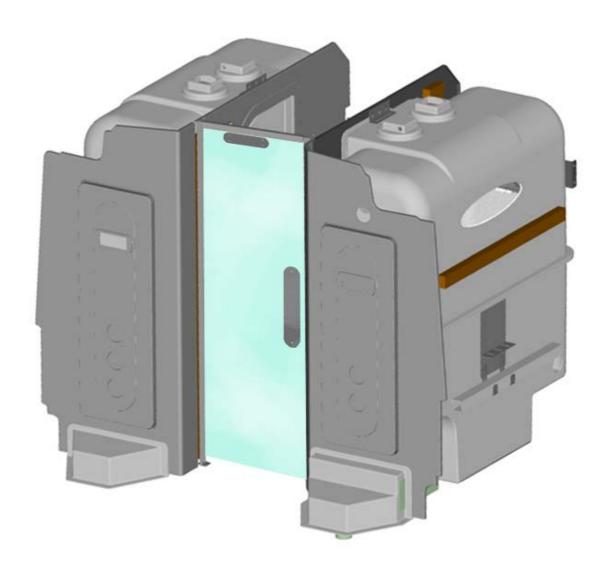


R08 -1921RS Toilet Cubicles



Manual

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CUBICLE OPERATING INSTRUCTIONS

To Switch The Cubicle On:

Engage the WC Master switch on the dashboard. The cubicle interior lamp will turn on for 30 seconds and the vacant lamp will come on after 1 minute. The cubicle is now ready to use. (It is recommended that the vehicle engine is running)

Cubicle Interior Light:

On entry, the interior lamp will come on automatically and illuminate the "Occupied" lamp. The interior lamp is controlled by a movement sensor which will switch off the light automatically shortly after the cubicle is vacated and illuminate the "Vacant" lamp.

To Flush The Toilet:

Push the flush button once to flush the toilet with a set quantity of water. Should a further flush be required, wait for the flush cycle to complete then press the button again.

(When the holding tank is full, the dashboard LED will illuminate and the "Occupied" lamp will signal. The toilet is now out of use until the holding tank is emptied.

(When the clean water tank is empty the dashboard LED will illuminate and the "Occupied" lamp will signal. The toilet is now out of use until the water tank is re-filled.)

To Wash Your Hands:

Depress the handwash button once to dispense a set amount of water.

(When the handwash tank is empty the dashboard LED will illuminate to alert the driver..)

In Case of Emergency:

Depressing the red alarm button will alert the driver and sound a buzzer.

Cubicle Extractor Fan:

The ventilator fan runs at half speed when the cubicle is vacant and switches to full speed when the cubicle is occupied.

Water Tank Filling & Emptying

Tanks are filled via the hose connectors located in the side locker. The holding tank is emptied by pressing a button behind the locker door beneath the cubicle, which operates a pneumatic valve. This must be operated with the parking brake ON.

Cubicle Cleaning

The cubicle is manufactured from Glass Reinforced Plastic (GRP) with high gloss interior and lightly textured exterior surfaces. This surface finish is delicate and must only be washed down using a mild detergent. The use of a caustic or abrasive material is not recommended, as this will affect the appearance.

Toilet Bowl Cleaning

To protect the finish of the Stainless Steel toilet bowl do not use abrasives of any kind. To clean the bowl, use a mild anti-bacterial detergent and suitable brush.

Litter Bin

The cubicle features a plastic bin located in the sink area. The use of a bin liner is recommended.

Soap Dispenser

To fill the dispenser, unlock the mirror cabinet, lift the lid of the dispenser and fill with liquid soap.

Toilet Roll

It is recommended that a high biodegradable paper is used at all times.

Domestric grade toilet paper is not recommended as this can block the system.

The toilet roll is located inside the lower vanity door. Unlock and open the door, slide the roll onto the spindle.

Daily Routine

- Prior to the vehicle entering service the holding tank should be charged with an additive to sanitise the effluent.
- The recommended product is Shades Super Sani ECO, (No.800025).formulated from natural essential oils, this formaldehyde-free formula is contained within a water soluble membrane. A single 16 gram sachet contains the recommended dosage for 110 litre capacity holding tank and will function for a maximum of three days.

To apply:

- 1. Ensure the holding tank is empty.
- 2. Check the tank evacuation valve is closed
- 3. Check the WC clean water tank is full.
- 4. Switch on power to the cubicle (see page 3)
- 5. Press the flush button to open the toilet valve and drop the complete sachet into the bowl.

Caution Do not open the sachet.

- It is recommended that the WC supply tank is drained and the holding tank is emptied at the end of every day.
- The daily addition of a couple of drops of mild detergent into water resting in the toilet bowl will lubricate the slider and protect the seal.
- The hand wash tank should be emptied and re-filled dailey. To help maintain a clean tank and freshwater the use of a sanitiser is recommended. Shades can supply a suitable product that disinfects the water, that is safe to drink and nonirritable to the skin and eyes. Cat No. 800060

Weekly Routine

- Check extractor fan function.
- Inspect the security of the faucet, door hinges and toilet seat. Check the operation of the cubicle door and lock function. Test alarm button and buzzer function.
- Open vanity door, check electrical and plumbing connections for security and leaks.
- Check water flow to the hand basin is smooth and constant.
- Connect a high pressure hose to the soil tank cleaner nozzle and leave it running for 2 minutes with the evacuation valve to the soil tank open.

Quartely Routine

- Flush out holding tank with clean water. (the holding tank must be empty and the vehicle positioned so that the holding tank evacuation valve is over a sewage drainage point)
- The two cubicles are fitted with a high-pressure 360 degree washer jet and can
 be activated by attaching a hose pipe. The connections are next to the tank filler
 inlets behind a rear locker door and a hose runs to each tank jet. It is
 recommended that the hose is left on full for 2 minutes with the waste tank valve
 left open.
- Lubricate holding tank evacuation valve. (to be carried out immediately after flushing through the holding tank).
 Undo the four fixing bolts holding the soil valve assembly together and remove the main body section. Lubricate the slide paddle using lithium grease or similar so the open/close operation is smooth. Replace the valve body and bolt together. Do not over tighten as this will restrict the operation of the valve.
- Disinfect the hand wash tanks and flush through with clean water.

If the vehicle is to be parked in zero or sub-zero temperatures, it is imperative that all water containers are completely drain beforehand.

Note

No warranty claims will be accepted on any winter damaged parts.

Jump Starting

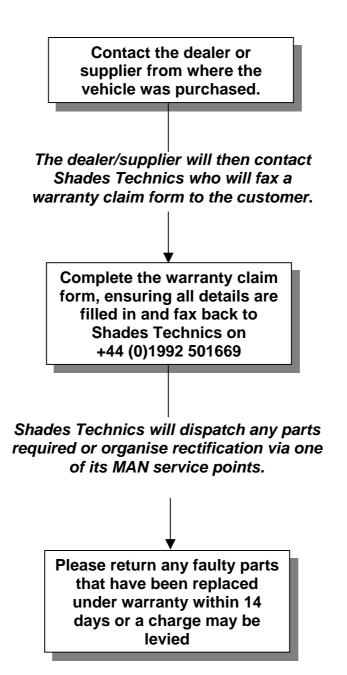
When jump starting the vehicle, please ensure that the dashboard master Switch, **WC**, is off!

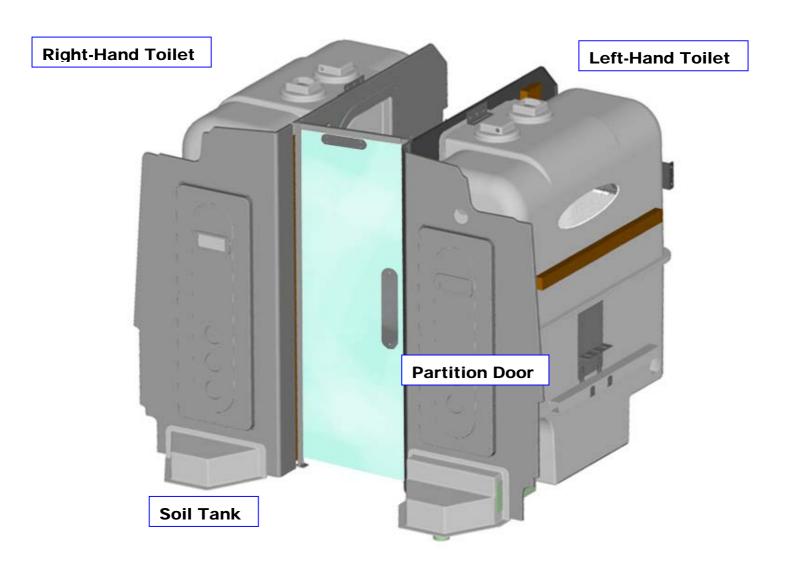
Fault Reporting Procedure

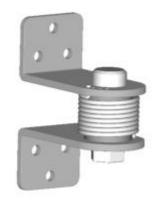
- 1. Should a system fault occur, we recommend checking the fault analysis flow charts at the end of this manual.
- 2. Using these charts, determine the cause of the fault and replace the faulty item from the kit if possible.
- 3. To order a replacement kit or non-kit part contact the dealer as specified on the contents page (Page 2) of this manual, quoting the cubicle serial number.
- 4. In order for replacement goods to be dispatched a simple warranty procedure must be followed.

