

Affinity Home Elevator

Installation Manual



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Introduction

Affinity Home Elevator

The Lifestyle Affinity is a through floor lift designed for a single standing/seated person, travelling between fixed floor levels in a domestic property with a maximum carrying capacity of 250 kg.

The Affinity functions without a traditional lift shaft and includes an automatic infill panel, ensuring safety by securing the aperture when parked at either level.

Emergency communication is available through a telephone provided within the car. Additionally, both the aperture infill and the car underpan feature half-hour fire-rated panels as a standard safety measure.

The lift car panels are constructed from powder-coated steel, offering easy cleaning using common household cleaners. Upholstery, made from high-quality materials, can be cleaned in the same manner.

End-User / Client and Environmental Considerations

Final lift selection should include full consultation with the client and/or their authorized representative. The following should be discussed and agreement obtained:

- Basic principles of lift operation and safety features.
- Location of lift and ease of access at lower and upper levels.
- Duty cycle (10 cycles per hour).
- Check that the load capacity of 250 kg will not be exceeded.
- Long term suitability of equipment and long term user mobility i.e. will client require/change wheelchair or become incapable of operating existing controls?
- Location of lift powerpack.

- The extent of the intended preparatory work and the time period involved.
- Any deviation from the standard options listed in this specifier's guide must be approved by AmeriGlide
- In the event of a change to client requirements or specification, a new completed survey and specification sheet and quotation would be required rather than modifications to current documents.
- Determine if Local Authority documents are required, e.g. Building Notices, and confirm who will be submitting them.

Site Preparation

Site Preparation

MPORTANT: Before any installation work is carried out, it is important that the site has been fully prepared and in particular, the following points have been considered and actioned:-

When the downstairs floor is not concrete, the following needs to be considered regarding its strength and its ability to withstand the overall load of the lift:-

- Do the joists run parallel to the sides of the lift?
- If not, is the lift base plate directly above a joist?
- Confirm that the floor where the guide base plate is to be fixed, is not springy.

Aperture Construction:-

- Has the aperture been constructed in accordance with Affinity Specification Guide Pages 11-14.
- Have joist hangers been used?
- Has the aperture construction been approved by building control?

Walkways and Work Areas:-

- Ask the client to remove any breakable objects from the walkways leading to the build areas.
- Line the walkway floors with protective film, particularly those leading to outdoor areas.
- Ensure safety signs are in place.

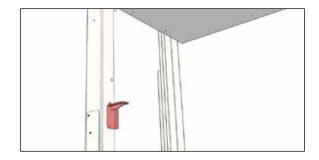
Safe Working Environment

Working Under the Lift - Always Fit a Safety Scotch

MIMPORTANT: Before any work is carried out underneath the lift, the safety scotch must be fitted to the LH guide as indicated below. The safety scotch can be found within the powerpack and after use must be put back there, so it remains with the lift.

- Raise lift to above the ram fixing bolt • hole in the LH guide.
- Hook the safety scotch into the hole and rotate 2. Hook the salety scotter mee a scotch downwards to secured position.

Remember to remove the scotch before operating the lift normally.



Safety Signs

MPORTANT: Before any work is carried out, it is important that the safety signs on Page 84-86 are displayed at the entrance to each room, to create a safe working environment.





Safe Handling / Lifting

- Make sure that you know the correct lifting techniques.
- Don't jerk and shove twisting the body may cause injury.
- Lift in easy stages floor to knee level, then from knee to carrying position. Reverse this sequence when setting the load down.
- Hold weights close to the body. Lift with the legs and keep the back straight.
- Organise the work to minimise the amount of lifting necessary.
- Use mechanical means or other aids when necessary.
- Don't lift parts that are extremely heavy by you. Seek assistance. Work together but make sure that only one person gives clear, unhurried instructions.
- Use personal protection equipment and clothing as necessary.

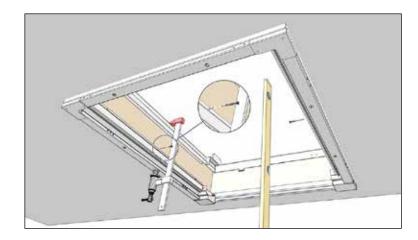
MPORTANT: Plywood board should be used to cover the aperture during installation whenever possible, to ensure the safety of the installers and the occupants.

Aperture Installation

Installing the Aperture Liners

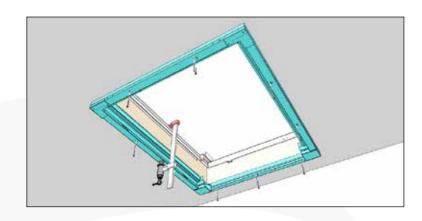
Position the lower aperture liner so the rear face is a maximum of 6 mm (tacfire thickness) away from the back trimmer and then secure in the sides with one screw on each side. (Do not fit screws through the underside).

> Insert upper aperture liner and ensure it is square and level to the lower liner frame. Clamp in place.



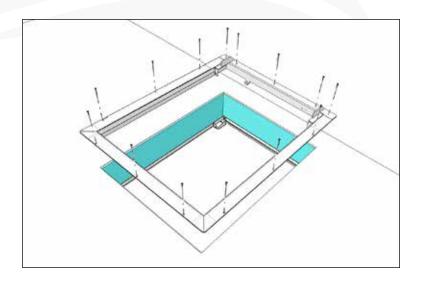
2. Fit all 9 Sciews of the lower liner through Fit all 9 screws into the underside into the joists.

MPORTANT: Lay finish floor covering before fitting the upper liner.

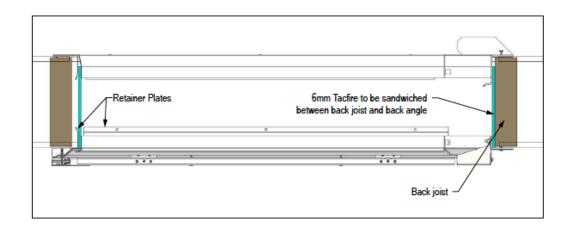


Measure the length and depth between the two liners and cut the 6 mm Tacfire board to suit for all 4 sides.

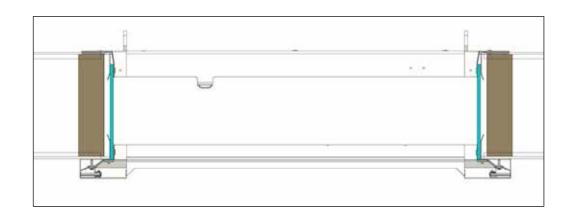
> Remove the upper liner and fit the 4 pieces of Tacfire board. Refit the upper liner frame and level up all 4 planes to the lower frame. Secure in place using 5 x No 10 screws in the rear trimmer and 9 x No 8 screws provided. Ensure the top surface of the upper liner is packed up level if necessary.



Tacfire detail, side section

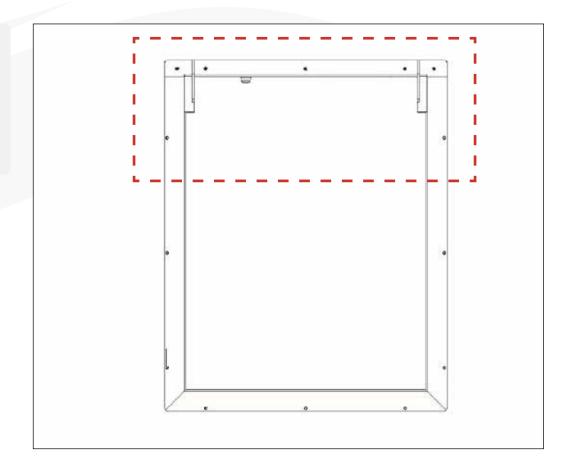


5. Tacfire detail, end section



6. ▲ NOTE: Ensure all aperture

fixings in this area are screwed down fully.

