

EMC Technologie

ABN 82 057 105 549 Unit 3/87 Station Road Seven Hills NSW 2147 A

Telephone +61 2 962 **Facsimile** +61 2 9838 **Email** syd@emctech www.emctech.com.au

APPENDIX L **OF** TEST REPORT T 60822_F

USER MANUAL

FCC ID: QVL-BT900A

Manufacturer: BQT Solutions (Australia) Pty Ltd Test Sample: Contactless Smart Card Reader

Model: BT900-WG Serial Number: None

Date: 4th September 2006

Auckland (NZ)

Any changes or modifications not expressively approved by BOT Solutions could void the user's authority to operate this equipment.

Designed & Manufactured in Australia CEFEC

Recrient or relocate the receiving aniernas Conneul the equipment into a outlet on a circuit different from that to which the receiver is connected Conneul the dealer or an experienced radio/Thy technician for help

WOTE:

This equipment has been lested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits in this equipment generales, uses and can are designed to provide reasonable profestions against harmful inflaretenence with the instructions, may cause harmful inflaretenence with many of the cause harmful inflaretenence with the instructions, may cause harmful inflaretenence with many of the cause harmful inflaretenence with the instructions, may cause harmful inflaretenence with many of the cause harmful inflaretenence with the indicatenence with the capturer of the concept of the following measures:

International course or on once of the following measures:

HCC ID: OAF MIR9 MiP9, CSN9, BT900W BT900WG HCC ID: QVL -B1900A FCC ID: QVL - BT900P BT900D, BT900DG, DF990D, DF900DG

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 undestred operation.

C Tick. The 9 Series has passed all relevant requirements for application of $\mathbb C$ Tick.

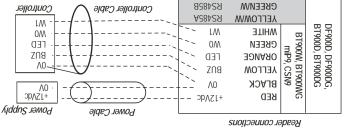
CE Mark

The 9 Series has passed all relevant tests and obtained CE approval.

Regulatory Information

- Only ONE power source is connected from the reader at any one time.
 RS485 OPTIONAL USE
- The 12Vdc power cable shall NOT be included in the controller Cable.
- NOTE: The OV reference cable shall be included within the controller cable.

to Controller 0V reference cable, the shield is connected NOTE: If used with a shielded



Wiring Schematic

Specifications

Output protocols	Wiegand 26-199 bit, RS485 or custom configurations (model dependent)	
Power requirements	12Vdc	
Current consumption		
Normal	120mA	
Activated	140mA	
Read range	20 - 60mm (0.8" – 2.4")(typically)	
Operating temperature	-25°C to +65°C (-13°F to 149°F)	
Relative humidity	90% max, operating non-condensing	
Reader dimensions	140mm (L) x 45mm (W) x 32mm (D) (5.51" x 1.77" x 1.26")	
Status LED's	Green & Red	
Audible tone	Internal or external buzzer control	
Colour	Two toned – Silver & Charcoal	
IP rating	IP 67	
miPASS 9 Series Mifare reader models	DF900 - DESFire BT900 - Mifare miP9 - SPEK CSN9 - Card Serial Number	

Information contained 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 & ASIA PACIFIC Level 4, 65 Epping Road North Ryde NSW 2113 Australia

Phone: +61 (0)2 8817 2800 Fax: +61 (0)2 8817 2811

UNITED KINGDOM & EMEA Global House, 1 Ashley Avenue, Epsom Surrey KT 18 5AD United Kingdom Phone: + 44 (0)20 8823 9350 Fax: + 44 (0)20 8823 9001

AMERICA

30021 Tomas Street, Suite 300 Rancho Santa Margarita CA 92688 United States of America Phone: +1 877 278 2637 (ext 42) Fax:+1 877 278 2637

CHINA

Suite 1602, No.75, ShengDa Garden, 2518 LongHua Road, XuHui District, Shanghai 200232, P.R.China

Copyright © 2006 BOT Solutions Limited, BOT Solutions and the BOT Solutions (Australia) Pty Ltd. logo are registered trademarks of BOT Solutions (Australia) Pty Ltd. Milare is a registered trademark of Philips Electronics. Ø wwb ZOMM Ø Ø mm₽

