handle retainers are at delivery mounted in the outside and inside escutcheons respectively. If they are not (e.g. if spare parts have been ordered), the escutcheons must be prepared according to Appendix E.

3. Mount the spindle (RFID:**5+6**; mag:**7+8**) in the lock case from the outside. The safety pin (RFID:**7**; mag:**6**) is holding the handle spindle in correct position. Push the pin into the hole through the *inside spindle*. If plastic ring is used,

push the plastic ring onto the *inside spindle*, making sure that the ring fits into its groove.

4. Position the outside escutcheon onto the spindle.

5. Insert the thumb turn spindle (RFID:**11**; mag:**12**) through the lock case until it stops against the outside escutcheon.

6. Mount the inside escutcheon (RFID:**13**; mag:**14**) including handle retainer as follows: set the thumb turn in its vertical position, while the deadbolt is retracted.

7. Before mounting the inside escutcheon on the door, make sure that:
   - The outside spindle and inside spindle fit correctly in their positions; make sure that there is a 3/4 turn between them (normally fixed already at delivery).
   - Inside and outside handle retainers (RFID:**4** and **12**; mag:**4** and **13**) are correctly mounted according to door handing; see Appendix E.
   - The cable to the battery is placed correctly through the notch on top of the escutcheon.
   Leave the connectors accessible on the inside of the door.

8. Connect the cable from the lock case to the LCA (RFID:**17**; mag:**18**).
   Important: Connectors should mount easily; avoid using force. If condensation can occur (as is likely in hollow steel doors), the contacts should be filled with silicone grease.

9. Fasten the outside escutcheon (**2**) and inside escutcheon respectively with four escutcheon screws (RFID:**19**; mag:**20**) as shown, but do not tighten them at this point. ***Important:*** The protruding parts must fit correctly. Any bending or misalignment may cause malfunction. ***Important:*** For lock without cylinder, never close door before lock is programmed and working with card operation.

*If your lock is equipped with standard cylinder (**3**), proceed to step 11.*
Hydra cylinder is used along with clips.

10. Prepare the cylinder as follow:
    - Insert an operational key and turn the cylinder so the cylinder arm is in 6 o'clock position.
    - Insert the cylinder into the lock case and position the cylinder so it is flush to the outside escutcheon.
    - Fix the cylinder in place with the fixing–screw tool kit as follows:
      a) Use the L–shaped Allen key to lock the headless fixing screw to the T–shaped tool as illustration in the box shows.
      b) Using the T–tool, screw the fixing–screw in place as shown to fix the cylinder in place. When tighten the screw, put pressure on the Allen wrench, not the T-handle, to avoid over-tightening. Make sure that the cylinder fixing–screw is tightened in the cylinder.
      c) Release the T–tool from fixing–screw by holding the T–tool rigid while

turning the Allen key counter-clockwise until the tool is released, then unscrew the tool.

If your lock is equipped with Hydra cylinder, proceed to step 12.

11. Install the cylinder (**3**) and fasten it with the cylinder set screw using an Allen wrench. When using a standard cylinder with ADB lock case, use the optional short screw as described in the applicable Appendix A (ANSI DA), Appendix B (ANSI DB) or Appendix C (EURO).

12. ***Important:*** Check all functions for smooth operation before final tightening of the escutcheon screws. Throw the deadbolt with thumb turn and retract the latch and deadbolt by depressing the inside handle. When installing an ADB lock case the deadbolt is thrown by pushing the trigger, and retracted by depressing the inside handle.

13. Install the battery pack by connecting the battery cable to the battery.
    Note: Yellow light should flash once after battery is connected.

14. If the battery lid is in metal, the battery cup (not shown in the exploded views in section 3.1) must be threaded upon the battery before connecting the battery cable (only for 9V / 6 batteries). ***Note:*** If this battery lid is used, it is not possible to have the lock online by ZigBee.

15. Fasten the lock front (RFID:**10**; mag:**11**) with lock front screws (RFID:**9**; mag:**10**). Make sure that the anti-friction latch comes all the way out.

16. Tighten the four escutcheon screws (RFID:**19**; mag:**20**), ensuring that the inside and outside escutcheons are aligned to each other.

17. The RFID module is normally assembled with the outside escutcheon at delivery, but if it is not (e.g. if the RFID module has been ordered as a spare part), snap the RFID module (**1**) in place on top of the outside escutcheon and fasten it with the screw (pos **2** in section 3.1.3) in the front; see Figure 16. An additional mounting hole is available in the top left corner of the LCU (*lock controller unit*), if this is needed. ***Note:*** For upgrades, the LCU must be removed and the upgrade plate (mag:**5**) be mounted; see details in step 20.
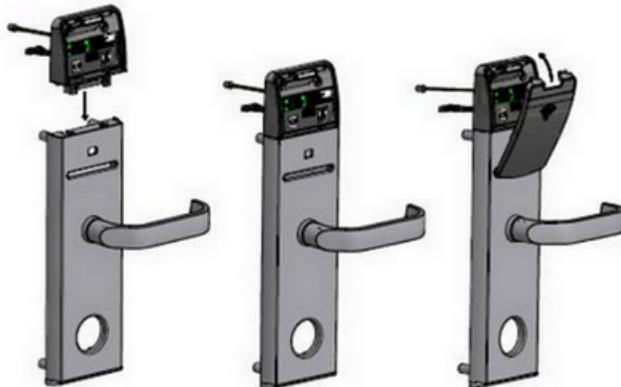
Figure 16

18. The cable is normally at delivery pulled through the cable leader as shown in Figure 17, but if it is not (e.g. if the RFID module has been ordered as a spare part), pull the cable through the cable leader. ***Note:*** Be aware of sharp edges on door and escutcheon which can damage the RFID cable upon mounting.