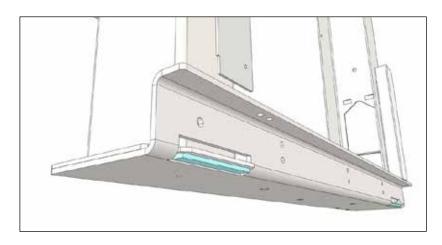


Lower Guides Installation

Installing the Lower Guides

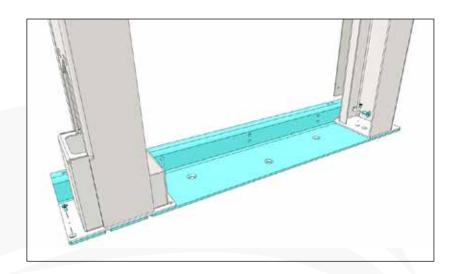
Place baseplate on floor beneath aperture, close to back wall. Pack it up level if necessary to allow for new flooring/unlevelled floor.

> Locate guides on baseplate with tabs and pins and push assembly back tightly into aperture liner.

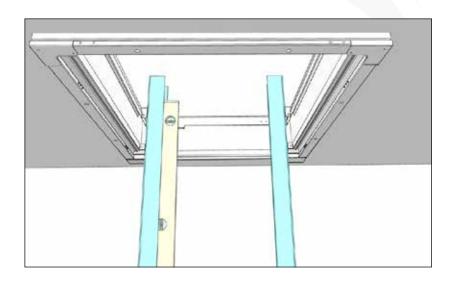


Fix guides to baseplate with 2. Fix guides to busepile.

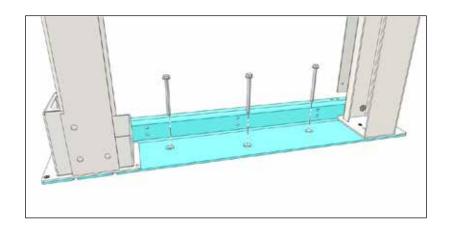
2 x M4 x 8 mm Csk Taptites, and M6 x 16 mm Csk flange screw at rear of RH guide.



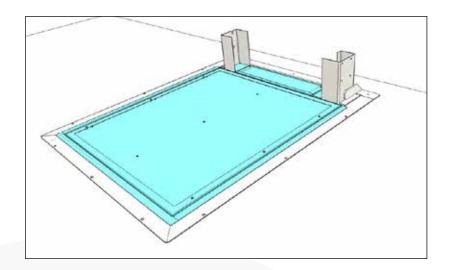
It is important that guides are pushed fully back into liner to enable the trapdoor to fit correctly. Level and true up both guides by adjusting position of the baseplate.



Drill and secure baseplate with the 3 concrete screws supplied (requires 6 mm masonry drill). If floor is timber, use same screws but pilot hole 3.5 mm diameter.



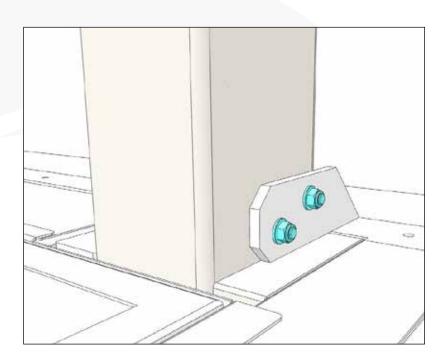
Once the guides are in place fit 5. Once the guides are me the trapdoor into the aperture (two men).

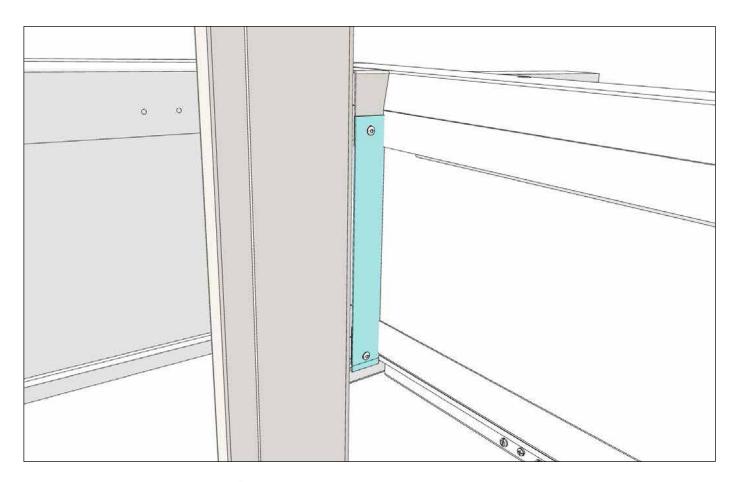


From the upper level working on the trapdoor, drill two 6.5 mm holes (offset diagonally to each other) through the trapdoor aperture liner 'fins' into each of the guides. It is recommended that these holes be drilled a minimum of 1" from rear of guides.

> Countersink the holes from the inside of the guides and fix with M6 csk screws, washers, Nyloc nuts and caps.

Ensure all swarf is hoovered up.





The filler plates are supplied long enough to suit any aperture size; therefore, they must be cut to size.

Line the top hole up, locating them temporarily with one of the fixing rivets.

Mark off the length required on each of the plates, at the same time marking the position of the hole required for the lowering fixing.

ANOTE: Once the plates are cut and 3.5 mm hole drilled, they can then be mounted using two 3.2 mm x 6 mm steel rivets (DO NOT USE DOME HEAD SCREWS, MUST BE FLUSH). Mount the plates behind the upper and lower fillet plates with the rivet heads showing at the front.

Seal any gaps showing using intumescent mastic. Apply the mastic to the back face keeping the front face clean.

Apply intumescent mastic to all Tacfire joints.

Middle and Lower Control Tube Installation

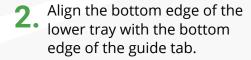
Installing Middle and Lower Trays

Align the middle tray ledge with the aperture frame.

> Secure the tray using the supplied M4 x 6 mm Pozi pan head Taptite screws.

Utilise the remaining pilot holes to fix the guide tab in the same manner.

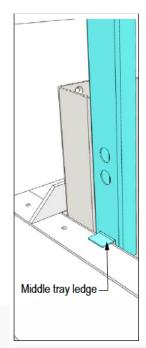
A NOTE: Apply intumescent paste to all gaps where the radius of the guides or control tubes meet the aperture liner.

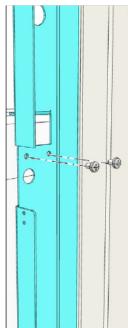


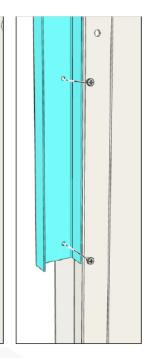
Ensure the lower and middle trays are positioned flush against each other, as shown in the illustration.

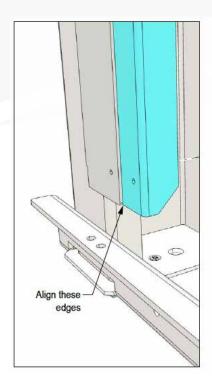
Using the pilot holes, secure the tray to the guide tab with M4 x 6 mm Pozi pan head Taptite screws.

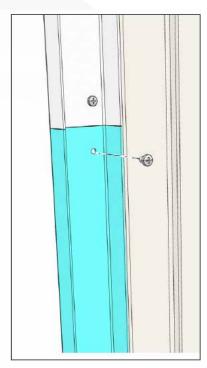
A NOTE: Trim any excess length from the top of the lower tray. Ensure there is a fixing point where the lower and middle trays meet. Re-drill holes if needed.











