



GOVERNMENT SOLUTIONS for Physical Access

**R10-H, RP10-H, R15-H, RP15-H,
R30-H, RP30-H, R40-H, RP40-H,
RK40-H, RPK40-H, RKCL40-P,
RPKCL40-P, RKCLB40-P,
RPKCLB40-P**



pivCLASS[®]
Reader
Installation Guide

PLT-01134 A.2

Parts List

- 1 - Reader and base plate assembly
- 1 - Installation guide
- 2 - Terminal connector - terminal readers only

RKCL40, RPKCL40, RKCLB40, and RPKCLB40

- 4 - M3.5 mm x 12 mm phillips machine screw
- 4 - #6-32 x .375" phillips self-tapping machine screw
- 4 - #6 x 1.5" phillips sheet metal screw
- 3 - #6-32 x .4375" spanner security screw, anti-tamper (Black)
- 3 - #6-32 x .4375 phillips security screw (Black)
- 1 - Mounting Gasket

R10, RP10, R15, RP15, R30, RP30, R40, RK40, RP40, and RPK40

- 2 - M3.5 mm x 12 mm phillips machine screw
- 3 - #6-32 x .375" phillips self-tapping machine screw
- 2 - #6 x 1.5" phillips sheet metal screw
- 1 - #6-32 x .375" spanner security screw, anti-tamper
- 1 - Mounting gasket - (Optional)

Recommended

- Cable, 6 conductor, 22 or 24 AWG [65 mm or 51 mm] (Belden 3108A or equivalent) - RS-485 + power
- Cable, 6 to 9 conductor, 22 or 24 AWG [65 mm or 51 mm] (Alpha 1296C or equivalent) - Wiegand + power
- DC power supply
- Metal or plastic double-gang junction box - **RPKCL40 / RPKCL40 / RKCLB40 / RPKCLB40**
- Metal or plastic single-gang junction box - **R10 / RP10 / R15 / RP15 / R30 / RP30 / R40 / RP40 / RK40 / RPK40**
- Reader spacer when using metal junction boxes - see HID HTOG.
- Security tool (for spanner security screw, anti-tamper) HID 04-0001-03

Specifications

pivCLASS Protocol

PRODUCT	BASE PART NUMBER	INPUT VOLTAGE (VDC)	CURRENT			OPERATING TEMPERATURE	CABLE LENGTH	UL REF NUMBER	
			Standby AVG ¹	Maximum AVG ²	PEAK ³				
R10-H	900NHR	12VDC	60mA	100mA	200mA	-30° to 150° F (-35° to 65° C)	RS-485 = 500 ft - 22 AWG (152 m) 300 ft - 24 AWG (91 m)	R10Ex ₁ x ₂ x ₃	
RP10-H	900PHR		75mA					RP10Ex ₁ x ₂ x ₃	
R15-H	910NHR		60mA					R15Ex ₁ x ₂ x ₃	
RP15-H	910PHR		75mA					RP15Ex ₁ x ₂ x ₃	
R30-H	930PHR		65mA	R30Ex ₁ x ₂ x ₃					
RP30-H	930PHR		85mA	RP30Ex ₁ x ₂ x ₃					
R40-H	920NHR		65mA	R40Ex ₁ x ₂ x ₃					
RP40-H	920PHR		85mA	RP40Ex ₁ x ₂ x ₃					
RK40-H	921NHR		85mA	RK40Ex ₁ x ₂ x ₃					
RPK40-H	921PHR		95mA	RPK40Ex ₁ x ₂ x ₃					
RKCL40-P	923NPR		150mA	185mA	250mA			-4° to 149° F (-20° to 65° C)	RKCL40Ex ₁ x ₂ x ₃
RPKCL40-P	923PPR								RPKCL40Ex ₁ x ₂ x ₃
RKCLB40-P	924NPR								RKCLB40Ex ₁ x ₂ x ₃
RPKCLB40-P	924PPR								RPKCLB40Ex ₁ x ₂ x ₃

