

Symptom	Possible Cause	Check
LED is not lit	No power to the reader	Check power supply to the reader
LED is orange/indefinite or buzzer sounds low	Voltage to the reader is below minimum required level	Check power supply to the reader
Reader doesn't respond	Invalid card or card is faulty or wiring to the controller is faulty	Check reader with another valid smart card. If problem persists check wiring

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

- If necessary, drill holes for the mounting screws in the wall on which the reader will be placed. Use template provided. Alternately a back box can be used.
- Note magnet location for position of tamper read switch (refer overleaf).
- Place the reader on the wall or back box, make sure wires are not crushed.
- Insert and hand tighten the screws.
- Check that the reader is level before tightening screws.
- Fit the cover.
- Power up reader.

**External Use**  
Mount the reader on a single gang box or suitable surface. Make sure the wire bundle to the reader has an IP rating of at least IP65.

Cable Colours	Wiring
red	+5 to +12Vdc
black	ground
yellow	buzzer
orange/white	red led
orange	green led
green	W0
white	W1
pink	RS485A
blue	RS485B

- Handle the reader with care. Do not drop or damage before installation.
- Connect the wiring as indicated in the table to the control panel.
- Connect the 0V reference and 0V (if provided in the power supply) to the ground (GND) wire.
- Connect the W0, W1, LED and Buzzer (RS485 if required).
- Connect the +Vdc last.



Any changes or modifications to this product not expressly approved in this document could void the user's authority to operate this equipment.



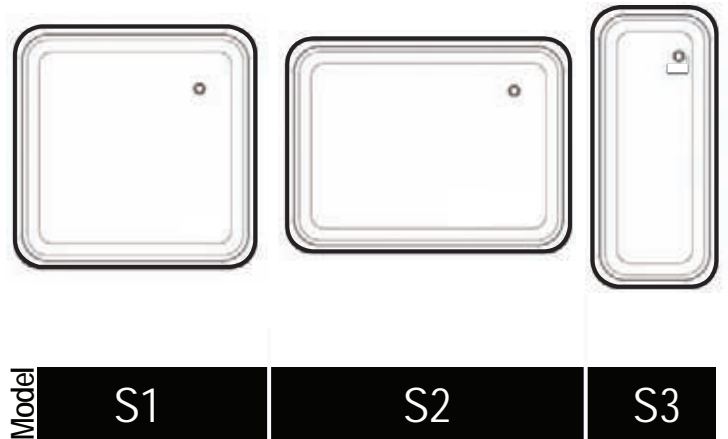
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**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:

**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.

### Regulatory Information

Reader Specifications	
Reader Output	Wiegand, RS485 Encrypted (model dependant)
Power requirements	+5 to +12Vdc
Current Consumption (+/- 5%)	Normal 105mA (at 12Vdc) Activated 120mA (at 12Vdc)
Read range	30 - 50mm
Cable distances	0.22m <sup>1</sup> cable 100m max 0.33m <sup>2</sup> cable 250m max
Operating temperature	-10degC to +65degC
Relative humidity	90% max, operating non-condensing
Reader dimensions	S1: 90 x 90 x 18mm, S2: 114 x 75 x 18mm, S3: 45 x 106 x 18mm
Status LEDs	Green/Red controlled by access controller
Audible tone	Internal and external buzzer control
Colour	Charcoal or Ivory
IP rating	IP66



