APPENDIX J

INSTALLATION (USER) MANUAL

For further information or to find out more about our range of smart card and biometric solutions, visit BQT Solutions on the web at:

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NOTE: Information contained in this document is subject to change without notice.

bt817

MIFARE ACCESS READER

INSTALLATION GUIDE

Version 1.1

Designed & Manufactured
in Australia

INTRODUCTION

Thank you for purchasing the BT817 Mifare® Contactless Smart Card Access Reader with KeyPad.
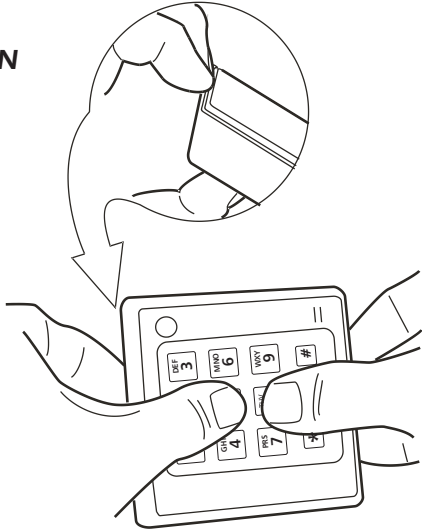
The BT817 is used in security applications and interfaces into Wiegand applications.

The BT817 is preset with specific 'Keys'. Valid smart cards are issued with the same 'Keys'. This ensures that the system cannot be compromised.

The reader incorporates a LED to provide feedback to a person wishing to enter. The LED is controlled by the security system.
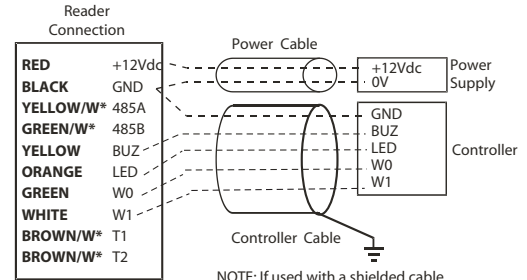
The BT817 is low profile and can be installed in new installations or as an upgraded reader in existing proximity access control systems.

INSTALLATION

Remove the cover by holding the unit by the rim and pushing the reader out with your thumbs.

WIRING SCHEMATIC

NOTE: If used with a shielded cable, the shield is connected to Building GND.

* Tamper & RS485 cable connections are optional.

NOTE: The 0V or GND reference cable shall be included within the controller cable.
The 12Vdc power cable shall NOT be included in the controller Cable.

REGULATORY INFORMATION

CE Mark
The BT817 has passed all relevant tests and obtained CE approval.

C Tick
The BT817 has passed all relevant requirements for application of C Tick.

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.

NOTE:
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 connected
- Consult the dealer or an experienced radio/TV technician for help

Any changes or modifications not expressively approved by BQT Solutions could void the user's authority to operate this equipment.
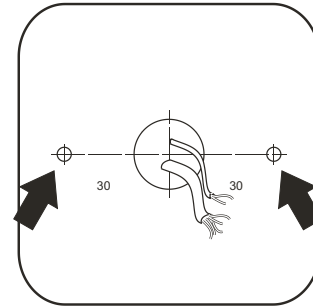
Designed & Manufactured in Australia

WARRANTY

The BT817 comes with a 3 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. See the BQT Solutions website for further terms and conditions.

SPECIFICATIONS

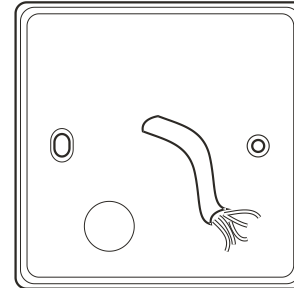|	
Reader Output	Wiegand 26 to 40 bit
Power requirements	12Vdc
Maximum Current Consumption	320mA
Read range	20 - 60mm (0.8" – 2.4")(typically)
Operating temperature	-10ºC to +55ºC (14ºF to 131ºF)
Relative humidity	90% max, operating non-condensing
Reader dimensions	90mm x 90mm x 27mm (3.54" 3.54" x 1.06")
KeyPad	12 button illuminated KeyPad
Status LED's	Green and Red
Audible tone	Tone on matching software key and wired external buzzer control
Colour	Charcoal
IP rating	IP 67

Wall View

If necessary, drill holes for the mounting screws in the wall or mounting box on which the reader unit will be placed. Use the 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. Read the instructions on the next page first.
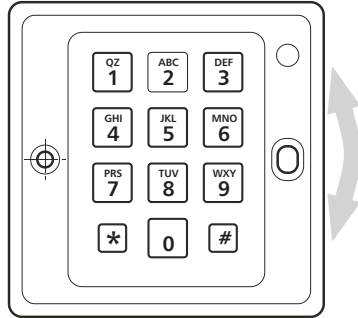
> ⚠ If the reader has the same power supply as the door latch relay, make sure that the relay is protected by a fast Schottky diode (Part number: Philips BYV10-20). If the relay is not protected reader operation will be affected.

1. Connect the 0V Reference and 0V (if provided in the power supply) to Ground (GND).
2. Connect the Wiegand signal cables.
3. Connect the Buzzer and the LED cables.

OPTIONAL: Connect the RS485 and Tamper cables.

4. Attach the 12Vdc wire last.
5. Place the reader on the wall (Make sure the wires are not crushed)
6. Insert and hand tighten the screws.

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 approximately 13 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.

Make sure that the wire bundle to the BT817 has an IP rating of at least IP67.

Use warming pads if the temperature of the reader is expected to fall below -10ºC (14ºF).

HANDLING

Handle the BT817 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 BT817 requires no maintenance.

TROUBLESHOOTING

If the reader doesn't respond when a valid smart card is presented, check the following.

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 smartcard
Reader beeps but lock doesn't open	Wiring to the controller 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 exists then uninstall the reader and send it back to BQT Solutions (address details on the back of this manual). If the reader is within the warranty period then another will be sent free of charge.

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DRILLING TEMPLATE FOR BT817

Carefully remove this middle section of the manual to use as a drilling guide.

DRILLING TEMPLATE FOR BT817

20mm (0.79") hole for wire entry
2mm x 4 mm (0.08" x 0.16")
holes for mounting screws

Minimum outer dimension is
90 mm x 90 mm (3.54" x 3.54")
so as not to interfere with any
other components

30   30