Notes:

 Tampering, unauthorised involvement or preventable damage will result in a charge being levied Shades Technics offer a comprehensive warranty cover for all products, valid for 24 months from the vehicle's date in service.







Sprung Door Hinge Cat No: MA661405 Upper Cat No. MA661406 Lower



Sprung Door Hinge Cover Cat No: MA661407



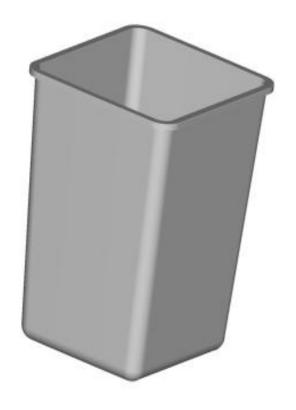
RH Door Lock Cat No: MA661205



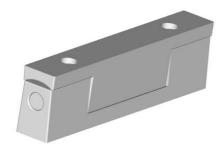
Coat Hook Cat No: MA661030



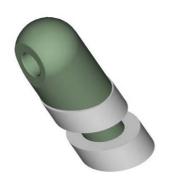
Clear Buffer Cat No: MA713515



Litter Bin Cat No: MA661040



Edgemount Hinge Cat No: MA661410



Faucet

Cat No: MA663605 Faucet with Spacers Cat No. MA663606



Floor/Sink Drain Cat No: MA701551



Flush/Hand wash Button Cat No: MA714007



Alarm Button Cat No: MA714030



Toilet Roll Holder Cat No: MA661616



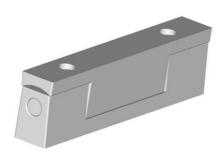
Black Screw Knob Cat No: MA663408



Happich Lock Cat No: MA661217



Litter Bin Knob Cat No: MA661214



Edgemount Hinge Cat No: MA661410



Clear Buffer Cat No: MA713515



Soap Dispenser Cat No: MA661660

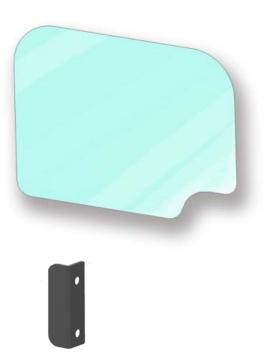


Happich Lock Cat No: MA661217



Hand Dryer Cat No: MA661800

Cubicle Upper Vanity Spares



Vanity Mirror Cat No: MA661819

Door Catch Cat No: MA663958



Bayonet Bulb Cat No: MA712028



Bulb Holder

Cat No: MA712027



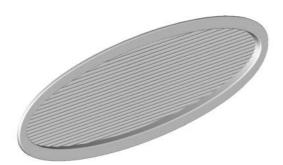
Nylon Screw Cat No: MA713151



Seat Stopper Cat No: MA713500



Plastic Pump Clip (pump) Cat No: MA722007



Window

Cat No: MA661051



210mm Grab Handle

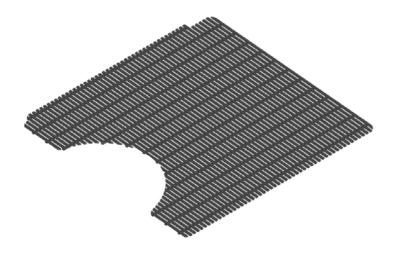
Cat No: MA661166



Hand Wash Pump Cat No: MA702110



Flush Pump Cat No: MA702140



Rubber Floor Mat Cat No: MA661470



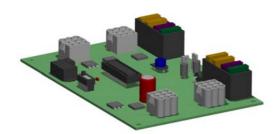
Fan Cover Cat No: MA661477



Lamp Cover Cat No: MA661478



610mm Grab Handle Cat No: MA661160



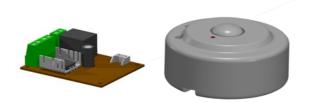
Cubicle PCB

Cat No: MA730616



Kitchen PCB

Cat No: MA735650



PIR Assy Cat No: MA712025



Baby Changer Mattress Cat No: MA661481



Baby Changer Cover Cat No: MA661487

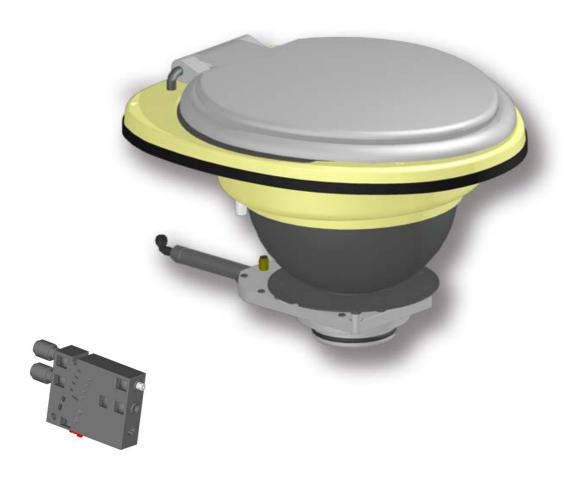


Hinge Cover Cat No:MA661488

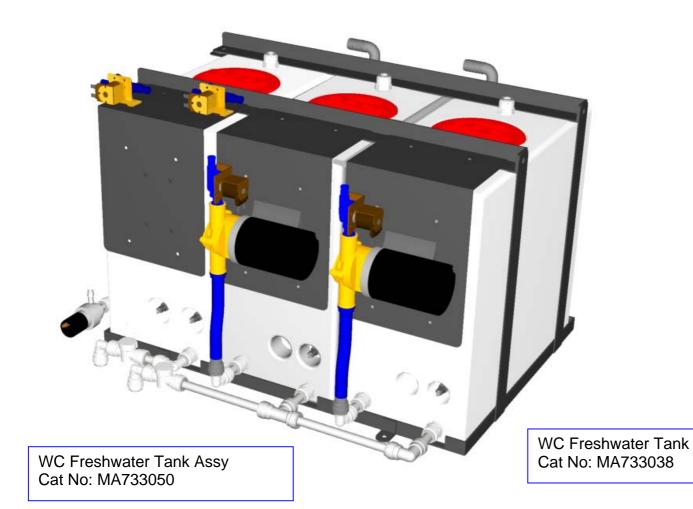


Straps

Cat No: MA661480



1	Pneumatic Slide Valve	MA735713
3	Control Box	MA735714
Pne	umatic Slide Valve & Control Box	MA735732
4	Back Nut	MA695504
5	Bowl Jet	MA663604
6	Bowl Overflow	MA701502
7	Splash Shield	MA731260
8	Stainless Steel Seat Hinges	MA735102
9	Toilet Seat and Lid	MA735101
10	WC Bowl Assy	MA731255
11	Gasket: LD45 gasket for splash shield.	MA731261
12	Screw: Splash shield screw M4 x 25	MA731152
13	Air Pipe: 4mm Black (per metre)	MA735722
14	Air Pipe: 4mm Blue (per metre)	MA735723





