Installation Guide

iCLASS Reader Models b*io*500, RWKL550 & RWKLB575

HID

PARTS INCLUDED

- 1 - *iCLASS* LCD Keypad Reader with optional Bio
- 1 - Installation Manual
- 2 - #6-32 x .25" x Phillips machine screws
- 3 - #6-32 x .375" Phillips self-tapping machine screws
- 2 - #6 x 1.5" Phillips sheet metal screws
- 2 - #6-32 x .375" Spanner security screws
- 1 - 10 Position Phoenix Plug
- 1 - 8 Position Phoenix Plug
- 1- Foam Gasket
- 1- Bio Enable Command Card (b*io*500 Only)

Recommended:

- Up to 10 wire splices
- Security Tool (for security screw) HID 04-0001-03
- Cable, 9 conductor, 22 AWG, shielded (Wiegand)
- Linear 12 VDC, 1 A Power Supply
- Cable , 6 conductor, 22 AWG, shielded (Serial)
- Metal or plastic junction box
- Magnetic Tamper switch - Ademco 945T, Sentrol 1038T, GRI 100T or 110T or Aleph DC-2531

SPECIFICATIONS

Reader Input Voltage:	9-12 VDC
Current Range:	350 mA standby / 520 mA peak.
Cable distance to Host:	50 ft (15 m) max – RS-232.
	4000 ft (1216 m) max – RS-485
18 Gauge Wire	300 ft (152 m) max – Wiegand
22 Gauge Wire	125 ft (60 m) max – Wiegand
Op. Temperature:	32 °F - +113 °F (0 °C – +45 °C)
Open collector output:	Sink – 40 mA, source – 1 mA.

Standards:

- Read/Write capability in ISO 15693 mode with HID *iCLASS* credentials.
- Read/Write capability in ISO 14443B mode with HID *iCLASS* 16KS.
- Read capability of CSN/UID in ISO 14443A mode with HID Mifare and other 3rd party Mifare credentials.
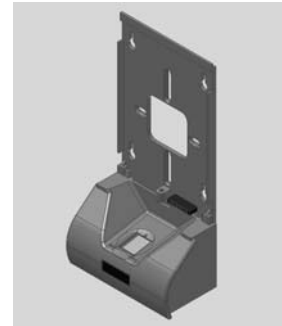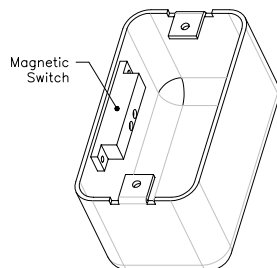
Description

RWKLB575

RWKL550

b*io*500

The b*ioCLASS* range is intended for **indoor use only** and should never be mounted on an exterior wall.
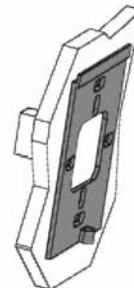
INSTALLATION

1- Install Tamper Switch

An internal magnet provides tamper indication when used with a magnetic reed switch connected to an external alarm system. Locate Switch behind the left side of the mounting plate, centered between the mounting holes.

Electrical Back Box

Wall Surface

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HID Corporation 9292 Jeronimo Road   Irvine, CA 92618-1905 USA TEL (949) 598-1600 (800) 237-7769 FAX (949) 598-1690
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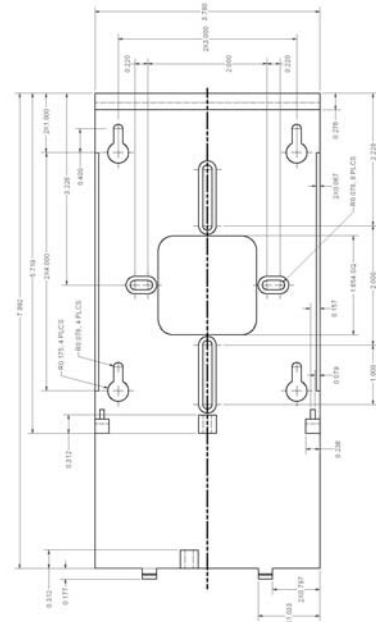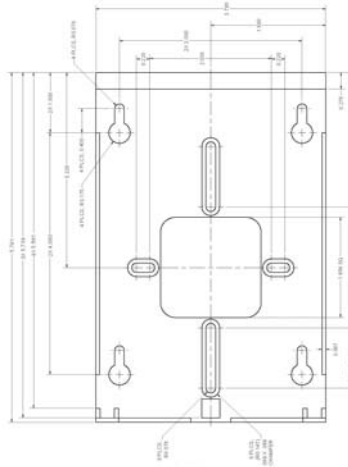 *iCLASS* Biometric/LCD keypad Reader Install Manual 6096-901 Rev A.3   Page **1** of **4**
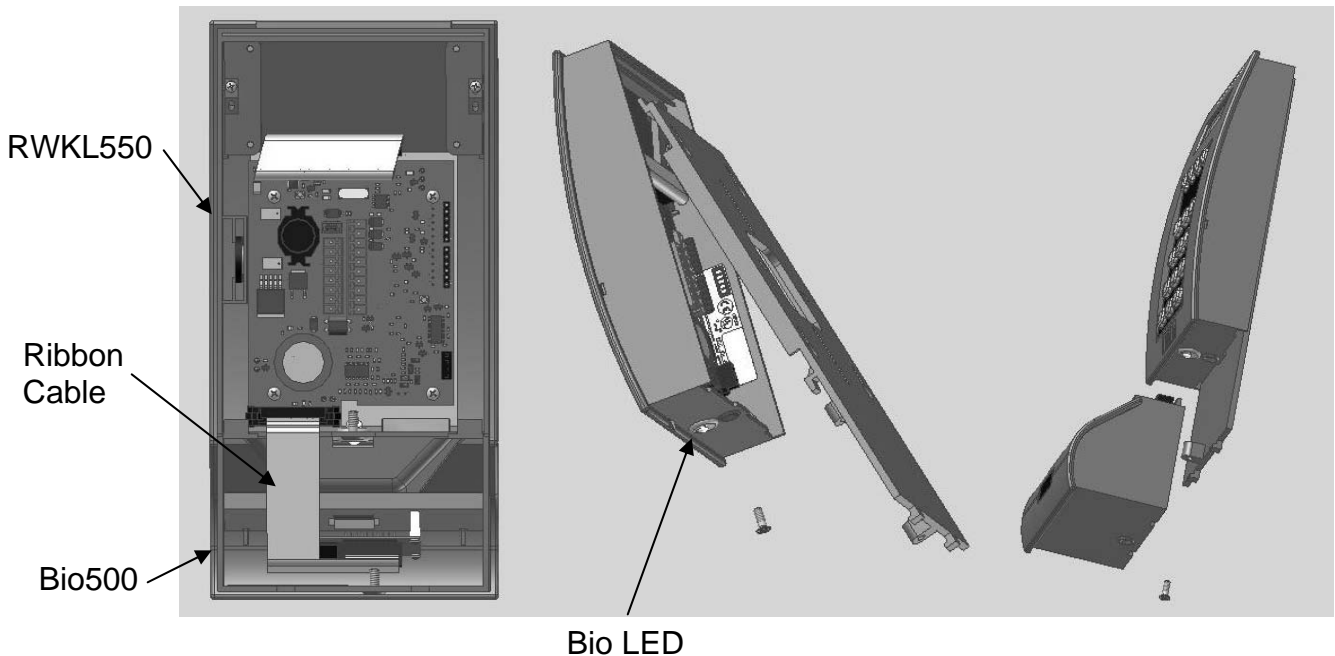
2 - Install Mounting Plate

