



Orbita MFR-01 Single Relay for External Elevator Control User Manual

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Orbita MFR-01 Single Relay for External Elevator Control



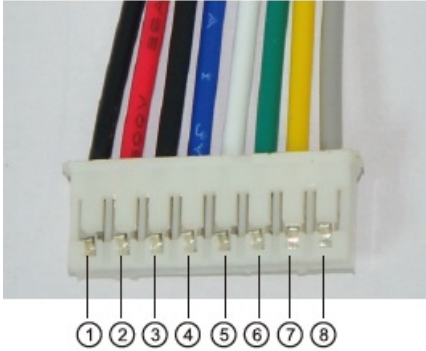
Products

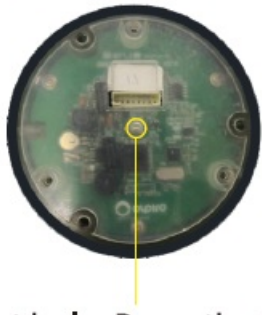
- MFR-05 Square Reader, MFR-04 Round Reader, MFC-03 Elevator Controller



1. MFR-05 Square Reader
2. MFR-04 Round Reader

SN	Description	Remarks
	8Pin Interface	Definitions from left to right

		<p>G)——— Reserved</p>
		@——— Power+ 12VDC
		@——— Ground
A		©——— Reserved
		®——— Relay Output NC
		®——— Relay Output COM
		(J)——— Relay Output NO
		@——— Reserved

B	<p>Reset Button</p>  <p>Reset hole. Press the Reset button to</p>	<p>Restore to factory defaults</p>
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Solution Overview

- STC chip is used as the master control, and the NXP card reading chip supports MI card swiping to control elevator operation.

MI card swiping

- Use the supporting software to encode cards that can be swiped to control elevator] operations with guest cards and internal management cards for example. Only the] elevator floor buttons can be managed, and the original elevator control function is not affected.

Swipe record monitoring

- A record of swipes is kept on all unlocking cards.