Hatch Cover Cat No: MA732051





Horizontal Float Switch Cat No: MA714510

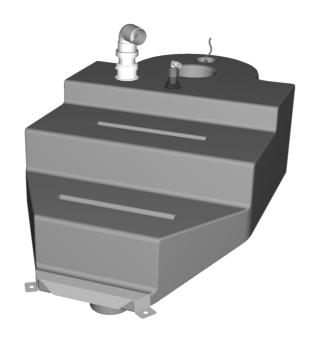
3/4"BSP Hose Barb Con Cat No: MA747036





Solenoid Valve LP

Hose – Hose Cat No: MA714620 Thread – Hose Cat No: MA714622

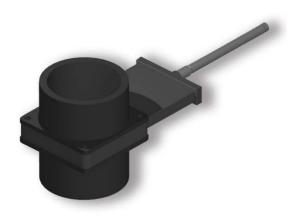


Soil Tank

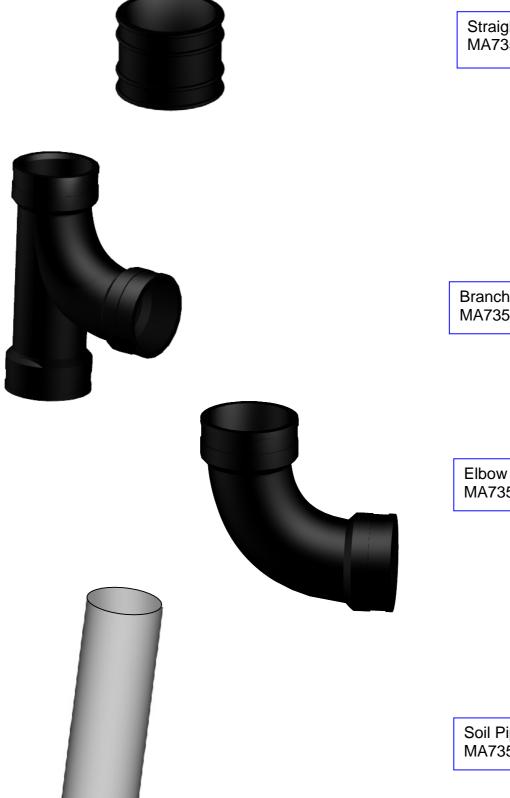
RH = Cat No: MA733040 LH = Cat No: MA733041



Tank Washer Jet Cat No: MA733035



Pneumatic Dump Valve Cat No: MA735734



Straight Coupling MA735705

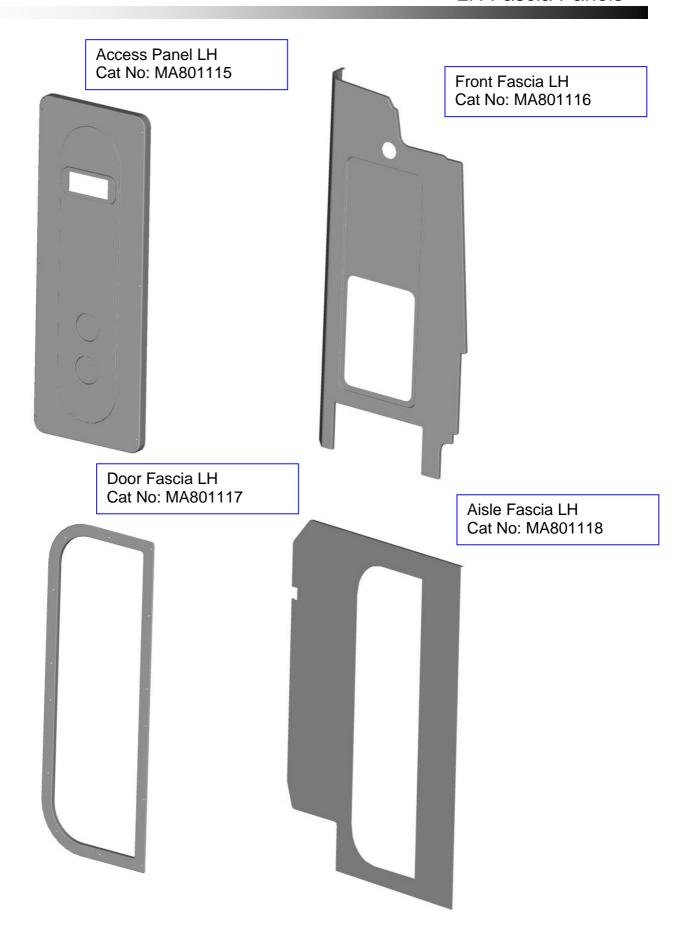
Branch 'T' MA735766

MA735765

Soil Pipe MA735726



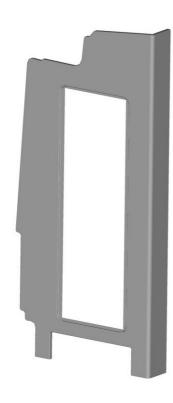
Door Assembly inc Frame Cat No: MA801099



Access Panel RH Cat No: MA801119



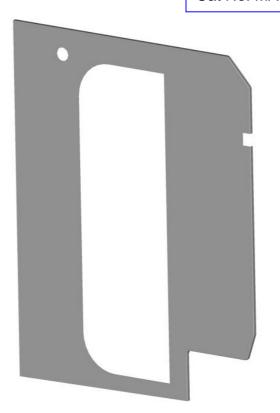
Door Fascia RH Cat No: MA801121

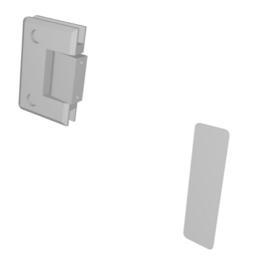


Front Fascia RH Cat No: MA801120

> Aisle Fascia RH Cat No: MA801122







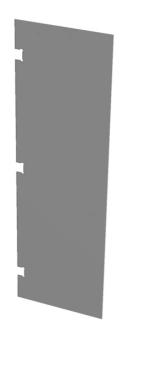
Door Hinge Cat No: MA801105

Door Push Plate Cat No: MA661169



Door Closer

Cat No: MA801103



Partition Door Glass Cat No: MA801098

Door Handle

Cat No: MA661168



Knuckle Bend Cat No: MA744120



Shut off Tap Cat No: MA747037



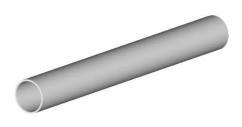
T Push Fit Cat No: MA744121



½" Potable Hose Cat No: MA744030



12-22 Hose Clip Cat No: MA744041



21.5mm Rigid Pipe Cat No: MA747055



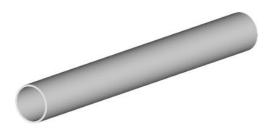
Black End Cap Cat No: MA732061



Tank Connector Cat No: MA732064



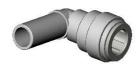
Swivel Bend Cat No: MA732063



40mm Pipe Cat No: MA732062



Hose Barb Connector 15mm x ½" Speedfit Cat No: MA747027



15mm Stem Elbow Cat No: MA747016



15mm Equal Elbow Cat No: MA747015



15mm x ¾" BSP Tap Adaptor Cat No: MA747024



15mm T Connector Cat No: MA747020



Cat No: 747028

15mm Male Coupler



15mm Drain Valve Cat No: MA747037



15mm Service Valve Cat No: 747035





No Standing Cat No:735560



Emergency Alarm Cat No:735566



No Smoking Cat No:735563



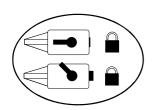
Shades Technics Cat No:735568



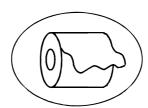
Male Cubicle Cat No:



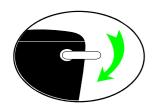
Female Cubicle Cat No:



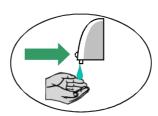
Door Lock RH Cat No:735564



Toilet Roll Cat No:735569



Flush Cat No:735562



Soap Dispenser Cat No:



Hand wash Cat No:735561



Litter Bin Cat No:735567



Baby Changer Cat No:735561

Description

The Toilet Cubicle Control Board is a solid state electronic control unit that manages all toilet cubicle functions. All output devices are short circuit and over-voltage protected for reliability and safety.