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

UL Reference Number Deciphering

- x₁ Reader Colors: K = Black, G = Gray
- x₂ Wiring: N = Pigtail, T = Terminal
- x₃ Communications: N = No Module, R = RS-485

Wiegand and OSDP Protocol

PRODUCT	BASE PART NUMBER	INPUT VOLTAGE (VDC)	CURRENT ¹			OPERATING TEMPERATURE	CABLE LENGTH ⁵	UL REF NUMBER	
			Standby AVG ²	Maximum AVG ³	PEAK ⁴				
R10-H	900N	12VDC for RS-485	60mA	100mA	200mA	-30° to 150° F (-35° to 65° C)	Communication Lines Wiegand = 500 ft - 22 AWG (152 m) 300 ft - 24 AWG (91 m) RS-485 = 4000 ft - 24 AWG (1,219 m)	R10Ex ₁ x ₂ x ₃	
RP10-H	900P		75mA					RP10Ex ₁ x ₂ x ₃	
R15-H	910N		60mA					R15Ex ₁ x ₂ x ₃	
RP15-H	910P		75mA					RP15Ex ₁ x ₂ x ₃	
R30-H	930N		65mA	R30Ex ₁ x ₂ x ₃					
RP30-H	930P		85mA	RP30Ex ₁ x ₂ x ₃					
R40-H	920N		65mA	R40Ex ₁ x ₂ x ₃					
RP40-H	920P		85mA	RP40Ex ₁ x ₂ x ₃					
RK40-H	921N		85mA	RK40Ex ₁ x ₂ x ₃					
RPK40-H	921P		95mA	RPK40Ex ₁ x ₂ x ₃					
RKCL40-P	923N		150mA	185mA	250mA			-4° to 149° F (-20° to 65° C)	RKCL40Ex ₁ x ₂ x ₃
RPKCL40-P	923P								RPKCL40Ex ₁ x ₂ x ₃
RKCLB40-P	924N								RKCLB40Ex ₁ x ₂ x ₃
RPKCLB40-P	924P								RPKCLB40Ex ₁ x ₂ x ₃

¹ Communication protocols other than Wiegand or Clock & Data require an additional hardware module which increases current by 30 mA.
² Standby AVG - RMS current draw without a card in the RF field.
³ Maximum AVG - RMS current draw during continuous PIV card reads. Not evaluated by UL.
⁴ Peak - highest instantaneous current draw during RF communication.
⁵ Wiegand Cable Lengths:
 100 ft (30.5 m) 22 AWG @ 5 - 6.4VDC
 500 ft (152 m) 22 AWG @ 6.5 - 16VDC

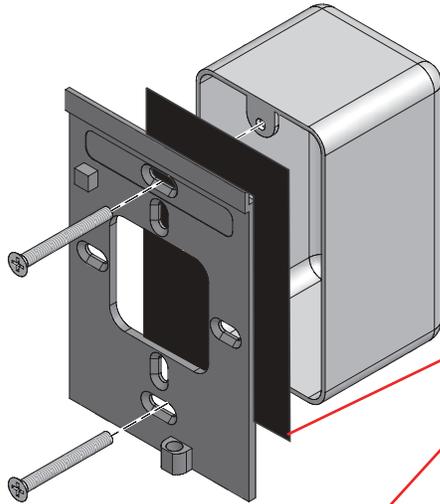
UL Reference Number Deciphering

- x₁ Reader Colors: K = Black, G = Gray
- x₂ Wiring: N = Pigtail, T = Terminal
- x₃ Communications: N = No Module, R = RS-485 (OSDP)

1 Mounting

Attach Backplate and Mounting Gasket to Junction Box.