Figure 17

19. When upgrading an existing ASSA ABLOY Hospitality installation with LCU (*lock controller unit*) or RM/CM (*reader module/control module*), the upgrade plate must be installed. This is a precaution which is required due to already existing holes in the door. Use the old mounting screws from the LCU/RM to fasten the upgrade plate as shown in Figure 18. Additional fire protection material must also be placed in the location of the removed LCU/RM.
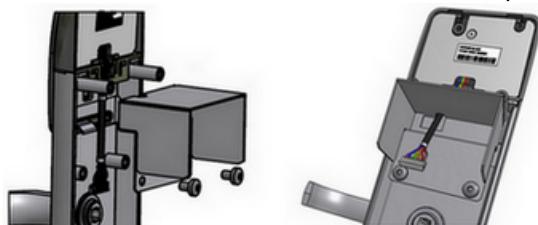
Figure 18

Note: At new installations with RFID Classic cut-outs, the upgrade plate is not needed. ***Note:*** When upgrading a non-VingCard lock to VingCard Classic RFID, a cover plate with dimensions according to the guidelines given in *Application Note 93* (AN-93) will replace the upgrading plate.

20. The *lock case adapter (*LCA*)* (RFID:**17**; mag:**18**) is normally delivered in place in the *adapter for LCA* (RFID:**18**; mag:**19**), but if this is not the case (e.g. if the LCA has been ordered as a spare part), snap the LCA in place and fasten the connectors.

21. Connect the battery cable, the lock case cable and the cable from the LCU before the inside unit is snapped in place on the inside escutcheon.

22. Install the *battery lid* (RFID:**16**; mag:**17**) by using the lid opener.

4. Installation checklist

4.1 Installation check

1. *Mortise of the lock:* The front–end (including the lock case cover plate) should be flush with the door edge.
2. *Installation of cylinder:* The cylinder should be flush with the escutcheon and properly fixed.
3. *Installation of escutcheon:* The escutcheon should be aligned vertical to the door edge and be tightened firmly.
4. *Installation of strike:* The depth in the frame must be sufficient, min 1" (25.4 mm), to accommodate the full thrown deadbolt.

4.2 Operational check

1. *Outside and inside handle:* Handles must return to horizontal position after being depressed (outside handle can only be depressed slightly as the lock is in locked position).
2. *Thumb turn:* The thumb turn must throw and retract the deadbolt freely.
   Note: When installing ADB lock case the thumb turn cannot retract deadbolt. The trigger will throw the deadbolt if depressed.
3. *Cylinder:* When using an emergency key (EMK), latch and deadbolt must freely operate.
4. *Latch and deadbolt:* When the deadbolt has been retracted by the thumb turn and the inside handle is fully depressed, deadbolt and latch should be flush with the lock case cover plate.
5. *Electronics* **Note:** If there is no cylinder available, it's important to check that the electronics works before closing the door. The lock is programmed by showing the construction card to the lock twice. On first presentation you will see an orange LED and then on the second a green LED and you will be able to turn the handle to retract the door latch.

4.3 Security function check

1. *Dead latch function:* When depressing the locking latch, the latch should be blocked. Make sure the latch is not snagged by the strike when the door is closed.
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. Commissioning

When the locks have been mounted and connected according to the previous chapters, the following steps should be performed:

1. Make sure that each lock has got the correct firmware version, i.e. latest available version of lock firmware for Visionline. The version is read out with the service PC and the software *Lock Service 3G* [1], which is also used for uploading the correct firmware to the lock if needed [2].
2. Each lock is set up as a door in Visionline [3].
3. Download data from the Visionline server to Lock Service 3G [4].
4. Set system ID in each lock [5].
5. Initialize each lock with room number and also with parameters set up in Visionline for each concerned lock [6] (if applicable with 'Include BLE configuration data' marked). ***Note:*** The initialization will also set the time in the lock.
6. If applicable, make configurations for the lock (e.g. regarding beeper and/or blue LED) [7].
7. If ZigBee is applicable, this requires that the *Online* option has been set in Visionline and that the ZigBee network has been set up [8].

---

[1] See the section *Parameters* in *Quick reference guide Lock Service 3G* for details.

[2] See the section *Upload firmware* in *Quick reference guide Lock Service 3G* for details.

