INTRODUCTION

This manual is designed for the installation and commissioning of iDoor series of automatic door Operator in compliance with AS 5007 – 2007, these products have been tested by a NATA testing lab to comply with this standard.

If you have any questions or queries in following this manual or standards please email us at: info@idoor.net.au

Or visit us at: http://www.idoor.net.au
And follow the link for support.

TOLL FREE: 1300 288 675
(AUSTRALIA WIDE)
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The Door Kit Contains following:

1. Main Module containing controller module, back up battery, power supply, and Gear/Motor/PLC board
2. Belt Brackets Top and Bottom
3. Pelmet Clips x 2
4. End Stoppers x 2
5. Nut and Bolts x 1 set
6. End Gear Assembly x 1
7. Drive belt 6.5 m in length
8. Trolley assembly x 4
9. End Plates x 2
10. Motion sensor x 2 (exterior & interior)
11. Safety sensor (interior)
12. Mode control pad

Optional
* Electric lock with external key switch
1: PREPARATION

TOOLS REQUIRED ARE:

- 10 mm open end spanner
- 13 mm & 14 mm spanner
- Small flat head screw driver
- Pliers
- Phillips head screw driver
- 5 mm allen key
- 19 mm socket spanner for frameless doors only
Once the Aluminum track has been measured.

- Measure and mark the centre of the track
- Measure and mark the door opening size

Diagram 1

track size – 4 meters
Diagram 2

DRIVE MODULE | CLEAR OPENING

Pelmet Clip
End Stopper
Control Box
Motor/Gearbox

Trolley Assembly
1/2

Clear opening without doors fitted
Belt Bracket
1/2
Belt

End Gear Assembly

Diagram 2

200

200+ | END GEAR
3: END GEAR ASSEMBLY MOUNTING

Mount END GEAR ASSEMBLY to the right hand side of the clear opening plus 200mm as diagram 2 page 7. Then fix to the underside of the main track as shown in picture 1.

3.1: BELT TENSIONER

Adjust TENSIONER to the left to allow for future tension of main belt. See picture 2
WHEN THE BELT IS ADJUSTED RETIGHTEN

3.2: DRIVE MODULE MOUNTING

Mount the drive module to the left side of clear opening plus 200 mm. Fix to the underside of main track as shown in the picture 3 and 4.
5: DRIVE BELT MOUNTING

Run the Drive Belt around the end Gear Assembly as shown in picture.
Attach the belt to the top Belt Bracket
Clamp then run the belt halfway across the top bracket and then
secure the clamp on to the belt also shown in picture 6

Then run the opposite end of the belt around the pulley until both ends meet at the Belt Bracket. Take as much tension as possible and then secure the belt to clamp as shown in Picture 7

BELT TENSIONING

Once the main drive belt has been joined to the top belt bracket on both sides, the belt will need to be tensioned by the adjustment at the end of the Gear Assembly, shown here in Picture 8. When tensioning the Main Drive Belt first loosen the tension lock nut. Once tension nut is loose then adjust the tension bolt clockwise to produce more tension on the Main Drive Belt. Once there is no more sagging of the Drive Belt across the opening, once the belt has been sufficiently tensioned. Retighten the locknut. As shown in the pictures 8 and 9
7: JOINING MAIN BELT TO TROLLEY ASSEMBLY

Once the doors have been adjusted vertically (level) and horizontally (plumb), slide the top Belt Bracket bolts into the right hand Trolley Assembly extrusion. Then attach the top Belt Bracket (picture 12) to the Trolley Assembly. Secure the lock nuts temporarily so the bottom Belt Bracket (picture 11) can then be attached to the left hand door Trolley. Once both top and bottom Belt Brackets are fixed to the Trolley Assembly, loosen off the top Belt Bracket and slide both brackets close to the center position, see picture 10. Then secure the lock nuts on the top and bottom Belt Brackets to the Trolley Assembly. Adjust both doors so they are exactly in the middle of the opening and when in the closed position the doors are evenly covering both sides of the clear opening. Once this is done secure the belt clamp to the top and bottom belt bracket as shown in picture 10.
8: INSTALLATION OF AUTOMATIC DOOR TRACK
See attached diagram (page 14) to measure the height of the doors and allowance for the clearances.
The track should be fixed approximately 500mm apart. Holes should be located in the dimples (grooves) on the extrusion track also shown in the diagram shown on page 14.