Power Pack and Electrical Requirements

Mounting of Power Pack and Wiring

- The power pack should be mounted in the position specified as close to the lift as possible. • A 1 3/4" dia. hole should be drilled through the wall and the power pack mounted so that this hole enters in to the back of the power pack casing. The hole should be lined with 1 1/2" waste pipe. The power pack frame is fixed to the wall by means 2 (or 4 if required) 3/8" dia. Rawl bolts through the back of the power pack frame.
- 2. The flexible rubber nose snould be passed unlought the wall and the fitting from ingress of dust etc. Surplus rubber hose should be coiled up in the The flexible rubber hose should be passed through the wall ensuring plastic plug is fitted, power pack housing and the other end of the hose is then to be connected to the back of the manifold block. The standard hose is 10 ft long. For distances greater than 10 ft, consult works.

 \triangle NOTE: The min. bend radius of the hose is 3 1/2" and neat external corners are not possible.

Run a 3 core flex in suitable trunking from the spur position back to the power pack and wire as 'Main Controller PCB' Page 59.

Mains Cable Termination

In BS 7671-526.9.1 it says that to avoid inappropriate separation or spreading of individual wires of fine wire conductors, suitable terminals shall be used or ends treated. To comply with this, we will need to "treat" the ends. It is now required that stranded cables are fitted with ferrules before putting into terminal blocks.

Fitting ferrules is straightforward and will drastically reduce the risk of shorts and poor connections that can lead to electrical fires. The most important thing to ensure is that all the strands of the cable end up crimped in the ferrule.

This applies to the flex that connects the lift powerpack to the mains spur.

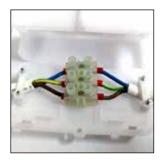
Powerpack Mains Connection





Spur Mains Connection





Fitting the 13A Fused Switched Spur Cover

There should be a 13A fused switched spur (internal) on a dedicated circuit, protected by RCD + surge protection, conforming to BS 7671. RCD should be mounted with the consumer unit.

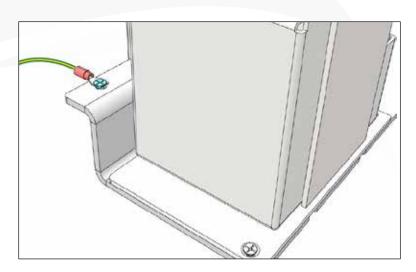
The spur should be fixed in a suitable position at the lower level that enables it to be switched ON and OFF when the lift car is parked at the lower level.

Remove the two screws that secure the 13A fuse spur. Align the holes of the fuse spur cover and re-use the screws to secure the spur cover in place.



Connect Earth Bond Cable

Fix earth bond cable to baseplate as indicated, and route back to earth tab on power pack.



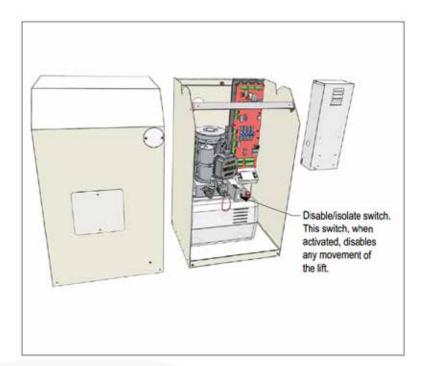
Trailing Cables Installation

Trailing Cable Installation - at Power Pack End

Remove external cover, disconnect LED, and slide off internal cover that protects CE2098 circuit board.

> Trailing cables consist of -2 sets of multi core cables. TC1 Blue, TC2 Grey.

- Feed cables out from rear of power pack. Plug them and their associate wiring into Main Controller PCB as shown in Page 59.
- flying leads from the trailing cable Connect the brown and yellow interface to the individual poles of the isolate switch.

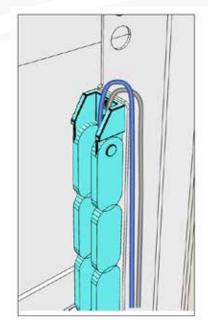


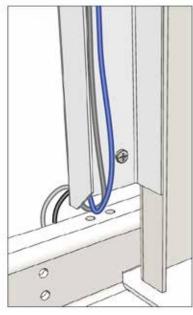
Trailing Cable Installation - at Control Tube End

- Attach energy chain bracket to middle control tray and drop the wires down into the tray.
- Route the cables (leading to powerpack), out over rear of baseplate at bottom of lower control tube tray.

Cable tie to baseplate where necessary.

Refit control tubes taking care to avoid cables. Fit front control tube covers.





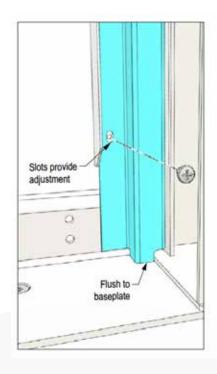
Middle and Lower Control Tube Installation

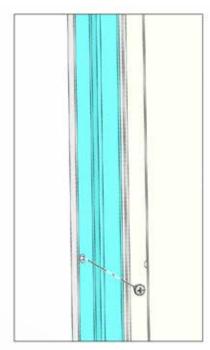
Installing Middle and Lower Control Tubes

The lower control tube should sit flush against the baseplate.

> If adjustment is needed, use the slots provided. Once correctly aligned, secure with M4 Pozi pan head Taptite screws.

Using the pilot holes, fix the tube to the tray with the supplied M4 Pozi pan head Taptite screws.

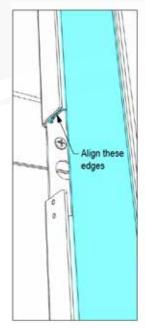


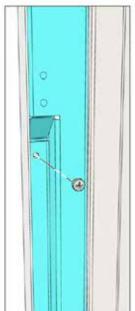


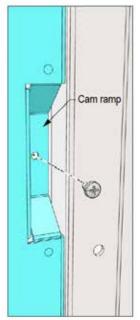
Align the edges of the slot in the middle tray with the control tube.

> Ensure the pre-drilled holes are aligned, and secure the tube to the tray using the M4 Pozi pan head Taptite screws.

Fasten the middle tube to the tray at the 'cam ramp' location.







Insulation Resistance Testing

Insulation Resistance Testing

To conduct an Insulation Resistance Test on the safety circuits.

The purpose of this test is to Megger the main controller board between L and E and N and E, all cores of the trailing cables, and all safe edge wiring and safety circuit wires on the carriage sides.

Preliminary Actions

1. Switch off mains supply at the fused spur.

At the Power Pack

- 2. Disconnect the white mains connector from the CE2098 top controller board and Megger test between L and E and between N and E pins of the disconnected cable.
- 3. In the power pack, disconnect all trailing cables.

At the Lift

- 4. Disconnect the trailing cables and use Megger to ensure insulation resistance is $>999\Omega$ between each core.
- 5. With the door unlatched and open, disconnect the S/E wiring from TB5 and TB6, emergency circuit and at the connectors. Test between the brown, yellow and black wires (all combinations) and each wire to earth, removing one black cable from one of the "Final Down" micro switches on each side of the carriage.
- 6. If you have a CE1654 board, disconnect wiring to connector TB9-1 (red from the control mechanism) and Megger test to earth.
- 7. If you have a CE2123 board, disconnect wiring to connector TB10-6 (red from the control mechanism) and Megger test to earth.
- 8. On the CE1654, disconnect the yellow / green wires from connector TB4-2 (from the trapdoor safe edge override switch) and Megger test to earth.
- 9. If you have a Harmony lift, ensure that the carriage control station switch is in the OFF position.

Disconnect the 7-way cable from the carriage control station, from the interface loom. The interface loom is connected to various connectors of the CE1798 remote receiver board and TB11 of the CE1654 board. Disconnecting this loom ensures that no damage can occur to the control panels during the safety test. On the carriage control station connector (attached to the 7-core cable), Megger between wire colors:

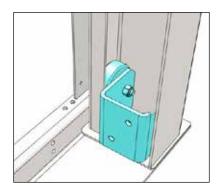
G/Y, Black, Blue, Grey and Red (all combinations) and between:

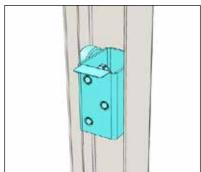
G/Y, Black, Blue and Grey to Earth. Once final testing complete, refit all cables removed and refit panel covers.