Contactless Models

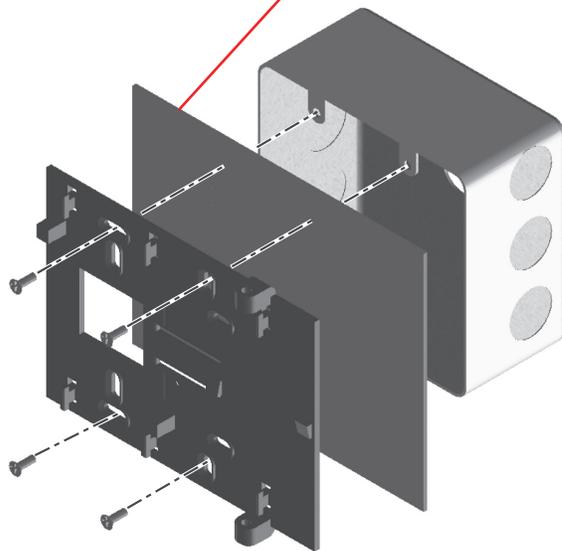


Mounting holes for US single-gang electrical boxes.

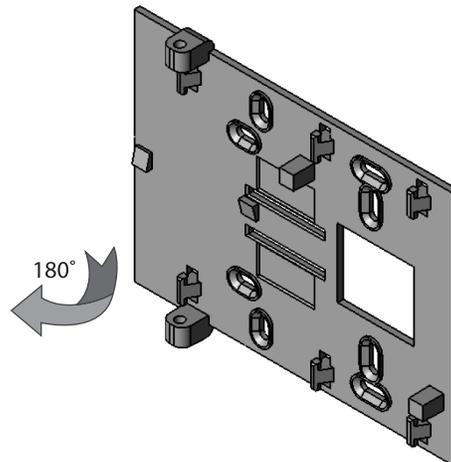
Install gasket for RK40 and RPK40 models.

Junction box not included.

Contact Models

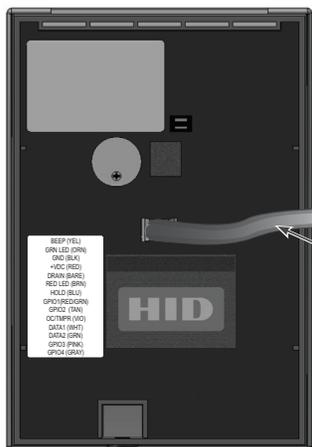


Mounting holes for US double-gang electrical boxes.

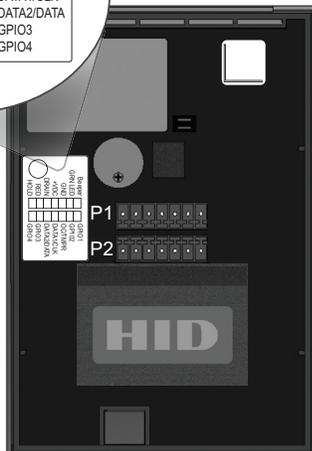
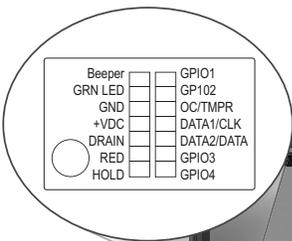


Reverse Configuration Flipping the backplate allows for placing the Contact reader on left and the Keypad reader on right.

2 Wiring



Pigtail Reader
(Module position varies)



Terminal Reader
(Terminal block and module position varies)



ATTENTION
Observe precautions for handling
ELECTROSTATIC SENSITIVE DEVICES

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

Pigtail	Terminal	Description	Pigtail	Terminal	Description
Yellow	P1-1	Beeper Input	Red / Green	P2-7	GPIO1 (RS232-T / RS485-FDX/HDX-A) See Note 1
Orange	P1-2	LED Input (GRN)	Tan	P2-6	GPIO2 (RS232-R / RS485-FDX/HDX-B) See Note 1
Black	P1-3	Ground (RTN)	Violet	P2-5	Open Collector Output / Tamper See Note 2
Red	P1-4	+VDC	White	P2-4	Wiegand Data 1 / Clock See Note 3
Drain	P1-5	Unused	Green	P2-3	Wiegand Data 0 / Data See Note 3
Brown	P1-6	LED Input (RED)	Pink	P2-2	GPIO3 (RS485-FDX-Z) See Note 1
Blue	P1-7	Hold Input	Gray	P2-1	GPIO4 (RS485-FDX-Y) See Note 1