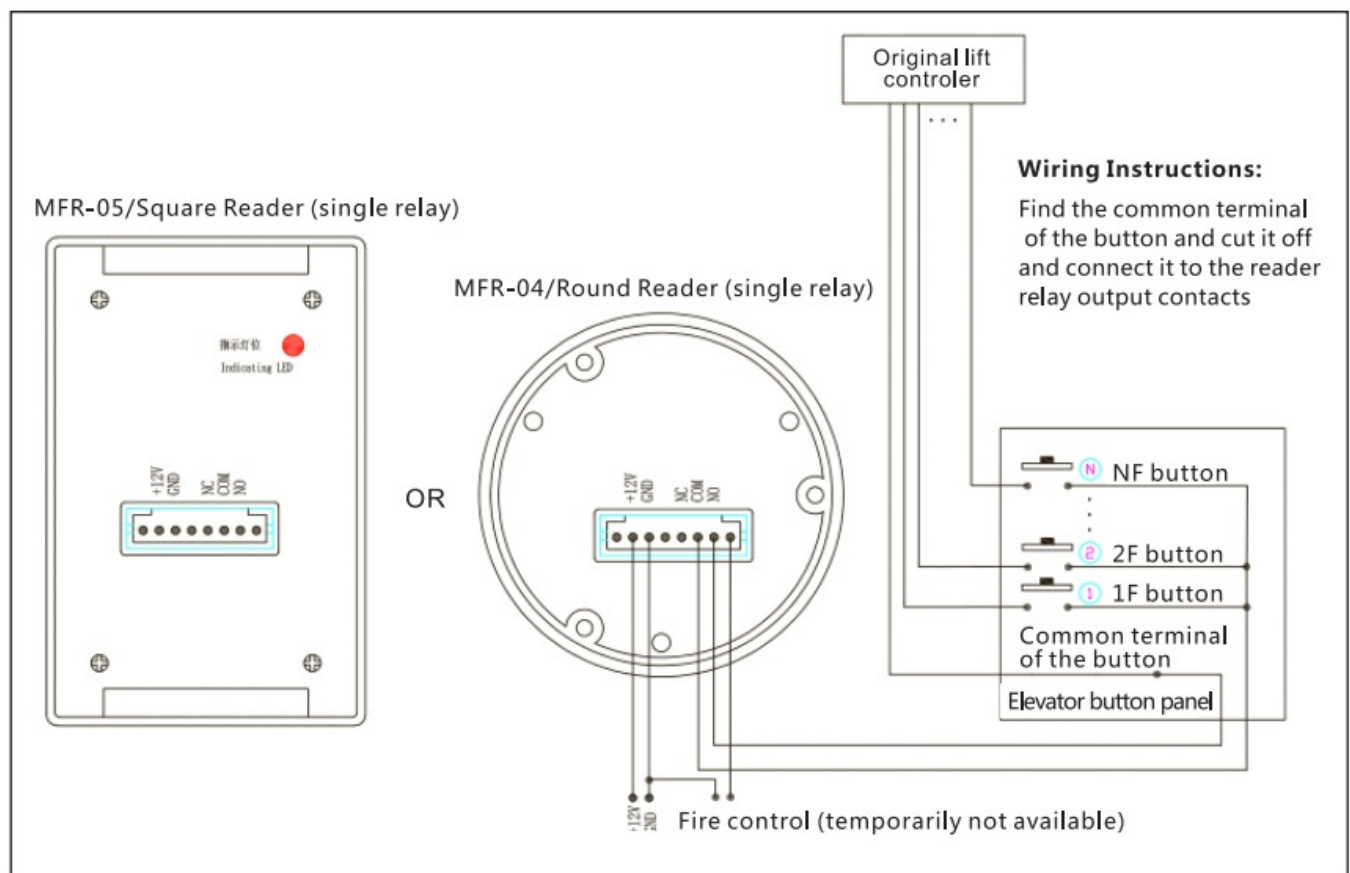
Performance Parameters

MFR-OS Square Reader and MFR-04 Round Reader:

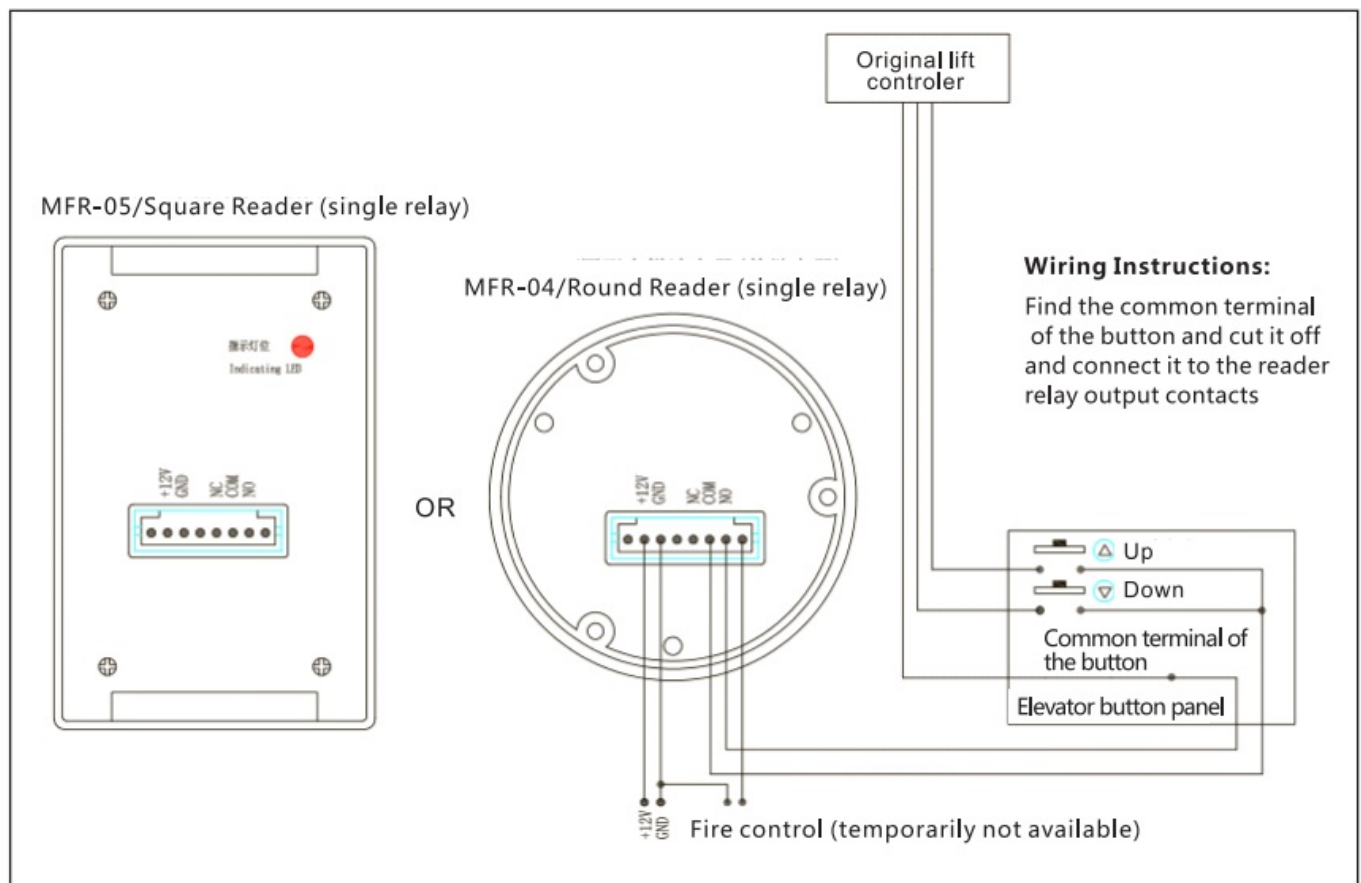
Model	MFR-05	MFR-04
Size	115mm (length), 74mm (width), 16 mm (height)	90 mm (diameter), 15 mm (height)
Material	ABS+PC	Anodized 6063 aluminum
Power supply mode	12V DC	12V DC
Maximum operating current	300mA	300mA
Supported card	MIFARE M1	MIFARE M1
Max reading distance	2 cm	2 cm
Output	Serial port	Serial port
Operating temperature	-20 - 70 °C	-20 - 70 °C
Operating humidity	30%~85%	30%~85%