Upper Guides Installation

Upper Guide Installation

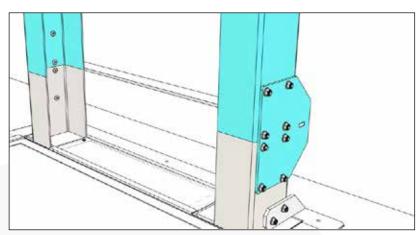
In preparation of sling install, insert bottom and top rollers in RH guide.





them to ensure a 1/2" gap Measure the guides and cut between the ceiling and the top of the guides.

> Secure the upper guides using the fishplate crossbar and fasten them with M6 csk screws, washers, Nyloc nuts, and caps.



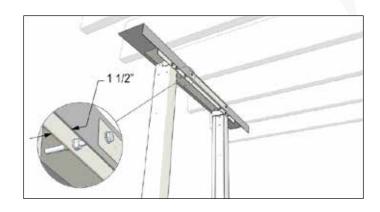
Standard Ceiling Fix

Joists running perpendicular to wall

Used when the upper floor ceiling joists are running perpendicular to the wall against which the lift guides are positioned.

Attach ceiling cap to guides as shown, leaving a 1 1/2" gap.

> Use the (minimum 2) M8 x 75 mm coach screws and washers provided to fix to ceiling.



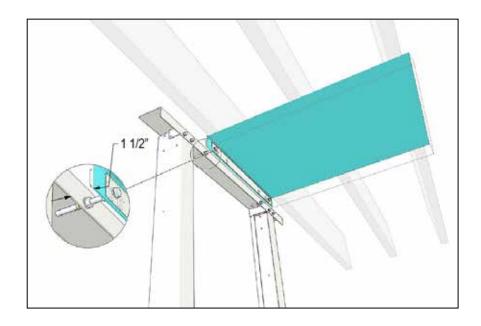
Alternate Ceiling Fix

Joists running parallel to wall

Used when the upper floor ceiling joists are running parallel to the wall against which the lift guides are positioned.

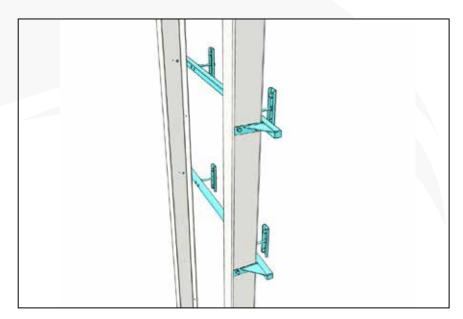
Fix Adjustable Ceiling Plate to cap, leaving a 1 1/2" gap. M8 screws and nuts are used between the cap and the plate to provide adjustment.

> Use the (minimum 2) M8 x 75 mm coach screws and washers provided to fix to ceiling.



Wall Fix - Where Ceiling Fix is Not Possible

MOTE: If wall fixings are to be used and the gap between the back of the guides and the wall exceeds 4", please consult lift provider for structural requirements.



Intermediate Guides Installation

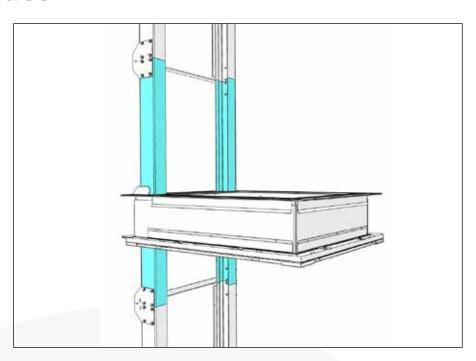
Intermediate Guides

Lifts over 9ft 10" travel have intermediate guides to allow for differing ceiling heights within its range.

There will always be a guide join above and below the aperture.

Join below aperture needs to be braced back to wall.

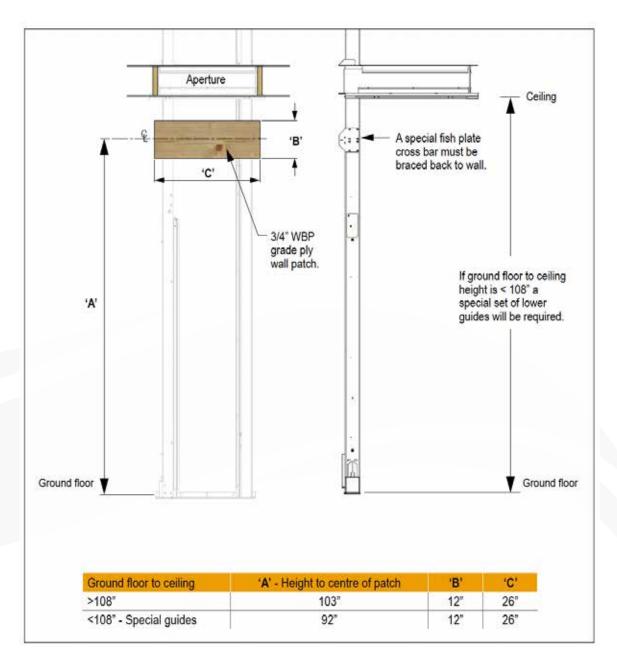
See Pages 18-19 for 'Downstairs Wall Patch' and 'Lower Guide Brace Kit'.



Downstairs Wall Patch (Subject to Travel)

As part of the prep work it may be necessary to fit a wall patch on the lower level wall to fix the crossbar brace to. The patch must be 3/4" WBP grade ply, painted white, and secured to the wall with minimum quantity of 6 x Ø8 mm coach screws. If the wall is structural there is no requirement to fit one.

The patch must be fitted to the dimensions below.



NOTE: The lower guide brace kit can accommodate situations where the wall is up to 13 1/2" away from the rear of the aperture. If the distance is greater than this, a special bracing kit will be required.

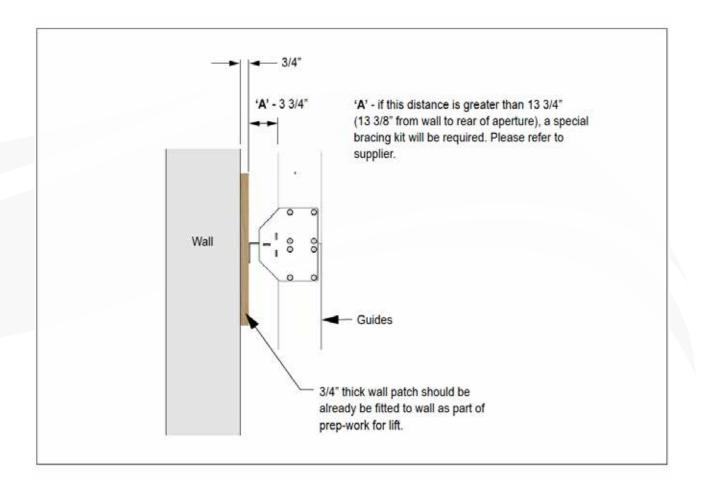
Lower Guide Brace Kit

Normal Circumstance

- 3 3/4" or less between rear of guides and wall patch
- Bracing Fish Cross Bar with Bracing Angle
- Slots allow for adjustment within this gap
- Use pilot holes to fix bracing angle in position

Special Circumstance

- Gap greater than 3 3/4"
- Use Bracing Plate to bridge the gap and cut plate if necessary
- Use slots for adjustment
- Use pilot holes to fix in position

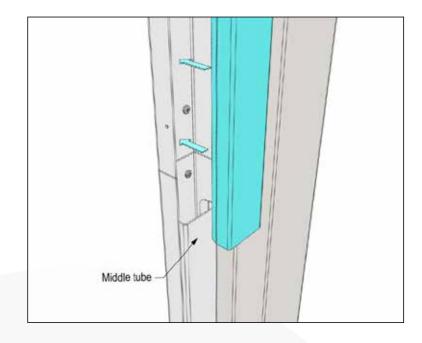


Upper Control Tube Installation

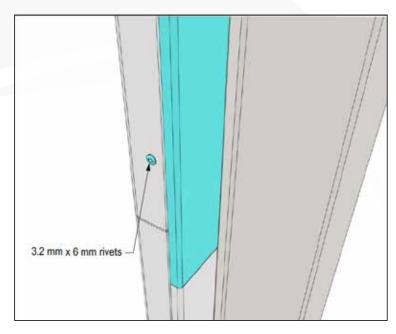
Installing Upper Control Tubes

Upper tube should fit into • remaining gap between middle tube tray and upper ceiling.