[3] See the section *To set up a door* in *Setup manual Visionline* for details.

[4] See the section *Download data from server* in *Quick reference guide Lock Service 3G* for details.

[5] See the section *Set system ID in lock* in *Quick reference guide Lock Service 3G* for details.

[6] The initialization can either be done with a service cable and *Lock Service 3G* (see the section *Initialize lock* in *Quick reference guide Lock Service 3G* for details), or with an initiation card issued in Visionline (see the section *Initiation card* in *Setup manual Visionline*).

[7] See the section *Configure lock* in *Quick reference guide Lock Service 3G* for details.

[8] See *User manual Online option* for details.

6. Maintenance

6.1 To release the cover from the RFID module

If the LCU contact needs to be reached, e.g. for firmware upgrade, the cover (front cover assy in section 3.1.3) is demounted according to below:

1. Press the two wings on top of the cover (marked with arrows in the left picture below), and at the same time pull the cover according to the right picture below.
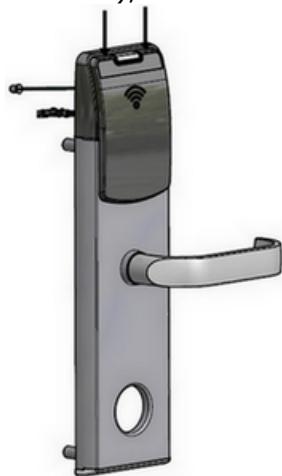

Figure 19

Figure 20

7. Service functions

Function	Read more
Read-out	• For information about read-out with the service PC and the software *Lock Service 3G*, see *Quick reference guide Lock Service 3G*. • For information about read-out with a *read-out card* or *read-out card advanced*, see *User manual Visionline*.
Firmware upgrade	For information about firmware upgrade with the service PC and *Lock Service 3G*, see *Quick reference guide Lock Service 3G*.
Cold reset	For information about cold reset, see *Quick reference guide Lock Service 3G*.

Appendix A: ANSI DA ADB

This appendix contains description and drawings needed for a new installation or upgrade of the ANSI DA ADB lock case. All dimensions are given in mm and inches.

ADB strike

When doing either a fresh install or an upgrade to ANSI DA ADB lock case, the external strike plate must be installed as shown in Figure A1.
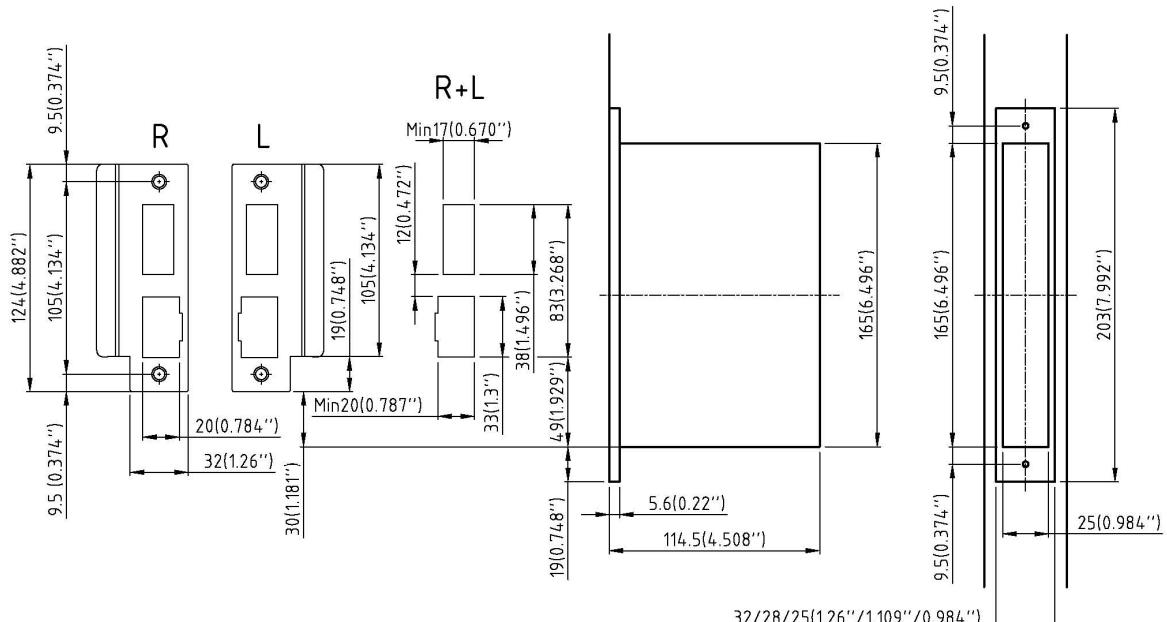
Figure A1

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

Door handing	Strike L	Strike R
LH (Rx)	X	
RHR (Ro)	X	
RH (Lx)		X
LHR (Lo)		X
Table A1		

Appendix A: ANSI DA ADB

All frames (wooden and steel frames)
First install the lock in the door as shown in section 3.3. Place the ADB strike in the frame as shown in Figure A1, 49mm below the top of the lock front (30mm + 19mm).

