dormakaba

MT™ RFID

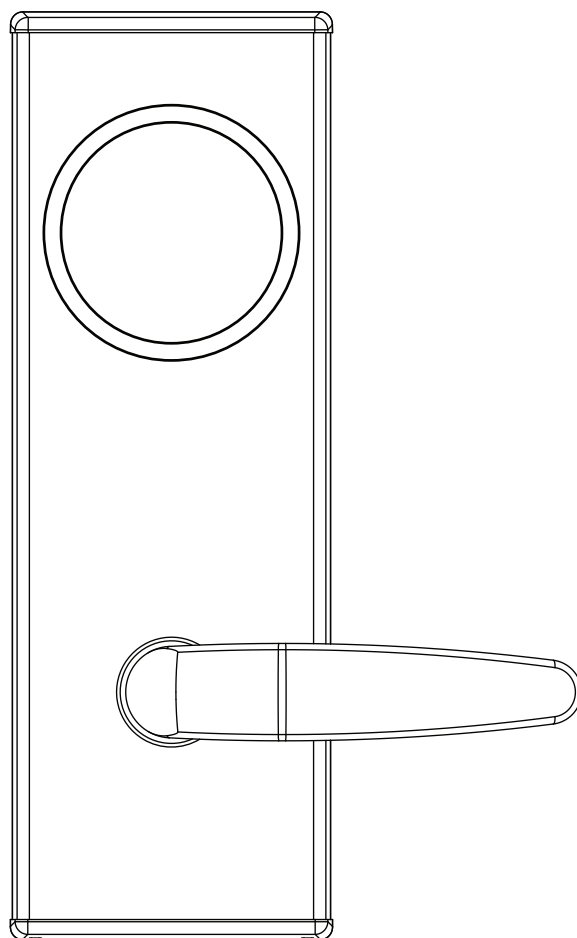Installation Instructions

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Disclaimer

> ⚠️ **IMPORTANT**
>
> Carefully inspect windows, doorframe, door, etc. to ensure that the recommended procedures will not cause damage. Kaba standard warranty does not cover damages caused by installation.

Refer to drilling templates for the hole to drill in the doors.

⚠️ **CAUTION**

Wear safety glasses when making the holes.
Respect applicable building codes regarding handle height.

Tools
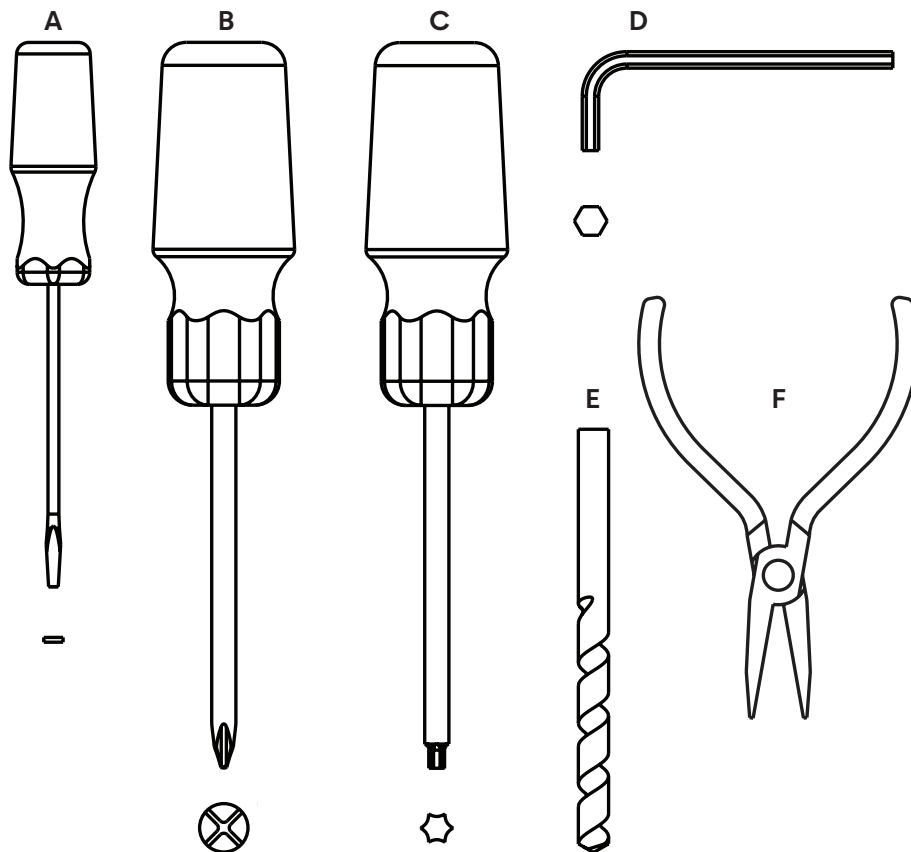
A - Screw Driver Small Flat
B - Screw Driver Phillips #1 & #2
C - Screw Driver Torx T-20
D - Hexagonal Key 3 mm
E - 25mm / 24mm / 19mm / 12mm / 10mm Drill Bit
F - Needle Nose Pliers

