

READER WIRING INSTRUCTIONS

**SP1****MP1****WP2****WP1**

125kHz reader models with
the following prefixes:

MP1-EM1

MP1-HT1

MP1-DP1

WP1-EM1

WP1-HT1

WP1-DP1

SP1-EM1

SP1-DP1

SP1-DP1

WP2-EM1

13.56MHz reader models
with the following prefixes:

MP1-LEG

MP1-MIF

MP1-ISO

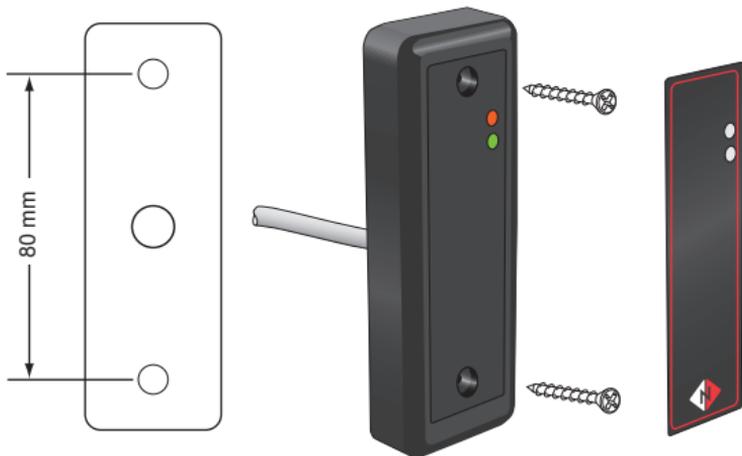
WP1-LEG

WP1-MIF

WP1-ISO

Fitting the Slimline Reader

1. Identify a suitable location for the reader at a convenient height near to the door that it controls.
2. Mark out the position of the unit and then drill holes for mounting screws and the cable.
3. Feed the cable through the wall and terminate it either at the access controller or in a suitable terminal box.
4. Screw the reader to the wall using the screws provided and appropriate plugs/fixings (not supplied) for the type of mounting surface)
5. Terminate the conductors according to the wiring details overleaf.
6. Fit the label once the reader has been fully installed and you are confident that the unit will not need to be moved.

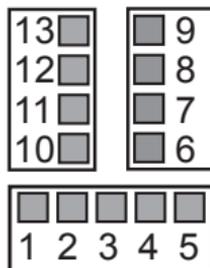


125KHz Reader Wiring

Connect the reader cable to the reader port of the controller according to the table below. For readers with a screw terminal block, refer to terminal numbering diagram.

Terminal*	Cable	Function
1	Red	+5VDC to +16VDC
2	Black	Ground
3	White	Wiegand Data 1 / Clock
4	Green	Wiegand Data 0 / Data
5	Yellow	Green LED input
8	Brown	Beeper input
9	Orange	Format Select (see below)
10	Blue	Serial Data Output

*Terminal
Numbering



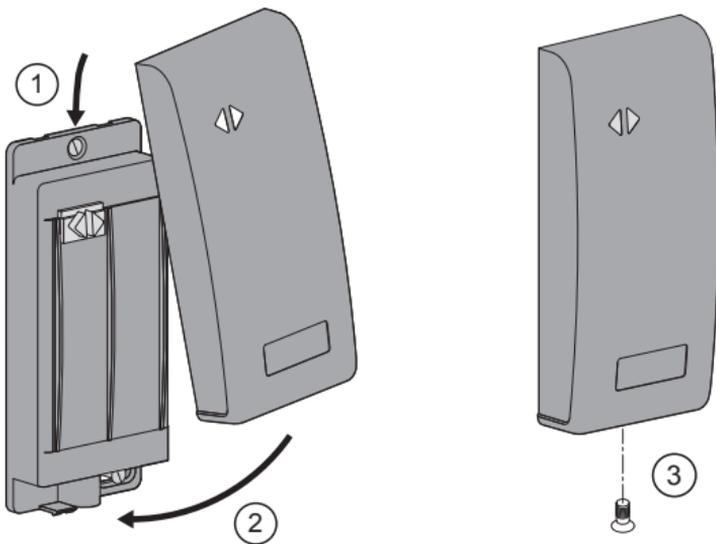
Format Select: Use the 'Format Select' lead to set the required data output format by connecting it to either Ground or +VDC as follows:

Reader Variant	Connect to Ground	Connect to +VDC
EM1, HT1	10-Digit Clock & Data	26-Bit Wiegand
DP1	26-Bit Wiegand	44-Bit Wiegand

Fitting The Reader Cover (MP1 and WP1)

Once the reader has been fitted and wired, the cover can be fitted as described below (the illustration shows the mullion model but the procedure is the same for the wall switch model).

1. Hook the two tabs at the top of the reader cover over the top of the reader back plate, engaging them with the corresponding slots in the back plate.
2. Hinge the cover over the reader body until it is correctly seated over the reader (it should click into place).
3. Insert the cover retaining screw in the base of the reader and tighten.



13.56MHz Reader Wiring

Connect the reader cable to the reader port of the controller according to the table below. For readers with a screw terminal block, refer to terminal numbering diagram.

Terminal*	Cable	Function
1	Red	+5VDC to +16VDC
2	Black	Ground
3	White	Wiegand Data 1 / Clock
4	Green	Wiegand Data 0 / Data
5	Yellow	Green LED input
6	Brown	Beeper input
7	Blue	Serial Data Output
8	Orange	Format Select (see below)



*Terminal Numbering

Format Select: Use the 'Format Select' lead to set the required data output format by connecting it to either Ground or +VDC as follows:

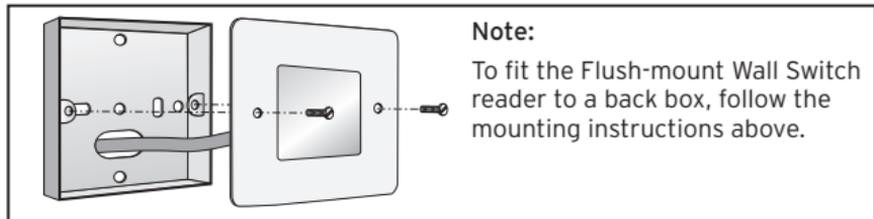
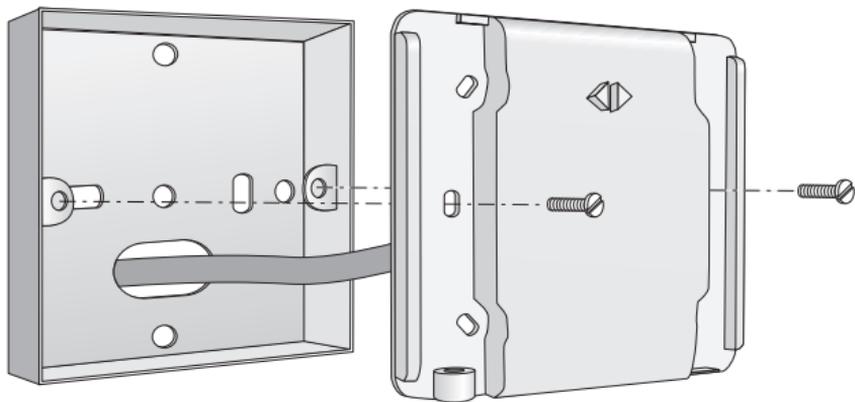
Reader Variant	Connect to Ground	Connect to +VDC
ISO	10-Digit Clock & Data	32-Bit Wiegand
MIF, LEG	Dependant upon the customer specific version	

Mounting the Wall Switch Reader

Wall Switch readers are designed to fit to a standard wall switch back box (minimum depth 25mm). The WP1 can also be mounted directly on a wall (see the instructions for fitting a mullion mount reader).

If the reader is to be mounted on a back box and is fitted with a cable, feed the cable through the hole in the back box to the controller and terminate the conductors according to the wiring details overleaf. If the reader is fitted with screw terminals, feed the connecting cable into the back box and terminate the conductors according to the wiring details overleaf.

