Honeywell 20K Omni Smart Keyboard Reader Installation Guide

20K Omni Smart Keyboard Reader
Installation Guide

Contents

Supplied parts

1. Omni Smart Reader (1)
2. Installation Guide (1)
3. Flathead/countersunk 0.138-20 x 1.5″ self-tapping screws (2) – for installing the reader directly to a wall (no junction box)
4. Flat head/countersunk 0.138-32 x 0.375″ machine screws () – for Imperial (US) junction box installation (2) and attaching the reader to the mounting plate (1)
5. Flat head/countersunk M3.5 x 12mm machine screws (2) – for Metric (EU to) junction box installation
6. Flathead/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)

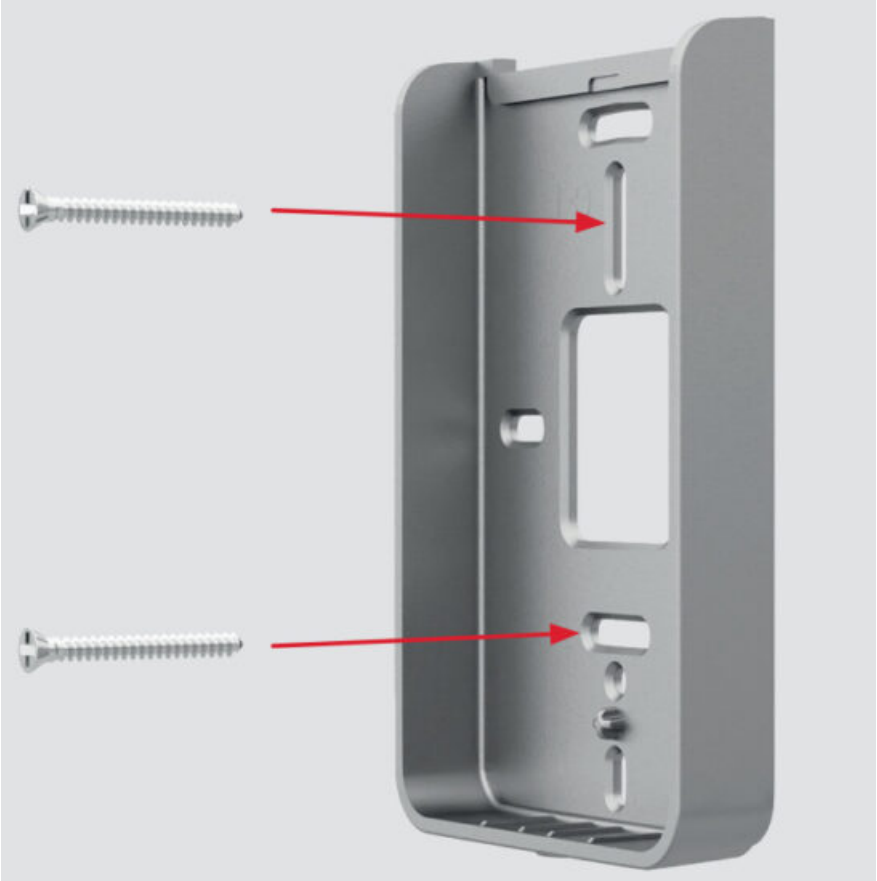
Recommended parts (not supplied)

- Cable, 5-10 conductor (Wiegand or Clock-and-Data), 4 conductor Twisted Pair
- Over-All Shield and UL approved, Belden 31074 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 or adapter plates for alternate mounting scenarios. Refer to the
- Reader and Credentials How to Order Guide (PLT-02630) for available options and part numbers) at **https://www.hidglobal.com/documents/how-to-order**
- HID Reader Manager Application is used for the configuration of the reader and can be downloaded from the App Store or Google Play.

PLT-06048 A.5

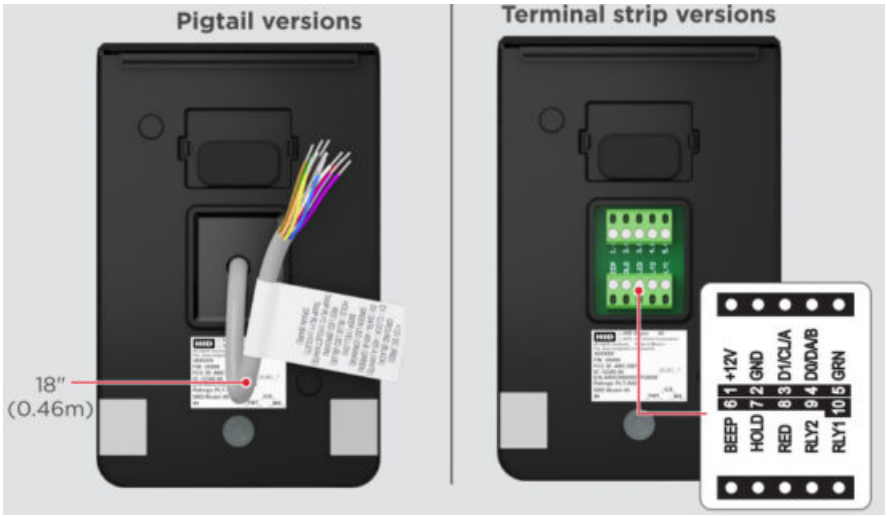
Mount the mounting plate

 **ATTENTION**
Observe precautions for handling
ELECTROSTATIC SENSITIVE DEVICES
IMPORTANT: If you are mounting multiple OmniSmart readers to metal stud walls, and the readers are positioned within six feet of each other, refer to the additional installation recommendations in technical bulletin PLT-05722 **https://www.hidglobal.com/PLT-05722**



