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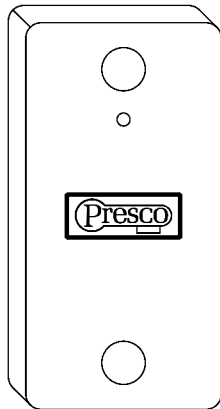
Sprite

Indoor/Outdoor Proximity Reader

“Series 2”

Installation Manual

2nd Edition



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WARRANTY.

Nidac Security Pty. Ltd. will repair or replace this product if proven to be faulty (excluding accidental or malicious damage) under the 36 month warranty offered from the date of purchase.

As Nidac Security Pty. Ltd. or its agents do not perform the final installation, inspection or training in the use of this product, they cannot be held liable for injury, loss or damage directly or consequentially arising from the use or misuse of this product.

Presco™ is a registered Trade Mark belonging to Nidac Security Pty. Ltd. The Presco™ system is protected by provisional and pending patents in various countries including Australia.

The software design is protected internationally and remains the intellectual property of Nidac Security Pty. Ltd.

Design improvement and specifications are subject to change without notice. All designs are copyright 1992 - 2003.

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Revision 1.0

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Sprite Series 2 Instructions.doc 22/01/09

OVERVIEW

The Presco™ Sprite Proximity Reader is an advanced, self contained RFID (Radio Frequency IDentification) contactless reader. It is capable of interfacing to either a Wiegand input control panel or to Nidac's range of Presco™ PAC decoders.

The full potting makes it suitable for outdoor environments and the narrow styling makes the Sprite suitable for door frame mounting as well as other mounting positions.

OPERATION

Connected to a Presco™ PAC decoder

The LED on the reader is red when ready to read a Presco™ prox card. When a card is presented to the front of the reader the LED momentarily turns orange to indicate that the Sprite has read it. The code is then transmitted to the PAC decoder.

If the card is valid the Sprite will respond with 1 or 2 short beeps and the LED will change to green (provided the blue wire is connected as shown in the wiring diagram) for the time the ELC relay is active (door is released).

If the card is invalid the Sprite will respond with a “blarp” (long beep) and the LED will remain red.

Connected to a Wiegand controller

The LED on the reader is red when ready to read a Presco™ prox card. When a card is presented to the front of the reader the LED momentarily turns orange and the internal buzzer gives a short beep to indicate that the Sprite has read it. The code is then transmitted to the Wiegand controller.

The LED can be made to change colour to green by the controller by applying +5 to 15 Volts D.C. to the blue wire.

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WIRE COLOURS

Red - +8 to 15 Volts D.C.

Black - Ground (0 Volts).

Green - Wiegand Data 0.

Yellow - Wiegand Data 1.

Blue - LED Control.

White - Presco™ PAC DTA line (connect to Ground when using Wiegand).

Drain - Shield/Ground (connect to Ground at controller).

SPECIFICATIONS

Voltage:- 8 to 15 Volts D.C.

linear power supply recommended.

Current:- 65mA max @ 15 Volts D.C.

Size:- 89.5mm x 45mm x 14mm.

Outputs:- 26 bit Wiegand, Pulse Width = 50µs,
Pulse Separation = 2ms.

and Presco™ PAC decoder format.

Read Range:- Up to 12cm (4½”).

Wiring Distance:- Sprite to Presco™ PAC Decoder = 1Km (100Ω max. return resistance, unshielded cable).

Sprite to Wiegand controller, shielded cable must be used.

Wire Gauge	Wiring Distance
22 AWG	150m (490 ft)
24 AWG	100m (330 ft)
26 AWG	60m (195 ft)
28 AWG	40m (130 ft)

Excitation Frequency:- 125 ± 5 KHz.

Operating Temperature:- 0°C to 70°C.

36 month (3 year) manufacturer's warranty.

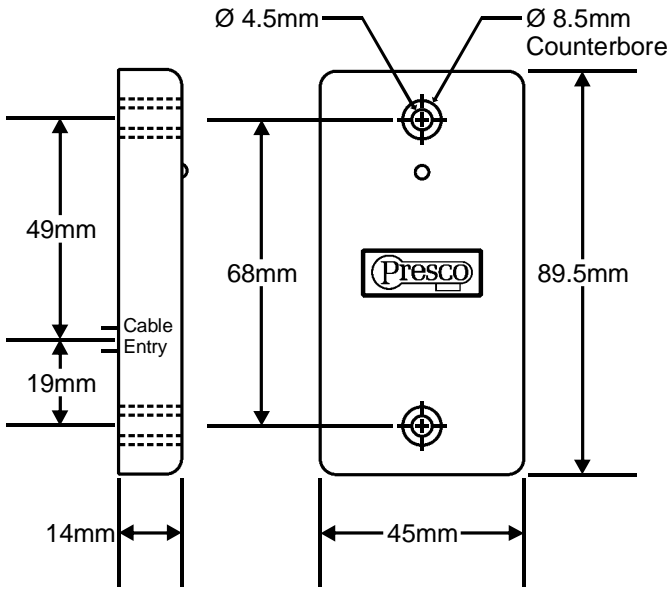
Designed and manufactured in Australia.