Length will need to be cut.



2. Use pilot holes in side of upper tray to drill 3.5 mm holes in tube. Fix with 3.2 mm x 6 mm rivets, as it will never need to be removed.

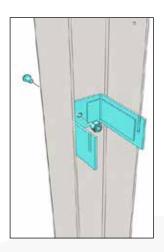


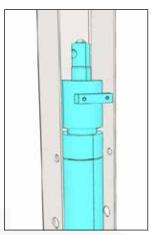
RAM Installation

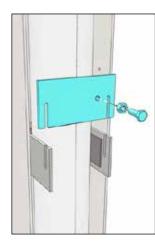
RAM Installation

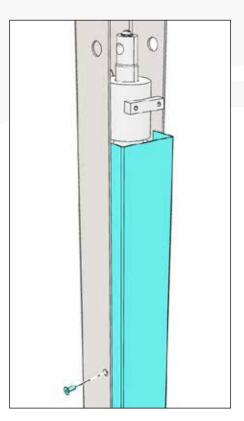
MIMPORTANT: Before installing the ram, the yellow bleed nipple caps must be removed. Failure to do so will result in the upper bleed cap being damaged when the ram is operated. In addition, ensure the rubber ram reaction pad is inserted into the base of the tank, and the bleed ports are correctly aligned with the guide access holes.

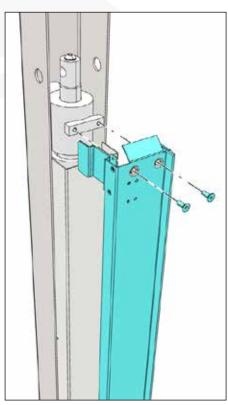
- Attach the upper and lower ram clamping brackets with M8 x 16 mm button bolt and Nyloc nut.
- 2. Install rails see ram clamp end plates Install ram. Slot the into the ram clamp brackets, tighten bolt against ram and lock in place with nut.
- Fix inner ram cover with 2 x M4 csk Taptites to fasten to guide. Use M6 adjuster to align inner cover to catch tank.
- Fix outer ram cover with M6 x 16 mm socket csk and shake-proof washers.







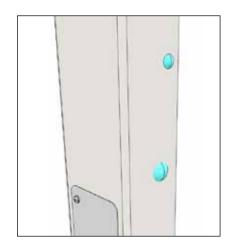




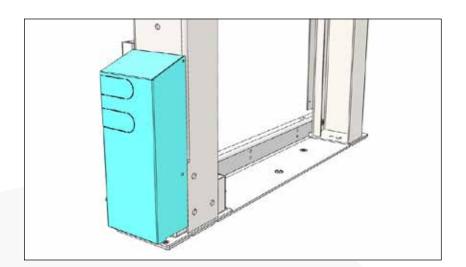
Fitting Protective Ram Covers

- Use fasteners supplied to fix bleed valve cover to side of guide.
- 2. For salety reasonable fit white dome caps into For safety reasons, guide holes as soon as ram is installed.





3. Velcro and supplied M4 screw is used to attach the catch tank cover to side of LH guide.



Flushing the Hydraulic System

▲ IMPORTANT: During the manufacturing process of the hydraulic hose, it is possible that small filings, swarf, dirt etc. can get into the hose which then finds its way into the hydraulic system, causing failures. It is therefore important to flush the hose prior to connecting it to the ram.

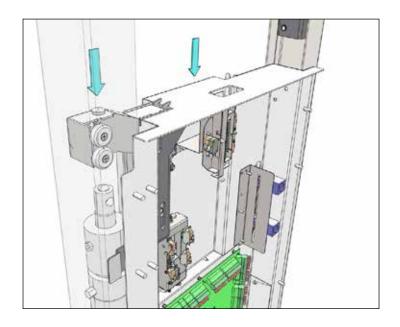
Connect the pump as normal, route the hose to the ram and before connecting to the ram, place the ram end of the hose into a container, power the pump up (suggest the container is in a bag and dust sheets are down) and run through 1 liter of oil. This oil MUST NOT be put back into the system. Top up the oil in the tank.

Ensure that when running the hose that the end caps are always fitted to prevent ingress of dirt etc.

Sling Installation

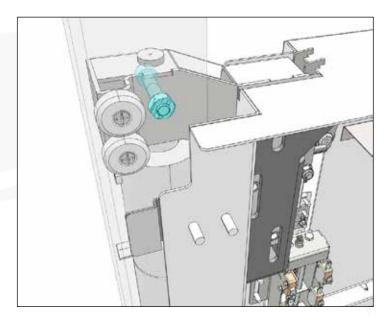
Installing the Sling

Carefully position sling in guides and lower ram head assembly over ram head.

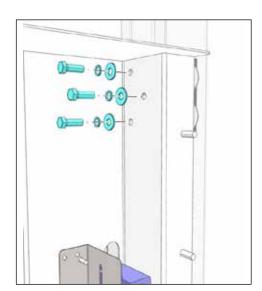


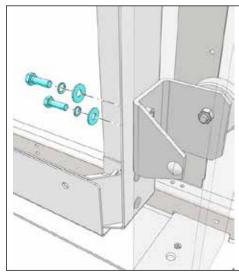
Secure the sling to ram with

> Weld-nut on front of ram plate means that fixing is only required from the rear.



Position and connect upper and lower rollers with M8 x 25 mm bolts, M8 spring washers and M8 washers.

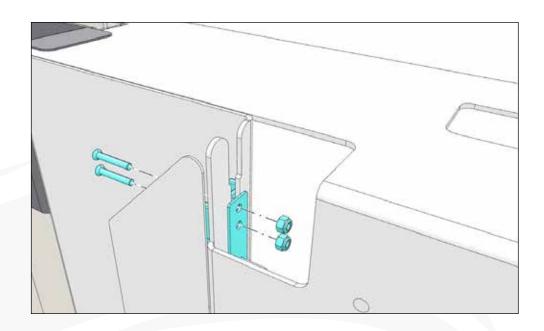




Feed the ends of the trailing cable (in energy chain), down the back of the sling frame.

> Connect energy chain to sling and route trailing cable to circuit board.

Ensure all cables are secured in place using cable ties.



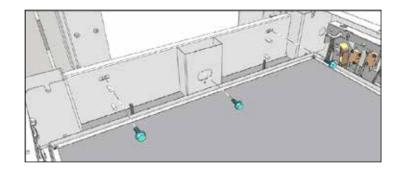
⚠ IMPORTANT: If the ceiling depth is less than 8", some energy chain links will need to be removed, which can be determined by positioning the sling at the lower level. Continue with the lift build. **DO NOT** fit the underpan rear profile until the exact energy chain length has been established – with the car upstairs, the energy chain has to clear the underpan rear profile.

