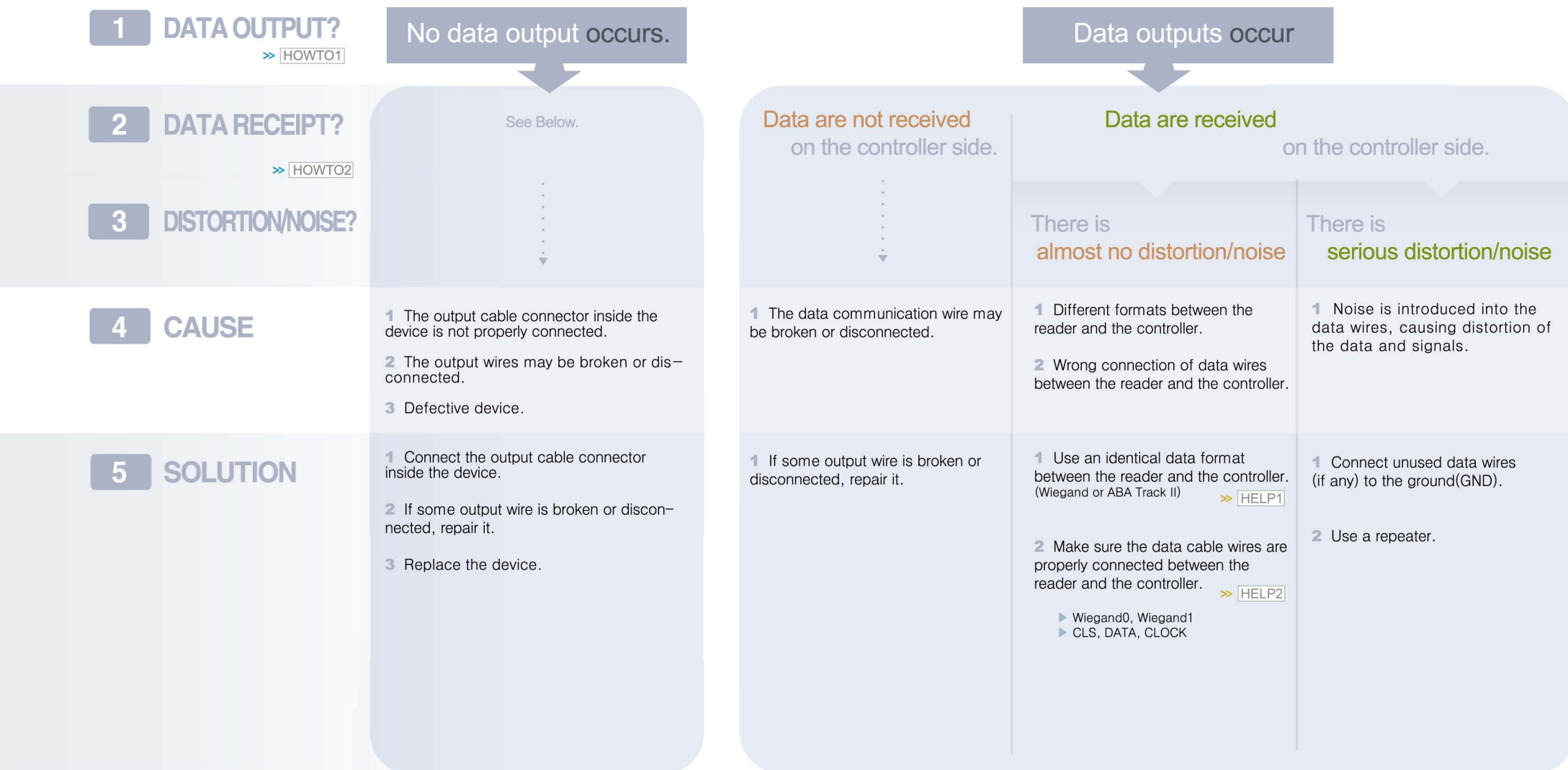


# The reader beeps but the door is kept closed, after the card has been read. (The controller fails to recognize the output from the reader.)



**HELP1**

(Procedure Based on FINGER006)

## Use an identical data format between the reader and the controller.

The reader can output data in two different formats; they are Wiegand format and ABA Track II format. One important thing here is that the controller that receives data from the reader should be configured in the same format as the reader. The following step-by-step instruction explains how to change the data format setting at the SETUP MENU of the device.