Notes

- ¹ RS-485 applicable for pivCLASS readers.
- ² Tamper Output - When activated, output synchronizes to ground (default).
- ³ Dependent upon reader configuration. See the HTOG for Wiegand and Clock-in-Data configurations.

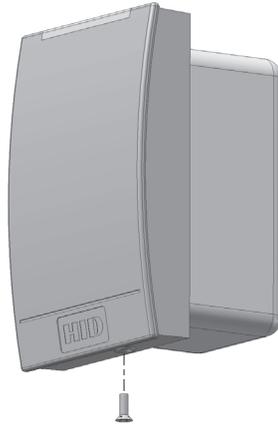
3 Attach to Backplate

Contactless Models

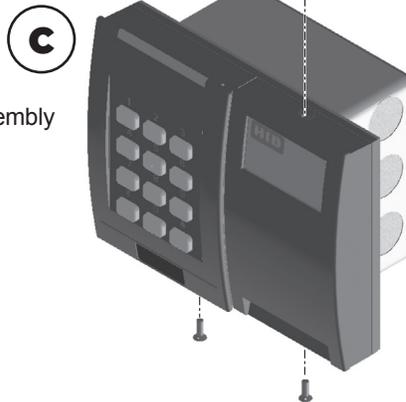
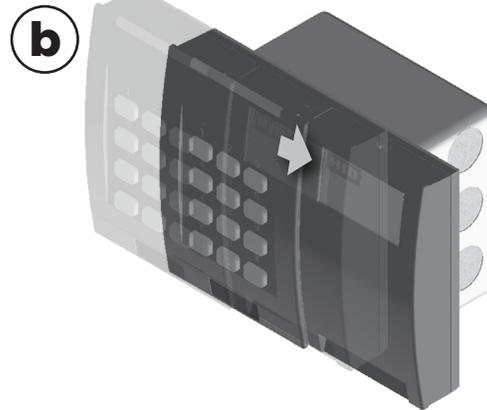
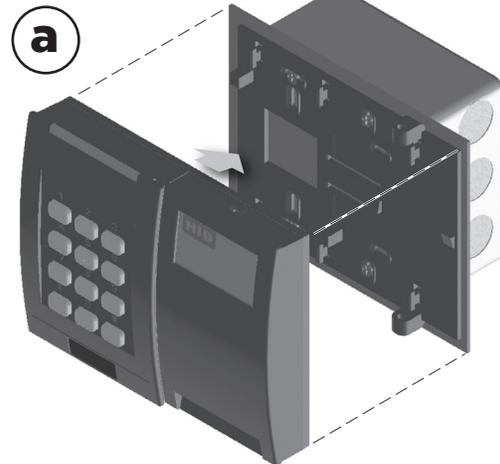
a Attach Reader



