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# OPERATING AND INSTALLATION MANUAL

## FlexPass OFR100

### Open Format Reader



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## **1. Important Safety Instructions**

When using your FlexPass OFR100, basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and injury to persons. In addition, the following should also be followed:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. If necessary, use mild soap.
4. Do not use this product near water, such as bath-tub, wash bowl, kitchen sink, laundry tub, in a wet basement, or swimming pool.
5. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your installation site, consult your dealer or local power company.
6. Never push objects of any kind into this product or through the cabinet slots as they may touch voltage points or short out parts that could result in fire or electric shock. Never spill liquid of any kind on the product.
7. To reduce the risk of electric shock, do not disassemble this product by yourself, but take it to qualified service whenever service or repair is required.
8. Unplug this product from the Direct Current (DC) power source and refer to qualified service personnel under these conditions:
  - a. When the power supply cord or plug is damaged or frayed.
  - b. If liquid has been spilled on the product.
  - c. If the product does not operate normally after following the operating instructions in this manual.
  - d. If the product exhibits a distinct change in performance.

## **2. Product Description**

The FlexPass OFR100 is an elegant looking reader which can be mounted to metal door frame (mullion) or any flat wall surface. The FlexPass OFR100 uses an electronic module in epoxy potting that ensures successful operation even in harsh environments. Two-color LED (green and red) and built-in beeper sound provide accurate and reliable system operations.

## FlexPass OFR100

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### 3. Features

- FlexPass Proximity Reader
- Maximum 4”(10cm) reading range with Motorola FlexPass ASC-121T+ card
- Available in 2 colors (charcoal and stone gray)
- External Beeper control input
- External LED control input
- Epoxy potted electronic module
- Built-in 2-color LED (red and green) and beeper sound
- Motorola 26-bit Wiegand or ABA Track II Magstripe output formats available
- Mullion mount or Wall mount
- Operating voltage from 5V to 12VDC
- Light Lens for magnification of the LED indicator
- Easy Mounting to a single gang box

### 4. Identifying supplied parts

Please unpack and check the contents of the box.



**Reader Module**  
(1 ea)



**OFR100 Bezel**  
(1 ea)



**Manual**  
(1 ea)

### 5. Specification

<b>Read Range/Time</b>	Up to 4”(10cm)/300ms with Motorola FlexPass ASC-121T+ card and minimum read range 3”(7.5cm)
<b>Input Voltage/Current</b>	DC 5V ~ 12V, 120mA at standby, max. 150mA
<b>Output Format</b>	26 bit Wiegand or ABA Track II Magstripe
<b>External Beeper control Input</b>	Low Active, DC 0 ~ 5V, Max. 50 mA
<b>External LED control Input</b>	Low Active, DC 0 ~ 5V, Max. 50 mA
<b>LED/Beeper</b>	2-Color LED (Red and Green) / Beeper
<b>Color</b>	Charcoal and Stone Gray
<b>Operating Environment</b>	-31°F ~ 149°F(-35°C ~ +65°C), 0~90% Humidity
<b>Overall Size(WxHxD)</b>	1.77" x 4.63" x 0.81" (45 x 117.5 x 20.5mm)
<b>Weight</b>	0.35lb(160g)