Wiring Diagram

Reader wiring diagram (inside)



Readerwiring diagram (outside)



Reader Operation

Main Functions

Guest Card

1. To the occupancy floor

Other Unlocking Cards

1. To all floors

Setting Card

1. Set up floors where the elevator stops

Buzzer Sound Alert

1. Short tone: Setting succeeded
2. Long tone: Setting canceled
3. tones: Wrong area
4. 3tones: Time expired
5. tones: Unauthorized
6. tones: Card lost
7. tones: This room is blocked

8. tones: Wrong card

Function Details

Setting Card Function

When the reader touches the setting card, the reader will allow or forbid the elevator to stop at the floor specified with the card.

Short tone: Setting succeeded, stopping at that floor is allowed;

Long tone: Setting canceled, stopping at that floor is prohibited;

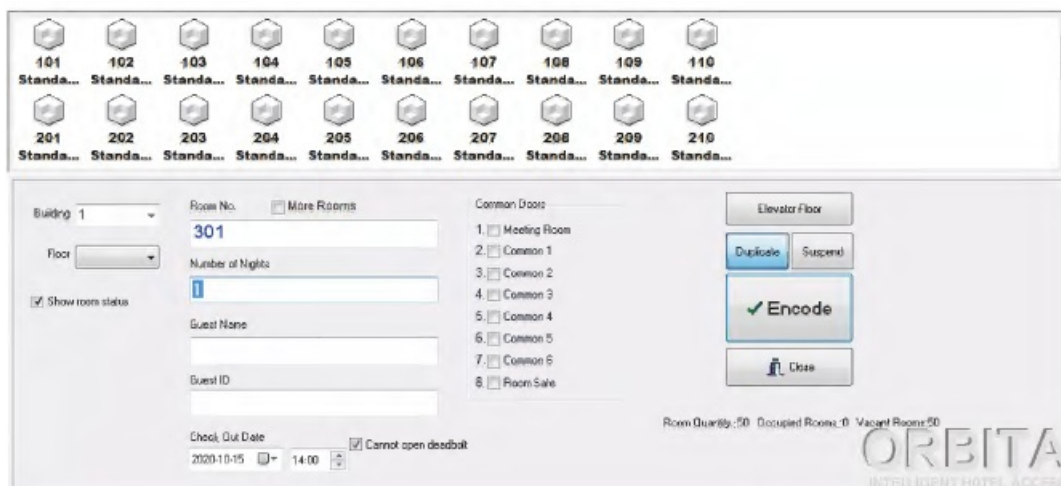
The card-making and swiping operations are shown below:



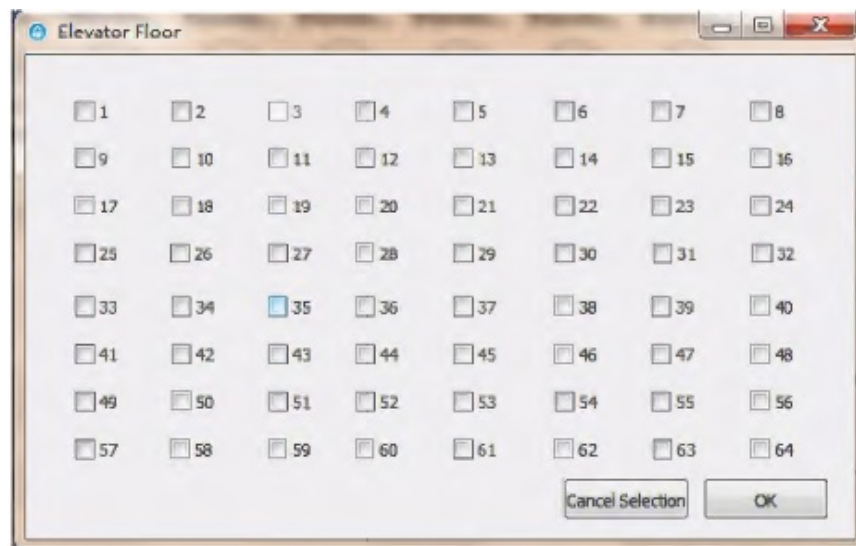
1. Put the card on the encoder
2. Configure the setting card point in the issuing software
3. and swipe the card through the reader

Guest Card Function

When a guest swipes the guest card through the reader, the reader will allow the guest to use that elevator. When configuring the guest card, click the “Elevator Floor” button



- A dialog box appears as shown below, which contains IF to 64F checkboxes.
- You can select Oto 8 floors in this box. By default, None (0 floor) is selected.
- For example, the guest is in 3F (Room 301). You cannot select all floors except 3 in the] dialog box. (The number of the guest floor cannot be selected)



- Then click the “Encode” button as shown below to create a “Guest Card”.

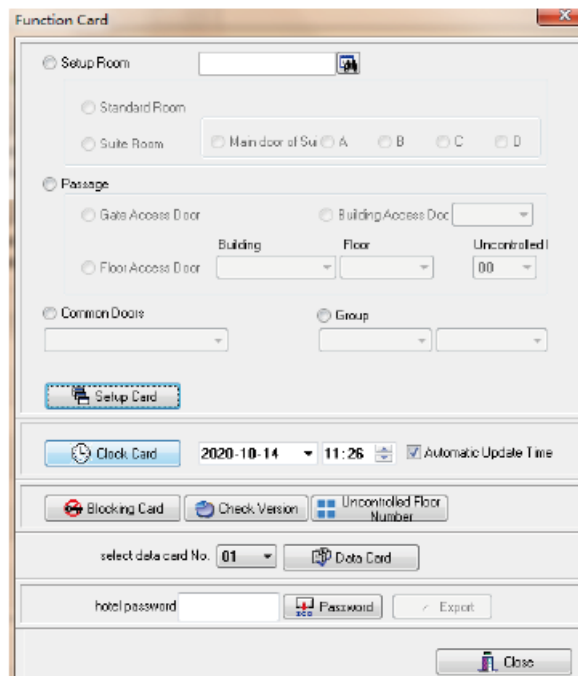


Other Unlocking Card

- You can go to all permitted floors, click on the “Master Card” radio button and then click on the “Encode” button, as shown below.



