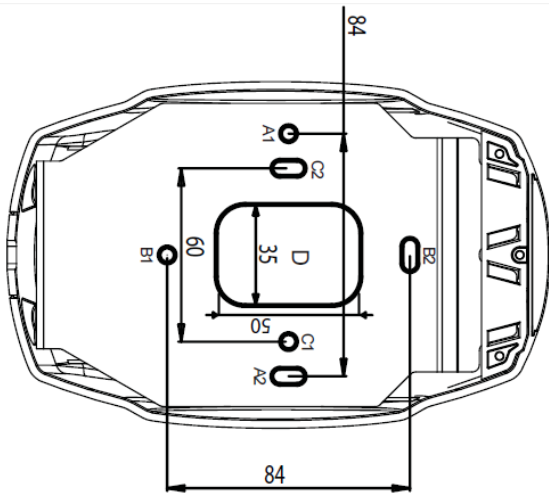


NOT TO SCALE



Dimensions in mm

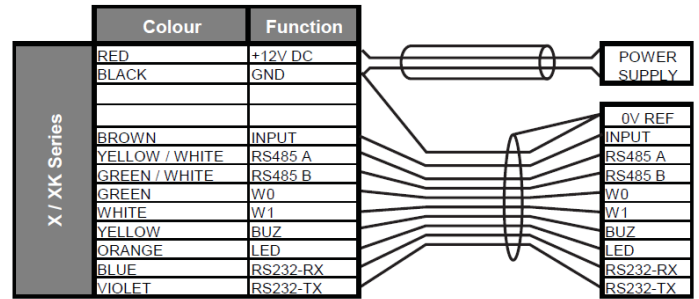
D - Cable Outlet for "Through Wall" Mounting.
 For hole sets A, B, & C - Fasten through hole '1' first and use hole 2 to fine-tune orientation of reader.

A1, A2 - US/Aus. Back Box, Horizontal Mount
 B1, B2 - US/Aus. Back Box, Vertical Mount
 C1, C2 - UK Back Box

Mounting Hole Dimensions
 For all BioX & XK Series Readers
 Use the Mounting bracket as a guide for drilling holes -
 Template is not to scale. Choose holes to drill according to the following:

Mounting Hole Dimensions

Wiring diagram



Relay Wiring Table

	Colour	Function
BioX	ORANGE / WHITE	RLY
	GREY	RLY
BioXK	BLUE / WHITE	NC
	ORANGE / WHITE	COM
	VIOLET / WHITE	NO

- Note:
- A shielded cable is recommended to be used. The shield is connected to controller 0V reference
 - Maximum wiegand data cable length: 150 meters (500 feet)
 - Buzzer and LED are activated when buzzer and LED line go below 2.5V.
 - RS485 lines are only for optional use
 - RS232 lines are not for installation use
 - Some models have a 2mm pitch 4 way connector (Red, Black, White, White). This connector is not for installation use.
 - Some models have additional wires/connectors which are not specified in the diagram above. These wires are for other requirements. DO NOT connect them unless specified from BQT Solutions or a BQT authorized distributor. Any damage caused by incorrect connection will void the warranty
 - Terminate or insulate all un-used wires

Regulatory Information

CE: The device has passed all relevant tests and obtained CE approval.

C-Tick: This device is C-Tick complied.

Specifications

Output protocols	Wiegand 26-199bit, RS485 or custom configuration (Model dependent)	
	BIOX	BIOXK
Power requirement	12V DC	
Current consumption	154mA (Average) 252mA (Peak)	130mA (Average) 252mA (Peak)
Relay Rating	1.0A	
Read range	20-40mm (0.8"-1.6") at 12V DC depends on the type of card used	
Operating temperature	-10°C to +50°C (14°F to 122°F)	
Relative humidity	90% max, operating non-condensing	
Reader dimensions	190mm(L) x 119mm(W) x 58mm(D) (7.5"4.7"x2.3")	
Status LED	Green & Red Bi-colour, Blue, Orange	
Audible tone	Internal and external buzzer control	
Keypad (XK only)	3 x 4 Keypad and 4 Function keys, illuminated	
Colour finish	Charcoal / Ivory	
IP rating	IP65	

Information obtained in this document is subject to change without notice.

For further technical information, visit our website at www.bqtsolutions.com or email techsupport@bqtsolutions.com.

Alternatively contact us at one of our global locations

AUSTRALIA & PACIFIC
 BQT Solutions (Australia) Pty Limited
 Unit 29, 1 Talavera Road
 North Ryde, NSW 2113, Australia
 Phone: +61 (0)2 8817 2800
 Fax: +61 (0)2 8817 2811
 Email: sales@bqtsolutions.com

EUROPE AND MIDDLE EAST
 BQT Solutions (UK) Limited
 Regus, Castle Court, 41 London Road
 Reigate, RH2 9RJ
 United Kingdom
 Phone: +44 (0)17 3773 5071
 Fax: +44 (0)17 3773 5072
 Email: salesuk@bqtsolutions.com

GREATER ASIA
 BQT Solutions Singapore Office
 Mediapolis
 71 Ayer Rajah Crescent #03-03
 Singapore 139951
 Phone: +65 6220 7970
 Fax: +65 6220 7656
 Email: salesasia@bqtsolutions.com



BioX Series



BioXK Series

smartersecuritytoday

BioX/XK Series

INSTALLATION GUIDE

Version2.3



Installation

This reader may be mounted in either 'Through Wall' or 'On Wall' configurations as follows:

Through Wall:

All wires exit at the back of reader, and are collected in a 'back box' (not included) that is mounted behind the reader - either inside the wall or on the far side. Do not remove break-away cover at bottom of reader if mounting through wall. Choose holes to suit your preferred back box type and orientation (refer to Hole Dimensions).