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

Wire the reader

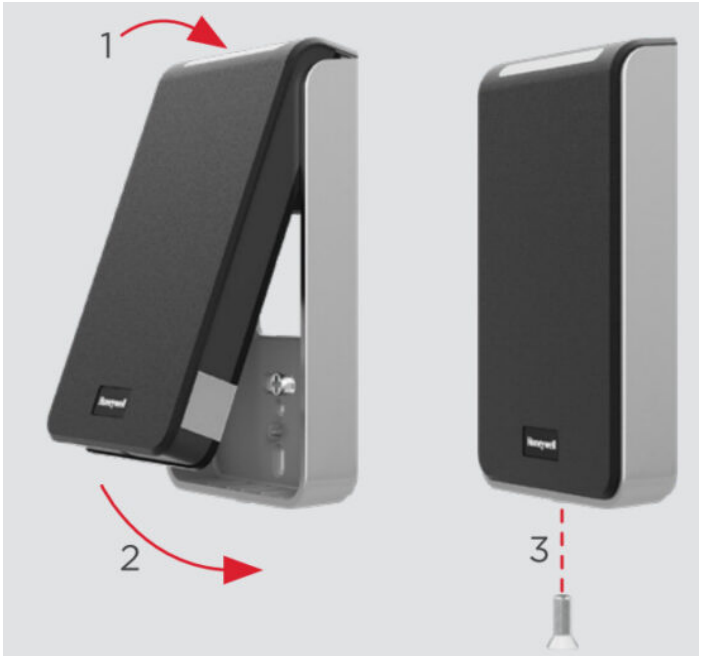


PIGTAIL	TERMINAL	DESCRIPTION
Red	1	+VDC
Black	2	Ground (RTN)
White	3	Wiegand Data 1/ Clock / R5485-A*
Green	4	Wiegand Data 0 / Data / RS485-B*
Orange	5	LED Input (GRN)
Yellow	6	Beeper Input
Blue	7	Hold Input / LED Input (BLUE)*
Brown	8	LED Input (RED)
Violet/White	9	Tamper 2 (RLY2)
Violet	10	Tamper 1 (RLY1)
Bare	—	Drain (pigtail models only)

*Dependent upon reader configuration.

Note: Wiring the reader incorrectly may permanently damage the reader.
Note: Previous OmniCLASS" readers had reversed RS-485 wiring (P2-7 & P2-6 – A & B). When upgrading to an OmniSmart 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 120Q +/- 2Q 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 entering 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.
Note: For readers with Tamper Evident Labels, inspect your reader after first unboxing. If any seals are broken, please contact Honeywell Technical Support.

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:

   0138-32 x 0.375″ screw (supplied)

   Non-security/standard screw:

   0.138-32 x 0.375″ screws (supplied)

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

Optional features

Tamper – Enabled by default and activated when the mounting plate is removed. The tamper is normally closed and changes to an 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.

Specifications

	20		I 20K I	40	I 40K
INPUT VOLTAGE (V DC)		12V DC			
CURRENT STANDBY AVG1 MAX A VG2 PEAK3	60 mA 70 mA 250 mA		65 mA 75 mA 250 mA	65 mA 75 mA 250 mA	70 mA 80 mA 250 mA
OPERATING TEMPERAT URE		-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 NU MBER	20		20K	40	40K
FREQUENCY		BLE: 2.4-2.480 GHz, HF: 13.56 MHz, LF: 125 kHz			
FCC IDS	..106-SIGNO20		..106-SIGNO2OK	..106-SIGN040	..106-SIGNO4OK
IC IDS	2236B-SIGNO20		2236B-SIGNO2OK	2236B-SIGN040	2236B-SIGNO4OK

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 CONT ROL LINE SECURIT Y LEVEL	DESTRUCTIVE ATTACK LEVEL	ENDURANCE L EVEL	STAND-BY PO WER LEVEL	CONDITIONS
20 / 20K / 40 / 40 K	Level I	Level IV	Level I	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
- 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.

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.
Download copies of the Radio Equipment Directive Declaration of Conformity (DoC) at: **http://www.hidglobal.com/certifications**

Singapore

Complies with IMDA Standards DB106440

Australia and New Zealand

Ukraine

South Africa

Signo 20

TA-2019/2225 APPROVED

Signo 20K

TA-2019/2226 APPROVED

Signo 40

TA-2019/2224 APPROVED

Signo 40K

TA-2019/5040 APPROVED

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www.hidglobal.com/PLT-03704

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PLT-06048, Rev. A.5

Documents / Resources

	Honeywell 20K Omni Smart Keyboard Reader [pdf] Installation Guide 20K Omni Smart Keyboard Reader, 20K, Omni Smart Keyboard Reader

References

- Anatel — Agência Nacional de Telecomunicações
- Certifications | HID Global
- HID Mobile Access - Compatible Devices | HID Global