

# **USER MANUAL**

----- **BioAxxis® MA1 Series Fingerprint Door Lock**

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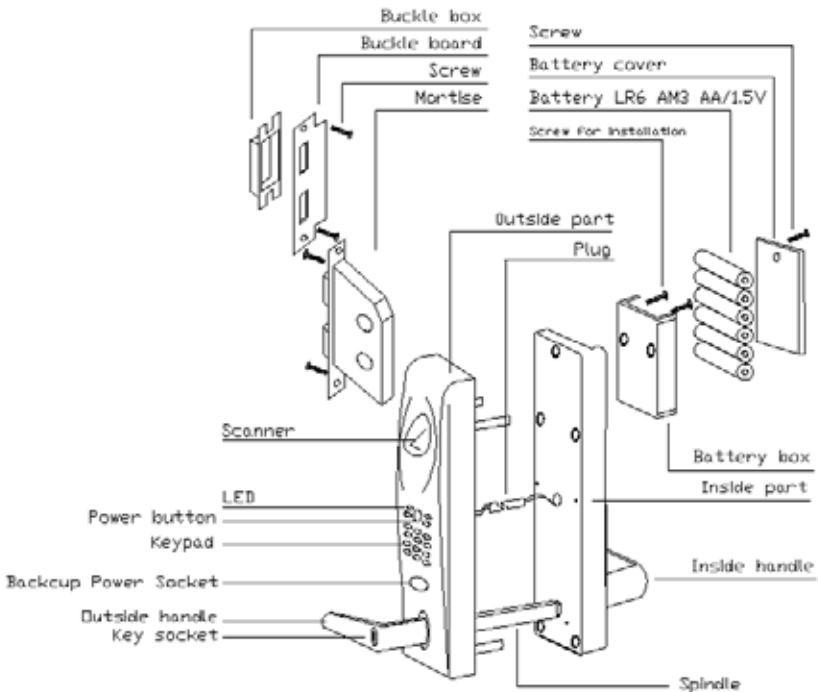
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## I . Features

- Convenient one-touch fingerprint access with emergency PIN code access, or in a pinch, manual key override access;
- Accurate fingerprint scanning; 99 fingerprint templates memory capacity;
- Easy-to-operate key pad makes registration, deletion, and mode programming simple
- Can also be special-ordered with an inside remote control, or with audit track feature;
- Can be set into Temporary Unlocking Mode which enables the lock to be opened just by turning down the handle from outside;
- Matching various types of European standard mortises including three-point mortise;
- Unique, attractive and durable finishes; various colors optional;
- Remarkable durability – optical fingerprint scanner is scratch-proof and virtually unbreakable;
- Six AA batteries support over 5000 operations;
- Backup power supply (9V battery);
- Malicious operation protection deactivates lock for five minutes after five wrong fingerprint scanning attempts
- Adaptable for outside use under severe environmental conditions
- Advanced biomechanical design provides a futuristic appearance, slim shape fitting the size of European doors.
- Low power alert - audible warning to replace batteries

## II .Parts & Structure

### A. Parts



### B. Roles of parts

**Alkaline Batteries:** Provide power for the lock

**Fingerprint Scanner:** Used to enroll and verify fingerprints

**LED:** Indicating Operation Status

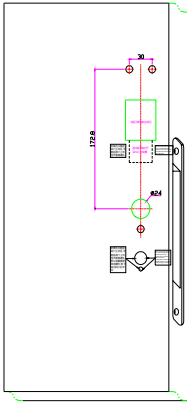
✧ Red: Operation fails

✧ Green: Operation succeeds

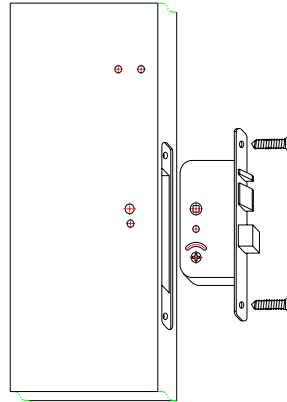
**Keypad:** Used to enter individual user ID codes when fingerprints are enrolled; or enter PIN code to open the lock on the condition that fingerprints are rejected.