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MOUNTING

Use the supplied mounting template to mark the cable entry and two mounting holes. **Note** that the cable entry to the Sprite is near the bottom screw hole.

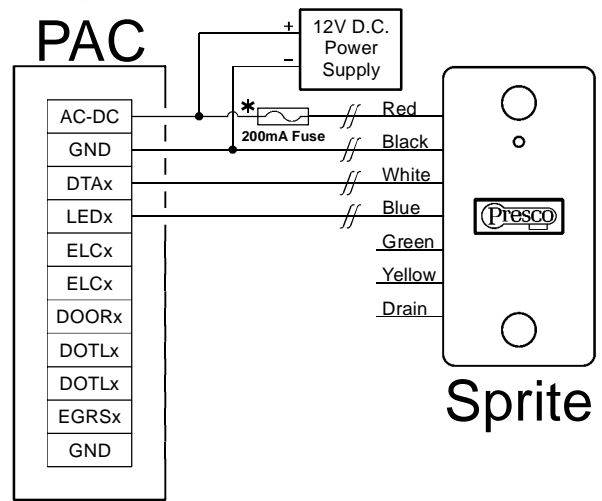
DIMENSION DIAGRAMS



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WIRING DIAGRAMS

Connecting the Sprite to a Presco™ PAC decoder



Note that the Green, Yellow and Drain wires on the Sprite are not connected when it is used with a PAC decoder.

* Use a 200mA inline fuse to protect the power supply from short circuiting if Sprite wires are tampered with. This is particularly important when using fail safe (power to lock) locking mechanisms.

Programming Prox cards & tags into a PAC decoder

To program a proximity card or tag into a PAC decoder follow the same steps as shown in the decoder manual for programming a new user code. When it comes to the stage to enter the user code simply present the card or tag to the Sprite that is connected to the same input as the programming keypad,

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or alternatively enter the 9 digit code for the proximity card, note that this code may contain star (*) and hash (#) symbols and that leading zeroes (0) need to be entered.

Example

This example uses a PAC1 decoder programming a momentary operation proximity card or tag into memory location 001.

1. Put the PAC1 into program mode using the management code or button on the PAC1.
2. Open the memory location in which the Prox card is to be stored. * 001 1 E
3. Present the proximity card or tag to the Sprite.
4. Take the decoder out of program mode.

Connecting the Sprite to a CS Technologies controller

Using Presco format CS controller

Sprite	4 Door Controller				2 Door Controller	
	Door 1	Door 2	Door 3	Door 4	Door 1	Door 2
Red	+12V	+12V	+12V	+12V	+12V	+12V
Black	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
White	IN1	IN3	IN5	IN7	IN1	IN3
Blue	N/C	N/C	N/C	N/C	N/C	N/C
Green	N/C	N/C	N/C	N/C	N/C	N/C
Yellow	N/C	N/C	N/C	N/C	N/C	N/C
Drain	N/C	N/C	N/C	N/C	N/C	N/C

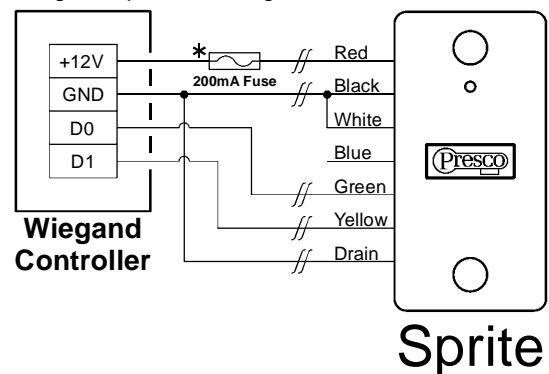
N/C = No Connection

Using Wiegand format CS controller

Sprite	4 Door Controller				2 Door Controller	
	Door 1	Door 2	Door 3	Door 4	Door 1	Door 2
Red	+12V	+12V	+12V	+12V	+12V	+12V
Black	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
White	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd
Blue	OUT1	OUT2	OUT3	OUT4	OUT1	OUT2
Green	IN1	IN3	IN5	IN7	IN1	IN3
Yellow	IN2	IN4	IN6	IN8	IN2	IN4
Drain	Gnd	Gnd	Gnd	Gnd	Gnd	Gnd

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Connecting the Sprite to a Wiegand controller



Note that the White wire is connected to GND (Black wire) at the Sprite, but the Drain is connected to GND at the Wiegand controller.

The Blue wire controls the LED on the Sprite. When a high voltage (+5 to 15V D.C.) is applied to this wire the LED will change to Green. This is normally connected to the switched positive side of the Electronic door release mechanism.

* If the controller does not provide a fused output for readers use a 200mA inline fuse to protect the power supply from short circuiting if Sprite wires are tampered with.

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