Model S1 S2 S3

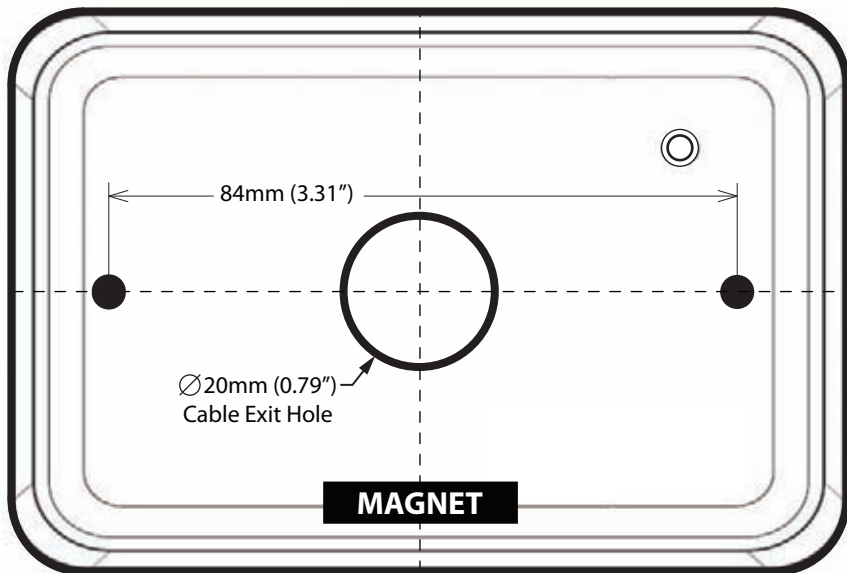
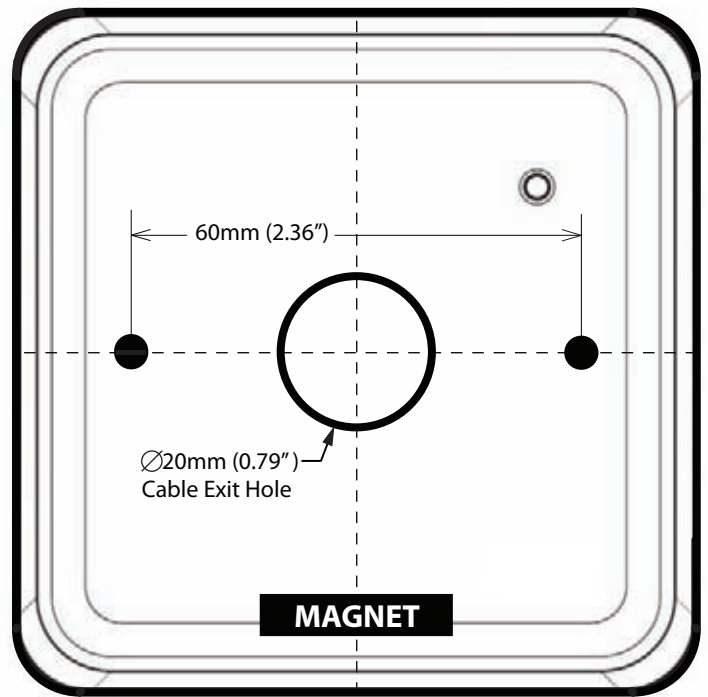
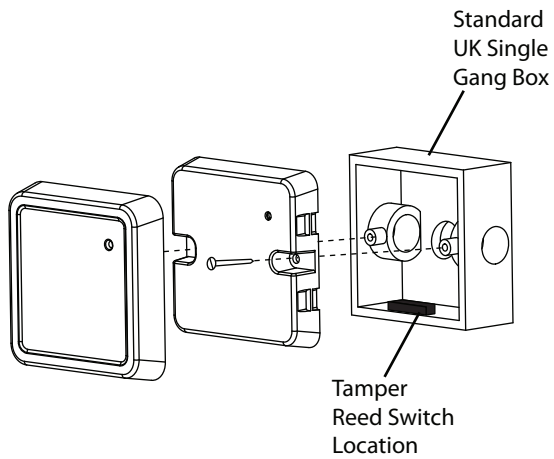
**Warranty**  
Each reader comes with a 3 year warranty from the date of dispatch. The warranty is void if the instructions contained within this document have not been adhered to.

Product of Australia

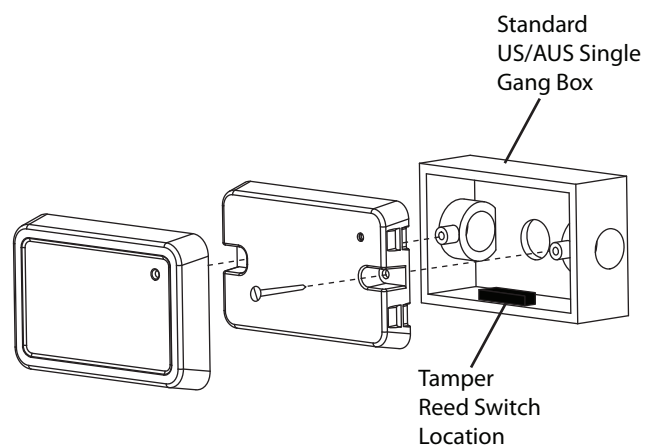
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# S series INSTALLATION GUIDE

# S1 series



# S2 series



# S3 series