**Backup power socket:** the place where to plug the 9V backup battery when the normal battery power goes off.

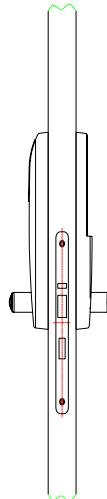
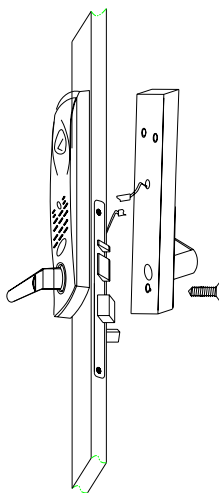
## Installation



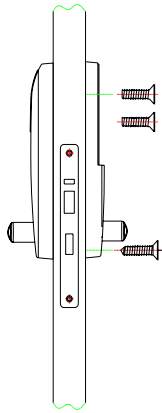
1 Drill holes per the installation template



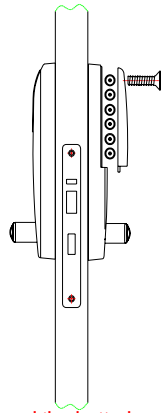
2 Mount the mortise



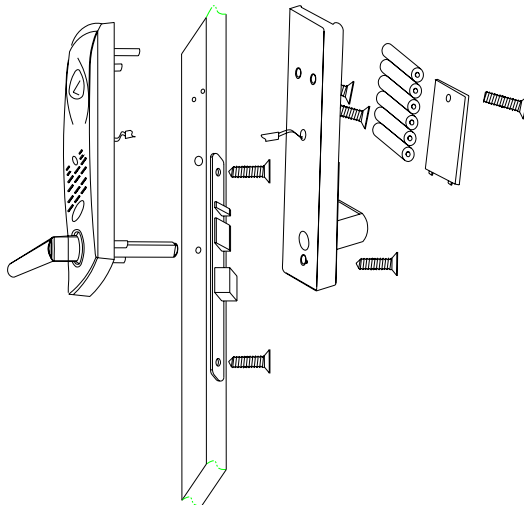
3&4 Install the outside unit and connect the wires; then install the inside unit.



5 Fasten the screws from the inside unit through the outside unit to connect the two units together.



6 Load the batteries and fasten the battery cover



7 Installation overview

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## .System setting

### 1 Enroll Users

#### A Enroll the Administrators:

- 1) **Trigger Enrollment** Push **ADD**, the green LED blinks and one short beep is heard, then the enrollment procedure is activated; then
- 2) **Capture fingerprint** When the scanner light turns on, place the finger on the scanner and press a little hard just like pressing a doorbell, and then move the finger away when the scanner light goes off; then
- 3) **Confirm fingerprint** When two short beeps are heard and the scanner light turns on again, place the same finger on the scanner again; when one short beep is heard and the green LED blinks, the first fingerprint is successfully enrolled. The first one is tacitly approved as the **Administrator's fingerprint**, whose ID is 01.

#### B Enroll other users:

- 1) **Trigger enrollment** Push **ADD**, when the green LED turns on and one short beep is heard, the enrollment procedure is activated; then
- 2) **Verify Administrator's fingerprint** When the scanner light turns on, have one administrator's fingerprint verified and move the finger away when the scanner light goes off; when two short beeps are heard, the administrator is accepted; then
- 3) **Enter ID** Enter the individual ID number twice for the user who is being registered, for instance, if his ID is 08, then enter the ID 0808; when one short beep is heard again, the ID is accepted; then
- 4) **Capture the fingerprint** When the scanner light turns on, place the user's finger and move it away when the scanner light goes off; when two beeps are heard, the fingerprint is successfully captured; then
- 5) **Confirm fingerprint** When the scanner light turns on once again, place the same finger on the scanner to

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confirm; move it away when the light goes off; when one short beep is heard and the green LED blinks, the fingerprint is accepted.