FINGER\_006 [F1]  
MM/DD hh:mm:ss

Master Password  
[ \_ \_ \_ \_ ]

MODE SELECTION  
RF ONLY

LCD DISPLAY  
STATUS

OUTPUT MODE  
WIEGAND

OUTPUT MODE  
- > WIEGAND

OUTPUT MODE  
- > ABA TRACK

OUTPUT MODE  
ABA TRACK

FINGER\_006 [F1]  
MM/DD hh:mm:ss

1. From the stand-by mode, enter the 8-digit Master Number and press **ENT** to enter the SETUP MENU. (The default Master Number is "00000000".)
2. After the "Master Password" screen is displayed, enter the Master Password. (The default password is "3141".)
3. The 'Mode Selection (Reader Mode1)' screen appears. To enter the F2 SETUP MENU, press **F2**.
4. The "LCD DISPLAY" screen appears.
5. Press **6** once, then you'll see the "OUTPUT MODE" screen.
6. Press **ENT** to enter the "OUTPUT MODE" setting menu.
7. Press **6** to select the format that the reader will use.
8. Press **ENT** to apply the selected Output Format setting.
9. Press **ESC** to quit the SETUP MENU.

## HELP2

### Use an identical data format between the reader and the controller.

The reader can output data in two different formats; Wiegand format and ABA Track II. The wiring method is different depending on the data format. Read the following instruction, and check if data wires are properly connected. If any problem is found, correct it.

**NOTE:** The output format of the controller should be configured to be the same as that of the reader.

#### 1) WIEGAND Data Connection

- Connect Wiegand Data 0 Out wire of the Controller to DATA0(Wiegand Output0) of the Reader. (Green)
- Connect Wiegand Data 1 Out wire of the Controller to DATA1(Wiegand Output1) of the Reader. (White)
- If the reader uses a different power than the controller, the GND must be connected between the Reader.

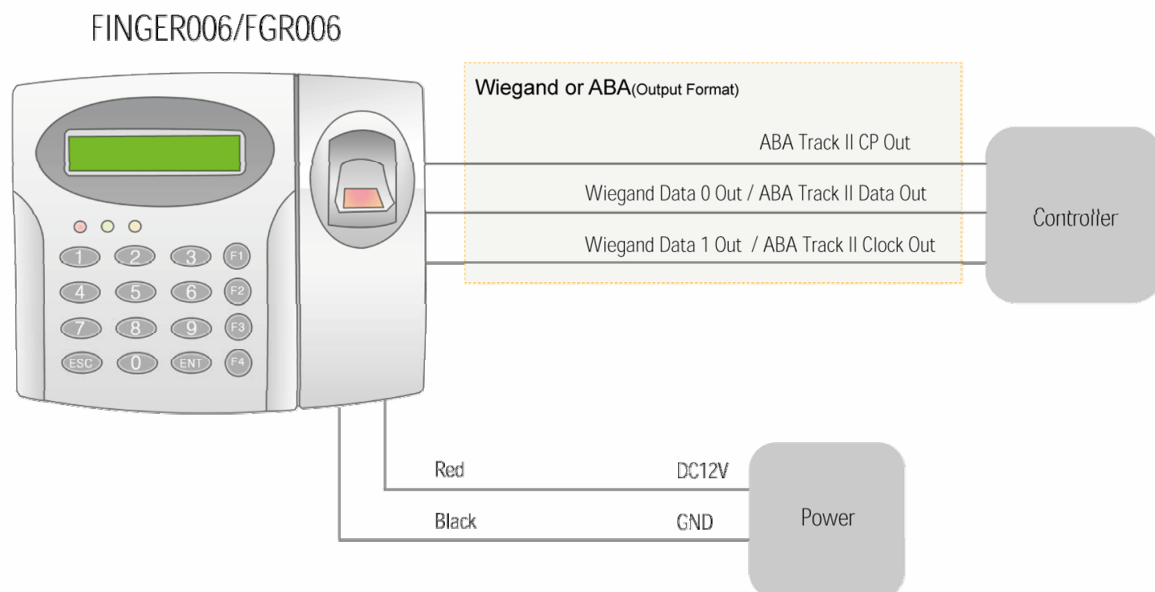
#### 2) ABA TRACK II Data Connection

- Connect ABA Track II Data Out wire of the Controller to DATA0(ABA Data) of the Reader. (Green)
- Connect ABA Track II Clock Out wire of the Controller to DATA1(ABA Clock) of the Reader. (White)
- Connect ABA Track II CP Out wire of the Controller to CLS(ABA\_CP) of the Reader. (Orange)
- If the reader uses a different power than the controller, the GND must be connected between the Reader.

#### 3) Control Signal Connection (when the controller supports ERROR Input/Output and OK Input/Output)

- Connect ERROR Input wire of the Controller to ERROR\_OUT wire of the Reader.
- Connect OK Input wire of the Controller to ERROR\_OK wire of the Reader.
- Connect ERROR Output wire of the Controller to ERROR\_IN wire of the Reader.
- Connect OK Output wire of the Controller to OK\_IN wire of the Reader.
- Connect TAMPER Input wire of the Controller to TAMPER wire of the Reader.