Inventory

All parts needed to install the MT RFID lock are included. Please check to make sure all parts are accounted for before beginning installation. Do not substitute any of the parts. The use of substitute parts will result in poor performance of the lock.
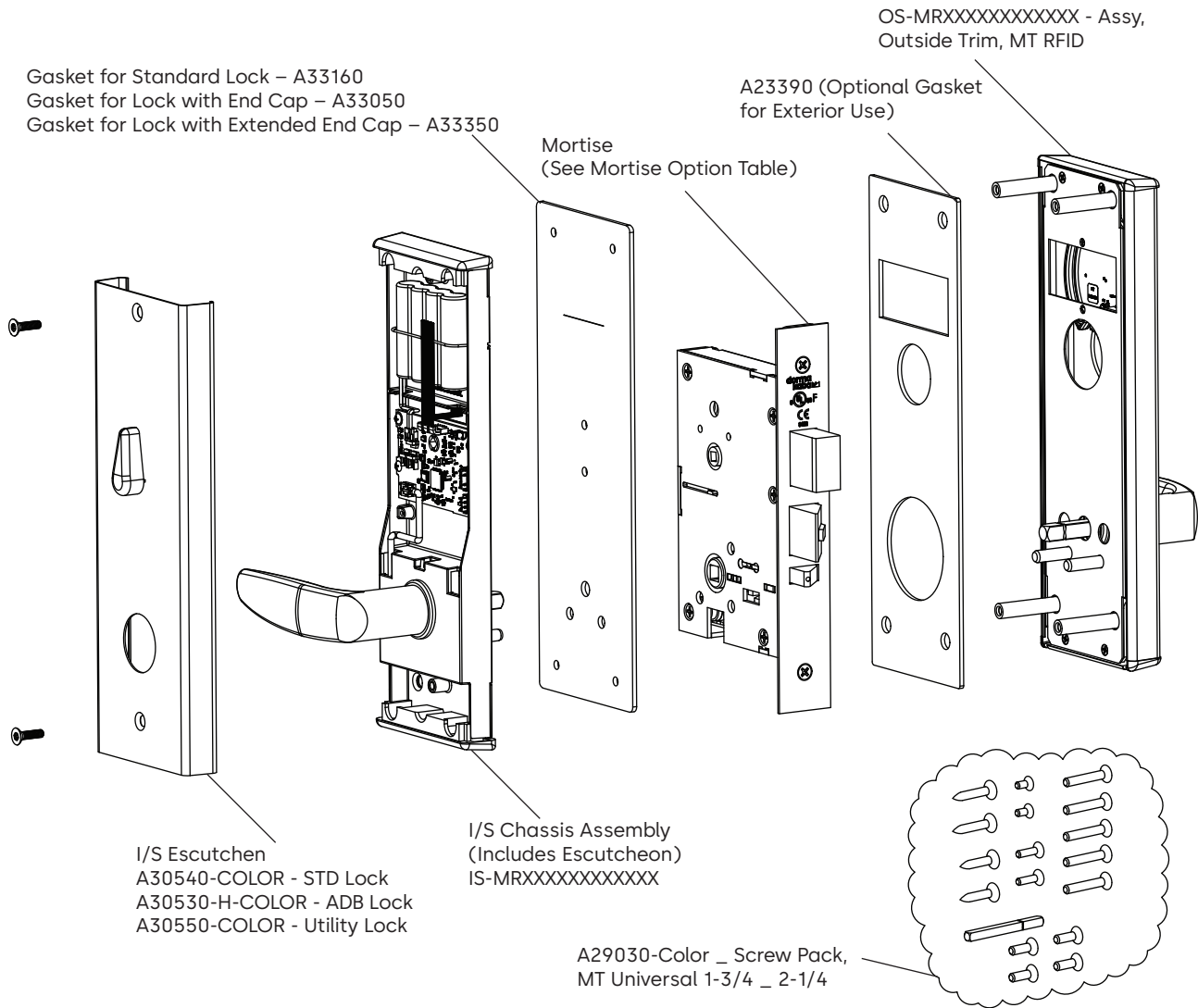
OS-MRXXXXXXXXXXXX - Assy, Outside Trim, MT RFID