Mortise
If the frame is mortised for a standard ANSI strike, the frame must be modified as shown in Figure A2.
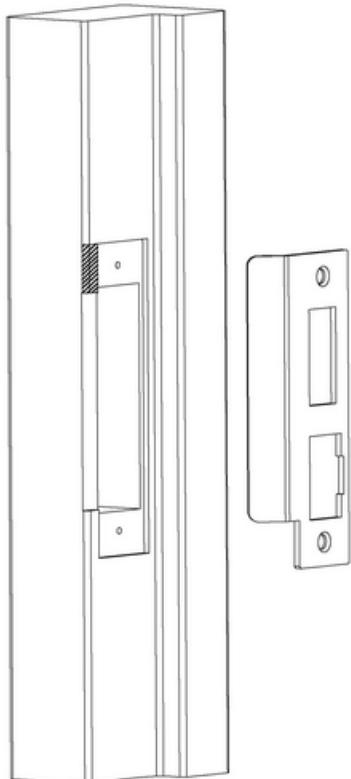
Figure A2

Appendix A: ANSI DA ADB

Cylinder for ADB (escutcheons with cylinder)

The ADB lock case can be used with either a threaded cylinder or a Hydra cylinder. When upgrading from standard lock case with threaded cylinder, the revolving arm must be replaced; see Figure A3. Old Hydra cylinders cannot be upgraded to fit ADB lock cases.
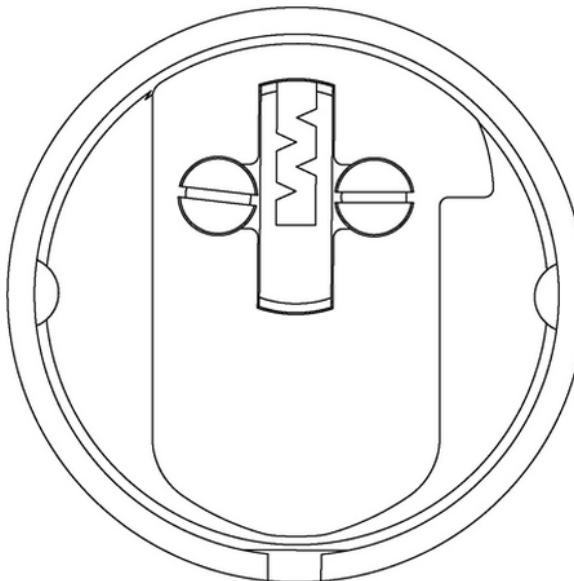
Figure A3: Threaded ANSI ADB cylinder
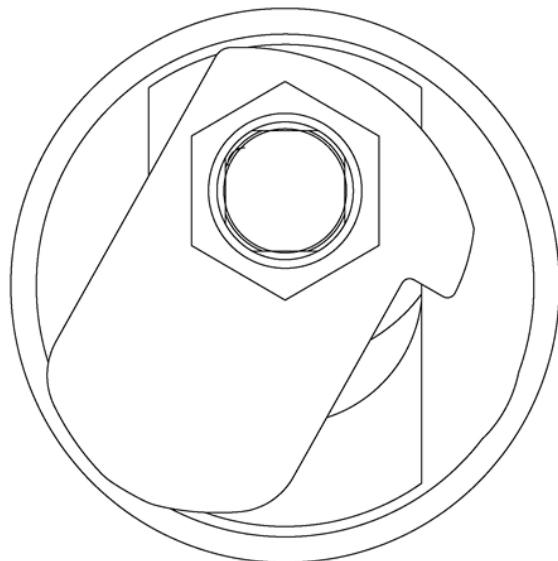
Figure A4: Hydra ANSI ADB cylinder

To install the cylinder

The standard cylinder fastening screw cannot be used for threaded cylinder. The cylinder fastening screw *Set screw Din 916-Grooved cup point M4x10mm* (enclosed with the new threaded ADB cylinder or the upgrade revolving arm) must be used to fasten the cylinder.

Appendix B: ANSI DB ADB

This appendix contains description and drawings needed for a new installation or upgrade of the ANSI DB ADB lock case. All dimensions are given in mm and inches.