("TT.f x "fd.d) are 140mm x 45 mm • Minimum reader dimensions holes for mounting screws • 2 x 4 mm (0.16") diameter hole for wire entry

 20mm (0.79") diameter For all 9 Series readers

Drilling Template







LLATION GUIDE

smartersecuritytoday



Introduction

Thank you for purchasing a miPASS 9 Series Mifare Contactless Smart Card Reader. Available in 4 different models catering for all security requirements large or small, whether your projects are price or functionality driven. The 9 Series reader models are:

> DF900 - DESFire BT900- Mifare (standard) miP9 - BQT SPEK CSN9 - Card Serial Number

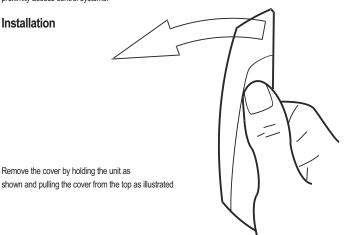
The 9 Series reader is used in security applications and interfaces into Wiegand applications.

The 9 Series reader is preset with specific 'Keys'. Valid smart cards are issued with the same 'Keys'. This ensures that the system cannot be compromised. (No 'Keys" used for CSN9 model)

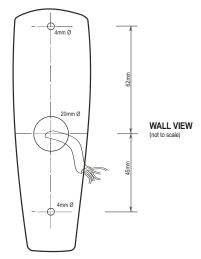
The reader incorporates a LED and Buzzer to provide feedback to a person wishing to enter. The control of these is shared by the reader and security controller.

The 9 Series reader is low-profile and can be installed in new installations or as an upgraded reader in existing proximity access control systems.





If necessary, drill holes for the mounting screws in the wall or mounting box on which the reader unit will be placed. (Use the Drilling Template provided).



- 1. Place the controller and power supply cable through the Grommit hole.
- 2. Drill the holes as indicated by the arrows.

Note: Make sure that you don't drill through the cable.

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.



If the reader has the same power supply as the door latch relay, make sure that the relay is protected by a fast Schottky diode. If the relay is not protected reader operation will be affected.

NOTE: Power to the unit is provided from the Listed control unit or from a separately supplied UL Listed 12 Vdc power-limited, access control power source.

Wiring methods shall be in accordance with the National Electrical Code, ANSI/NFPA 70.

- 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.
- Connect the Wiegand signal cables.
- Connect the Buzzer and the LED cables. 3.
- 4. Attach the 12Vdc wire last.
- Place the reader on the wall (Make sure the wires are not crushed)
- Insert and hand tighten the screws. 6.
- 7. Check that the reader is level before tightening the screws.

NOTE: Excessive tightening of screws may deform the casing, resulting in a damaged unit. This will void the warranty.

- 8. Replace the cover.
- 9. Power up the reader.
- **NOTE:** The unit needs up to 15 seconds to set up before it can respond to a valid smart card.

External Use

- Mount the reader on a suitable external single gang surface mount box.
- USA ONLY BQT mounting plate adaptor is available for mounting to a US single gang box.
- Make sure that the wire bundle to the 9 Series reader has an IP rating of at least IP67.
- Use warming pads if the temperature of the reader is expected to fall below -10°C (14°F).

Handling

- Handle the 9 Series reader with care. Do not damage/drop unit before installation.
- The reader unit will not be waterproof if the casing is damaged. Replace the reader if the casing is damaged.

Maintenance

• Once installed the 9 Series reader requires no maintenance.

Troubleshooting

Symptom	Possible Cause	Check
LED is not lit	No power to the reader	Check the power supply to the reader.
LED is Orange or Buzzer sounds low	Voltage to the reader is below 10V	Check the power supply to the reader
Reader doesn't respond	Invalid card or card is faulty	Check reader with another valid smart card
Reader beeps but lock doesn't open	Wiring to the controller may be faulty.	Check the wiring to the controller

NOTE: If reader beeps when a valid smart card is presented then the reader is functioning.

If the problem still persists then please contact your distributor for technical support and to obtain an RMA if

Warranty

The 9 Series reader comes with a 5 year warranty from the date of dispatch from BQT Solutions. The warranty is void if the instructions contained within this manual have not been adhered to.