Secure the reader to the back box using the screws supplied.



Note:

To fit the Flush-mount Wall Switch reader to a back box, follow the mounting instructions above.

Power & Testing

Once the reader is fitted and wired, carry out a brief test to ensure that it is functioning correctly. You may need to refer to the controller reference documentation.

1. Connect power to the controller and ensure that the LED lights red. The reader requires a supply of 5VDC to 16VDC.
2. Present a compatible card to the reader and check that the LED blinks green and the beeper sounds (if fitted).
3. Make a card valid in the access controller and present the card to the reader. Ensure that the card is accepted and the LED and beeper respond to the access controller as expected. This will depend upon how you have wired the reader and the way in which the access controller operates.

If the card details are not recognised by the access controller, check all connections and ensure that you have connected the 'Format Select' input correctly according to the table in the wiring instructions..

Note 1: The Slimline reader uses two separate LEDs for red and green indications but the basic operation is the same as other models.

Note 2: If the LED does not give any indication at all when a card is presented, it is likely that the reader technology does not match that of the card.

Mounting the Mullion Reader

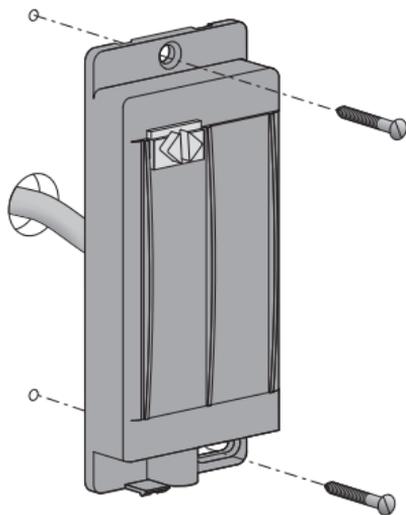
Identify a suitable location for the reader at a convenient height near to the door that it controls.

Place the reader on the mounting surface and mark the position of the cable hole. Drill a hole suitable for feeding the cable through.

If the reader is fitted with a cable, feed it through the hole so that the reader can be positioned correctly against the mounting surface. Ensure that the reader is level and mark out the position of the fixing holes, drill and prepare the holes. Terminate the cable conductors according to the wiring details overleaf.

If the reader is fitted with screw terminals, position the reader against the mounting surface, ensure that the reader is level and mark out the position of the fixing holes. Drill and prepare the fixing holes. Feed the connecting cable through the cable hole and terminate the conductors according to the wiring details overleaf.

Secure the reader to the mounting surface using the two no.6 wood screws supplied with appropriate plugs/fixings (not supplied) for the type of mounting surface.



Specifications

	MP1	WP1	WP2	SP1
Supply Voltage	5VDC to 16VDC			
Max. Current	250mA		70mA	
Read Range	Up to 100mm		Up to 50mm	Up to 80mm
Indications	Dual colour LED (red/green), Beeper		Dual colour LED (red/green)	Red LED, Green LED, Beeper
IP Rating	IP65			
Operating Temperature	-20°C to 50°C			

For further details, view or download the corresponding product datasheet from the Nortech website at:

<http://www.nortechcontrol.com/document-library.aspx>



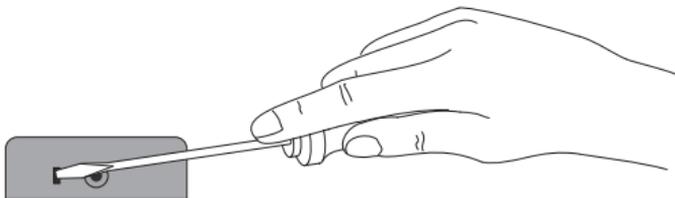
Product mounting templates are also available at this location.



READER FITTING INSTRUCTIONS

Fitting Mullion and Wall Switch Readers

For those readers fitted with a cover (MP1 and WP1) ensure that the cover securing screw is not fitted to the base of the reader, and separate the front cover and the reader body as follows:



Insert the tip of a terminal screwdriver into the small slot in the base of the cover. Press lightly to release the securing catch while you separate the cover from the reader at the base.