9: INSTALLATION OF FLOOR GUIDES
1. Framed Door- see diagram on page 14 & 15.
2. Frameless Door – see diagram on page 1

10: ATTACHING DOOR HANGER BRACKETS
Remove door hanger brackets off Trolley Assembly.
Mark out holes for drilling and tapping of bolts (M8 bolts should be used) into the door head. Note: The door brackets should be as close to the outside of the door as possible to allow for even distribution of weight as shown in picture 13 and 14.

Important Note!
Before attempting to tap into the door head, the door should be reinforced to ensure bolts can be secured tightly and brackets level.
11: HANGING DOORS TO TROLLEY ASSEMBLY

Align the two nuts which are attached to the trolley Assembly to line up with the elongated holes on the Hanger Brackets, Shown in picture 15.

Once the door is positioned on the Trolley Assembly secure the lock nuts.

If the door assembly consists of biparting doors do the same for each door. Once the door is hung from trolley assembly secure the lock nuts. If the door assembly consists of biparting doors do the same for each door.

Once the door is hung from the trolley assembly, adjust the door height as shown in picture 16 & 17 using the height adjuster. Once the height is adjusted, align the door to be parallel evenly with the vertical fixed light door jamb. When the door is fixed vertically and horizontally, secure lock nuts. For biparting doors, align second door off first fitted door.
12: MOUNTING END STOPPER
Slide doors to open position required then secure the end stop and tighten lock nuts as shown in picture 18 on the right here.

13: MOUNTING PELMET CLIPS
Slide pelmet clips to each furthers ends of the track. Each pelmet clip have elongated holes to adjust up and down to allow how much pressure is required to unclip the Main Pelmet, adjust and fix lock nut.

See picture 19.

14: MOUNTING END PLATES
There is a right and left hand cover supplied. To tell the difference outside holes of the plate have been counter sunk to allow all fixing screws to be flush with the cover when secured, shown in picture 20.
Diagram 4: **iDoor A** Aluminum Frame Door Application

- Measure and mark the centre of the track
- Measure and mark the door opening size

Minimal gap to avoid draw in hazard

Door height = measurement from under side of pelmet to finish floor
Diagram 5: **iDoor A** Framed Alum Door Application
Diagram 7: **idoor F** Frameless Glass Door Application

Concealed in ceiling

structural support by builder

NYLON FLOOR GUIDE 100m LONG AT DOOR OPENINGS

scale 1:2
Diagram 8 iDoor F Frameless Glass Door Application (Elevation)
Once the Aluminum track has been measured:

- Measure and mark the centre of the track
- Measure and mark the door opening size

**Diagram 1**

**GLASS DOOR PREPARATION**

DOOR HEIGHT =
DISTANCE FROM UNDERSIDE OF PELMET TO
HIGHEST FLOOR POINT, +70mm, LESS 10mm
FOR FLOOR CLEARANCE = DOOR HEIGHT

$\phi$ 32 mm HOLES
15: HANGING GLASS DOOR TO TROLLEY ASSEMBLY

**Step 1**
Mount Glass onto off Centre Nylon Grommets (Make Sure Glass is Fully on so Glass and Grommet are Both Flush for the installation of Aluminium Plate.

**Step 2**
Once Glass Hole is sitting on Nylon Grommet, Mount Flat Aluminium Plate and Fit Special Flat Hex Nut. (Do not Fully Tighten Until Doors

**Step 3**
Diagonally and 5mm Allen Key.

**Step 4**
Once the Door Leaf is in the correct position, secure special Flat Hex Nut, with 19mm socket.

**Step 5**
Set Centre Gap Stops (only for biparting units)
16: CUT AND FIT PELMET COVER

Measure the inside measurement between both end plates, then cut to measured size. Allow 1-2 mm less to easy fitting of pelmet, the main face has to be facing in the same line as the top of the main track extrusion. This is to allow the interlock of the pelmet to be secure firmly with no chance of any future disengagement of Pelmet. See Picture 21 and 22.