Operation

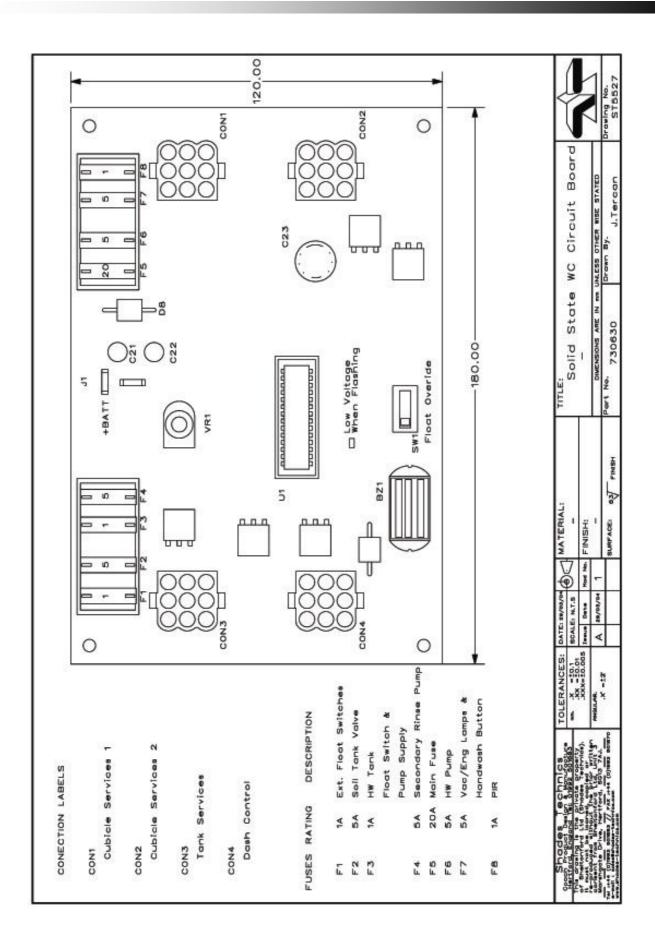
Power-up & voltage low indicator

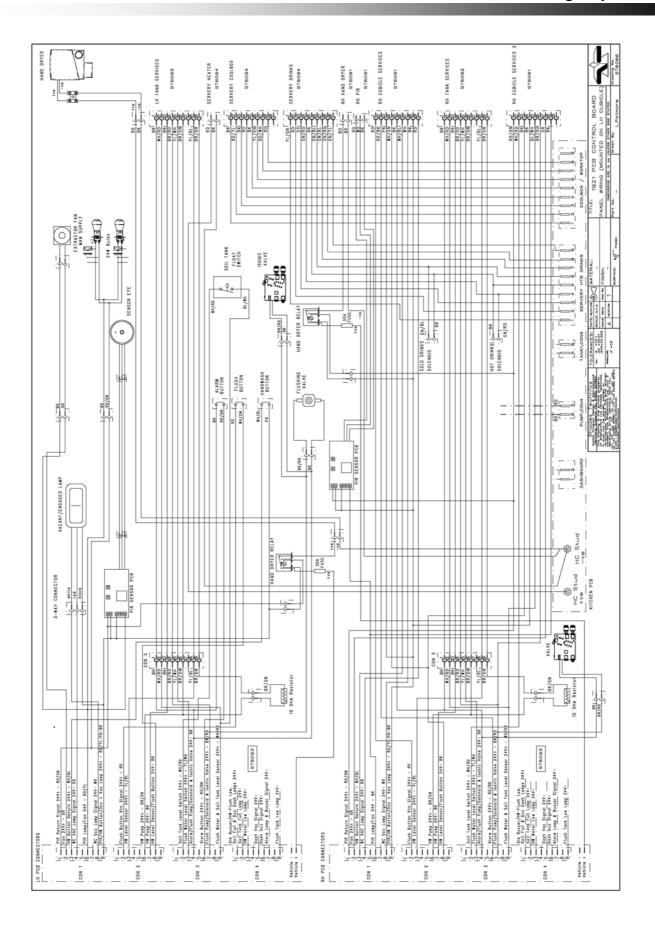
On power-up the control board enters the shut-down mode for 60 seconds. In shut-down mode, the occupied lamp will be on and all other outputs off.

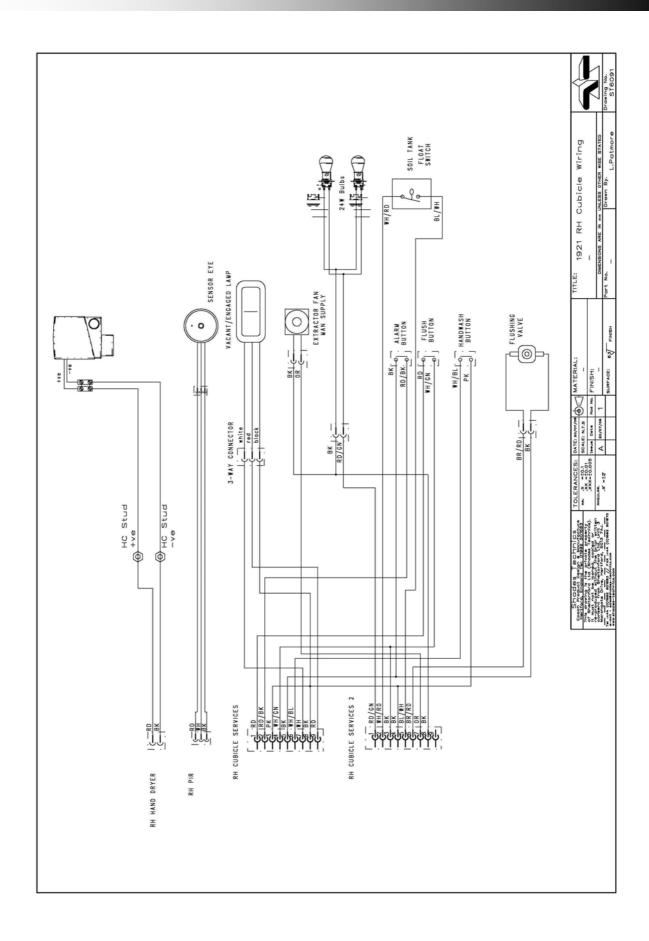
After 60 seconds, provided that the voltage is not too low, the control board will enter the normal operating mode.

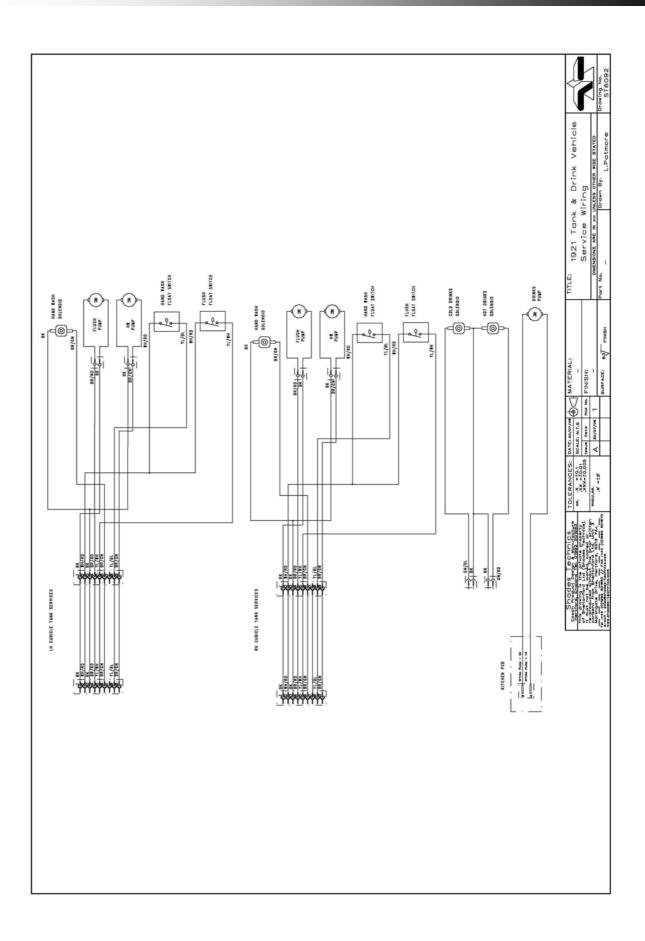
If at any time the voltage drops below the threshold (set by VR1) for more than 5 seconds, the control board will re-set. After a re-set, the board starts in the shut-down mode for another 60 seconds before being fully functional.

The threshold voltage is factory set to 22V, the RED 'low voltage' LED will begin to flash if the supply drops below the threshold.