A block card is required. Swipe the block card through the reader. If the buzzer gives out a short beep, and the setting is now successful. Only the master card can unlock after blocking. Swipe the block card again if you want to cancel the block, and the function is canceled when the buzzer gives out a long beep. Click the “Block Card” button as shown below to encode a Block Card.



The 'Function Card' window contains the following sections:

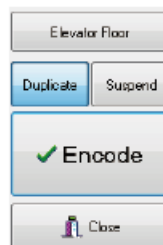
- Setup Room:** Includes a room number field and radio buttons for 'Standard Room' and 'Suite Room'. The 'Suite Room' section has radio buttons for 'Main door of Suite' and 'A', 'B', 'C', and 'D'.
- Passage:** Includes radio buttons for 'Gate Access Door' and 'Building Access Door'. The 'Building Access Door' section has dropdowns for 'Building' and 'Floor', and a field for 'Uncontrolled'.
- Common Doors:** Includes a dropdown for 'Common Doors' and a 'Group' section with a dropdown and a field.
- Buttons:** 'Setup Card' (highlighted with a dashed border), 'Clock Card' (with date '2020-10-14' and time '11:26'), 'Blocking Card', 'Check Version', 'Uncontrolled Floor Number', 'select data card No.' (with value '01'), 'Data Card', 'hotel password', 'Password', 'Export', and 'Close'.

Loss Reporting

- The master card loss only compares the loss value. Click the “Lost” button before clicking the “Encode” button, and then swipe the card through the reader to complete the loss reporting after issuing the card, as shown below.



- To report a lost guest card or employee card, you need to write the number of the lost card in the newly encoded card, and click the “Lost” button. And the blacklist as shown below appears.



(Guest card Suspend)



(Employee card Suspend)

(Employee card Suspend)

(Guest card Suspend)

Building	Room No.	User ID	User Name	Card Type	Card No.	Issue Date	occupied	Check Out
1	208			Guest Card	089640	2020-10-14 11:33:42	2020-10-14 11:33:42	2020-10-15 14
1	208			Guest Card	261110	2020-10-14 11:33:38	2020-10-14 11:33:38	2020-10-15 14
1	208			Guest Card	740332	2020-10-14 11:33:30	2020-10-14 11:33:30	2020-10-15 14
1	208			Guest Card	640325	2020-10-14 11:32:40	2020-10-14 11:32:40	2020-10-15 14

Building	Room No.	User ID	User Name	Card Type	Card No.	Issue Date	occupied	Check Out
1	01-00-00-004	001	Admin	FloorMaster Cx 132863		2020101411:28:34		
1	01-00-00-004	Suspend	Admin	FloorMaster Cx 1853180		2020101411:28:22		
01		001	Admin	General Master 103274		2020101411:38:09		
01		001	Admin	General Master 175528		2020101411:37:56		
1		001	Admin	Group Card 19057C		2020101411:40:13		
1	101	001	Admin	Maintenance C 315413		2020101411:38:51		
1	101	Suspend	Admin	Maintenance C 798088		2020101411:38:34		

(Guest card blacklist)

(Employee card blacklist)

Elevator Floor

Duplicate

Suspend

✓ Encode

Close

Suspend

Duplicate

Encode

Double-click the card number to report the loss, and then click the “Encode” button to make the loss reporting card. After issuing., swipe the card through the reader to complete loss reporting..