### **Important Notes:**

- 1) During any above operation, if the red LED blinks and four short beeps are heard, the operation fails and the reason should be found. After that, please retry with the operation. If the failure still exists, please use another finger instead.**
- 2) The users whose ID codes are 01, 02 or 03 are all administrators. Enrollment or deletion of any other fingerprint should be approved by any one of these administrators.**

## **2 Delete Users**

- 1) Trigger Deletion** Push **DEL**. When the red LED turns on, the deletion procedure is activated; then
- 2) Verify the administrator** When the scanner light blinks, have one of the registered administrator's fingerprints verified; when the light goes off, move the administrator's finger away; when two short beeps are heard, the administrator is accepted; then
- 3) Delete users** Enter the user's ID twice for who is going to be deleted, for instance, suppose his ID is 08, then enter 0808. When two short beeps are heard and the green LED blinks, the user has been deleted successfully. If four beeps are heard, the deletion fails. Please check it out and retry the operation.

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## . System operations

### 1 Unlock with fingerprints

- 1) Power on the lock by pushing the small round Power Button between the two LEDs; then
- 2) Input a registered fingerprint when one beep sounds and the scanner light blinks;
- 3) when one beep is heard again and the green LED turns on, turn down the outside handle to open the lock.;
- 4) If the fingerprint is rejected, four short beeps will be heard and the red LED will blink. Under this situation, please make sure the fingerprint has been registered or it has been input properly; then try again.

### 2 PIN Code Setup and Unlock with PIN code

Enter the preset PIN code, then push # to unlock, for instance, suppose the preset PIN code is **123456**, then enter **123456 #**, and turn down the handle to unlock.

- 1) **ADD the PIN code:** The very initial PIN code from the manufacturer for the lock is **0 (zero)**. If you want to change the code, press **0\***, then you'll see the green LED blink, Enter the new PIN code and then press **\*** and wait to see the green LED blink again, then enter the new PIN code again followed with **\*** mark. When you see the green LED blink again, the New PIN code is added successfully. (Red LED blinking means failure of this operation. Please retry.) For instance, if the new PIN code is **1234**, you must enter like: **0\*1234\*1234\***
- 2) **Change the PIN code:** For instance, if you want to change the PIN code to **123456**, you must enter as below: **1234\*123456\*123456\***.

### 3 Unlock with overriding manual key

#### (Manual Key override version only)

Note: The manual key should be used when one of the following situations occurs:

- the power goes off; or
- all the electronics are down, or
- users' fingerprints are rejected.

Insert the key vertically into the cylinder and turn it round and round until it cannot be turned any more, then turn down the outside handle to unlock.


### 4 Temporary Unlock Mode (TUM) Setup

#### Definition:

When the lock is entered into the **Temporary Unlocking Mode (TUM)**, somebody who wants to get access doesn't need to have his fingerprint verified, but just turn down the outside handle to unlock. It's strongly recommended not to apply this functionality unless owner(s) of the room or the house stays inside. If this functionality is applied, do remember to disarm it before you leave. The manufacturer or the reseller should not be responsible for any loss caused by any improper use of this functionality.


#### Apply TUM:

**Method one:** Enter from the keypad **\*+7+PIN+0**

**Method two:** When the lock is not in use, press the small round button  located beneath the battery cover, and hold it for three seconds until two long beeps are heard.

## Close TUM:

**Method one:** Enter from the keypad **\*+7+PIN+1**

**Method two:** When the lock is under TUM mode, press this  button and hold it for three seconds until three long beeps are heard.

## 5 Open from inside (exit)

Turn down the inside handle to open.

***ITEM 6 & 7 ARE FOR THREE-POINT MORTISE USE ONLY***

## 6 Lock the three-point mortise from inside

Turn up the inside handle to lock the three-point mortise.