ADB strike

When doing either a fresh install or an upgrade to ANSI DB ADB lock case, the external strike plate must be installed as shown in Figure B1.
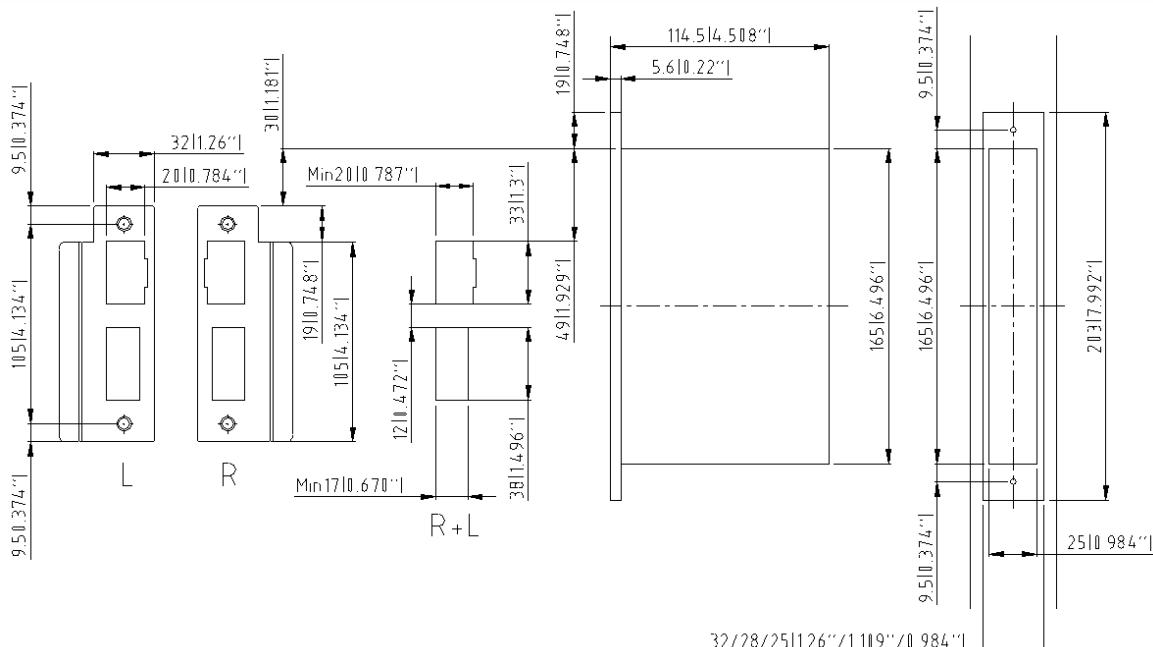

Figure B1

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

Door handing	Strike L	Strike R
LH (Rx)	X	
RHR (Ro)	X	
RH (Lx)		X
LHR (Lo)		X
Table B1		

Appendix B: ANSI DB ADB

All frames (wooden and steel frames)

First install the lock in the door as shown in section 3.3. Place the ADB strike in the frame as shown in Figure B1, 49mm below the top of the lock front (30mm + 19mm).

Mortise

If the frame is mortised for a standard ANSI strike, the frame must be modified as shown in Figure B2.
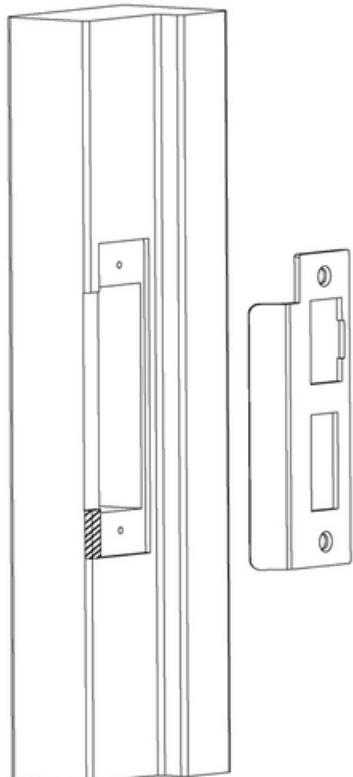
Figure B2

Appendix B: ANSI DB ADB

Cylinder for ADB

The ADB lock case can be used with either a threaded cylinder or a Hydra cylinder. When upgrading from standard lock case with threaded cylinder, the revolving arm must be replaced; see Figure B3. Old Hydra cylinders cannot be upgraded to fit ADB lock cases.
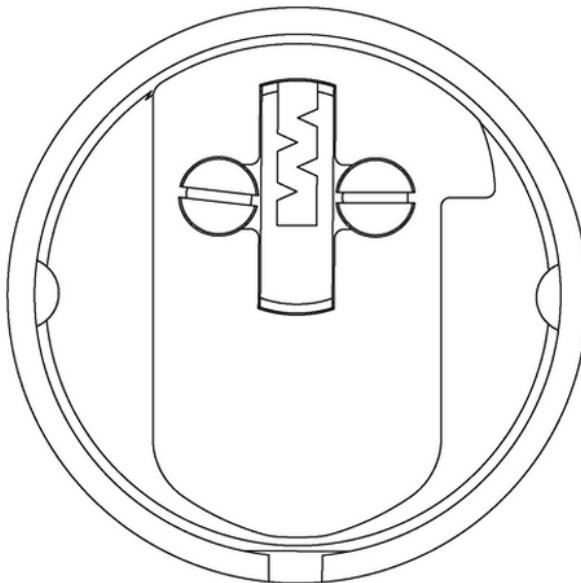
Figure B3: Threaded ANSI ADB cylinder
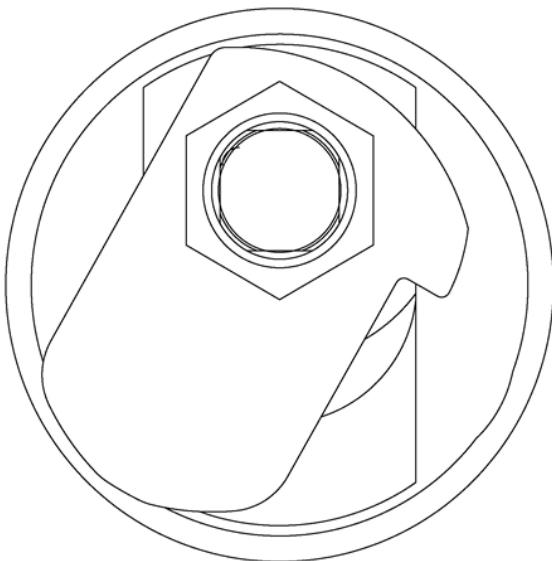
Figure B4: Hydra ANSI ADB cylinder