The following diagram shows the output connection for the FINGER006 or the FGR006.



## HOWTO1 How to check if data output is generated at the reader.

In order to confirm if the reader is properly outputting data, you need an oscilloscope, which is a piece of test equipment that allows signal voltages to be viewed. (See the picture on the right.) With an oscilloscope ready, follow the next instructions to check the status of data output generation from the reader.



1. Before test, you have to adjust the settings of the oscilloscope. Because there're two output wires that must be tested, you should configure 2 channels and set the VOLT/DIV value at 5V. Set the SEC/DIV value approximately at 5ms.

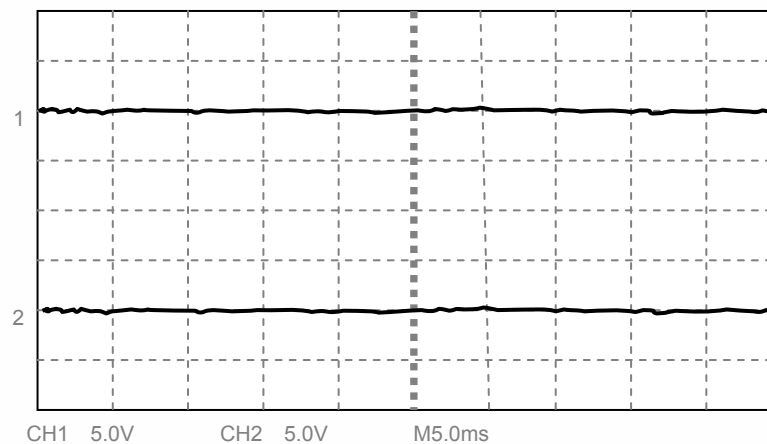


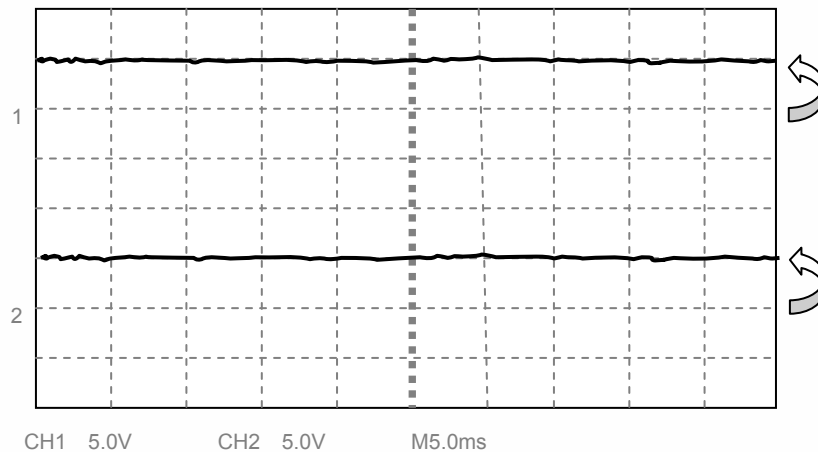
Figure: Example of Oscilloscope Setting

2. After settings are completed, separate the data wires from the reader that are connected to the controller, and connect them to the probes of the oscilloscope, as explained below.
  - a) Connect the GND(–) of the power cable to the Ground Clip (i) of the Oscilloscope.
  - b) Connect the two data output wires on the reader side to the probe input terminals (ii) of the oscilloscope. (Both Channel #1 and #2.)



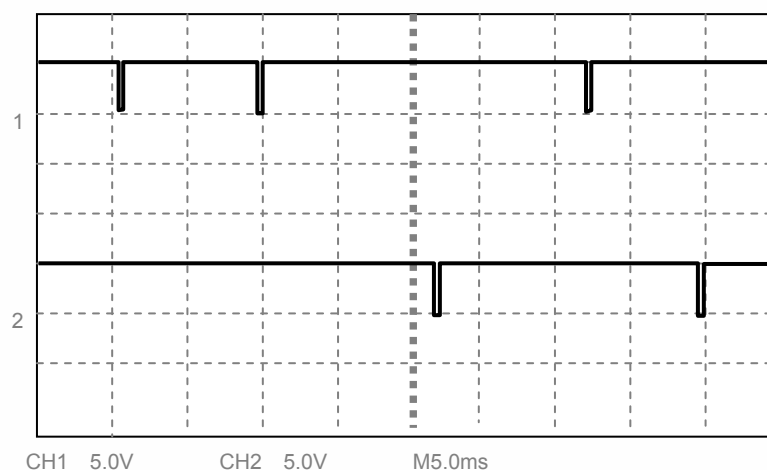
Figure: Oscilloscope Probe

3. Turn on the power of the reader.
4. Check if the screen of the oscilloscope displays two horizontal lines at a 5V level  
(If the VOLT/DIV value is set at 5V, then the horizontal line should go one level up after the power is applied.)