## 7 Lock the three-point mortise from outside

- 1) If the lock is in its **normal (TUM closed)** status, give a slight touch on the round button beneath the battery cover to temporarily enter the lock into **TUM** status before you open the door from inside, then close the door and turn up the outside handle to completely lock the mortise when you get outside. Or press the PWR button to verify a right fingerprint to enter **TUM** status when you close the door from outside, then turn up the outside handle to completely lock the mortise. (There is an 8 second time delay for the **TUM**. So please make sure to complete either of the above operations before the time delay exceeds.)
- 2) If the lock is in **TUM** status, just get outside and close the

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door, turn up the outside handle to completely lock the mortise, and then press the PWR button to enter get the lock back to its normal (TUM closed) status.

## 8 Low Power Alert

When the system voltage is lower than 4.5V, one short beep will be heard after the door is opened. Meanwhile the RED LED will blink to remind users to replace batteries.

## 9 DELETE ALL

When the lock is not working, open the battery cover, and then use a hard and slim stick to press the micro switch located beneath the battery housing. Hold it and press the power button, then release it. When both the green and red LEDs blink and six short beeps are heard, the lock is reset successfully. All the fingerprints and PIN code are cleared. If one long beep is heard, and the red LED blinks, the operation fails, Please try it again. Make sure to re-cover the battery house after the lock is re-set.

**Note: Be very careful when you use this function because it would under any condition remove all the registered fingerprints inside and change the PIN code back to “0”.**

## 10 Cautions on System setup

- Anybody can press the power button and open the lock without any verification when the lock is in its very initial status. Therefore, in order to make the lock 100% secure, please make sure to register fingerprints and change the initial PIN code as soon as the lock is installed on the door.
- In order to ensure 100% security, please register the

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person really in charge as the first administrator.

- Make sure to re-cover the battery housing after the system is re-set.
- Keep the already-set PIN code written somewhere in order to find it for emergency purpose.
- To ensure the setup to be fully correct, try to open with fingerprints and PIN code after the fingerprints are registered and the PIN code is set.
- Remove the batteries from the battery housing, plug the backup battery, and then try with the PIN code to test the workability of the backup battery.

## **.Daily Maintenance & Trouble Shooting**

### **A. Daily Maintenance**

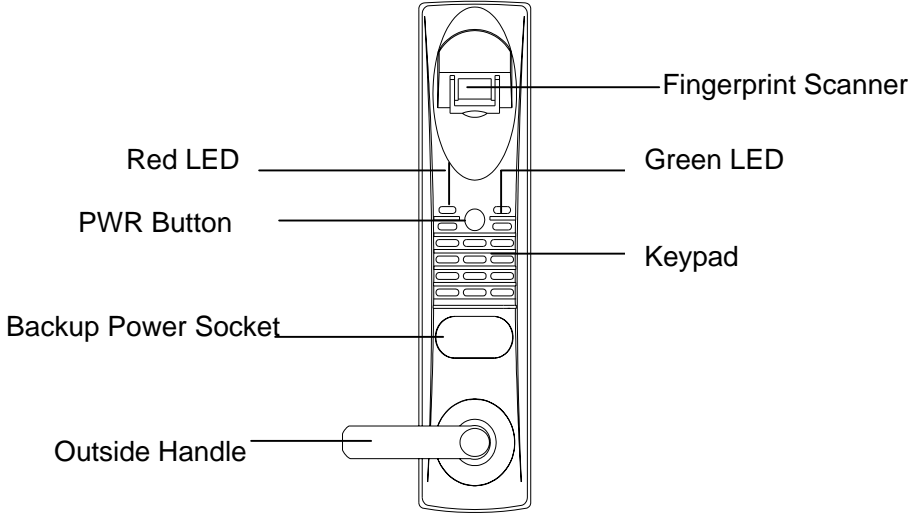
The door lock should be maintained during daily use. It would be very helpful to decrease its trouble possibility, ensure its reliability and consequently prolong the life of the lock,. Please refer to the list below when you're doing the daily maintenance.

