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User Manual

<u>Product Name</u>   <u>Hotel Card Lock</u>

<u>Model</u>   <u>ALVBP / ALV2P type</u>

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Version 1.0

July 24, 2018

MIWA LOCK CO., LTD.

1. Introduction

1.1. ALVBP/ALV2P Hotel Card Lock

This ALVBP and ALV2P Hotel Card Lock is based on Contactless Smart Card "Mifare" and Bluetooth Low Energy with smartphone.

The authentication key to Mifare card or smartphone is issued by specific issuing unit.

Model:ALVBP・・・Mifare Card and Bluetooth Low Enagy(BLE) Type
Model:ALV2P・・・Mifare Card Type(BLE module is not Mounted)

This product is not intended to be sold to general consumers.

Installation to the door of the hotel is set up by the special installer according to the installation manual.

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2. Outline of the Unit

2.1. Cards

The ALVBP and ALV2P Hotel Card Lock is used as a card key reader for the contactless IC card Mifare.

(1) The Mifare card is issued by special issuing machine, so that card data are protected sturdy. As a result, the card is very difficult to copy, alter or forge.

(2) It is possible to use for various purpose that utilize the features of Mifare.
When additional use is necessary, please inquire to us. We are ready to furnish the information.

2.2. Bluetooth Low Enagy
The ALVBP Hotel Card Lock is used by key reader for Bluetooth Low Energy with smartphone.

(1) The authentication key to smartphone is issued by specific issuing unit.

(2) It is possible to use for various purpose that utilize the features of BLE.
When additional use is necessary, please inquire to us. We are ready to furnish the information.

2.3. Outline of Functions

2.3.1. Data Verification
(1) ALV2P Type
Unlocking can be performed simply by holding up the card near the ALV2P Hotel Card Lock.

(2) ALVBP Type
By using Bluetooth Low Energy installing the special application on a smartphone, the door can be unlocked [when a smartphone puts close to the door.

(3) Unlocking will be done only when the input data set up beforehand in the ALV2P/ALVBP
Hotel Card Lock(room number and time, etc) and the data in the card(BLE) key
are compared and matched.

(4) When a re-issued card(BLE) key is used to the lock, it becomes no longer possible to use
the old card(BLE).
Therefore when the card(BLE) is lost, once a re-issued card(BLE) is used to the lock there
Is no chance to open the door by someone else with old card(BLE).

(5) When a valid card(BLE) key is used, the "Verification OK" lamp will light up green,
whereupon the door will be unlocked while a preset time. If the card does not match the
Lock, the "Verification NG" lamp will light up red, and the door will stay locked.

2.3.2. Operation record

(1) This unit can record up to 600 cases of lock / opening operation with the card key in order of the operation. Once 600 operations are recorded, new operations are over written on the oldest ones.

(2) Operations that show a verification error are also recorded up to 100 times in order of recent date, as per the lock-opening operation.

2.3.3. Battery Power / Buzzer

(1) This unit has the circuit of Main battery and Sub-power Supply.

(2) The circuit of main battery is used normally and in case of emergency the Sub-Power Supply will be used.

(3) Four pieces of AA type Alkaline batteries are used for main battery and supply 3Vdc. (Series-Parallel connection)

(4) The main battery will last for about one and half years if the unit operates 10 times per day.

(5) If the Master Card or Sub Master Card is used during the battery power runs low, the user will be informed by LED and buzzer that exchange of battery is necessary.

(6) The buzzer can be set in the "On" or "Off" position from the data input unit.

Table 2.1: Alarm sound

Conditions	Alarm sound	Initial setting
Card(BLE) Key Verification OK	Pi…	Off
Card(BLE) Key Verification NG	Pi, pi…	
Low Battery Power	Pi, pi, pi…	On

2.3.4. Other Functions

(1) Entry / Confirmation of the lock-setting data on confirmation of the record-of-use data is performed using a data input unit by IrDA Communication function (infrared light communication)

(2) Lock-setting data and record-of-use data are stored in the flash memory so the data will never be lost even if the batteries run out.

(3) The lock clock will be backed up for about 5 minutes without main battery such as replacement of the batteries.

2.4. Mechanisms

2.4.1. Locking Mechanisms

(1) Non-latch mode – Once the card is verified and the door is unlocked, the door is automatically locked again after preset time. When performing unlocking by key, thumb turn, or lever handle in the room, the door will automatically lock once the door has been opened and closed.

(2) Latch mode – Continuous opening and continuous locking are repeated alternately using the card.

Note:Non-latch mode / latch mode can be switched using the lock setting data.

2.4.2. Double Locking Mechanism

(1) When the door is locked by the thumb turn key from inside of the room, the deadbolt will protrude and the door will be double locked.

(2) Double locking cannot be annulled from outside of the room other than using the emergency card. (emergency unlocking).
    * Unlocking of the "double locking" becomes effective with Guest Card, Master Card, and Submaster Card depending on the lock settings.

(3) If a card that cannot open the double locked door is used, the Verification NG Lamp will light up red.