Once interlocked along complete track, the pelmet can then be moved to the closed position and clipped into the fixed pelmet Bracket. See picture 22.
**Mode selector pad**

Auto → Lock
Hold open → Exit only
Climate → Off
Exit button

To change modes press and hold Off button for 2 seconds, the LED will flash once indicating that the pad is unlocked. Select desired mode. After a short period the LED will again flash indicating that the pad is again locked.

**Auto** (For normal business hours). In this mode the doors will open and close automatically subject to the sensors activating upon the approach of pedestrians.

**Lock**
This mode will bring the doors to the closed condition deactivating the sensors allowing the doors to be manually locked, if a electric locking system is fitted the doors will dead lock awaiting activation by the exit push button and a access control system (supplied by others).

**Hold open**
The doors will open and stay open allowing access for furniture removal or cleaning of glass, if the door shows any form of malfunction this mode should be selected to ensure pedestrian safety until repaired.

**Exit only**
The external sensor is disabled allowing only operation from the interior, this mode is used to control traffic restricting access.

**Climate**
The selection of this mode restricts the doors opening to half its normal position, this preset feature aids the loss of A/C or lowers wind penetration, the restricted position is adjustable by a technician.

**Off**
In this mode the motor control of the doors is set to neutral allowing manual operation of the doors.
17.1: BATTERY BACK UP CONNECTION

The cable connector for the battery connection to the PCB door board may not be supplied connected. If so, it must be noted that the connector has a male/female slot which requires the motor connector to be unplugged then reconnected with the battery connector before being fitted to the board.

Always check that the connector is well seated & tight. Once doors are in learn mode then connect both battery wires to the battery. The computer will then memorize in its learn mode that it now has to monitor and charge the battery.
17.2: FAILSAFE SETUP via SINGLE SHOT BATTERY.

All operators are programmed to failsafe open on power failure whilst in the AUTO mode only. If in LOCK or EXIT mode the battery shall keep the electric lock (if fitted) engaged securing the doors in a power failure for 2 to 4 hours, if the exit push button is activated the door(s) shall unlock and open in compliance with Building code fire exit requirements. Once open the system remains in the OFF unlocked mode until power is restored, with the restoration of power the system shall return to the previously programmed mode after doing a learn cycle and the battery will recharge over the next 48 hours.

**Note** if continuous security is required in power failure the Lithium-ion battery reserve UPS option should be installed, this system provides power to operate the doors for up to 28 hours after mains power failure. See page 27 for more details.
17.3: DOOR CLOSED & OPERATOR STATUS RELAY OUTPUTS

The door operator has two relay outputs that monitor the following operations of the door operator.

1. **Door status monitor**
   This relay changes when the one of the following self diagnostic perimeters are breached.
   A. Power supply failure
   B. Battery back up failure
   C. Operator malfunction
   D. Door obstruction

2. **Door closed monitor**
   This relay changes when the door is in the closed location, when the door opens the relay will change to indicate door is not closed.
   This feature is used for a building alarm output.

   Both relays have normal open and normally close outputs

**Three LED Indicator lights**
1. **Trigger** activates when a activation sensor is triggered

2. **Beam** activates when the safety sensor is triggered

3. **Alarm** activates continuously see See pulse code table adjacent
18: FITTING OF SENSORS

Locate and identify the three operator colour coded sensor cables for external sensor, internal sensor and safety sensor. (picture 23)

Pull sensor cables thru predrilled holes in pelmet cover (picture 24) and exterior transom rail,

use prefitted colour coded and tagged connector plugs to connect into sensors, fit sensor bases to pelmet and transom.

Adjust sensors as per details found pages 28 to 31, ensuring maximum pedestrian safety, then fit covers.

Exterior & Interior Activation sensor

Interior infrared safety sensor
19: SETTING OF ADJUSTABLE CONTROLS

Control settings procedure before connecting power to the controller ensure that the force setting is set at halfway. Turn power on, the door will perform a slow speed program setting cycle, at completion of the cycle adjust all speed controls to desired requirements.

Note if the doors are heavy or if the door stalls during the test cycles the force setting needs to be increased, always keep in mind that the higher the force setting the higher the obstruction detection setting becomes, if this occurs the close speed setting may need to be adjusted downwards.