To install the cylinder

The standard cylinder fastening screw cannot be used for threaded cylinder. The cylinder fastening screw *Set screw Din 916-Grooved cup point M4x10mm* (enclosed with the new threaded ADB cylinder or the upgrade revolving arm) must be used to fasten the cylinder.

Appendix C: EURO ADB

This appendix contains description and drawings needed for a new installation or upgrade of the EURO ADB lock case. All dimensions are given in mm.

EURO ADB lock case
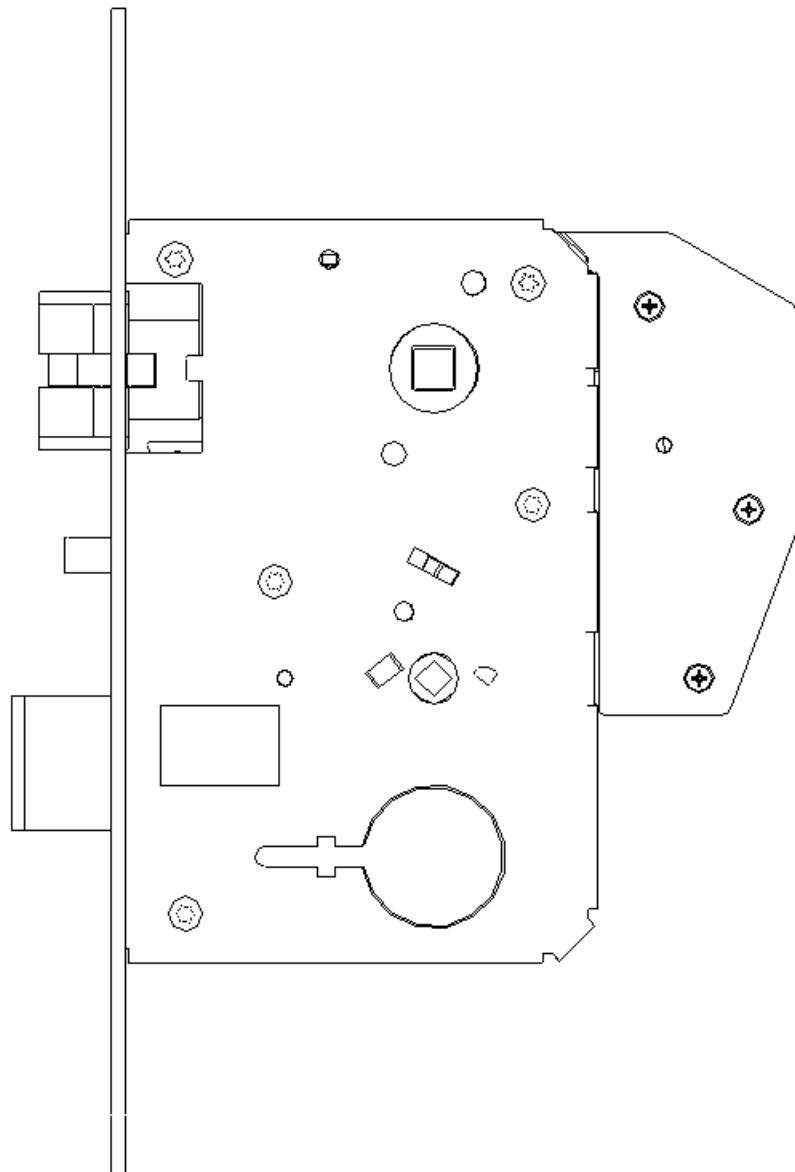
Figure C1

Note: For cut-out dimensions, see DaVinci, Classic or Presidio installation manual.

Appendix C: EURO ADB

1. *Latch:*
Same functions as standard VingCard EURO lock.

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

3. *Automatic deadbolt:*
The deadbolt throws automatic when the door is closed.