- 1) When the low battery alert occurs, please change the batteries immediately;
- 2) Make sure not to disclose the PIN code to any unconcerned people;
- 3) Please use high-performance alkaline batteries to ensure the performance of the lock.
- 4) Please load batteries exactly according to its polarity mark.
- 5) The lock finishes cannot be cleansed by gasoline, alcohol, or banana oil. Besides, please keep the lock away from volatile gases. Just use a cotton flannel moistened with neutral-soap suds to wipe it, and prevent water from going inside and ruining the electronics.

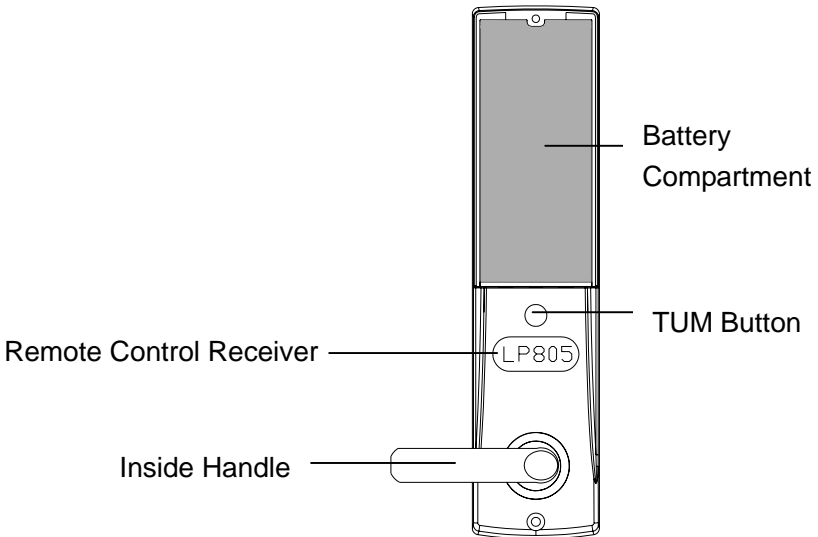
## B. Trouble Shooting

S/N	Troubles	Reasons for troubles	Shooting
1	The door lock can't be closed after opening.	<ul style="list-style-type: none"> <li>· Low battery</li> <li>· The electro-mechanical clutch damaged</li> <li>· Circuit parts fault</li> </ul>	<ul style="list-style-type: none"> <li>· Change batteries</li> <li>· Repair the clutch</li> <li>· Repair or replace the circuit parts</li> </ul>
2	When starting the lock, the scanner light keeps blinking and one short beep is heard.	<ul style="list-style-type: none"> <li>· Low battery</li> <li>· Installation problem</li> <li>· Circuit parts fault</li> </ul>	<ul style="list-style-type: none"> <li>· Change batteries</li> <li>· Check installation</li> <li>· Repair the electronic parts</li> </ul>
3	The lock has been opened but the lock is still powered on again and again.	The PWR button is not reset.	Press the PWR button to reset it.
4	The lock cannot be triggered when the PWR button is pushed.	<ul style="list-style-type: none"> <li>· Low battery</li> <li>· Circuit parts fault</li> </ul>	<ul style="list-style-type: none"> <li>· Change batteries</li> <li>· Open the door lock with password system and repair the circuit parts.</li> </ul>
5	The lock cannot be opened occasionally.	The fingerprint is blurred so cannot be identified and matched.	Clean the finger or change it.
6	Fingerprint deletion fails.	<ul style="list-style-type: none"> <li>· Low battery</li> <li>· Wrong administrator's fingerprint.</li> <li>· The reset button is not connected well</li> </ul>	<ul style="list-style-type: none"> <li>· Change batteries</li> <li>· Try with another one.</li> <li>· Repair the circuit parts</li> </ul>
7	Fingerprint enrollment fails	<ul style="list-style-type: none"> <li>· Low power</li> <li>· The ADD button is not well connected</li> <li>· Wrong master fingerprint or fingerprint is not input accurately.</li> </ul>	<ul style="list-style-type: none"> <li>· Change batteries</li> <li>· Check the circuit parts</li> <li>· Confirm the master fingerprint or input the finger accurately</li> <li>· Reset the lock and try again.</li> </ul>
8	The fingerprint can't be identified.	<ul style="list-style-type: none"> <li>· Low power</li> <li>· Finger is too wet, too dry or dirty</li> </ul>	<ul style="list-style-type: none"> <li>· Change batteries</li> <li>· Dry the finger, breathe it or clean it.</li> </ul>
9	The lock cannot be opened after the fingerprint is identified successfully.	<ul style="list-style-type: none"> <li>· The electro-mechanical clutch breakdown.</li> <li>· Battery voltage over-high</li> </ul>	<ul style="list-style-type: none"> <li>· Repair or change the clutch</li> <li>· Change batteries</li> </ul>
10	When the lock is opened, the handle and the clutch can't mesh well.	<ul style="list-style-type: none"> <li>· The clutch-trough of the handle damaged</li> <li>· Low power</li> <li>· The clutch can't get back to place.</li> </ul>	<ul style="list-style-type: none"> <li>· Change the handle</li> <li>· Change batteries</li> </ul>