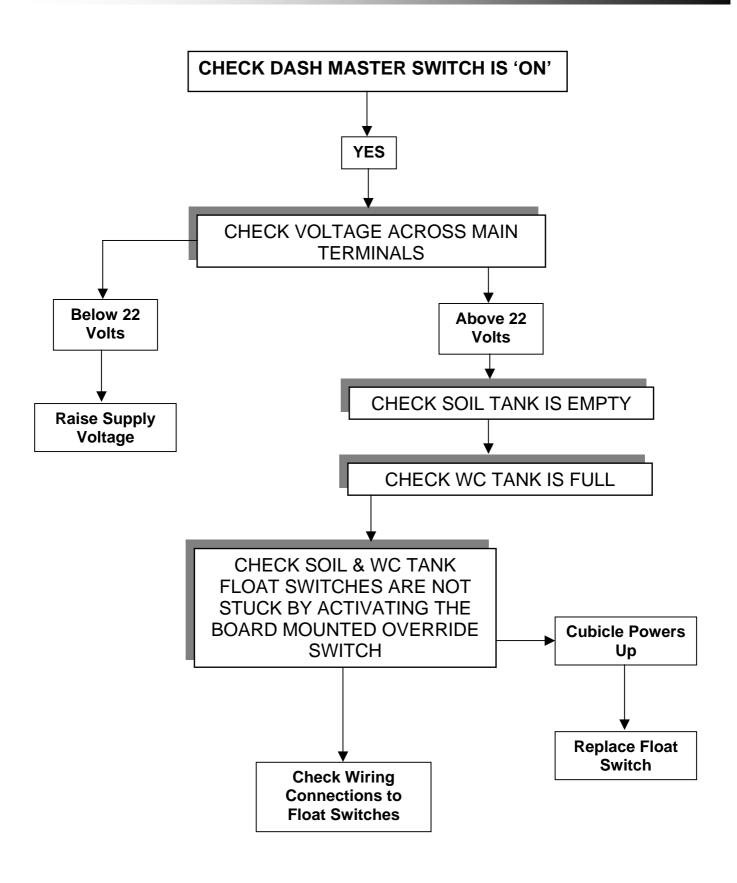


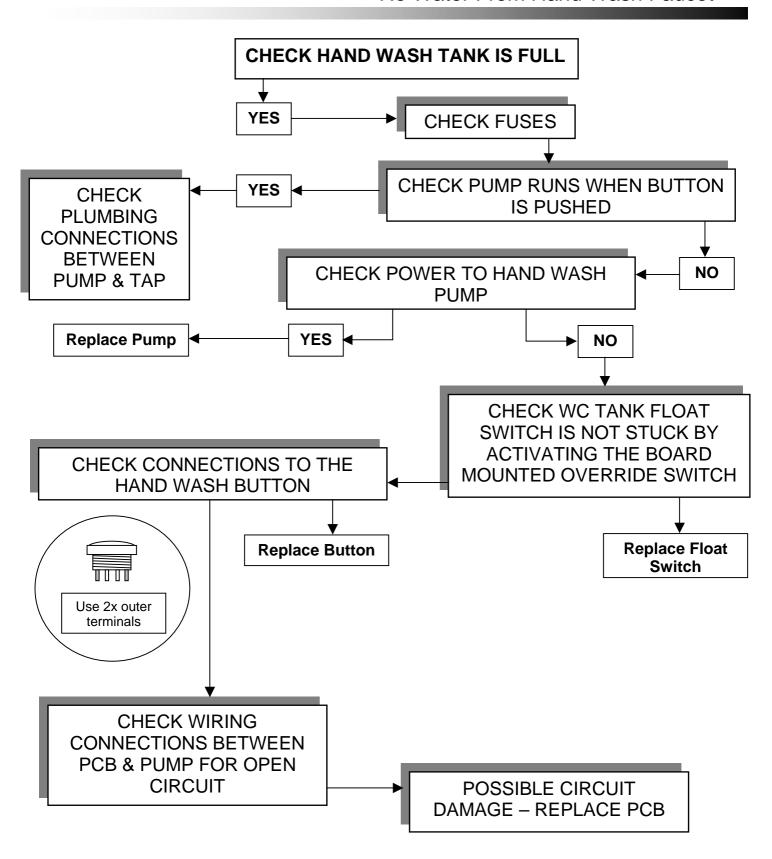


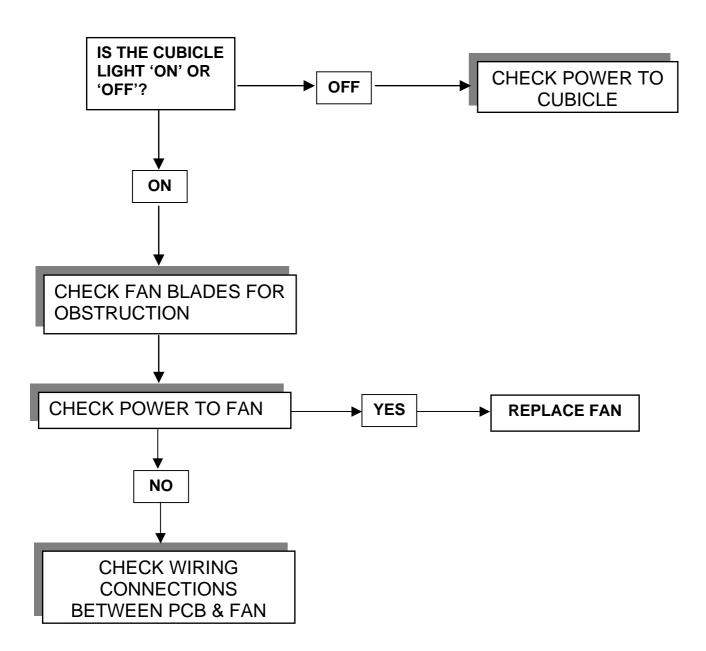


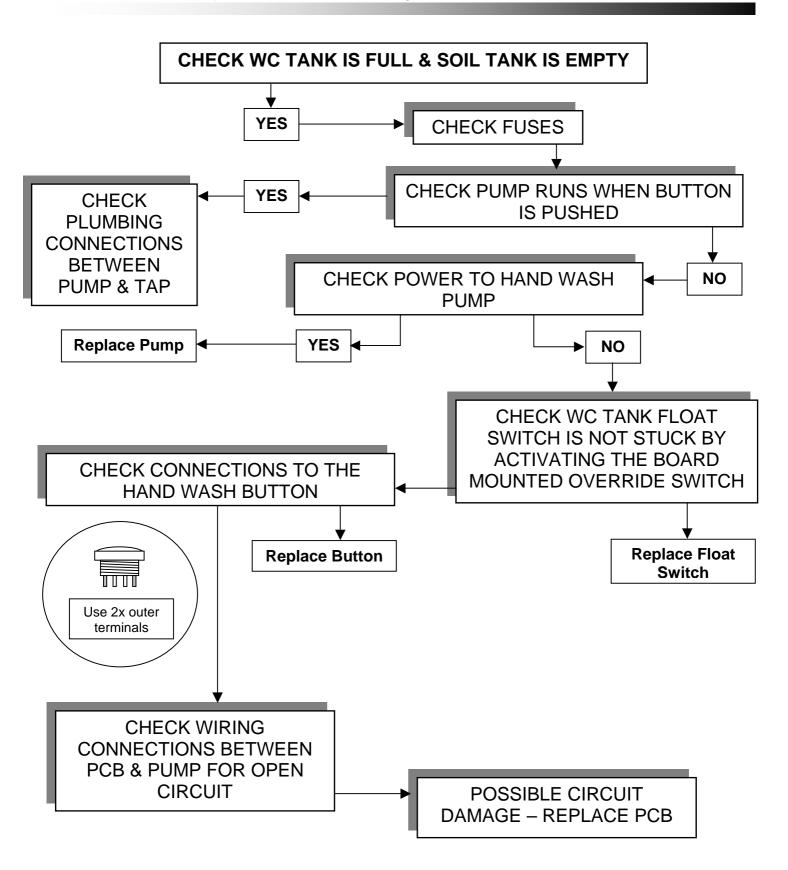
TOILET

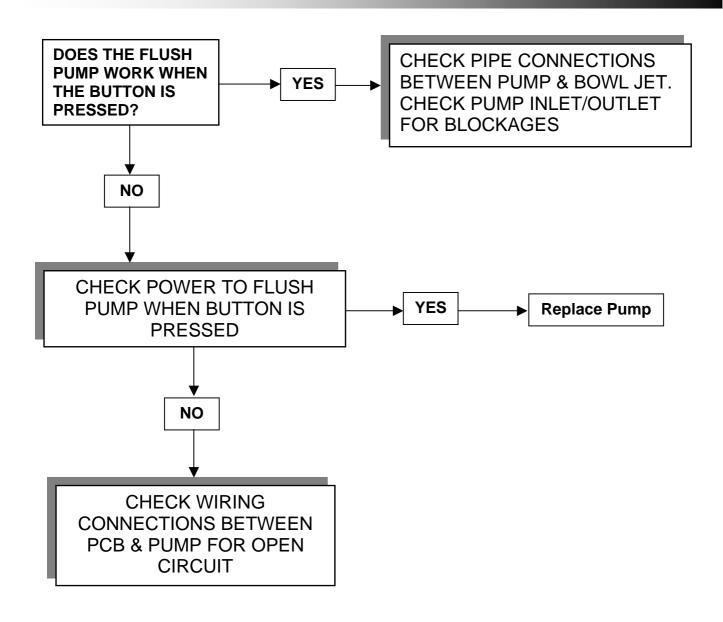
- 1. Toilet Fails To Power Up
- 2. No Water From Hand Wash Faucet
- 3. Extractor Fan Not Functioning
- 4. Hydro-Jet Not Working No Water or Pneumatic Valve
- 5. Hydro-Jet Pneumatic Valve Opens No Water
- 6. Hydro-Jet Water Flows Pneumatic Valves Does Not Open
- 7. Poor Water Flow Around Bowl
- 8. Interior Lamp Stays On Too Long/Not Long Enough
- 9. Aircalor Hand Drier Not Functioning
- 10. Vacant/Engaged Lamp Fails
- 11. Interior Lamp Fails
- 12. Alarm Button/Buzzer Not Functioning
- 13. Bad Toilet Odour