2.4.3. Anti-panic mechanism

(1) The door will unlock simply by turning the lever handle from inside of the room even in a state of double lock.

(2) When the door is unlocked using the lever handle from inside the room, it will automatically lock again once the door has opened and closed.

3. General Specifications

3.1. Name

Product Name: ALV2P / ALVBP type Hotel Card Lock

Product Number: Cylinder type   : ALV◎□△○※☆-1

Cylinder less type : ALV◎□△○※☆-3

◎ = 2/B   (Card type / Card and BLE Type)

□ = U/E   (Lock case type)

△ = P/A   (Escutcheon design)

○ = S/H/R   (Thumb turn type)

※ = A/B/C/D/E/F/G/H   (Armor front type)

☆ = 17/19/66/67/74/476/478 (Handle design)

3.2. Physical Specifications

Attachable handle type:	17・19・66・67・74・476・478
Attached cylinder type:	U9
Back set:	70/100 mm
Material /Finish	Stainless / Hairline finish (ST)
	Stainless / Buff finish (SB)
	Stainless / PVD Gold Hairline finish (PH)
	Stainless / PVD Gold Buff finish (PB)
	Brass / Hairline finish (BS)
	Brass / Buff finish (YB)
Battery Box	ABS (Series-Parallel connection)
Range of door thickness	35 – 75 mm
Convenience	Right and left turning available (opening inwards)

3.3. Power Supply

Main Battery	Use:	Normal condition use
	Voltage:	3.0Vdc
	Batter:	4 pieces of AA type Alkaline batteries
		Series-Parallel connection
	Battery life:	Approximately one and a half years
		(if operated 10 times/day)
Sub-power Supply	Use:	Emergency condition
		※Use the batteries to supply power from the outside.

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3.4. Environment Specifications

Environmental conditions	Operating temperature: 0˚C to +40˚C
	(without condensation)
	Range of humidity: 35 to 85% RH
Installation	Keep out of wind and rain and away from direct
	Sunlight
Dust	Normal office amounts

4. Detail of Function

4.1. General Operations (Non-latch mode)

(1) The ALVBP/ALV2P Hotel Card Lock functions by inputting lock-setting data

Lock-setting data includes the hotel code, room number, and time (clock), and the ALVBP/ALV2P Hotel Card Lock validates the card key if the lock setting data in the card and the ALVBP/ALV2P Hotel Card Lock are matched.

(2-1) Card Authentication

A card issued using a special issuing unit is held up near the ALVBP/ALV2P Hotel Card Lock for about one second.

When the ALVBP/ALV2P Hotel Card Lock read an authentication data, the lamp shows an authentication result.

(2-2) BLE Authentication

This special issuing unit can issue an authentication data to smartphone.

The smartphone with loading special BLE application, put close to the ALBP Hotel Card Lock.

When the ALVBP Hotel Card Lock starts BLE communication to smartphone, the lamp blinks orange color.

When the ALVBP Hotel Card Lock read an authentication data, the lamp shows the verification result.

• In the case of a valid card: "Verification OK" lights up green during setting period and the door is unlocked. When the unlock lamp turns off, the door automatically locks.
• In the case of an invalid card: The "Verification NG" lamp lights up red, and the door stays locked.

(3) Double locking cannot be annulled from outside of the room other than using the emergency card. (emergency unlocking).

 * Unlocking of the "double locking" becomes effective with Guest Card, Master Card, and Submaster Card depending on the lock settings.

(4) When unlocking is performed with the emergency card, the door becomes continuously unlocked. This will return to normal situation when lock and unlock the door by using the thumb turn.

(5) A data history of the unlocking operations (at Verification OK) and errors will be Recorded in the ALVBP/ALV2P Hotel Card Lock.

(6) When battery power is running low, the user will be informed of that the exchange of the batteries is necessary by LED and buzzer, if the Master Card or Submaster Card is used (→Low battery detection function).

(7) When leaving the room, simply turning the lever handle will unlock the door.
This is the same even when the door is double locked (→Anti-panic mechanism).

(8) Room entering history and lock status information are recorded on the Master Card and Submaster Card (→Audit trail function).

5. Regulatory Compliance

5-1. Responsible Party – U.S. Contact Information

  MIWA Irvine, CA Office

  9272 Jeronimo Road, Suite 119, Irvine, CA 92618

  Telephone : 1-949-328-5280　/　FAX : 1-949-328-5281

5-2. USA-Federal Communications Commission (FCC)

 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.

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

(1) This unit may not cause harmful interference, and

(2) This unit must accept any interference received, including interference that may cause undesired operation.

5.3. ISED Statement

This device complies with Industry Canada's licence-exempt RSSs. 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;

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

Caution:

Any changes or modifications not expressly approved by the party responsible for product compliance could void the user's authority to operate the unit.

Labeling

MIWA LOCK ALVBP/ALV2P Hotel Card Lock is labeled as below.

FCC ID: VBU –ALVBP2P

IC: 21683 –ALVBP2P

Contains FCC ID: VPYLBZY　(ALVBP type only)

Contains IC: 772C –LBZY　　(ALVBP type only)

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