Carriage Installation

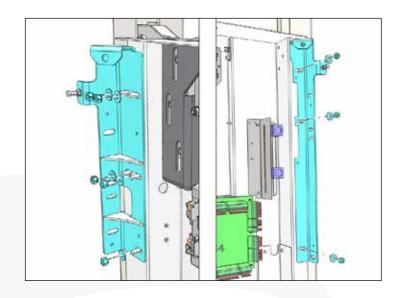
Building the Carriage

Connect floor to sling with the 3 x M6 x 16 mm flanged bolts.

> Ensure the floor is evenly spaced to outside face of the guides.

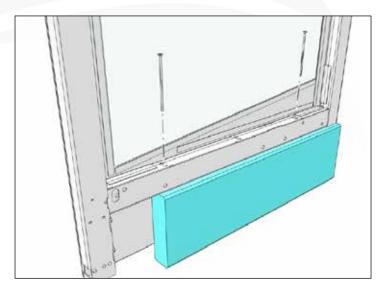


2. Attach car mounting brackets to sling with M8 Nyloc nuts and washers.

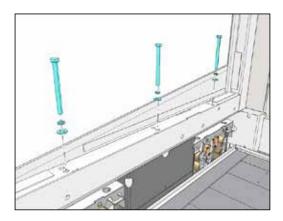


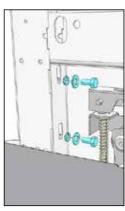
Unpack side frames and rest on wooden protection block to avoid damaging the thin side wall skin.

> Release the wooden protection block by removing the two screws.

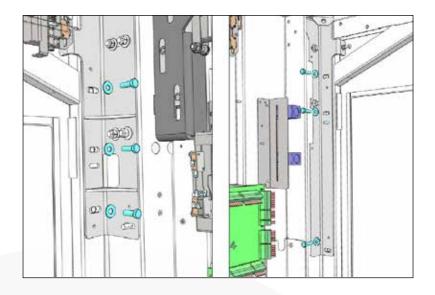


At the floor level, attach both side frames with 3 x M6 x 70 mm hex bolts, M6 spring washers, and M6mwashers, and 2 x M6 x 16 mm hex bolts, M6 spring washers, and M6 washers.



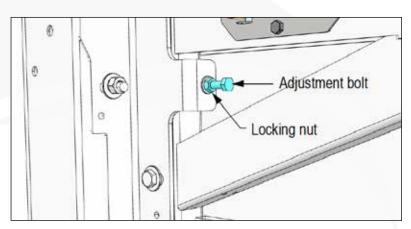


5. At the sling, attach side frames to mounting brackets with M8 x 25 mm half thread bolts and M8 washers.



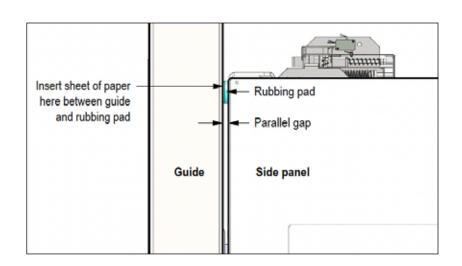
A parallel gap between the side frames and guides equal to the width of the rubbing pad is required to ensure smooth operation.

> Use the adjustment bolt on the side frame mounting bracket for alignment.



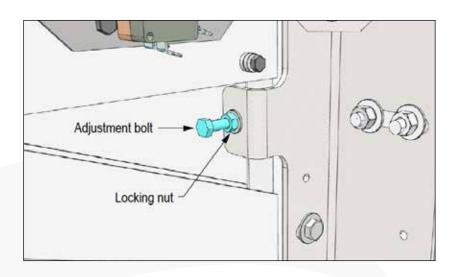
To achieve precise alignment, insert a sheet of paper between the guide and the rubbing pad. Gradually adjust the bolt until the paper can be removed easily but cannot be reinserted.

> Once the proper alignment is achieved, secure the adjustment by tightening the locking nut to prevent any further movement.

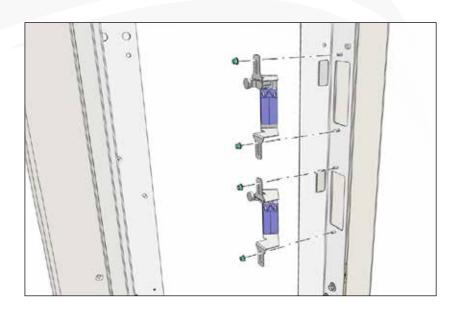


8. Repeat for RH frame. Repeat the process

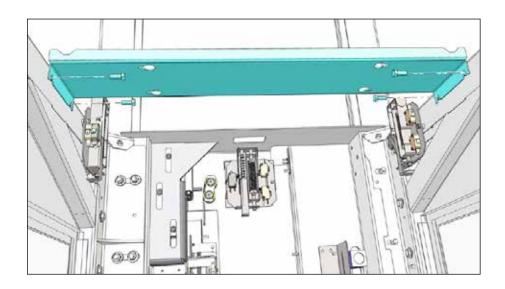
> Ensure left to right adjustment equal to guides.



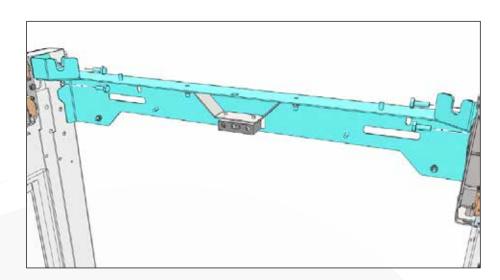
Fit door zone switches.



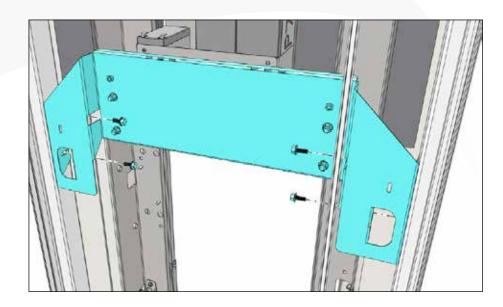
10. Fit motor crossbar.



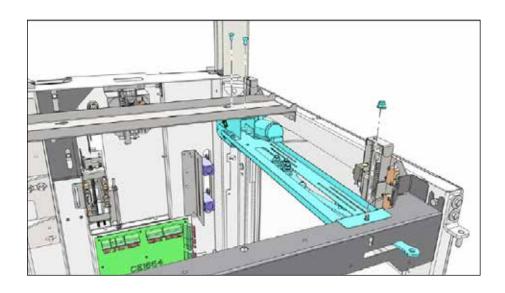
11. Fit door crossbar.



12. Fit seat crossbar.

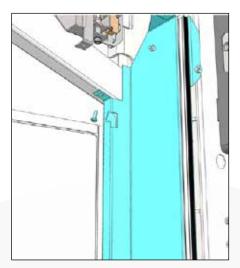


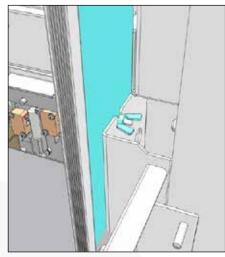
Fit door closer.



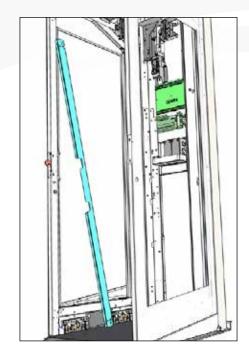
Fix both rear corner panels to side frames with M4 x 6 mm Pozi pan head screw, and lock in place below with wing nut.

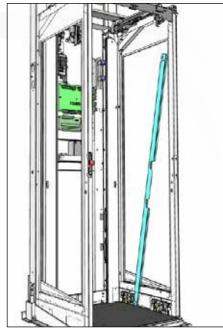
> Connect LED's to receiver PCB.