Gasket for Standard Lock – A33160
Gasket for Lock with End Cap – A33050
Gasket for Lock with Extended End Cap – A33350

A23390 (Optional Gasket for Exterior Use)

Mortise
(See Mortise Option Table)

I/S Escutchen
A30540-COLOR - STD Lock
A30530-H-COLOR - ADB Lock
A30550-COLOR - Utility Lock

I/S Chassis Assembly
(Includes Escutcheon)
IS-MRXXXXXXXXXXXX

A29030-Color _ Screw Pack,
MT Universal 1-3/4 _ 2-1/4

Mortise Options Table

A70000-Handing Mortise, 1-3/4

A70020-Handing Mortsie, 1-3/4 ADB

A70080-Handing Mortise, 1-3/4 ADB, DAJ2

A70060-Handing Mortise, 1-3/4 STD, DAJ2

Preparing the door and door frame

1. Prepare the door using the MT RFID installation template or drill fixture. The door edge prep is a standard, full-mortise prep for a 1-1/4" x 8" front plate (1" x 8" and 1" x 7-3/4" custom front plates are optional). The door surface holes and mortise are customized for the MT trim.
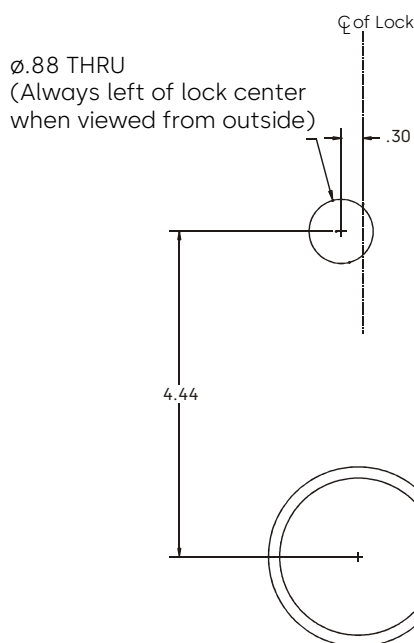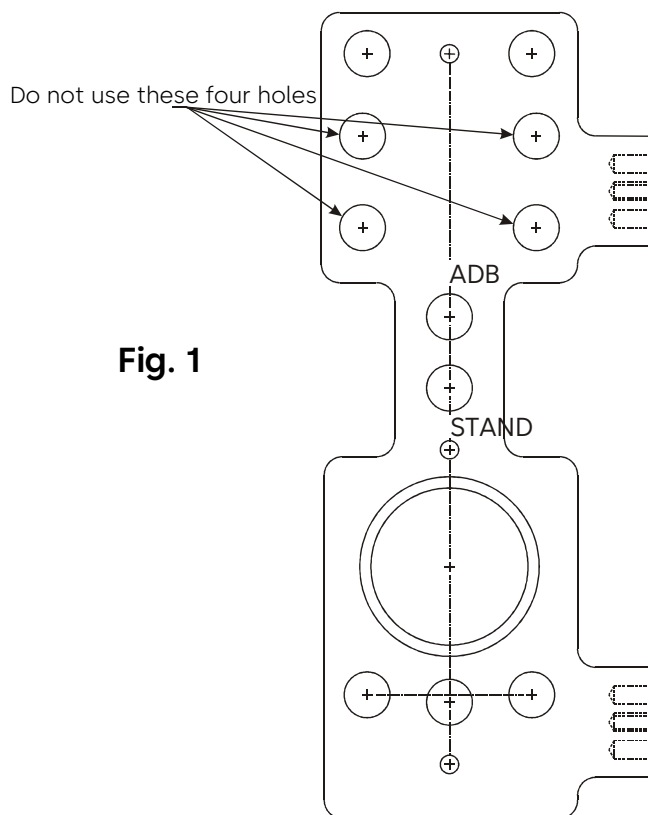
> ⚠ **IMPORTANT**

Some holes are only on the inside surface of the door. See the door prep template.

