

# Quick installation guideline – Signature lock with housing BLE

## FCC (Federal Communications Commission) statements

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

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

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

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

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

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

The concerned end product must be labeled to say '**Contains FCC ID: Y7V-7001CC1**'.

## IC (Industry Canada) statements

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

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

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. This BLE Module '**IC: 9514A-7001CC1**' has been approved by Industry Canada to operate with the antenna type listed below with the indicated maximum permissible gain and required antenna impedance. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

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

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met. The concerned end product must be labeled to say '**Contains IC: 9514A-7001CC1**'.

## Déclarations d'Industry Canada

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

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

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

Conformément aux réglementations d'Industry Canada, cet émetteur radio peut uniquement fonctionner à l'aide d'une antenne dont le type et le gain maximal (ou minimal) pour ces émetteurs-transmetteurs sont approuvés par Industry Canada. Pour réduire le risque d'interférence éventuelle pour les autres utilisateurs, le type et le gain de l'antenne doivent être choisis de manière à ce que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne soit pas supérieure à la puissance nécessaire à une bonne communication. Ce module BLE '**IC: 9514A-7001CC1**' a été approuvé par Industry Canada pour une utilisation avec les types d'antenne indiqués ci-dessous avec le gain maximum autorisé indiqué et l'impédance d'antenne requise. Il est strictement interdit d'utiliser avec cet appareil un type d'antenne ne figurant pas dans cette liste ou ayant un gain supérieur au gain maximum indiqué pour ce type.

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

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

## Introduction

With the *Mobile Access* option set in the Visionline software, the BLE technology (*Bluetooth® Low Energy*) is used for exchanging data. Instead of using cards for access, mobile keys are used. The guest must have a Bluetooth® telephone which is registered with an *Endpoint ID*, and an app for opening the door. A *3G RFID Signature lock* is upgraded to BLE usage by following the steps in this instruction.

## Parts for the upgrade

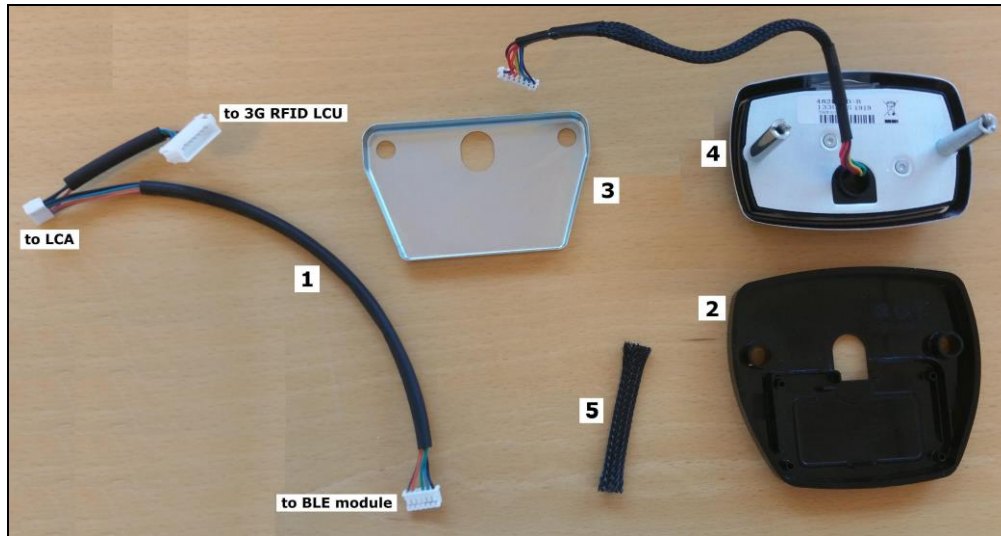


Figure 1: Signature kit, housing BLE

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

Table 1: Contents of 'Signature kit, housing BLE'



Figure 2: BLE module

## Tools for the upgrade

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

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## Procedure



Figure 4

1. If the door thickness requires it: exchange the regular spacers on the back of the *LCU Signature RFID assy* with the *screws standoff* (item number 4 in Figure 1).
2. Mount the *LCU Signature RFID assy (3G)* in the *housing BLE*.