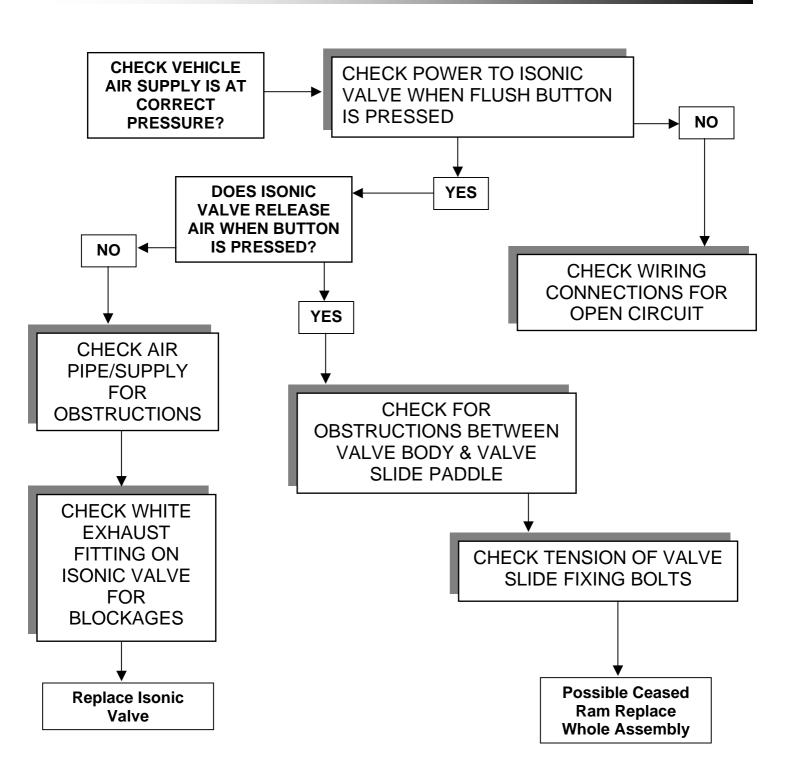


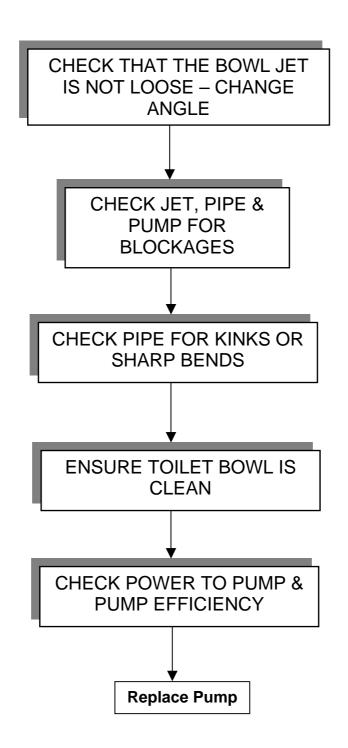




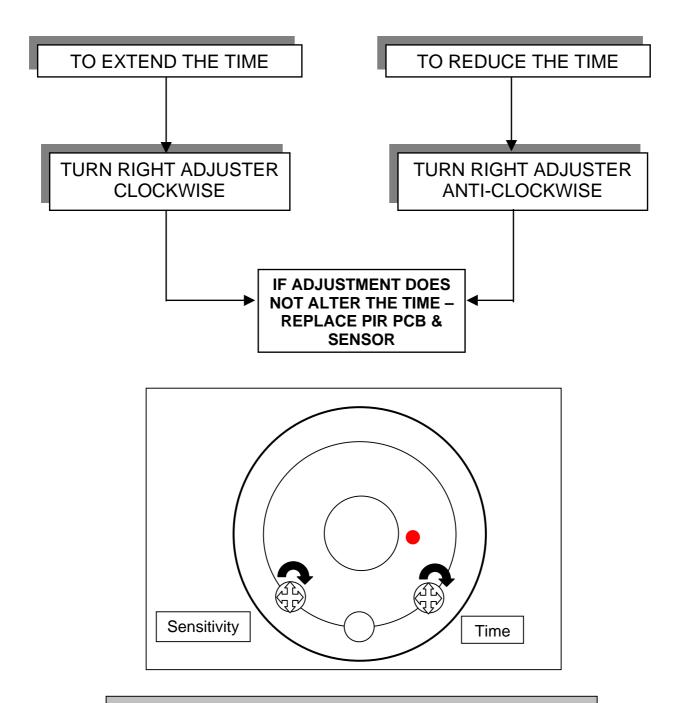






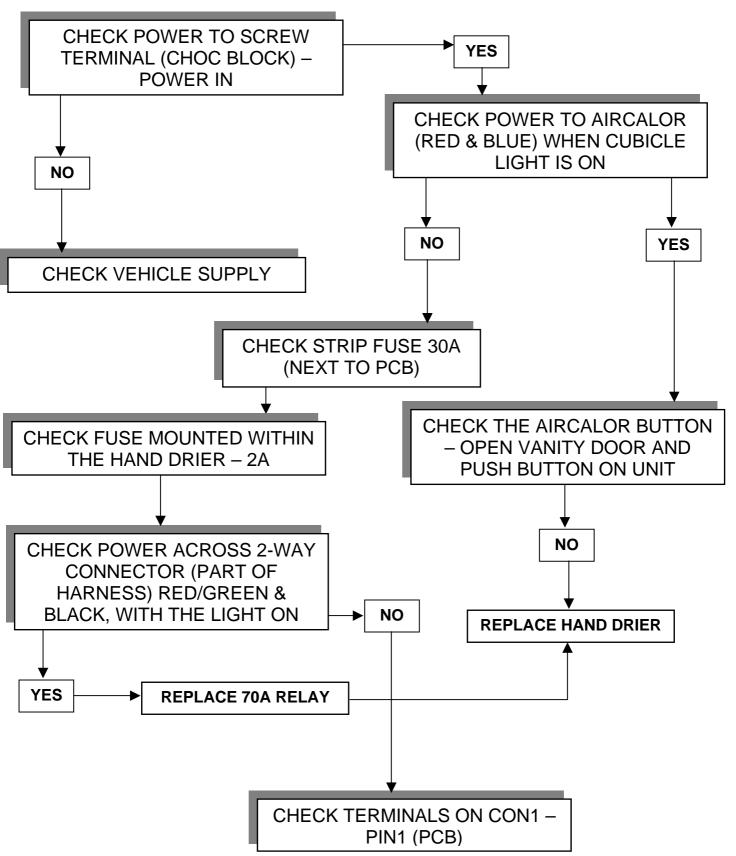


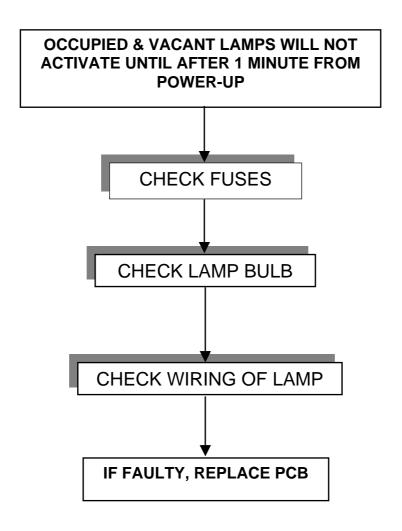
THE INTERIOR LAMP SENSOR DETECTS
BOTH HEAT & MOVEMENT. IT IS PRE-SET
TO TURN OFF THE INTERIOR LAMPS 30
SECONDS FROM ITS LAST DETECTION

