INSTALLATION GUIDE

HID Signo™ Reader

13.56 MHz / 125 kHz / 2.4 GHz Contactless and Keypad Readers
SRD Models: 20, 20K, 40, 40K

PLT-03703, Rev. A.1

www.hidglobal.com/PLT-03704

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Supplied parts

- HID Signo Reader (1)
- Installation Guide (1)
- Flat head/countersunk 0.138-20 x 1.5" self-tapping screws (2) – for installing the reader directly to a wall (no junction box)
- Flat head/countersunk 0.138-32 x 0.375" machine screws (3) – for Imperial (US) junction box installation (2) and attaching the reader to the mounting plate (1)
- Flat head/countersunk M3.5 x 12mm machine screws (2) – for Metric (EU etc) junction box installation
- Flat head/countersunk 0.138-32 x 0.375" security screw (1) – alternative anti-tamper screw for attaching the reader to the mounting plate
- 5-pin terminal connectors, terminal strip models only (2)

Recommended parts (not supplied)

- Cable, 5-10 conductor (Wiegand or Clock-and-Data), 4 conductor Twisted Pair Over-All Shield and UL approved, Belden 3107A or equivalent (OSDP)
- Certified LPS DC power supply
- Metal or plastic junction box
- Security tool HID 04-0001-03 (for anti-tamper screw)
- Drill with various bits for mounting hardware
- Mounting hardware
- Reader spacer when mounting on or near metal or metal junction boxes. Refer to the *Reader and Credentials How to Order Guide* (PLT-02630) for available options and part numbers)
- Junction box

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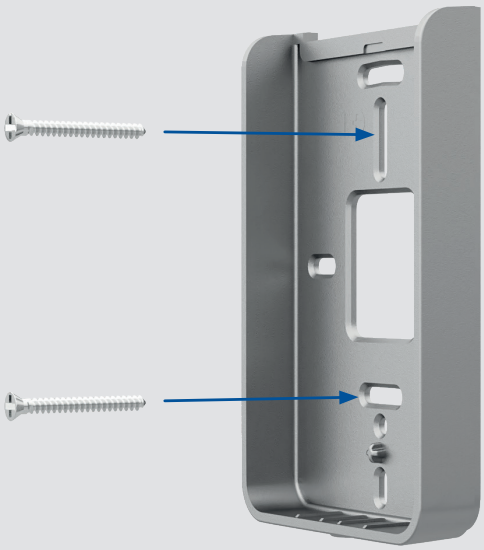
Optional features

Tamper – Enabled by default and activated when the mounting plate is removed. The tamper is normally closed and changes to open circuit between Tamper 1 and Tamper 2 control lines. Tamper 1 and Tamper 2 control lines are interchangeable. Either of these lines can be connected with the reader ground line to reduce the number of cable cores required in the reader cable. Tamper 1 and Tamper 2 are rated 0–12VDC at 100mA.

Hold Input – When asserted, this line either buffers a card (default) or disables a card read until released, as configured.

1 Mount the mounting plate

ATTENTION
Observe precautions for handling
ELECTROSTATIC SENSITIVE DEVICES



CAUTION: Install the reader on a flat, stable surface. Failure to do so may compromise the IP rating and/or tamper feature. If mounting on or near metal, a spacer is recommended for optimal read performance. Refer to the *Readers and Credentials How to Order Guide* (PLT-02630) for available options and part numbers.

CAUTION: Use the supplied screws to ensure correct fitting and to avoid damaging the reader or mounting plate. HID is not responsible for damage due to use of unapproved mounting hardware.

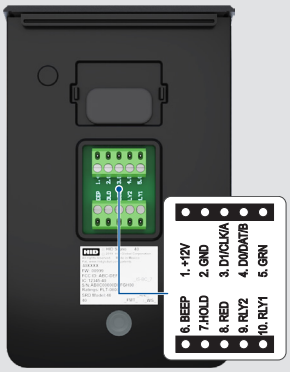
For Imperial (US):
Use supplied flat head/countersunk 0.138-32 x 0.375" screws.

For Metric (EU etc):
Use supplied flat head/countersunk M3.5 x 12mm screws.