It is important that user safety is the number one priority to be considered whilst making all adjustments, especially in the setting up of the CLOSE speed and FORCE settings, See Picture 27

Dip switch settings (see page 22)       Operator control adjustments

Picture 27

20: DIRECTIONAL SIGNS

Standards require direction signs to be visible from both interior and exterior mounted between 1.2m and 1.5m from the floor.
Lithium-ion UPS battery
Installation instructions

Hinge fit then screw fix the module to the operator thru head. Connect charger to 240 volt GPO, connect the 2 cables to the switch mode and main board.

Connect the output from UPS here
Output from switch mode to be fitted to UPS supply terminal
As per detail below

Remove blue plug from switch mode lead cable then wire the cable connector red to red, black to white

Supply from switch mode
Battery leads
Charger leads

Connect the output from UPS here

Connectors for switch mode

Output to supply terminals on main board

UPS board
20: TRIENNIAL MAINTENANCE PROGRAM

As required under Australian Standards AS 5007 and state legislation, **iDoor** recommends that all of its commercial door products be regularly maintained to ensure maximum efficiency of the equipment and compliance with fire egress provisions of the building codes and AS 5007. Our aim is to keep the doorway safely operating for the people that it was designed to serve and in addition remain capable of operating correctly in the unlikely event of emergency evacuation due to fire.

To best achieve this result **iDoor** have developed a periodical maintenance program to help its customers comply with their statutory requirements and issuing of the required annual maintenance and failsafe test statements. **iDoor** recommends that the owner engage a local maintenance technician who will periodical attend the doorway to thoroughly inspect and test the operator to ensure smooth, trouble free running. We recommended that periodic maintenance be carried out at least three times a year.

Following the completion of each maintenance service call **iDoor** recommend that a written checklist be completed by your technician which will be added to the log book history to be held on each door serviced, this method of record keeping complies with the requirements of the Government legislation and can be utilized by to issue a annual certificate of compliance confirming work has been carried out.

A copy of our maintenance checklist is printed on the next page.

WARRANTY

**iDoor** provide’s a 3 year replacement part warranty on all parts except for normal wear and tear on track wheels and floor guides.

This warranty does not however cover maintenance; it is the owner’s responsibility to maintain the equipment through out this period.
### TRIENNIAL SCHEDULED SERVICE MAINTENANCE PROGRAM

<table>
<thead>
<tr>
<th>Service Function</th>
<th>Mth 4</th>
<th>Mth 8</th>
<th>Mth 12</th>
<th>Mth 16</th>
<th>Mth 20</th>
<th>Mth 24</th>
<th>Comments</th>
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<td>Clean and polish track</td>
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<td>Replace hanger wheels</td>
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<td>If required</td>
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<td>YES</td>
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<td>YES</td>
<td>If required</td>
</tr>
<tr>
<td>Adjust hold open time</td>
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<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>If required</td>
</tr>
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<td>YES</td>
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<td>YES</td>
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<td>Test Fail Safe system</td>
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<td>Inspect floor guide(s)</td>
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<td></td>
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</table>
1. **General information**

Connector:

<table>
<thead>
<tr>
<th>Brown</th>
<th>Green</th>
<th>Power supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Yellow</td>
<td>Relay (COM)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relay (NO)</td>
</tr>
</tbody>
</table>

The sensitivity settings determine the size of the sensing field.

Vertical angle: 30°, mounting height: 2.2m.

The lateral angle of the planar antenna determines the position of the sensing field.

The vertical angle of the planar antenna determines the depth of the sensing field.

Sensitivity: maximum.
Installation tips

(1) Avoid vibrations!
(2) Don’t Cover the sensor!
(3) Avoid moving objects in proximity of the sensor!
(4) Avoid HF lamps or fluorescent lighting in proximity of the sensor!
(5) Avoid touching electronics inside the sensor, especially the surface of the sensor

1. Troubleshooting

<table>
<thead>
<tr>
<th>Symptoms:</th>
<th>Probable causes</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The door will not open and LED is off</td>
<td>The sensor power is off</td>
<td>Check the wiring and the power supply</td>
</tr>
<tr>
<td>The door opens and closes constantly</td>
<td>1. The sensor “sees” the door moving</td>
<td>Increase the tilt angle and/or reduce the sensitivity</td>
</tr>
<tr>
<td></td>
<td>2. When closing, the door creates vibrations picked up by the sensor</td>
<td>Make sure that the sensor is correctly fixed. Reduce the sensitivity</td>
</tr>
<tr>
<td>The door will not close and LED is off</td>
<td>ON-OFF Switch at door control is in wrong position or faulty</td>
<td>Make sure that the ON-OFF switch for the door is in the ON or AUTOMATIC position</td>
</tr>
</tbody>
</table>