- • For new construction installations, the door manufacturer may prepare the door using the installation template.
- • For retrofit installations, remove the existing hardware and confirm that the existing door edge prep is appropriate for the MT mortise lock.

Drill fixture: If you are using a MT drill fixture, position and clamp the fixture on the door. Do NOT drill the four holes for the card reader as illustrated in Fig. 1 below; instead, drill the hole shown in Fig. 2. The fixture has two positioning posts that rest inside the mortise, establishing the proper backset for the trim. When the fixture is clamped, its surfaces should be parallel with the door surfaces and door edges. Not all holes go through the door (refer to the template). Notch the material on the inside surface for easier routing of the motor wire. After machining, remove any debris from the mortise and cutouts.

2. Prepare the door frame using the template and install the strike plate using the screws provided (12 x 1-1/2 screws for wood frames, 12-24 x 3/8 screws for metal frames).

Do not use these four holes

Fig. 1

ADB

STAND

ø.88 THRU
(Always left of lock center when viewed from outside)

C_L of Lock

.30

4.44

Fig. 2

Note: The hole shown above is not located on the drill fixture. Use these measurements to locate the hole.

Preparing the door and door frame (Continued)

3. The mortise plate has an adjustable bevel. Align the mortise front plate with the bevel of the door edge and tighten the two bevel adjustment screws at the top and bottom of the mortise case. Position the mortise case in the door edge with the motor wire routed through the notch (see Fig. 3).

Note: Use care to ensure that the wires do not get pinched or pulled as the mortise is inserted into the pocket.
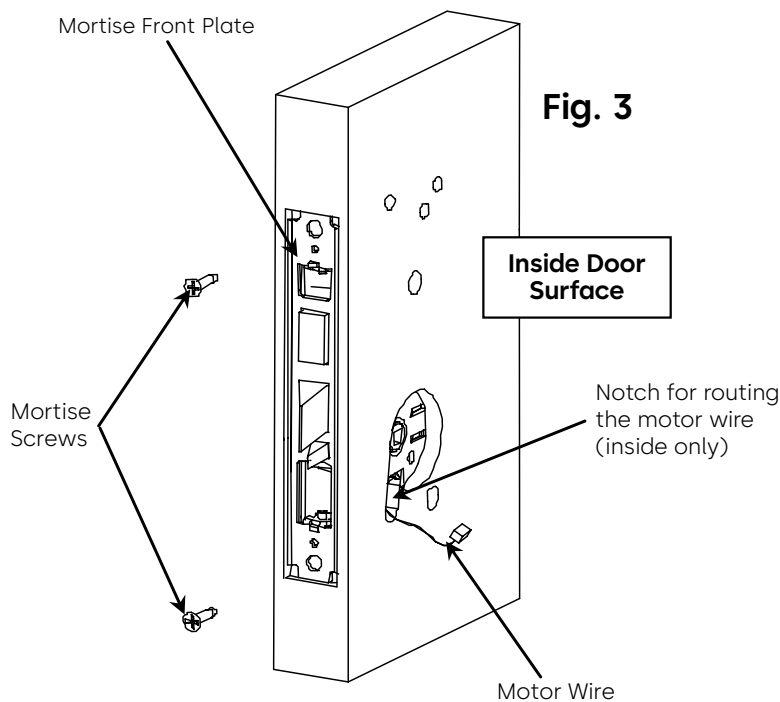
4. Attach the mortise front plate to the door using the two mortise screws (12 x 1-1/4 screws for wood doors, 12-24 x 3/8 screws for metal doors). Be sure that the screws are fully tightened.

> ⚠ **IMPORTANT**

DO NOT leave the mortise screws loose. The screws must be fully tightened before the trim is installed. If you must leave the mortise loose to install the trim, the door preparation is incorrect.