2 Wire the reader

Pigtail versions

Terminal strip versions



PIGTAIL	TERMINAL	DESCRIPTION
Red	1	+VDC
Black	2	Ground (RTN)
White	3	Wiegand Data 1 / Clock / RS485-A*
Green	4	Wiegand Data 0 / Data / RS485-B*
Orange	5	LED Input (GRN)
Yellow	6	Beeper Input
Blue	7	Hold Input / LED Input (BLUE)*
Brown	8	LED Input (RED)
Violet/White	9	Tamper 2 (RLY2)
Violet	10	Tamper 1 (RLY1)
Bare	—	Drain (pigtail models only)

*Dependent upon reader configuration.

Note: Wiring the reader incorrectly may permanently damage the reader.

Note: Previous iCLASS® readers had reversed RS-485 wiring (P2-7 & P2-6 - A & B). When upgrading to a HID Signo reader, ensure proper connections as defined above.

Note: Data 0 and Data 1 wires for Wiegand may be reused for OSDP. However, standard Wiegand cable may not meet RS485 twisted pair recommendations.

Note: For OSDP cable lengths greater than 200 ft (61 m) or EMF interference, install 120Ω +/- 2Ω resistor across RS-485 termination ends.

Note: For keypad configuration, with the keypad reader operating as 26 bit emulation, enter the facility code followed by # within five seconds of power-up. The facility code must be entered as three digits (i.e., for a facility code of 10 enter 0-1-0-#). If unsuccessful, the reader LED displays solid red. Power-cycle the reader and retry entering the facility code.

HID Signo readers use facility codes between 1-255, and no default is set. Once a facility code is entered, the reader LED displays violet, then solid red. Then, power-cycle the reader. If there are two short beeps after entering a PIN, the reader facility code is not configured. In this case, power-cycle the reader and retry entering the facility code.

3 Secure the reader to the mounting plate

1. Hook the top of the reader on the top of the mounting plate.
2. Align the bottom of the reader with the bottom of the mounting plate.
3. Secure the reader to the mounting plate using the supplied 0.138-32 x 0.375" screw.

Security/anti-tamper screw:
0.138-32 x 0.375" screw (supplied).

Non-security/standard screw:
0.138-32 x 0.375" screws (supplied).

4 Power and test the reader

Power the reader. The reader will beep and the LED will flash.

Test the reader with a credential. The reader will beep and the LED will flash.

Specifications

	20	20K	40	40K
INPUT VOLTAGE (V DC)	12V DC			
CURRENT				
STANDBY AVG[1]	60 mA	65 mA	65 mA	70 mA
MAX AVG[2]	70 mA	75 mA	75 mA	80 mA
PEAK[3]	250 mA	250 mA	250 mA	250 mA
OPERATING TEMPERATURE	-30° F to 150° F (-35° C to 66° C)			
CABLE LENGTH	**Communication Lines** **Wiegand** = 500 ft - 18 AWG (152 m) 300 ft - 20 AWG (91 m) **RS-485** = Max bus length: 4,000 ft - 24 AWG (1,219 m) Max length between nodes: 1,640 ft - 24 AWG (500m)			
REGULATORY REF NUMBER	20	20K	40	40K
FREQUENCY	BLE: 2.4–2.480 GHz, HF: 13.56 MHz, LF: 125 kHz			
FCC IDS	JQ6-SIGNO20	JQ6-SIGNO20K	JQ6-SIGNO40	JQ6-SIGNO40K
IC IDS	2236B-SIGNO20	2236B-SIGNO20K	2236B-SIGNO40	2236B-SIGNO40K

1 Standby AVG - RMS current draw without a card in the RF field.
2 Maximum AVG - RMS current draw during continuous card reads. Not evaluated by UL.
3 Peak - highest instantaneous current draw during RF communication.

Regulatory

UL

Connect only to a Listed Access Control / Burglary power-limited power supply. These readers are intended to be used with listed (UL294) control equipment. Suitable for outdoor use.
Only Wiegand, OSDP, and Bluetooth communications have been evaluated by UL.
HID Signo readers are compatible with HID Mobile Access® version 3.0.0 and later using mobile devices with BLE version 4.2 and later listed at:
https://www.hidglobal.com/mobile-access-compatible-devices.
Install in accordance with NFPA70 (NEC) Local Codes, and authorities having jurisdiction. Follow all National and Local Codes.