4. *Privacy hub:*
With the thumb turn the privacy hub can be rotated 45 degrees. When the thumb turn is pointing down the privacy function is off. When the thumb turn is rotated 45 degrees the privacy function is on. **The deadbolt cannot be retracted with the thumb turn.**
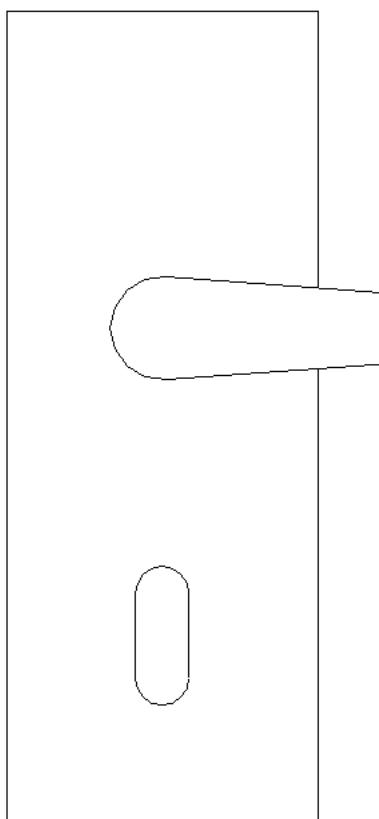

Figure C2: Privacy off
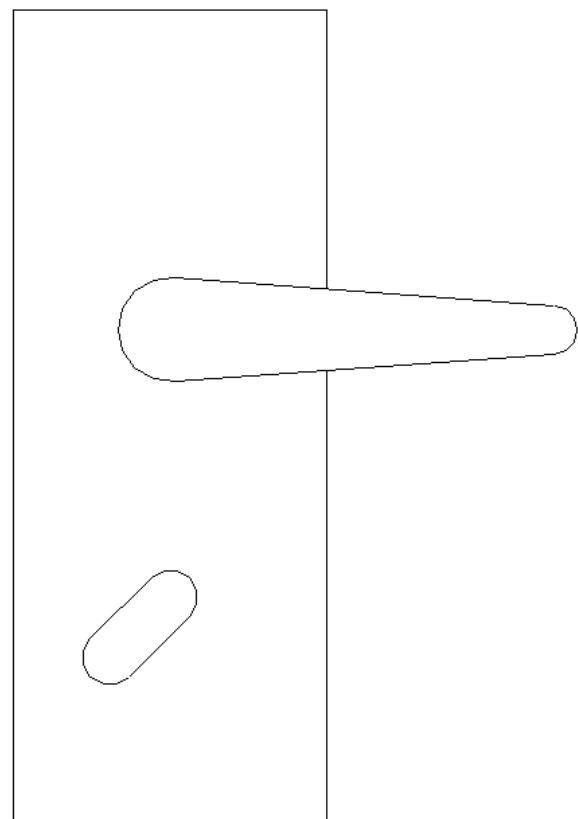
Figure C3: Privacy on

Appendix C: EURO ADB

Cylinder for ADB (escutcheons with cylinder)

The ADB lock case can be used with either EURO ADB threaded cylinder or EURO ADB Hydra cylinder. When upgrading from a standard lock case with threaded cylinder, the revolving arm must be replaced; see Figure C4. Old Hydra cylinders cannot be upgraded to fit ADB lock cases.
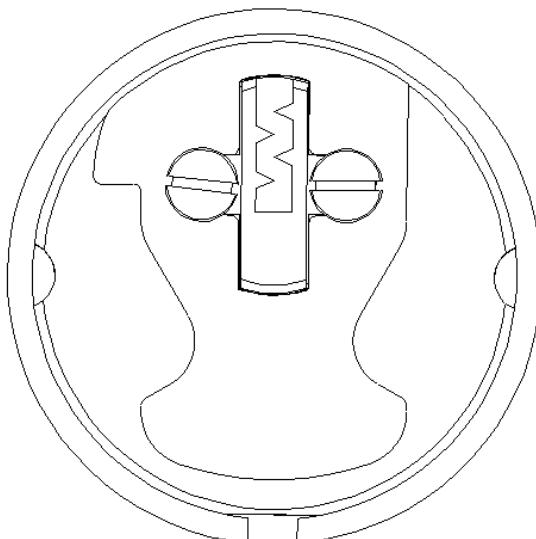