### C. Names of Parts



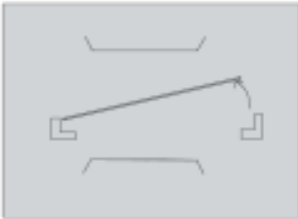
#### Outside Unit



#### Inside Unit

## . Handle Orientation Selector

Make sure to advise the manufacturer/reseller the handle orientations of the locks when you place an order. Below is an indicator for selecting the handle orientations.



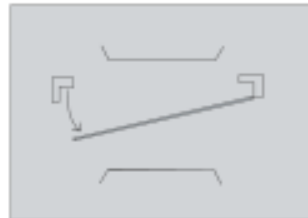
● Left hand, push



● Left hand, pull



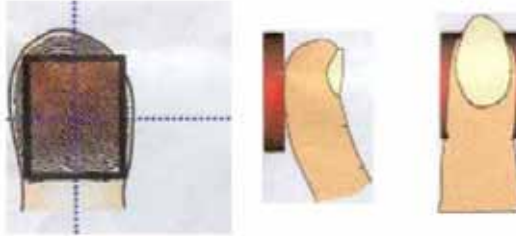
● Right hand, push



● Right Hand, pull

## Appendix I : Correct finger placement

\* Correct



\* Incorrect



- Please make sure you place the finger on the center of the scanner a little hard just as you press a doorbell.
- The finger should not be too humid or too wet. If it's too humid or too much sweating, wipe it dry; if it's too dry, breathe it.

## Appendix II Specifications

<b>ITEM</b>	<b>DATA</b>
Dimensions	Outside: L248 x W59 x D31mm
	Inside: L248 x W59 x D27mm
Warranty	Two years
Battery	AA Size Alkaline Battery x 6
Backup Battery	DC9V
Dynamic Power Consumption	<350mA
Static Power Consumption	<22 $\mu$ A
Fingerprint Scanner	Optical CMOS
False Acceptance Rate(FAR)	< 0.0001%
False Rejection Rate (FRR)	<0.01%
Scanning Time	1 sec.
Number of Users	99 (recommended 30)
Overriding Method	PIN Code/ Manual Key
Working Temperature	-20°C to 50°C
Working Humidity	20 to 80%
Door Thickness	3cm to 5cm
Finish Options	Brushed Chrome/Satin Gold/Polished Brass/Antique Brass/Satin Nickel/Oil Rubbed Bronze (ORB)/Extra Dark ORB
Gross/Net Weight	

## .Fingerprint registration records

Name	Fingerprint Code	Fingerprint					
	<b>1</b>	Left: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
		Right: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
	<b>2</b>	Left: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
		Right: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
	<b>1</b>	Left: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
		Right: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
	<b>2</b>	Left: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
		Right: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
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		Right: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
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	<b>2</b>	Left: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	
		Right: <input type="checkbox"/> Thumb	<input type="checkbox"/> Forefinger	<input type="checkbox"/> middle finger	<input type="checkbox"/> Ring finger	<input type="checkbox"/> little finger	