UL 294 Performance Levels

MODEL #	ACCESS CONTROL LINE SECURITY LEVEL	DESTRUCTIVE ATTACK LEVEL	ENDURANCE LEVEL	STAND-BY POWER LEVEL	CONDITIONS
20 / 20K / 40 / 40K	Level I	Level I	Level IV	Level I	

FCC

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 interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
CAUTION: Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment.
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 provide reasonable protection against harmful interference in a residential installation. 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 equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canada Radio Certification

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CE Marking

HID Global hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
Por el presente, HID Global declara que estos lectores de proximidad cumplen con los requisitos esenciales y otras disposiciones relevantes de la Directiva 2014/53/EU.
HID Global déclare par la présente que ces lecteurs à proximité sont conformes aux exigences essentielles et aux autres stipulations pertinentes de la Directive 2014/53/EU.
A HID Global, por meio deste, declara que estes leitores de proximidade estão em conformidade com as exigências essenciais e outras condições da diretiva 2014/53/EU.
HID Global bestätigt hiermit, dass die Leser die wesentlichen Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EU erfüllen.
HID Global dichiara che i lettori di prossimità sono conformi ai requisiti essenziali e ad altre misure rilevanti come previsto dalla Direttiva europea 2014/53/EU.
Download copies of the Radio Equipment Directive Declaration of Conformity (DoC) at:
http://www.hidglobal.com/certifications

Taiwan

According to "Administrative Regulations on Low Power Radio Waves Radiated Devices" Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to a approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

Korean KCC

	20, 20K, 40, 40K
항목	규격
송신주파수	RFID:13.56 MHz
수신주파수	RFID:13.56 MHz
출력	RFID: 10m에서 47.544mv이하
전원	DC 12.0V
전파형식	A1D
발진방식	X-tal
변조방식	RFID: ASK, NFC: GFSK

Russia

Дата изготовления указана на маркировке оборудования

Представитель в Российской Федерации	
Название	ООО «Дофин»
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Контактное лицо	Л.Н. Голубова
Телефон	+7 495 223 6008
e-mail	local.declarant@gmail.com

Japan MIC

"この装置は総務省の型式指定を受けています。"
(総務省指定番号は第AC-xxxxx号です)
本製品は電波を使用したRFID 機器の読み取り・書き込み装置です。
そのため使用する用途・場所によっては、医療機器に影響を与える恐れがあります

Japan Giteki for BLE

R xxx-xxxxxx

Israel

יטוחלא הלעפה וישרמ רוטפו "ינשמ" סיסב לע וניה רישכמב שומישה.
יטוחלא הלעפה וישרמ רוטפ חוקלה, דבלב חוקלה לש ימצע שומישל "קזב תלועפב" קר.
רחא ינכט יוניש לכ וב תושעל אלו, רישכמה לש תירוקמה הנטנאה תא חילחהל רוסא.

Brazil

Compliance Statement

Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela Resolução 242/2000, e atende aos requisitos técnicos aplicados. Para maiores informações, consulte o site da ANATEL - www.anatel.gov.br
This product is homologated at ANATEL according to procedure regulated by Resolution 242/2000, and it complies with the applicable technical requirements. For more information, consult ANATEL website - www.anatel.gov.br

RF Warning Statement

Per Article 6 of Resolution 506, equipment of restricted radiation must carry the following statement in a visible location:
Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.
This equipment operates in secondary character, meaning it does not have the right of protection against harmful interference, even against those the same character, and it cannot cause any interference to systems operating in the primary character.

ANATEL Agência Nacional de Telecomunicações HHHHH-AA-FFFFF

ANATEL Agência Nacional de Telecomunicações HHHHH-AA-FFFFF

UAE

TRA
REGISTERED NO:
nnnnnnn
DEALER NO:
DA37204/14

Singapore

Complies with
IMDA Standards
DB106440

Indonesia

(Certificate Number)
(PLG ID Number)

South Africa

ICASA TA XXXX-YYYY APPROVED

Australia and New Zealand

E4662

HID® Powering Trusted Identities

PLT-03703, Rev. A.1

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