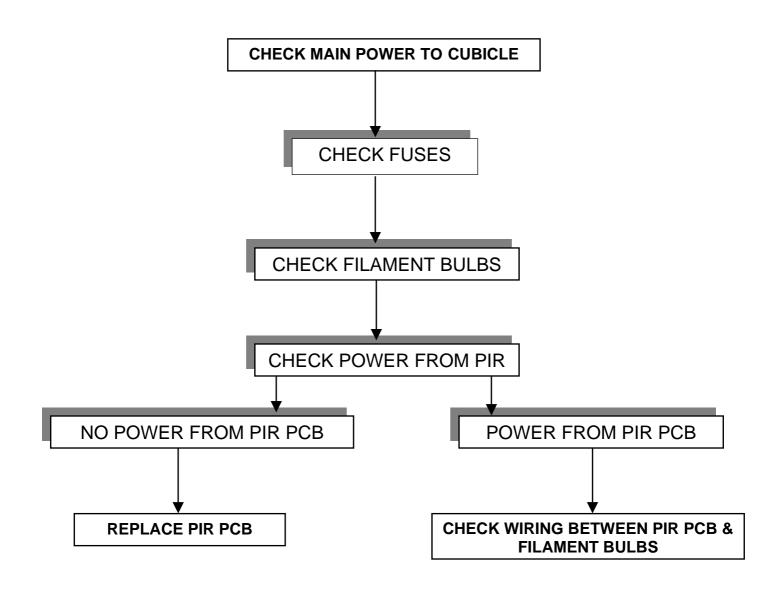


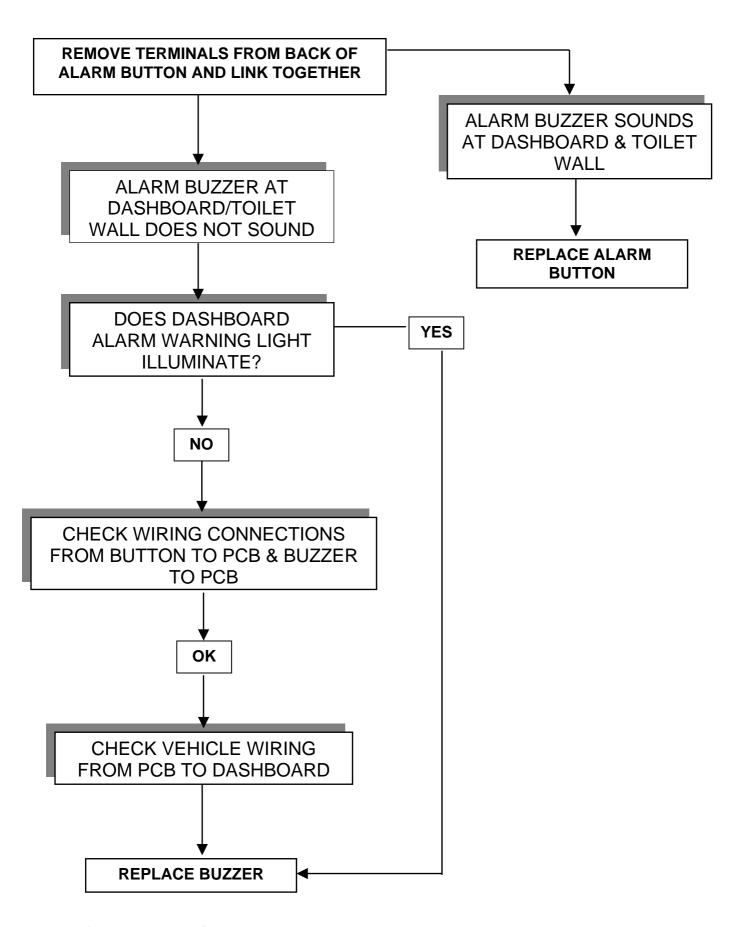
THE LEFT HAND ADJUSTER ALTERS THE SENSITIVITY OF THE SENSOR – CLOCKWISE TO INCREASE

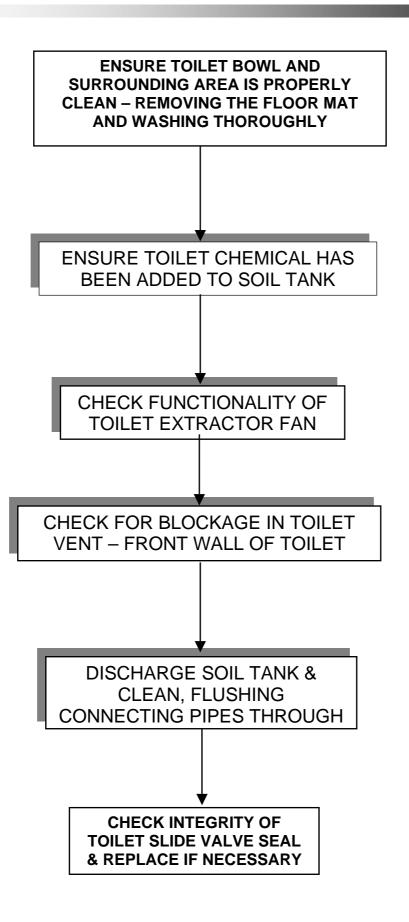
The Aircalor Hand-Drier will only Function with the WC Master Switch On and the Cubicle Interior Light On.







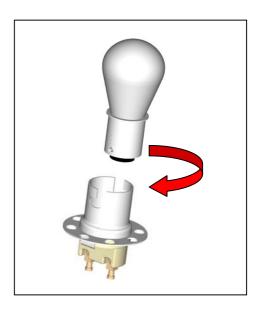




The following section details where to find key components and how to replace them.

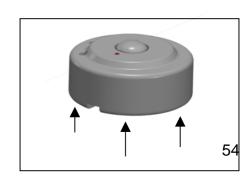
Part = Bulbs Location = Cubicle Top Replacement....

- 1. DISCONNECT THE POWER TO THE CUBCILE
- 2. REMOVE PLASTIC LIGHT COVER 4x NYLON SCREWS
- 3. DISCONNECT PIR CONNECTOR
- 4. TWIST BULB TO RELEASE AND REPLACE



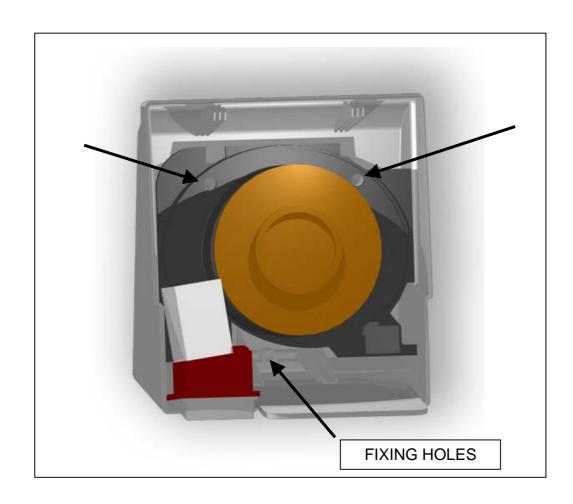
Part = PIR Sensor Location = Cubicle Top Replacement....

- 1. REMOVE PLASTIC LIGHT COVER 4x NYLON SCREWS
- 2. DISCONNECT PIR CONNECTOR
- 3. REMOVE 3x SCREWS ON THE INSIDE OF THE LIGHT COVER TO RELEASE THE PIR SENSOR.
- 4. TO RE-FIT A NEW SENSOR, REMOVE THE 3x SCREWS FROM THE BACK AND FIT THE UNIT BACK IN THE RECESS.
- 5. TIGHTEN THE SCREWS FROM INSIDE THE LIGHT COVER MAKING SURE TO ALIGN THE CABLE FROM THE PIR THROUGH THE SQUARE HOLE.



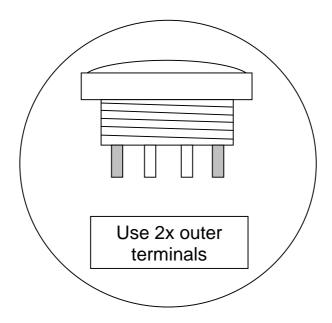
Part = Hand Drier Location = Behind Upper Vanity Door Replacement....

- 1. DISCONNECT THE POWER TO THE CUBICLE
- 2. UNLOCK AND OPEN THE UPPER VANITY DOOR
- 3. REMOVE 2x SCREWS ON THE UNDERSIDE OF THE HAND DRIER
- 4. REMOVE THE FRONT COVER OF THE HAND DRIER
- 5. REMOVE 2x RUBBER HOLE COVERS
- 6. REMOVE 3x SCREWS RELEASING THE UNIT FROM THE WALL
- 7. DISCONNECT THE 2 CABLES PASSING THROUGH THE OUTER WALL OF THE CUBICLE MAKING SURE THEY DO NOT FALL DOWN THE BACK
- 8. RE-CONNECT A NEW UNIT AND SCREW TO THE WALL
- 9. MAKE SURE THE RUBBER HOLE COVERS ARE RE-FITTED AND FIT THE COVER SECURING WITH BOTH SCREWS



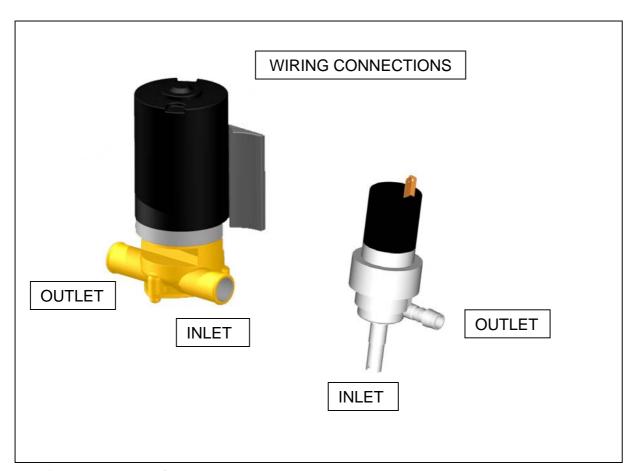
Part = Hand Wash & Flush Buttons Location = Sink Vanity Replacement....