5. Install the scalp plates with the 8-32 x 1/4 screws provided and test for proper mechanical latch engagement into the strike plate

Fig. 3

Mortise Front Plate

Inside Door Surface

Mortise Screws

Notch for routing the motor wire (inside only)

Motor Wire

Installing the lock trim

Both the outside and inside trim assemblies have 1/4″ alignment pins that fit into holes in the mortise case. These pins establish an accurate trim position with respect to the mortise case assembly, allowing the levers and bolt mechanism to operate freely without binding. The holes machined in the door surfaces should not influence the trim's position.

There should be clearance between the features of the outside trim and the door prep holes. If the outside trim fits tightly because the through bolt posts or card reader enclosure rubs on the door prep holes, then remove the mortise and enlarge the holes to achieve a free fit. Under no circumstances should the 1/4″ alignment pins be bent or removed to allow a free fit.

1. Remove the battery pack and retaining spring.

2. Position the outside trim on the door with the card reader ribbon and power wire cable passing through the 0.88″ hole. Be sure that the ribbon cable and power wire does not get pulled, creased or cut. On metal doors, it may be necessary to deburr the inside rectangular hole or insulate the bottom edge of the rectangular hole with a piece of tape. Spacer plates will be required for doors less than 1-3/4″ thick. * Be sure ribbon and power wire are completely pulled through the lock housing to ensure neither are pinched between the door and the lock chassis.

3. Route the ribbon cable and power wire through the rectangular hole in the inside trim. This hole is located above printed circuit board (PCB) assembly. Route the motor wire through the wire channel in the inside trim closest to the door edge. These holes are located below the PCB (see Fig. 4).

4. Position the inside trim on the inside of the door ensuring that the reader ribbon and power wire do not get pinched.

5. Secure inside trim to the outside trim using four M5 x 0.8 screws.

⚠ IMPORTANT

Do not fully tighten the screws at this point.

6. Once the outside trim is fully secured, check the alignment of the inside trim and be sure that the both levers rotate without binding. Once the trim is properly aligned, fully tighten the screws that secure the card reader assembly to the door and check for proper rotation.

7. Place the battery pack in position above the PCB and secure it in place using the retaining spring. Be sure that the battery wire is routed through the lower left corner of the battery compartment (see Fig. 4).

Note: Do not plug in the battery until the other connections have been made at the circuit board.

Installing the lock trim (Continued)