## 6. Installation

### 6-1. Mullion/Wall Mount

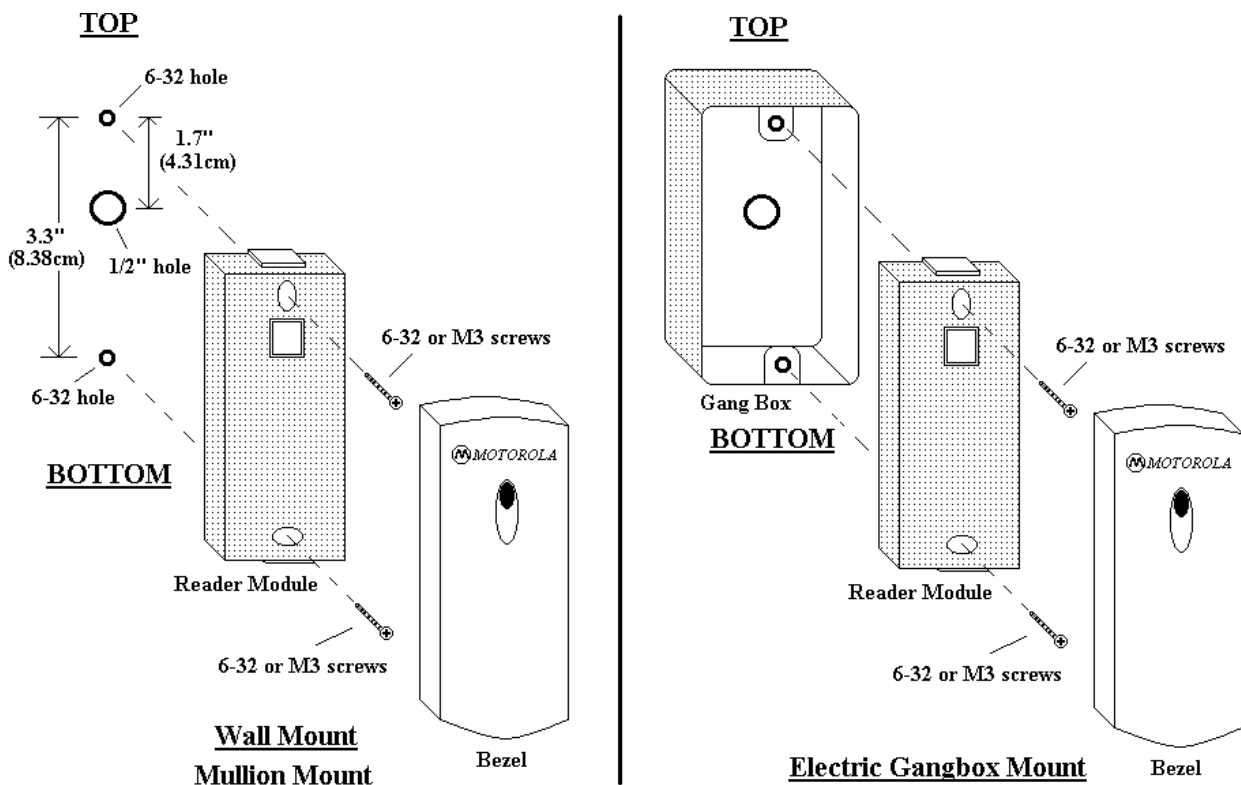
Drill two 6-32 or M3 holes 3.3"(8.38cm) apart in vertical and drill one 1/2" hole for the reader cable 1.7"(4.31cm) apart from the top hole.

(If you have installed an electric gang box then skip this step and go to step 6.2.)

6-2. Put reader cable into the center hole and install the reader module by using two 6-32 or M3 screws (Not included).

6-3. Put bezel on to the reader module then push bezel until you hear the locking sound.

6-4. To detach the bezel, hold both sides of the bezel, push the bezel to the bottom, and pull the bezel forward.



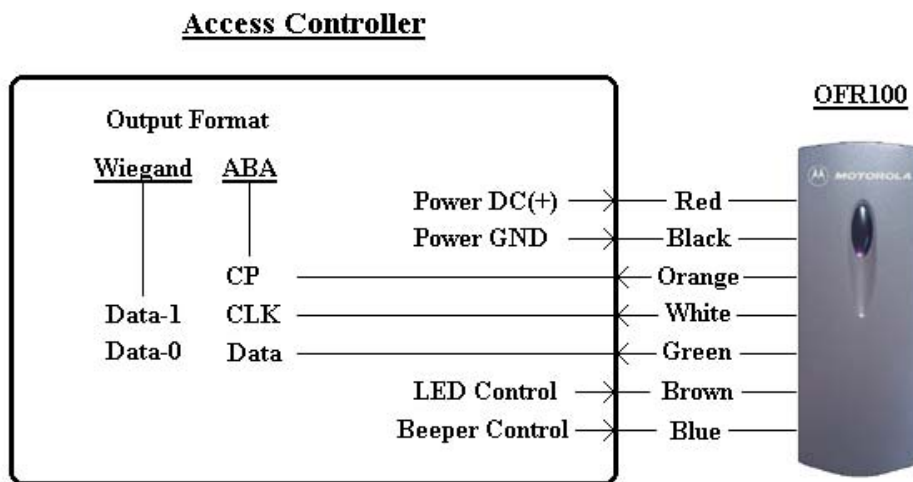
**FlexPass OFR100**

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**7. Wire Color Coded & Wiring**