Attach the mounting plate to the wall or electrical back box,
using the long or short backplate as appropriate.

Long – biometric
Short - keypad

3 – Biometric Reader Mounting

1. Connect the ribbon cable from the b*i*o500 to connector J8 on the RWKL550. Ensure that pin1 of the ribbon cable is aligned with pin1 of the connector.
2. Slide the reader onto the long backplate, ensuring that the tongue of the backplate is located in the slot at the top of the reader and retain with a screw.
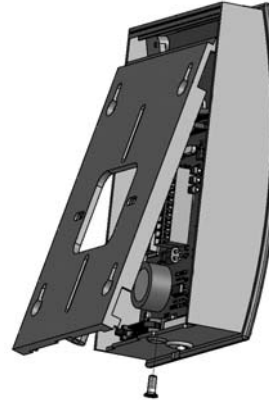3. Align the biomodule with the RWKL550 body and insert a second screw.

RWKL550

Ribbon Cable

Bio500

Bio LED

4 – Keypad Reader Mounting

1. Slide the reader onto the short back plate, ensuring that the tongue of the backplate is located in the slot at the top of the reader and retain with a screw.

5- Connecting

Serial Port		Wiegand Port		
8 Pin Terminal	Function	10 Pin Terminal	Color-coded Pigtail	Function
1	Ground	10	Violet	Actuator Signal
2	Y / RS-232 TX	9	Blue	Hold[1]
3	Z	8	Yellow	Speaker[1]
4	Ground	7	Drain	Shield Ground[2]
5	RS485B / RS-232 RX	6	Brown	Red LED[1]
6	RS-485A	5	Orange	Green LED[1]
7	Ground	4	White	Data 1
8	DC+	3	Green	Data 0
		2	Black	Ground
		1	Red	+DC (9-12 VDC)[3]

[1] Optional Connections
[2] Drain wire can be used for data return line when a separate power supply is used.
[3] +DC, Return & Drain wires are common between the Wiegand and Serial Ports.

6- Testing
A. Turn Power On – Watch the sign-on LED and hear the speaker tone sequences.
B. Read Card – Present a valid card to the reader and verify the visual and audio feedbacks.

7- Upgrading an RWKL550 (b*i*o500 upgrade only)
Reverse installation step 4 in order to remove the reader from the backplate.
Replace short backplate with a long backplate and follow the Biometric Reader Mounting instruction, steps 1-3.
Power the reader and present the Bio Enable Command Card within 30 seconds. The Bio led should turn on and the reader should aquire a fingerprint when a finger is placed on the bio sensor pad. The included Bio Enable command card is configured for default settings. If the reader has been custom configured, this command card will have to be custom ordered.

Optional Features

RS232/485 interface/Host Mode - for applications requiring a serial link. See Protocol Document 6090-902 for information

Configuration Options - Configure LED, Speaker, and other features. See How To Order Guide or *iCLASS* Application Note for details

Hold Input – when asserted, this line either buffers a card read or disables a card read until released, as configured.
FCC WARNING:

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. For proper regulatory compliance, the drain wire should be disconnected at the power supply end of the cable. The reader is intended to be powered from a limited power source output of a previously certified power supply. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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