9. Connect ribbon cable, motor wire, and reader power wire to the PCB. See Fig. 4.

10. Watch for the green LED on the card reader to flash four times while you connect the battery wire to the PCB. The green light indicates that the PCB has reset.
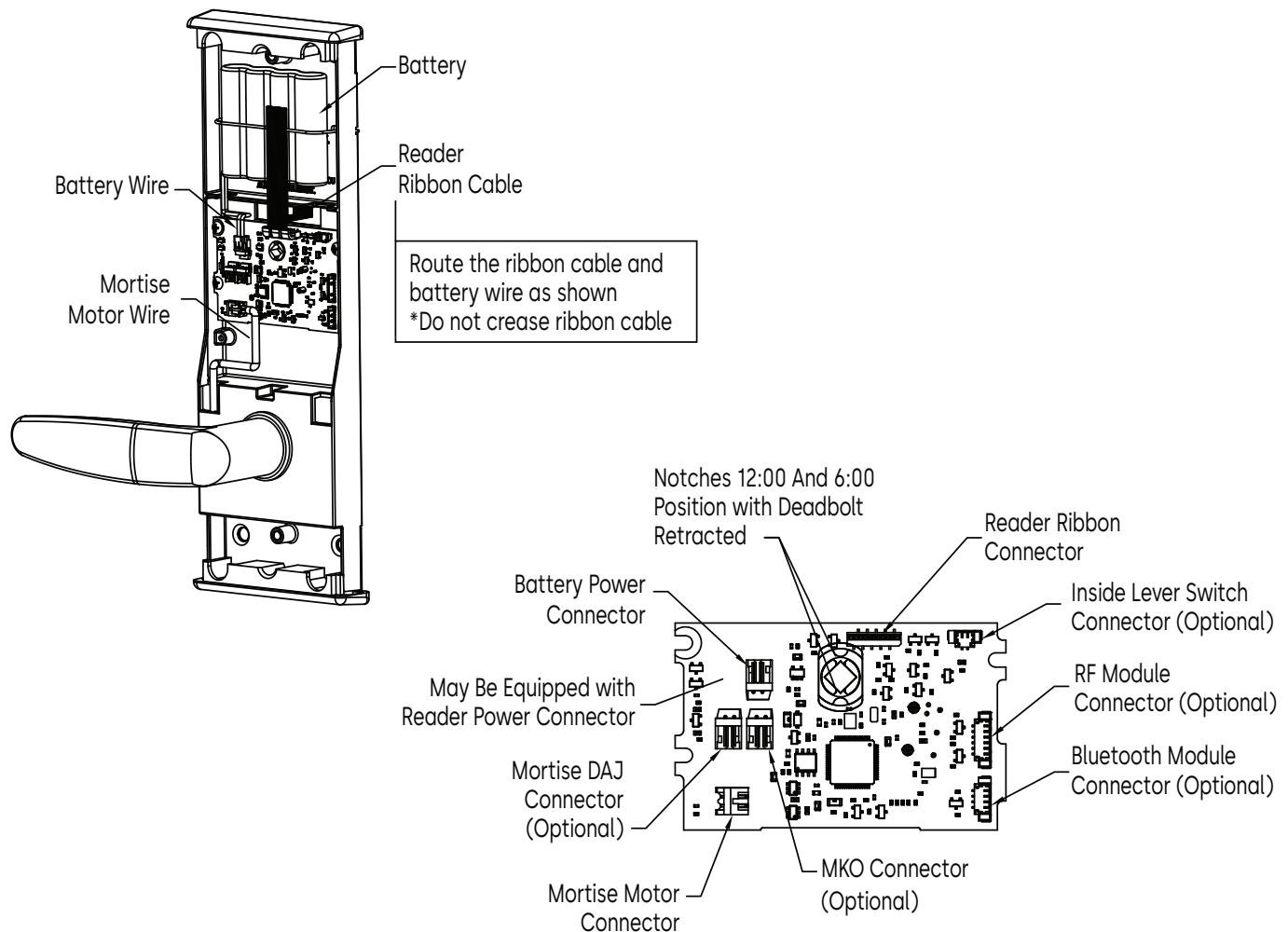
⚠ IMPORTANT

The battery wire should be the last connection made to the PCB.

11. With the dead bolt retracted, insert the long end of the dead bolt spindle assembly through the PCB switch cam hole and into the mortise dead bolt hub. When the mortise dead bolt is retracted, the indicator marks on the switch cam should be at the top and bottom (12:00 and 6:00) positions (see Fig. 4). Position dead bolt spindle assembly into cam assembly. The retaining ring should rest on the switch cam when fully inserted (the proper positioning of the cam will allow the door to be opened when the dead bolt is retracted and block entry when the dead bolt is thrown for privacy, except when emergency keycards are used).

⚠ IMPORTANT

As illustrated in Fig. 4, be sure that the cam is in correct orientation.

12. Install the inside escutcheon with the thumb turn pointed upward.

Battery

Reader Ribbon Cable

Battery Wire

Mortise Motor Wire

Route the ribbon cable and battery wire as shown
*Do not crease ribbon cable

Notches 12:00 And 6:00 Position with Deadbolt Retracted

Reader Ribbon Connector

Battery Power Connector

Inside Lever Switch Connector (Optional)

May Be Equipped with Reader Power Connector

RF Module Connector (Optional)

Mortise DAJ Connector (Optional)

Bluetooth Module Connector (Optional)

Mortise Motor Connector

MKO Connector (Optional)

Installing the lock trim (Continued)