Figure 5

3. Thread the cable sleeve onto the *3G RFID LCU reader cable*.



Figure 6



Figure 7

4. Thread the *Y-cable ZigBee&BLE for Classic* (from now on called 'Y-cable') through the *shield BLE* and through the cable sleeve, which will now contain two cables (*3G RFID LCU reader cable* and *Y-cable*).
5. Connect the Y-cable to the BLE module.



Figure 8

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



Figure 9

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



Figure 10

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



Figure 11

10. Mount the *housing BLE* including the *LCU Signature RFID assy (3G)* on the door; the spacers (or the *screws standoff*) on the back of the *LCU Signature RFID assy (3G)* are in step 11 fastened together with the *mounting frame* (full name *mounting frame inside Signature*).



Figure 12

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

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



Figure 13



Figure 14

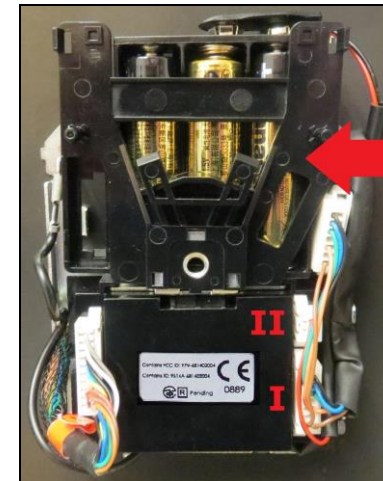


Figure 15

**Note:** The plug parking on the left side of the battery protection cannot be used since the cables are too short.

12. Snap the *LCA 6343* onto the mounting frame (hide the *lock motor cable* and the *3G RFID LCU reader cable* behind it).
13. Connect the cables according to Figure 13. Use the tabs on the sides of the mounting plate to keep the cables in place; see Figure 14.
  - I. Connect the *ground cable* to the connector at the mounting frame.
  - II. Connect the *lock motor cable* to the 10-pin connector on the left side of the *LCA 6343*.

14. Snap the *battery protection* (marked with an arrow in Figure 15) onto the mounting frame.
15. Connect the LCA part of the Y-cable to the *7-pin connector* on the right side of the *LCA 6343*; marked 'I' in Figure 15.
16. Load the *battery holder 4.5V* with 3 AA batteries.
17. Mount the *battery holder 4.5V* in the *battery protection* with the batteries standing as shown in Figure 15.
18. Connect the *battery cable* (full name: *battery cable Signature/Classic 4.5V/Classic 9V*) to the *2-pin connector* on the right side of the *LCA 6343*; marked 'II' in Figure 15.



Figure 16

20. Use the tabs on the sides of the mounting plate to keep the cables in place; see Figure 16.



Figure 17

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

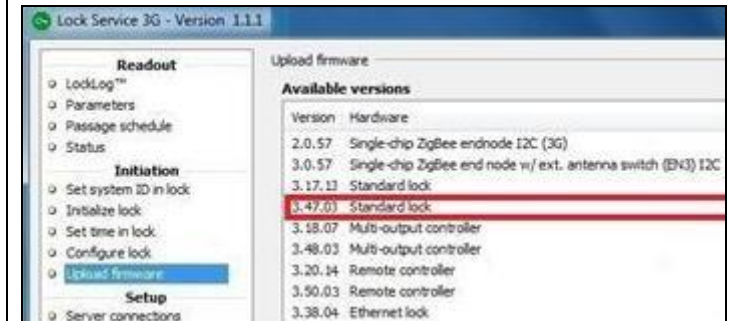


Figure 18

23. Use a service cable and *Lock Service 3G* to upload the *BLE lock firmware, 3.47.XX*. The firmware is included under the **Upload firmware** alternative in *Lock Service 3G*; see *Quick reference guide Lock Service 3G* for details. If a later firmware version is available, first use the **Download firmware** alternative; see *Quick reference guide Lock Service 3G* for details.