2. Technical Specifications:

| Technology | Microwave and microprocessor |
| Transmitter frequency | 24.125 GHz |
| Transmitter radiated power | <20 dBm EIRP |
| Transmitter power density | <5mW/cm² |
| Maximum mounting height | 3m |
| Tilt angles | 0° to 90° vertical and -30° to +30° lateral |
| Detection field (mounting height=2.2m) | 6m (W) x 2m (D) |
| Detection mode | Motion |
| Minimum speed | 5 cm/s (measured in the sensor axis) |
| Supply voltage | 12V to 24V AC/DC +30% / -10% |
| Mains frequency | 50 to 60 Hz |
| Power consumption | <2W (VA) |
| Output relay (free of potential change-over contact) | |
| Max. contact voltage | 42V AC- 60V DC |
| Max. contact current | 1A (resistive) |
| Max. switching power | 30W (DC) / 60VA (AC) |
| Hold time | 0.5s |
| Temperature range | -20°C to +55°C |
| Degree of protection | IP52 |
| Material | ABS |
| Color of housing | Black |
| Dimensions | 120mm (W) x 80mm (H) x 50mm (D) |
| Weight | 0.210kg |
| Length of cable | 2.5m |
1 SAFETY TIPS

Thank you for your purchasing, please read this instruction before using.

2 NAME OF THE PARTS

3 NOTICES OF INSTALLING

1. Please install within 3M. Or the detection sensitivity will be reduced.
2. Please don’t put things such as curtain, flowers and trees which are easy to swing at the detecting area; otherwise it will cause the error movement.
3. Please don’t put it in place where is invaded by vapor or oil fog. Otherwise it may cause error action.
4. Though the product has anti-interference function. In case in the nearby area more than 3 sets need to be installed, it may occur error action due to the interference. So please ensure the right installing place or ask us for inquiry.
5. Please don’t put it in place where the reflecting light such as sun light could reach the detecting lens; otherwise it may cause error action. The back ground materials are marble and aluminum etc.

4 INSTALLING WAY

1. Stick installing paper on the mounting position, according to the instruction on the paper to drill the mounting hole 4.5mm and cable entrance hole of 10mm.
2. Fix the underframe on the wall with two screws.
3. Fix the main detector on the underframe.
4. Connect the microwave sensor and autodoor controller. The gray cable is for power supply. The yellow cable is for signal contact. Neither of them are polarized.
5. Keep the connect cable hidden.
6. Recover the outer cover after all parameters be set.
5 NEAR-FAR DETECTION RANGE ADJUSTMENT

Detection curve side view (unit: m)

6 WIDE DETECT RANGE ADJUSTMENT AND MODE SETTING

1. THE POSITION ① OF DIP SWITCH IS USED TO ADJUST DETECTION RANGE
   - MAX DETECTION RANGE (ABOUT 1500MM WIDE)
   - MIN DETECTION RANGE (ABOUT 600MM WIDE)

2. THE POSITION ② OF DIP SWITCH IS USED TO SELECT THE WORKING MODE (A MODE OR B MODE)
   In case in the nearby area two detectors need to be installed, it may occur error action due to the interference. So please ensure setting one detector with A mode while the other with B mode.

7 SETTING THE DETECTOR SENSITIVITY

SENSITIVITY FINE-TUNING TO ADJUST THE DETECTION SENSIBILITY.
H: HIGH SENSIBILITY
L: LOW SENSIBILITY

8 INPUT AND OUTPUT LINE

YELLOW LINE: RELAY OUTPUT (COM No)
GRAY LINE: POWER IN (AC/DC 12-36V)

9 COMMON FAULT

Phenomenon: CONNECTION CABLE LOOSE OR NOT CONNECTED
Handling: Please ensure the cable has been connected.

Phenomenon: DETECTION LENS WAS POLLED BY THE DUST OR WATER DROP. So the detection sensitivity reduced.
Handling: Clean with soft fabric and adjust the sensitivity fine-tuning to H.