b Install Security Screw



Contact Models



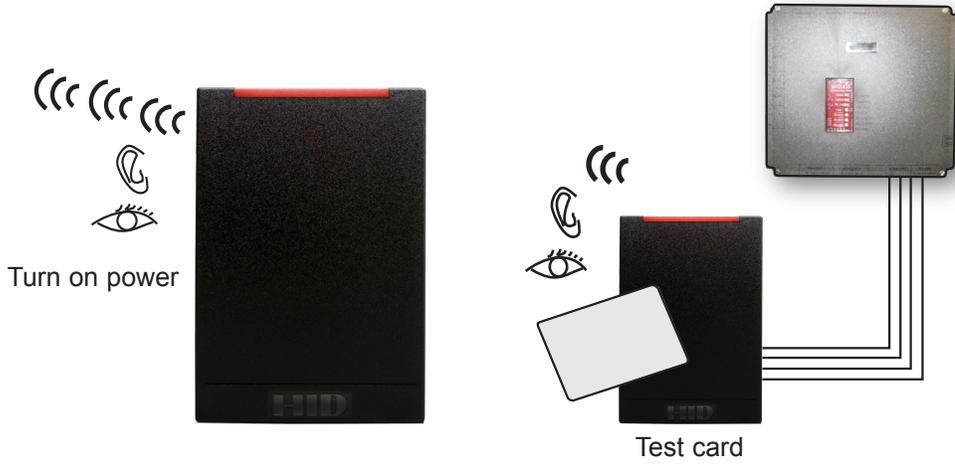
Default: Slide Reader Assembly towards the right to lock.

Reversed Configuration: Slide Reader Assembly to the left to lock.

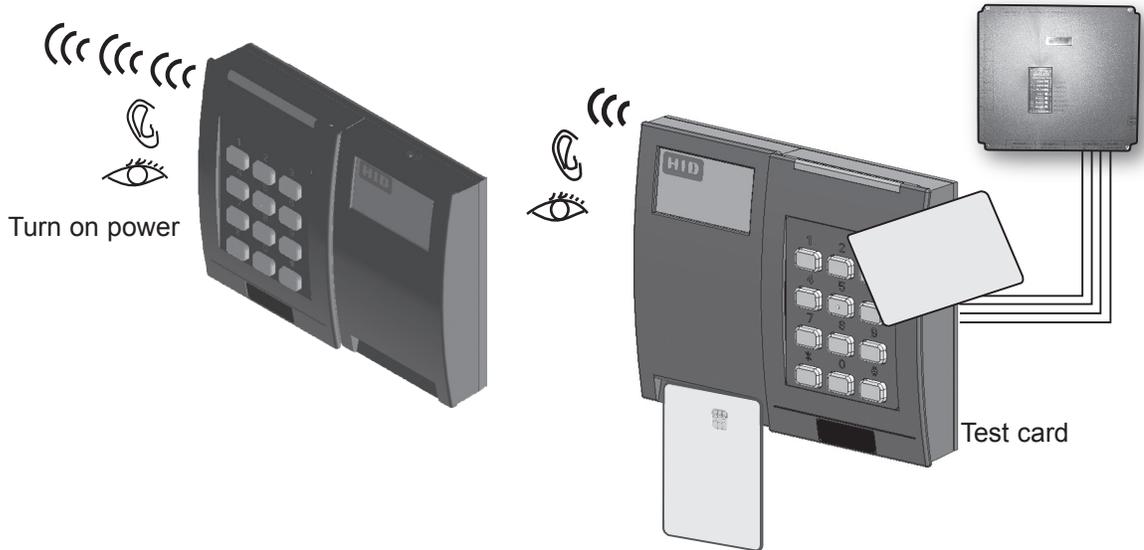
Contact Technical Support for wiring the reverse configuration.

4 Power & Testing

Contactless Models



Contact Models



Intentionally Blank

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.

RKCLB40-P and RPKCLB40-P readers are suitable for indoor use. R10-H, RP10-H, R15-H, RP15-H, R30-H, RP30-H, R40-H, RP40-H, RK40-H, RPK40-H, RKCL40-P and RPKCL40-P are suitable for outdoor use.

Evaluated for use over Wiegand and RS-485 communications.

Evaluated for use with the M2000 pivCLASS Authentication Module as well as Standard Wiegand and OSDP panels.

FCC Certification

CAUTION: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

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Patent Pending

Check reader label for current regulatory approvals.

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SECURITY



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ACC Control READER



General Signaling
Equipment

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