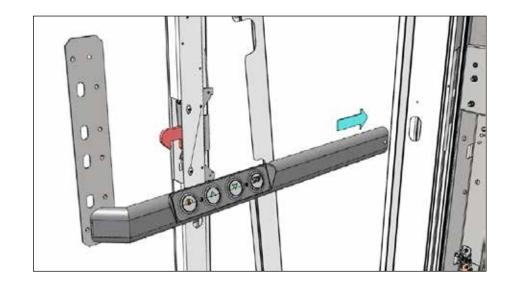


Before fitting **15**. handrails, position the front base panels against the side frame.

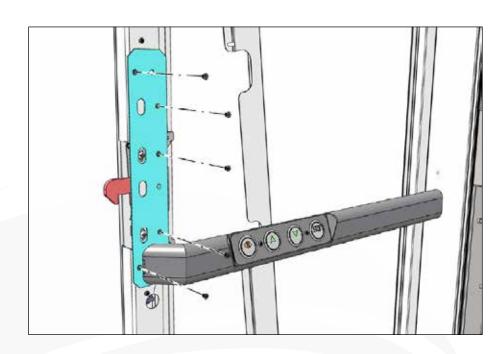




16. Feed ribbon cable through the hole in rear corner panel, then push the handrail through.

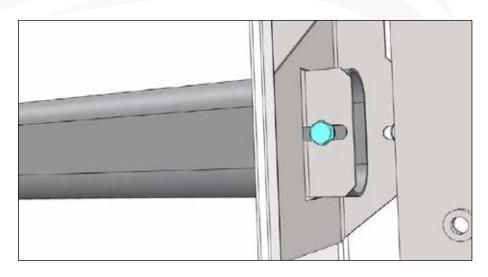


Fix handrail to side panel with 5 M4 x 8mm csk screws.

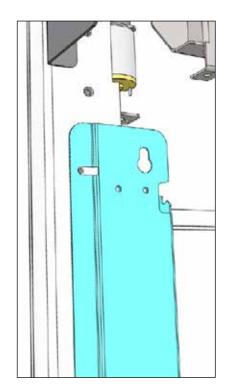


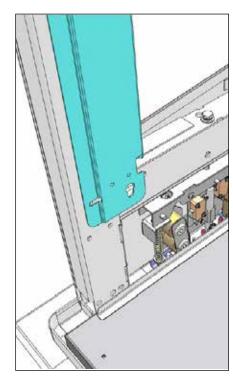
18. Lock handrail in place with M6 x 16 mm flanged screw.

Terminate cable at PCB end.

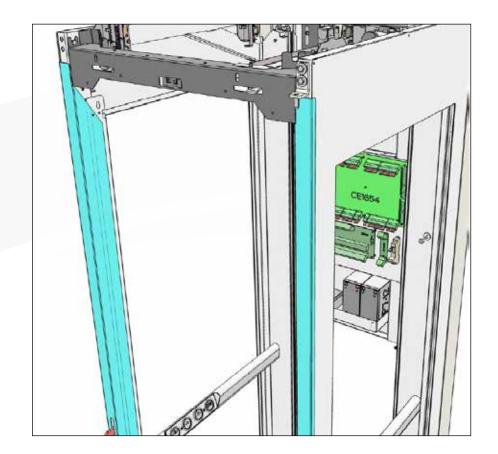


19. Fasten front base panels at the top and bottom with M4 Torx head screws.

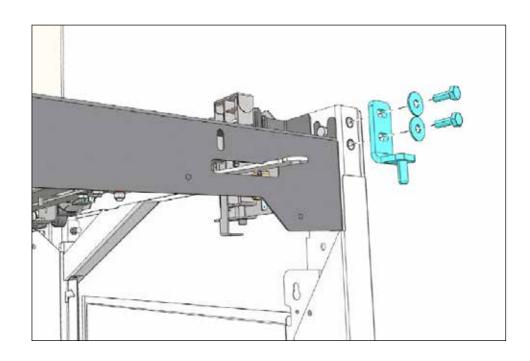




20. Fit left and right front cover panels. Fasten at the top and bottom with M4 Torx head screws.

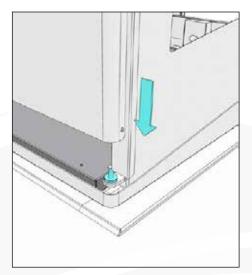


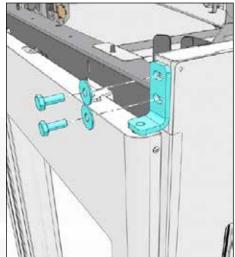
21. keine. hinge. Remove door



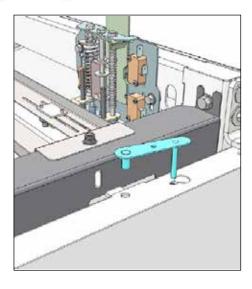
22. Fit 3 x M8 washers on lower pin.

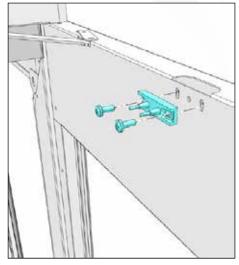
Mount door and refit top hinge.



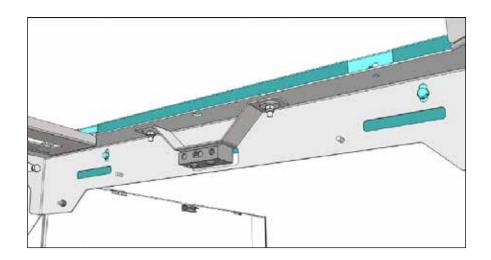


23. Connect and closer, and Connect door attach door proving switch contact bridge.

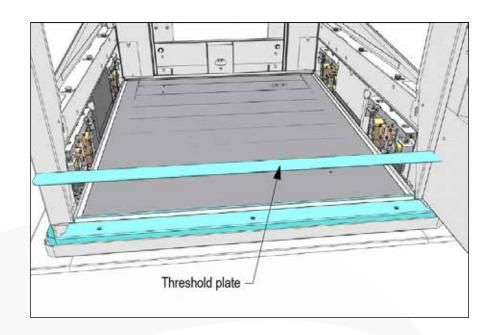




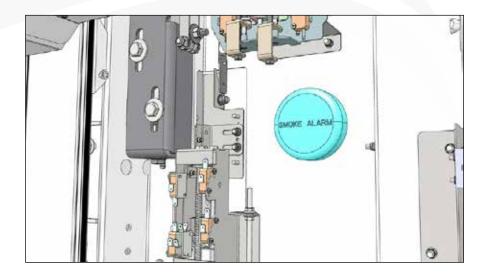
24. Fit door trim.



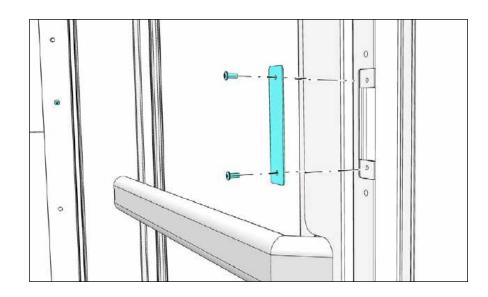
25. Secure the front floor trim using the supplied screws. Remove the protective backing from the doublesided tape and firmly press the threshold plate into place.



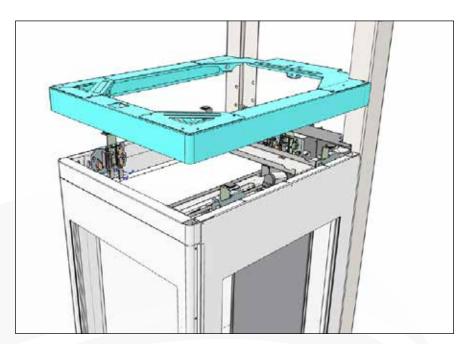
26. Fit internal smoke alarm. For detailed instructions see Pages 47-50.