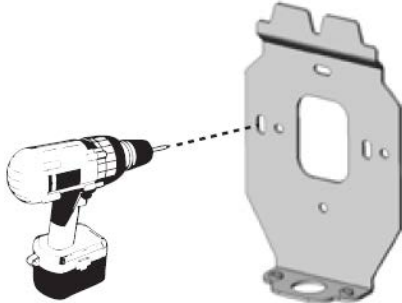
On Wall:

Break-away cover at bottom of reader is removed, and wires exit bottom of reader via a 20mm conduit fitting (not included). A back box is not used in this configuration, so choose hole locations that are secure and accessible. It is not necessary to drill hole 'D' if mounting 'On Wall.'

1. Review Hole Dimension diagram (overleaf).

2. Select and Drill appropriate holes - the Mounting Bracket may be used as a template.

NOTE: Be careful not to drill through any cables



Wire connection

Note:

Power to the unit is provided from the listed control unit or from a separately UL listed 12V DC power-limited, access control power source. DO NOT supply power during installation.

Wiring methods shall be in accordance with the Electrical wiring regulation in your country / region.

Check your circuit diagram for the colour coding of the circuit wiring. The reader can be damaged beyond repair if the wiring is connected incorrectly. This will void the warranty.

1. Connect the 0V wire to the power 0V line;

Note: The 0V line of all power supplies must be connected to a common 0V reference point.

2. Connect the Wiegand data or RS485 wires;

3. Connect the Buzzer and LED wires;

4. Connect 12V DC wire;

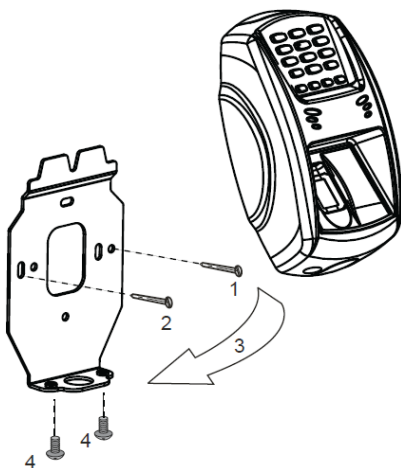
5. Placing reader

1 Insert Screw (not included) into smaller, circular hole.

2 Insert Screw (not included) into larger, slotted hole, but do not fully tighten. Ensure that edges of Wall Bracket are vertical, then tighten screw.

3 Hook reader onto Wall Bracket.

4 Join Reader to Wall Bracket with Base Screws (included).



6. Turn on the 12V DC power to power up reader.

7. Allow 10 – 15 seconds for reader to finish initialization (depends on the application). Make sure reader is functioning correctly according to the application specification.

• Make sure the wire bundle to the reader has an IP rating of at least IP65

Handling

- Handle the reader with care. DO NOT damage or drop unit before installation. This will void the warranty.
- If the case is damaged, the reader may not be to the specified IP rating. Replace the reader if the case is damaged.

Maintenance

- Once installed the reader requires no maintenance.
- Occasionally wipe the sensor gently using a non-abrasive cloth.

Troubleshooting

Problem	Troubleshooting steps
Power on reader – reader does not start up	1. Check connections 2. Check the voltage at the reader 3. Check the current capability of the power supply
Power on reader – reader keeps beeping	1. Check buzzer line 2. Check the voltage at the reader 3. Check the current capability of the power supply
Power on reader – LED stays green	1. Check LED line
Present a card to reader – a beep is heard but reader does not output any data	1. Check whether the card has data encoded 2. Check the wiegand connection to controller 3. Check the voltage level on wiegand data lines
Present a card to reader – no response from reader	1. Try a known working card 2. Check if the reader requires to be configured with a configuration card

If the problem still persists, please contact your distributor for technical support.

Warranty

Unless specified otherwise, the Company warrants to the Customer that ' BQT Solutions Branded Products' (excluding third party products and software) are covered by a return to base warranty on defects in materials and workmanship affecting normal use for a period of the Warranty offered under the Standard Terms and Conditions of Sale from BQT invoice date ('Standard Warranty')

This standard warranty does not cover damage, fault, failure or malfunction due to external causes including; accident, misuse, problems with electrical power, servicing not authorised by the Company, usage and/or storage and/or installation not in accordance with Product instructions, failure to perform required preventative maintenance, normal wear and tear, act of God, fire, flood, war, any violent or similar occurrence; any attempt by any person other than Company personnel or any person authorised by the Company to repair or support the Products and problems caused by use of parts and components not supplied by the Company. The standard warranty does not cover any items that are in one or more of the following categories: software; external devices; accessories or parts added to the product after the product has been shipped from BQT Solutions.

During the warranty, period beginning on the invoice date, the Company will repair or replace faulty products (at its absolute discretion) returned to its' factory. The Customer must prepay shipping and transportation costs and insure the shipment or accept the risk of loss or damage during such transportation.

The Customer shall be solely responsible for determining suitability for use and the Company will, in no event, be liable in this respect. This standard warranty is given in place of all warranties, conditions, terms, undertakings and obligations implied by statute, common law, trade usage, and course of dealing or otherwise including warranties or conditions of merchantability, fitness for purpose, satisfactory quality and / or compliance with description, all of which are hereby excluded to the fullest extent permitted by law.

External Use