13. Secure the inside trim cover to the inside trim using two M4 x 16mm Torx screws (see Fig. 5).
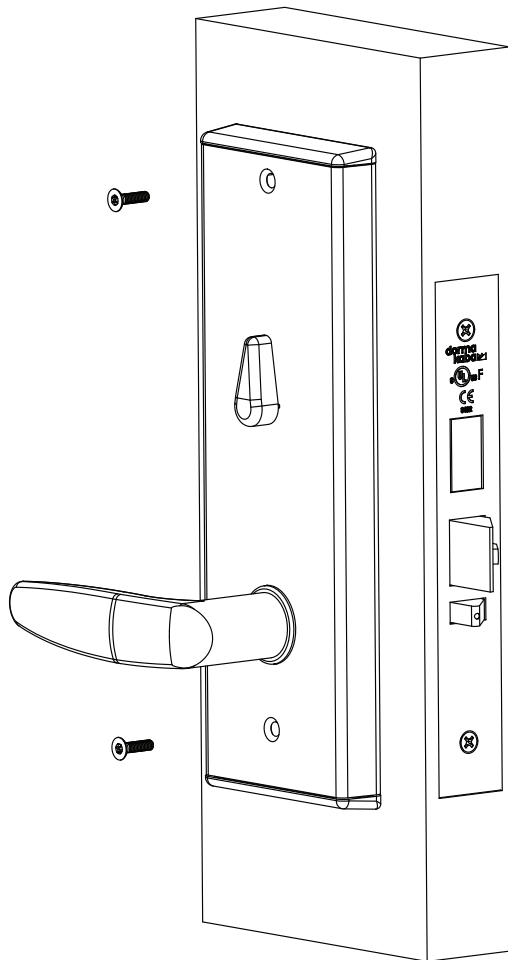
14. Program the lock using the HH6 handheld programmer with USB probe (PN 71690).
    *The programming port is located in the bottom of the outside lock trim.

    Test the functioning of the lock as discussed in the following section and in the programming manual before closing the door. When the construction key is used, the green and red LEDs will blink together, indicating that the lock's time and date are not set.

15. For locks installed in exterior applications. After programming, inject dielectric grease into the programming port to prevent moisture from damaging the electronics.

Testing Lock Functionality

Pass a Construction key over the MT RFID reader. The green light will flash for five seconds. Be sure that the green light flashes for five seconds while the exterior lever remains operable. If the green light does not flash, refer to the table below.

Lock Communication	Electronic Function Description
Red and green LEDs flash nine times simultaneously or for 5 seconds	Time and date not set, use the Hand held and MT RFID LPI probe to reset
Yellow LED flashes 12 times	Dead bolt is thrown or switch cam is not properly aligned
Yellow LED flashes two times	Keycard not allowed OR keycard cancelled by new keycard
Red and green LEDs flash alternately nine times	Low battery (contact the dormakaba service department)
Yellow and red LEDs flash two times simultaneously	Bad keycard read or corrupted data (may require new keycard) – Error logging to keycard. Hold keycard in front of the lock reader longer.
Red and yellow LED flashes two times	Keycard not read (Key reader may be damaged)

dormakaba Door Unit Inspection Criteria

Appearance

- Finish is free of blemishes or scratches that would distract from lock appearance
- Lock body and under plate (if used) are mounted straight on the door
- Door scalp is mounted straight and flush with the door edge
- Jamb strike is mounted straight and is flush with the jamb face
- Correction of minor blemishes on the door jamb are the responsibility of the property's maintenance department

Lock Function

- Knob or lever rotates and moves freely
- Lever is horizontal to floor when at rest position
- Dead bolt extends fully and retracts without binding (door open)
- Lock latch and dead bolt engage jamb strike plate freely
- Anti-pick latch when depressed (door open)
- Anti-pick latch is depressed when contact is made with the strike plate (door closed)

Electronics/Keycards

- Green light flashes when the proper keycard is used
- Green light is flashing when the lever is operated
- Green light continues to flash for a five-second cycle
- Yellow light flashes 12 times when the dead bolt is extended and a guest/hotel keycard is used
- All keycards function to the specifications of the properties key design

Door function

- Door closes and latches with little or no interference
- Dead bolt extends fully through the strike plate without interference (door closed)
- Spacing between door edge and inside door jamb does not exceed 3/16" (door closed)

Note: If bumpers or other seals are added after strike plate installation and causes alignment and latch problems, it is the property's responsibility to correct this condition. This note generally applies to new construction or new door installation

Emergency Exit Device Certificate

(applicable only to lock EN 179 certified)

A pictogram for emergency exit device has to be installed on the door on the inner side just above the lock as shown below.
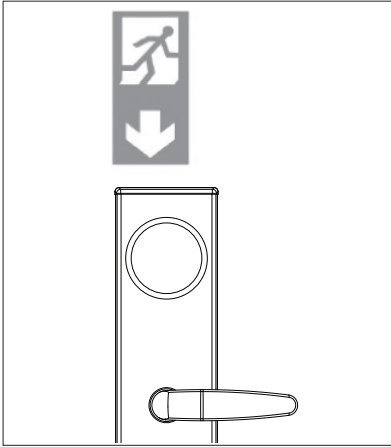
EN 179 Certificate

(applicable only to lock certified EN 179)

The EN 179 identification label on the lock can be find in the location shown below underneath the battery holder. Refer to annex B for instructions how to remove the battery holder.