Phenomenon: DETECTION RANGE IS NOT PROPER
Handling: Adjust the detection range or move away the flower/Trees etc.

Phenomenon: MOVING PEOPLE WITHIN THE DETECTION RANGE
Handling: Please re-adjust the DIP switch. Or adjust the oblique of the detector body

PHENOMENON: ACTION WITH HIGH SENSITIVITY
Handling: Adjust the DIP switch to ON, position and adjust the sensitivity fine-tuning to L position

10 SPECIFICATIONS

RAY TYPE: Reflect infrared
QUANTITY OF RAY: 8 emit rays and 8 receive rays
THE FUNCTION TYPE: Detect moving objects
MAX. INSTALLING HEIGHT: 3000MM
SENSITIVITY ADJUSTING: Sensitivity fine-tuning
ADJUSTMENT OF DETECTION AREA: Adjusting detector angle 0° ~ 10°
POWER: AC/DC12-36V±5%
CONSUMPTION CAPACITY: less than 2.5 VA
RELAY OUTPUT: DC50V, 0.1A
OUTPUT MAINTAINING TIME: 2S
INDICATION OF OUTPUT: Standby with green light, Signal receive with red light
AMBIENT TEMPERATURE: -20°C ~ +60°C
WEIGHT: 400g
COLOR: Silver
ACCESSORIES: Soft cable 2.5m, mounting screws 2 pieces, installing paper, manual instruction
iDoor Automatic door Retrofit power train

Module motor, controller and power supply

- Drive belt
- Endgear
- Carriage fixing bolts
- Two belt brackets
- Three mounting plates
Installation instructions for Retrofit kit on a Model EL300

The existing door operator shall be stripped clean to all fitting of the new power train, Carriages, doors, door stops and floor guides are to be reused.

1. Slide two motor mounting brackets into extrusion at left hand end
2. Align brackets then tighten one being careful not to bend bracket
3. Fit motor module by sliding onto groove in both side of bracket
4. Slide module on to second mounting bracket then align fixing holes
5. When aligned slide module aside to tighten mounting bracket
6. Reposition module in place then fit the three fixing bolts then tighten
7. Fit the third mounting plate to the right hand end of the beam
8. Fit the end gear assembly to the mounting plate
9. Align then fix the end gear.
10. Run belt thru end gear and motor then fix lower belt bracket to carriage
11. Fit belt to upper belt bracket then fix to secondary carriage if biparter
12. Tighten end gear belt adjustor at right hand side, loosen nut then tighten when complete
# Commissioning Check List

**Track and Door Installation**
- # Is track well fixed and level
- # Check that door head is reinforced and bolts well fixed
- # Are hanger brackets fitted level to top of the alum doors
- # Are alum door bottom rails cut out to allow for floor guides
- # Check floor guides are well fixed and are not fitted too tight on the door, door should move freely.
- # Is there a 10mm gap under the door

**Plug in and Play**
- # The inside and outside sensors
- # The presence safety sensor
- # The 6 position mode pad
- # Battery lead on to the main board
- # Exterior key switch (if locking system fitted)
- # Big green exit button (if locking system fitted) at correct height between 900mm and 1100mm from floor
- # Fit Directional arrow stickers between 1200mm to 1500mm from floor (these are mandatory in Building Code)

**Adjust**
- # The activation sensors by moving the vertical & lateral angle of the antenna, then tune the sensitivity adjustment pot to ensure the path of the people using the doorway is covered. See page 29 of manual.
- # The safety sensor by adjusting the pitch angle, the width of the beam via the dip switches and set sensitivity pot so that the smallest child can be detected.

**Final Check**
- # Turn the power supply off whilst doors are in auto mode to ensure that the battery back up opens the doors to allow emergency exit this is very important as most doors are fire exits.
- # Turn the power supply off whilst doors are in lock mode to check that the battery back up keeps the doors locked and that the green exit button opens the door
- # Hand over the operating manual to client so that know how to use the mode pad, maintenance requirements and warrantee details

Please check and tick all boxes then return the signed copy to your office for inclusion in the job file, this check list is a requirement of the Australian Standard and may also be used to establish a fire exit compliance certificate at a latter stage.

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