Figure C4
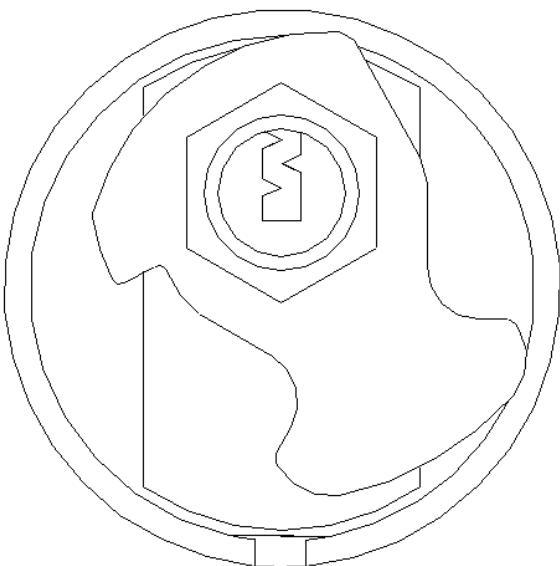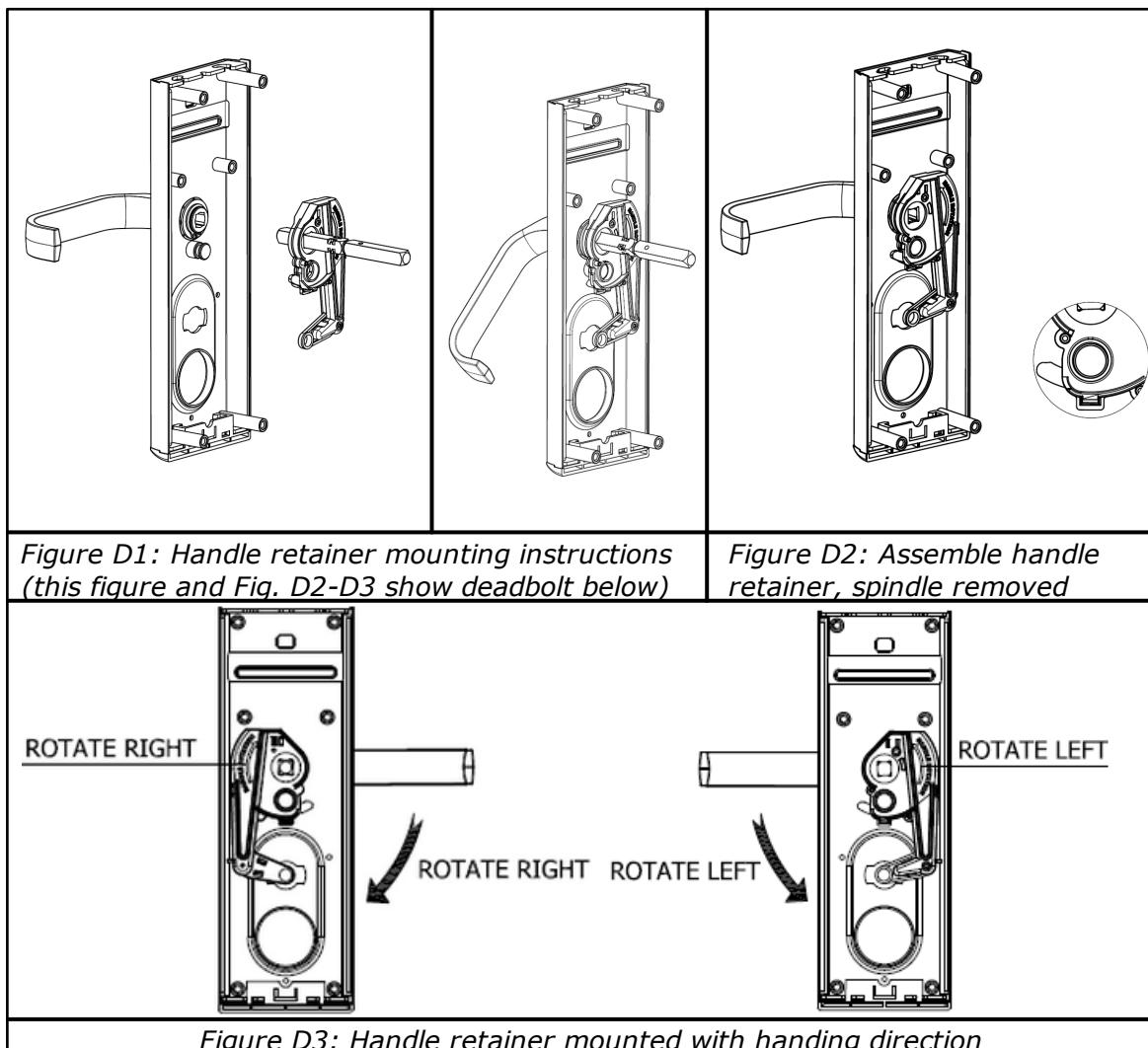
Figure C5

Appendix D: Preparing escutcheons (normally not needed)

The below steps are normally already done at delivery, but if not (e.g. if ordering spare parts) follow the procedure below:

1. The spindles should be assembled and threads be greased, ready to be mounted to the spring retainer.
2. Push handle retainer against escutcheon until hub stops against metal arm in handle retainer. ***Note:*** The hole in the handle retainer is closed by a metal arm.
3. Turn handle down until hole in handle retainer is just open. Do not use force on handle against end stop. Push handle retainer against escutcheon with both thumbs. Release handle when handle retainer snaps on hub in escutcheon.
4. When handle is back in horizontal position, remove spindle from handle and handle retainer.
5. Assemble second handle retainer. Use the same method for inside escutcheon as outside escutcheon. Assemble spindle in lock case.

Figure D1: Handle retainer mounting instructions (this figure and Fig. D2-D3 show deadbolt below)

Figure D2: Assemble handle retainer, spindle removed

ROTATE RIGHT

ROTATE RIGHT

ROTATE LEFT

ROTATE LEFT

Figure D3: Handle retainer mounted with handing direction

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