

APPENDIX J INSTALLATION 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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miP5

MIFARE PROXIMITY READER



INSTALLATION GUIDE

miP5- Wiegand Unit
Version 1.1



Designed & Manufactured
in Australia

INTRODUCTION

Thank you for purchasing the miP5 Mifare® Contactless Smart Card Proximity Reader.

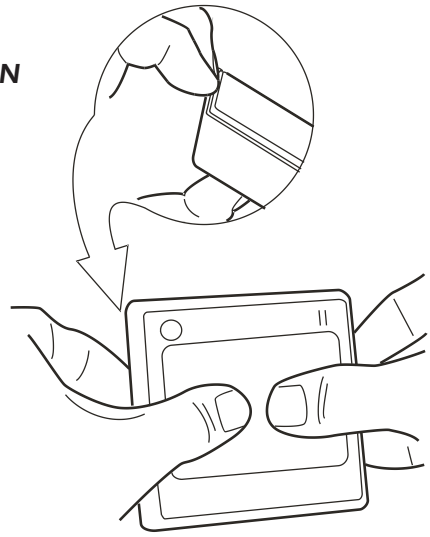
The miP5 is used in security applications and interfaces into Wiegand applications.

The miP5 is preset with BQT's proximity 'Keys' and valid smart cards are issued with corresponding 'Keys' thus ensuring 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.

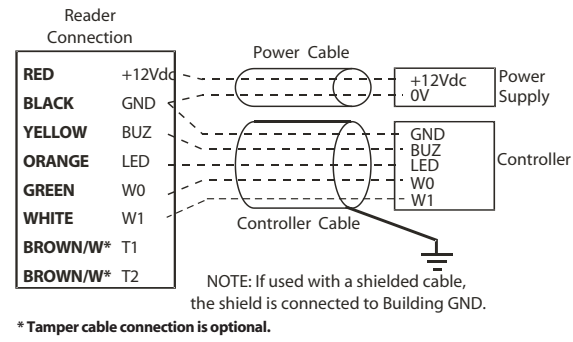
The miP5 is low profile and can be installed in new installations or as an upgraded reader in existing proximity access control systems.

INSTALLATION



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

WIRING SCHEMATIC



NOTE: 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 miP5 has passed all relevant tests and obtained CE approval.

C Tick
The miP5 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

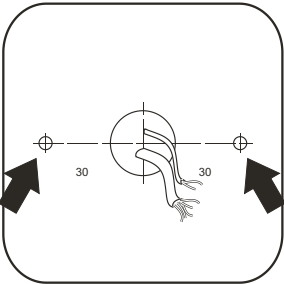
Any changes or modifications not expressly approved by BQT Solutions could void the user's authority to operate this equipment.

WARRANTY

The miP5 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. See the BQT Solutions website for further terms and conditions.

SPECIFICATIONS

Reader Output	Wiegand
Power requirements	12Vdc
Current Consumption	
Normal	110mA
Activated	120mA
Read range	20 - 60mm (0.8" – 2.4") (typically)
Operating temperature	-10°C to +55°C (14°F to 131°F)
Relative humidity	90% max, operating non-condensing
Reader dimensions	90mm x 90mm x 20mm (3.54" x 3.54" x 0.79")
Status LED's	Green and Red
Audible tone	Tone on matching software key and wired external buzzer control
Colour	Charcoal & Ivory
IP rating	IP 67

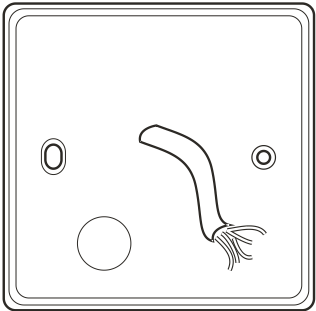


Wall View

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.



RED	+ 12Vdc
BLACK	GND
YELLOW	BUZ
ORANGE	LED
GREEN	W0
WHITE	W1
BROWN/W*	TAMPER1
BROWN/W*	TAMPER2

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.

***NOTE:** Tamper cable connection is optional.

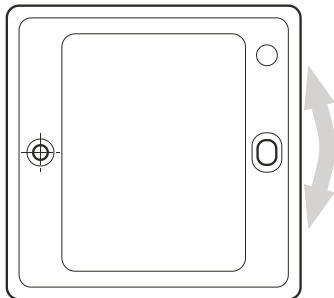


If the reader has the same power supply as the door latch relay, make sure that the relay is protected by a fast Schottky diode (Part number: Philips BYV10-20). If the relay is not protected reader operation will be affected.

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.
4. Attach the 12Vdc wire last.

OPTIONAL: Connect the Tamper cables.

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 miP5 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 miP5 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 miP5 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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INTENTIONALLY**

**DRILLING TEMPLATE
FOR miP5**

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

DRILLING TEMPLATE FOR miP5

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