Elevator control channel numbers can be assigned to any floor number

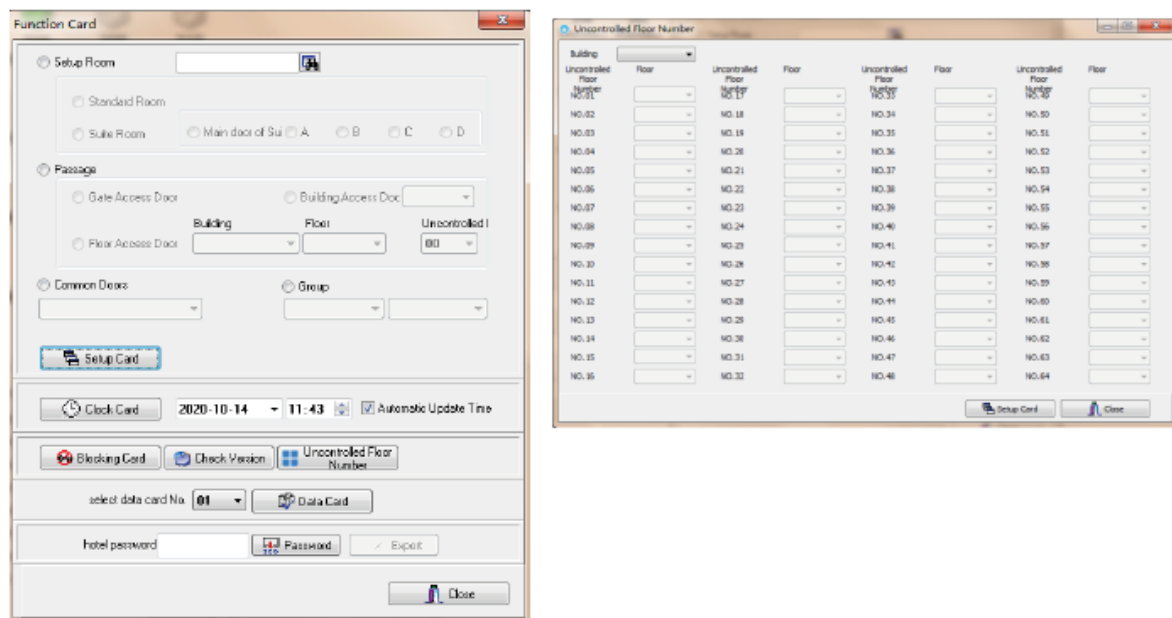
Only a card is supported. Setting through the handheld set is not supported. You can set in the following two ways:

Setting 1: Modify a single channel and add the elevator channel number to the original]floor channel setting card. Encode an elevator control setting card to swipe the card on] the reader to set, as shown below. When the channel number is 0, the previous setting mode is supported, and the room setting card also supports the previous setting mode. This setting mode is compatible with the legacy version of the issuing software and] the elevator control. . The legacy software supports the new elevator control, and the new software supports the legacy elevator control.

Card Issuing Softwar	Reader	Result
New,the lift channel is not 0 in floor channel serring card	New	Reader channel numbers can be assigner to any floor
New,the lift channel is 0 in floor channel setting card	New	The result is the same as the legacy soft
New,room setting card	New	
New	Legacy	
Legacy	New	
Legacy	Legacy	

Setting 2: Modify all channels simultaneously. Use the S70 card to encode an elevator control setting card, and swipe the card on the reader to set, as shown below. You can set 64 floors in one go, greatly reducing the setting workload. With the legacy version, you need to swipe 64 times.

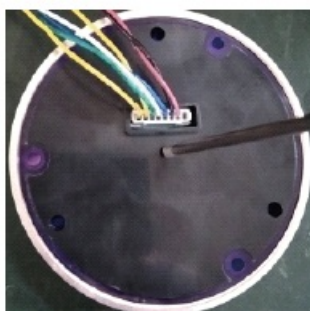
Reader	Controller	Result
New	New	Controller channel numbers canbe assigned to any floor
New	Legacy	The result is the same as legacy control
Legacy	New	
Legacy	Legacy	



Restore Factory Settings

- Press and hold the reset button on the back of the reader for 3s, and when you hear the buzzer go off, the settings are restored to the factory defaults.
- Press and hold the reset button on the back of the reader for 10s, and when you hear the buzzer go off, not only the settings are restored to the factory defaults, you can also toggle whether or not to support additional floor modes:
- One continuous short beep: Single floor selection mode:] Two continuous short beeps: Multiple floor selection modes.

Supporting Software



We offer an Orbita hotel smart lock management system that accommodates all hotel management software and supports Fidelio/Opera.

Documents / Resources



[Orbita MFR-01 Single Relay for External Elevator Control \[pdf\]](#) User Manual
MFR-01, Single Relay for External Elevator Control, Single Relay, MFR-01, Relay