- 1. DISCONNECT THE POWER TO THE CUBICLE
- 2. UNLOCK LOWER VANITY DOOR
- 3. REMOVE TERMINALS FROM THE BACK OF THE BUTTON
- 4. UNSCREW THE COLLAR ON THE UNDERSIDE OF THE BUTTON
- 5. BUTTON SHOULD RELEASE FROM THE TOP
- 6. RE-FIT NEW BUTTON AND CONNECT THE TERMINALS



Part = Hand Wash & Flush Pump Location = Locker (below RH Cubicle) Replacement....

- DISCONNECT THE POWER TO THE CUBCILE
- 2. UNLOCK LOWER VANITY DOOR
- DRAIN FRESHWATER TANK
- 4. DISCONNECT THE WIRES TO THE PUMP
- REMOVE FROM SECURING CLIP
- 6. RELEASE INLET AND OUTLET PIPES
- 7. RE-FIT NEW PUMP MAKING SURE THAT BOTH INLET AND OUTLETS ARE WATER TIGHT AND THE FLOW ARROW IS POINTING IN THE CORRECT DIRECTION
- 8. RE-CONNECT THE POWER
- 9. CLOSE THE DRAIN ON THE SUPPLY TANK
- 10. RE-FILL TANK WITH FRESHWATER
- 11. SWITCH ON POWER TO CUBICLE
- 12. PRIME PUMP WITH 2-3 BUTTON PUSHES



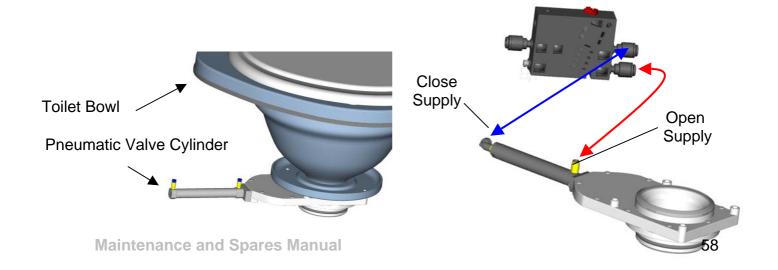
Part = Toilet Slide Valve Location = Toilet Bowl Removal....

- 1. DISCONNECT THE POWER TO THE CUBICLE
- 2. REMOVE 4x FIXING SCREWS FROM AROUND THE TOP OF THE BOWL
- 3. PULL & TWIST THE BOWL TO RELEASE THE SEAL FROM THE SOIL TANK
- 4. ONCE RELEASED, REMOVE THE SUPPLY HOSE TO THE FLUSH NOZZLE
- 5. LIFT BOWL OUT & REMOVE THE 2x AIR SUPPLY HOSES TO THE AIR CYLINDER
- 6. REMOVE 4x FIXING BOLTS SECURING THE SLIDE VALVE TO THE TOILET BOWL

CAUTION: As this air supply is from the vehicle (via the control valve), when it is disconnected the air pressure in the pipes will be at approx 8 bar and will cause the pipe to 'snake around' violently if it is not held firmly.

Replcement....

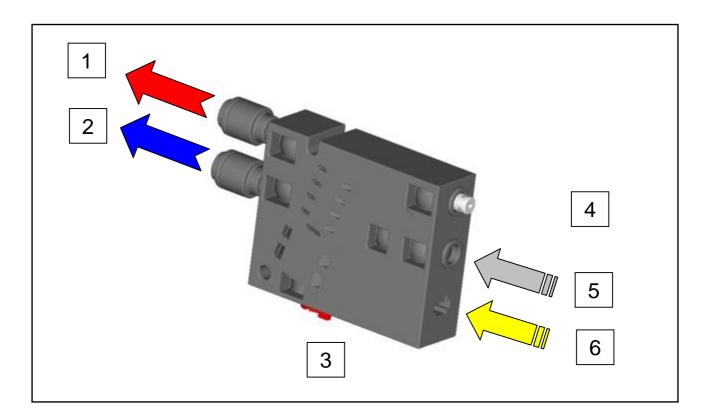
- POSITION THE VALVE ASSEMBLY ON THE BOTTOM OF THE BOWL AND SECURE WITH THE 4x BOLTS. TIGHTEN BOLTS TO 6KGF.CM USING A TORQUE WRENCH.
- 2. SMEAR GREASE OR SIMILAR AROUND THE BLACK O-RING ON THE PNEUMATIC VALVE & PASS BOWL THROUGH APERTURE ON THE COWLING PUSH FIRMLY INTO THE SOIL TANK. ENSURE THAT THE RUBBER FIN GASGET IS NOT IN THE ENTRANCE TO THE TANK AND ON THE BOTTOM OF THE VALVE.
- 3. RECONNECT THE AIR PIPES TO THE CYLINDER AND THE INLET PIPE TO THE FLUSH NOZZEL
- 4. PUSH THE BOWL FIRMLY INTO THE SOIL TANK.
- 5. START THE VEHICLE ENGINE & SWITCH ON THE WC MASTER SWITCH. WAIT UNTIL THE VEHICLE AIR PRESSURE IS AT MAXIMUM BEFORE ATTEMPTING TO FLUSH THE TOILET.



Part = Toilet Valve Control Box Location = Mounted Next to the PCB Replacement....

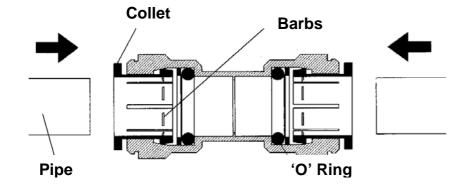
- 1. DISCONNECT THE POWER TO THE CUBICLE
- 2. UNCLIP THE BLACK CONTROL VALVE FROM ITS LOCATION
- 3. REMOVE THE ELECTRICAL CONNECTOR FROM THE VALVE
- 4. REMOVE THE 3x PIPES FROM THE VALVE
- 5. RECONNECT NEW VALVE MAKING SURE THAT THE PIPES ARE IN THE CORRECT LOCATION

CAUTION: As this air supply is from the vehicle (via the control valve), when it is disconnected the air pressure in the pipes will be at approx 8 bar and will cause the pipe to 'snake around' violently if it is not held firmly.



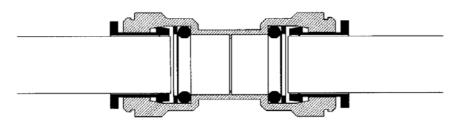
- 1. AIR SUPPLY OUT TO FRONT OF CYLINDER TO OPEN SLIDE VALVE
- 2. AIR SUPPLY OUT TO END OF CYLINDER TO CLOSE SLIDE VALVE
- 3. OVERIDE SWITCH SWAPS PORTS 1 & 2 OVER
- 4. EXHAUST MUST BE KEPT CLEAR
- 5. AIR SUPPLY FROM VEHICLE 10BAR MAX

Service



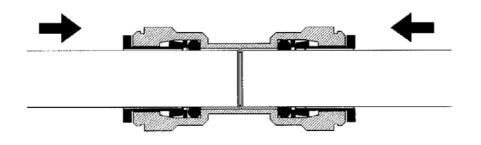
PREPARTION

Cut the pipe square, ensuring it is free of score marks, burrs and sharp edges



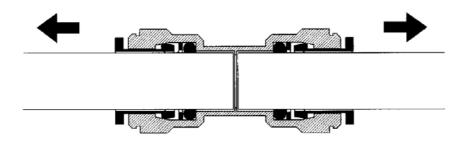
INCOMPLETE CONNECTION

The pipe is gripped by the fitting but not sealed. The pipe must push 30mm into the fitting to seal



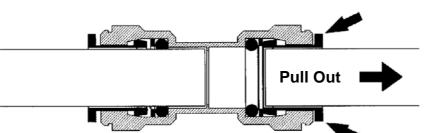
COMPLETE CONNECTION

Push the pipe into fitting to the internal stop. The Collet has stainless steel teeth which grip the pipe whilst the 'O' ring provides a permanent leak-proof seal



CHECK CONNECTION

Pull on the pipe to check it is secure. It is a good practice to test the system this way before use



DISCONNECTING A FITTING

Push in collet squarely against face of fitting. With the collet held in position, the pipe can be removed

DO NOT INSERT FINGERS INTO THE FITTING AS THE STAINLESS STEEL TEETH MAY CAUSE INJURY

Push in Collet