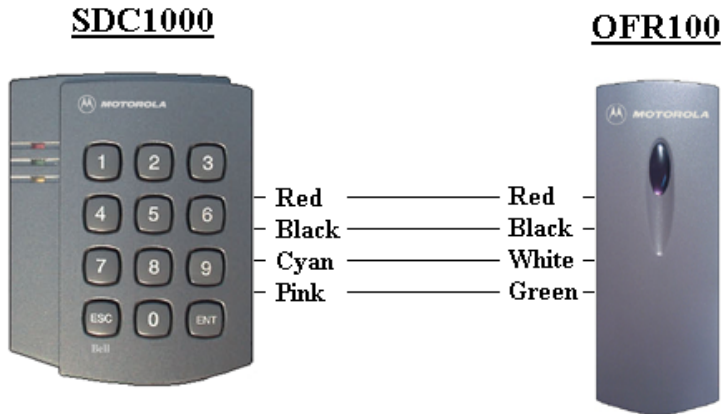
<u>I/O Port Name</u>	<u>Signal Name</u>	<u>Color Coded</u>
<b><u>POWER</u></b>		
Power (DC +5V ~ +12V)	VDC(+)	Red wire
Power (Ground)	VDC-(GND)	Black wire
<b><u>INPUT</u></b>		
Beeper control	Beeper	Blue wire
LED control	LED	Brown wire
<b><u>OUTPUT(Wiegand Format)</u></b>		
Wiegand Data-0	Data-0	Green wire
Wiegand Data-1	Data-1	White wire
<b><u>OUTPUT(ABA Track II Format)</u></b>		
ABA(Card Present)	CP	Orange wire
ABA(Clock)	CLK	White wire
ABA(Data)	Data	Green wire

**8. Wire Connection to a Host/Controller**



**Wire Connection to Controller**

## **9. Wire Connection to FlexPass SDC1000 Single Door Controller**



**Wire Connection to SDC1000**

## **10. Operation**

**10-1.** Once power is applied, the Red LED should be on and you should hear three beeping sounds indicating that the reader is in standby mode after a successful initialization and diagnostics.

**10-2.** Present proximity card to the reader until you hear the beeping sound and see the LED changes color to Green. The reader will send the RF card data to the controller then the LED will change color to Red again for the next reading.

### **10-3. LED Control:**

To change the LED colors, you may connect the LED Control Input (Brown wire) to ground and the Green LED will turn on indicating that the reader is in standby mode. Present proximity card and the LED will change color to Red then Green again for the next reading.

### **10-4. Beeper Control:**

In normal operation, the reader generates one beep when it reads a proximity card, however additional beeps can be generated to improve indication for access status (granted or denied) by forcing the beeper control input, blue wire to system ground level. The beeper will remain on as long as the blue wire is connected to system ground.

## **11. FCC REGISTRATION INFORMATION**

### **FCC REQUIREMENTS PART 15**

**Caution:** Any changes or modifications in construction of this device which are not expressly approved by the manufacturer for compliance could void the user's authority to operate the equipment.

NOTE: 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 interface, and
2. This device must accept any interference received, including interference that may cause undesired operation.

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 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 radio or television off and on, the user is encouraged to try to correct interference by one or more of the following measures.

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on another circuit.
4. Consult the dealer or an experienced radio/TV technician for help.

## **12. Warranty and Service**

FlexPass OFR100 warranty is 3 years from the shipped date; returns must have an RMA (Return Material Authorization) number. The customer is to provide a description of the specific problem. The customer is to include serial numbers, formats, and model numbers with the items to be returned. If the exact duplicated of returned cards or tags are requested, the customer must provide Motorola with exact format and ID numbers needed.

### **Contact Technical Support**

**Motorola**  
**3041 Orchard Parkway**  
**San Jose, CA 95134-2017**  
**Tel (408) 383-4000, Main**  
**Tel (800) 646-3252, Technical Support**  
**Fax (408) 434-7057**

NOTE: Damage occurring during shipment is deemed the responsibility of the carrier, and claims should be made directly to the carrier.