CE
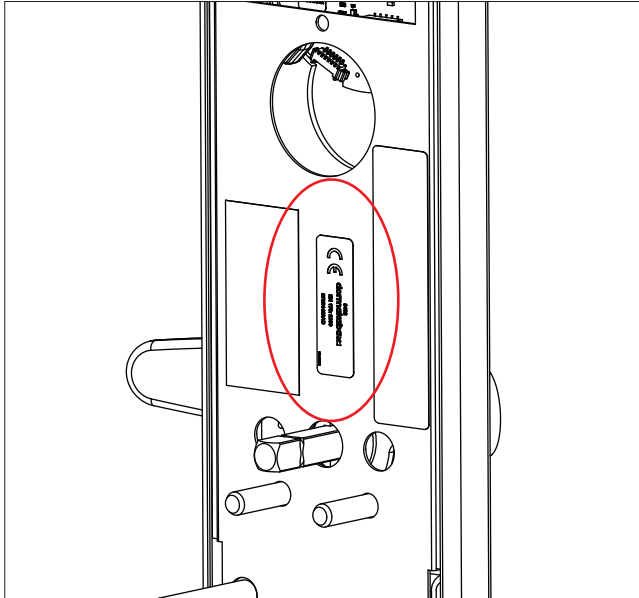
0432

EN 179:2008

Emergency exit device

Type 376B1452AD

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dormakaba Canada Inc. 7301 Decarie, Montreal, QC, Canada H4P 2G7

19

0432-CPR-00072-04

Capacity to trigger:
Responds (= < 70 N without load)

Durability of capacity to trigger:
Responds (200,000 cycles / = < 50 N without load)

Fire resistance B - Automatic closing; E - Integrity; I - Insulation: Responds (grade B)

For declaration of performance,
please visit www.dormakabalodgingsupport.com

EN 14846 Certificate

CE	dormakaba Austria GmbH Ulrich-Bremi-Straße2 3130 Herzogenburg Österreich
0432-CPR-00072-03	19
EN 14846: 2008	3/5/5/D/0/G/3/0/3
ESM MORTISE	DOP_0175

CE	dormakaba Austria GmbH Ulrich-Bremi-Straße2 3130 Herzogenburg Österreich
0432-CPR-00072-03	19
EN 14846: 2008	3/5/5/D/0/G/3/0/3
ASM MORTISE	DOP_0175

FCC and ISED Information

ISED non-interference disclaimer This device complies with Industry Canada license-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. This equipment complies with ISED RSS-102 radiation exposure limits set forth far an uncontrolled environment. This transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

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." Cet équipement est conforme avec ISED RSS-102 des limites d'exposition aux rayonnements définies pour un environnement non contrôlé. Cet émetteur doit être installé à au moins 20 cm de toute personne et ne doit pas être colocalisé ou fonctionner en association avec une autre antenne ou émetteur.

FCC Compliance Statement 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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.

RF Exposure Statement 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 antenna or transmitter. To avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

MT RFID Electromechanical lock series

Product's Description	Product ID	FCC/ISED Information
MT RFID: Electromechanical lock with RFID and BLE	QMT6	Model No: MT6 MT RFID FCC ID: SAPQUANTUMMT IC: 4652A-QUANTUMMT
MT RFID with Messenger: Electromechanical lock with RFID and BLE with Messenger module.	QMT6-M	Model No: MT6 MT RFID FCC ID: SAPQUANTUMMT IC: 4652A-QUANTUMMT
		Contains: FCC ID: Q8S515123 IC: 4652A-515123

Door
Hardware

Electronic
Access & Data

Mechanical
Key Systems

Lodging
Systems

Entrance
Systems

Safe
Locks

Service

Think tomorrow

We are committed to championing sustainability in everything we do, from producing more sustainable solutions to help our customers lessen their environmental footprint to being a fair and responsible employer and neighbor.

dormakaba.com

General information: dormakaba.us
Online consumable orders: dormakabalodgingstore.com
To access all of our easy steps, please visit our support
website: www.dormakabalodgingsupport.com

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