**Figure: Example of Oscilloscope Screen after Power has been Applied.**

5. Now then, operate the reader to generate some output signal. (You can make the reader generate output signals using RF card, RF card + Fingerprint, or Fingerprint, depending on the current setting of the reader.)
6. Check the screen of the oscilloscope to see if the output is detected. (The following drawing is an example, and it may look different on your oscilloscope. But, at least more than 1 signal must be detected at both of the 2 channels, if the output is properly generated.)



## HOWTO2 How to check if data output is properly received by the controller.

In order to confirm if the controller is properly receiving data sent from the reader, you need an oscilloscope, which is a piece of test equipment that allows signal voltages to be viewed. (See the picture on the right.) With an oscilloscope ready, follow the next instructions to check the status of data receipt of the controller.



1. Before test, you have to adjust the settings of the oscilloscope. Because there're two output wires that must be tested, you should configure 2 channels and set the VOLT/DIV value at 5V. Set the SEC/DIV value at 5ms, approximately.

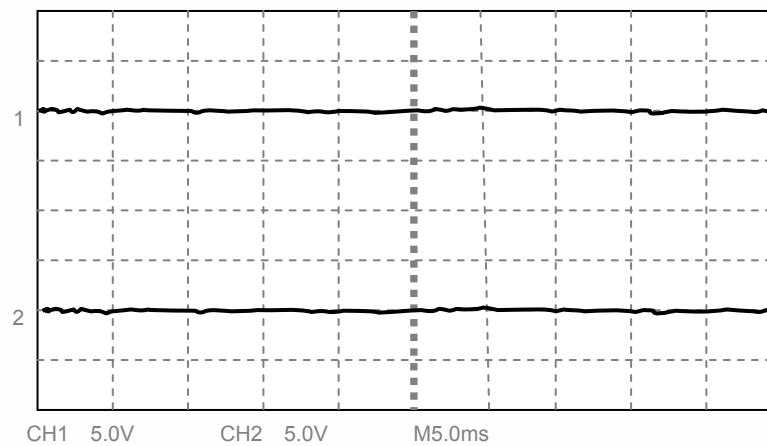


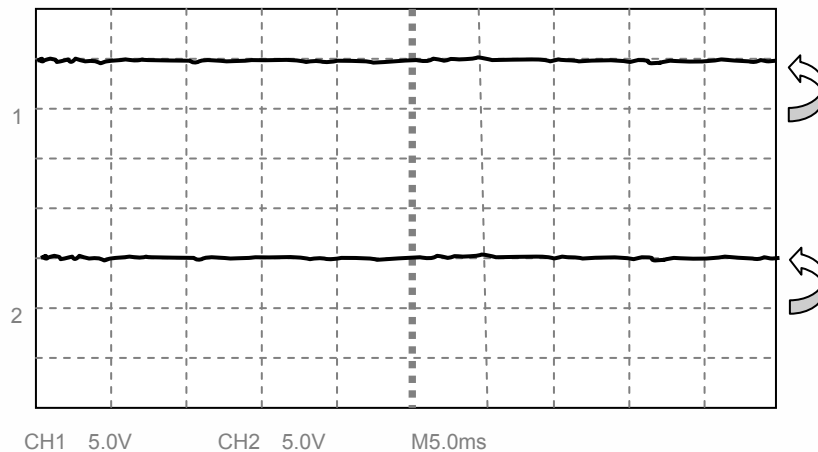
Figure: Example of Oscilloscope Setting

2. After settings are completed, separate the data wires from the controller that are connected to the reader, and connect them to the probes of the oscilloscope, as explained below.
  - a) Connect the GND(–) of the power cable to the Ground Clip (i) of the Oscilloscope.
  - b) Connect the two data output wires on the controller side to the probe input terminals (ii) of the oscilloscope. (Both Channel #1 and #2.)



Figure: Oscilloscope Probe

3. Turn on the power of the reader.
4. Check if the screen of the oscilloscope displays two horizontal lines at a 5V level  
(If the VOLT/DIV value is set at 5V, then the horizontal line should go one level up after the power is applied.)



**Figure: Example of Oscilloscope Screen after Power has been Applied.**

5. Now then, operate the reader to generate some output signal. (You can make the reader generate output signals using RF card, RF card + Fingerprint, or Fingerprint, depending on the current setting of the reader.)
6. Check the screen of the oscilloscope to see if the output is detected. (The following drawing is an example, and it may look different on your oscilloscope. But, at least more than 1 signal must be detected at both of the 2 channels, if the output is properly generated.)