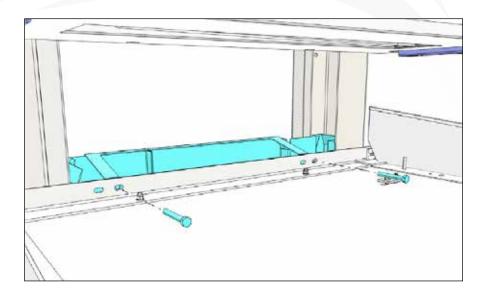
27. Fit side frame lock cover.



28. Fit top cap and secure with Velcro.



Send the lift up to 29. Send the me -, working height. Pull underpan down, position underpan rear profile and fix with 2 x M6 x 45 mm bolts.



Setting Up the Lift

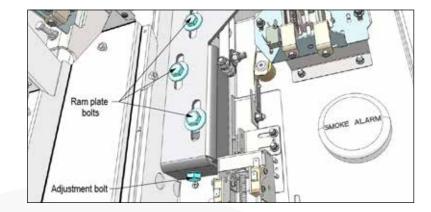
Power Up Lift at the Mains

- Verify charge voltage is +13.5V
- Connect batteries

Bottom Stop Height Adjustment

The ram head must be adjusted to ensure consistent door beak alignment upstairs and downstairs and for the ram to re-synchronize. The car must stop on the fully closed ram.

Adjust the ram head so that there is a maximum of 1/4" free movement in the Underpan. Because the lift is stopping mechanically and not electrically the controller must see a break in the down safe edge circuit in order to switch off the solenoid valve, and allow the lift to accept an UP signal.



To do this, the safe edge override switch operates a timer which overrides

the safe edge for approximately 3 seconds (to allow the lift to travel down past the underpan). After this time the safe edge is brought back into the circuit, thus breaking the DOWN signal.

To adjust the ram head loosen the three ram plate bolts. Once the adjustment is complete, these bolts must then be fully tightened.

Set Underpan Switches

With the lift carriage off the floor, adjust all four sets of switches as below.

LH switch (yellow wire)

With the underpan hard up to the floor, the switch should activate.

1/4" movement before switch operates. RH switch (black wire)

⚠ IMPORTANT: When set up is complete, ensure brown wires can slide freely during underpan travel. Do not cable tie the brown wires to other wires, or any part of the assembly.

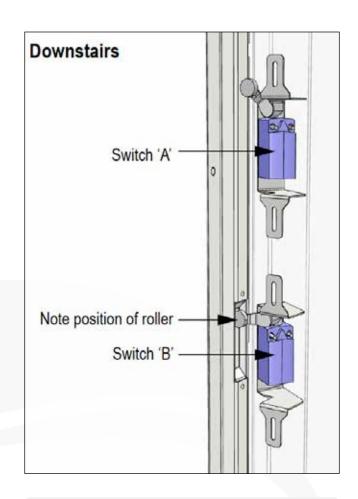
Set Downstairs Door Zone Switch 'B'

When Lift is Downstairs

The second switch down on the control mechanism (marked 'B') is the underpan override/lower door enable switch and should be adjusted once the ram adjustment plates and underpan switches have been set.

The 4 x yellow underpan switches MUST remain active for the complete down travel, and be overridden when the underpan is a maximum of 3/8" from the ground floor.

- 1. With the lift parked at the lower landing, adjust switch 'B' as high up as possible, so outside of the slot.
- 2. Send the lift up slightly, place a 3/8" pad under the corner of the carriage and send the lift down.
- 3. Lower switch 'B' down until the switch contacts 'click' and tighten the bracket.
- 4. Send the lift up slightly and back down again and the lift should stop immediately when coming into contact with the 3/8" pad. When the lift has stopped on the pad, the underpan should be able to be lifted a further 3/4".
- 5. If the lift does stop on the pad immediately, then check that with the pad removed, the lift travels all the way down and the ram should bottom out (double bump). If this does not occur and the underpan stops immediately on contact with the floor, then lower switch 'B' again slightly and repeat step '4'.
- 6. If the lift does not stop on the pad, then adjust switch 'B' up slightly and repeat steps '4-5'.



▲ IMPORTANT: Check 3/8" pad is operational in all four corners, and check the lift does not stop on a 1/4" pad.

Up/Down Control/Mechanism Circuit Functional Description

When an Up call is placed, the signal is input into the CE2098 Mains Control Board on the Up pin of connector of TB14. If the Uphold signal is present, the CE2098 responds with a latched output signal of 5.3V (approx) on the Creep pin of TB14.

This voltage is output on the Creep pin (Pink Wire) and transported up the trailing cable to the FNLUP pin of TB12 of the CE1654 PCB. This provides an input to the safety circuit logic of the CE1654 board and ensures that a down call cannot be initiated when the lift is traveling upwards.

When an Down call is placed, the signal is input into the CE2098 board on the Down pin connector of TB14. If the Dnhold signal is present, the CE2098 responds with a latched output signal of +5.3V on the Dump pin of TB14. This voltage is output on the Dump pin (Green Wire) and transported up the trailing cable to the FNLDN pin of TB12 of the CE1654 PCB. This provides an input to the safety circuit logic of the CE1654 board and ensures that an up call cannot be initiated when the lift is traveling downwards.

The Blue potentiometer on the CE1654 PCB located at position VR5 controls the creep and dump system. The output voltage on TB7 8V1 pin is set using this potentiometer to 8.8Vdc. If the lift doesn't creep, reduce this until it reliably creeps.

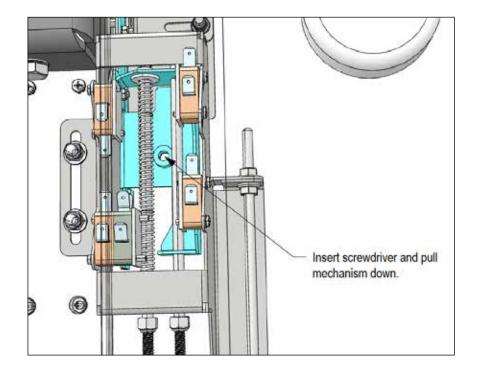
When the lift is at the upper level the control mechanism is enabled and the CE1654 board can receive and action either a creep or dump signal should they be input on TB8.

On receipt of a Creep signal. The CE1654 board responds by outputting 6.00V (approx) on the FNLUP pin of TB12. This voltage travels down the trailing cable to the CE2098 board where it is internally converted to 12V.

If for any reason the voltage on the FNLUP or FNLDN should exceed 7.6 V (e.g. Due to a potential failure of the trailing cable) then the protection circuitry on the CE2098 board will cause the creep circuit to become disabled. If this voltage exceeds 8.2V the associated 500mA fuse on the board to fail. This two-way method effectively disables the levelling system of the lift and protects the voltage inverters on the CE2098 board from being damaged.

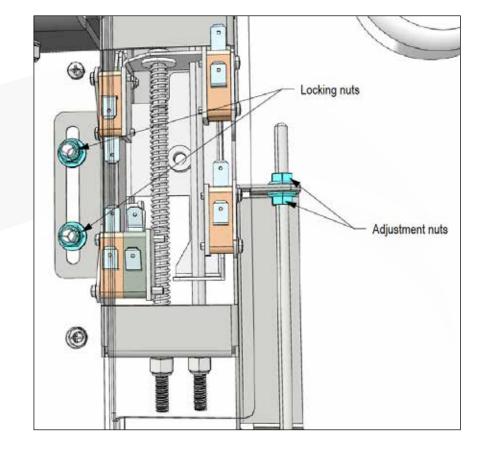
Adjust Top Limit

With the lift traveling up, pull down the creep mechanism by inserting a screwdriver through the hole highlighted in the illustration, and pull the mechanism down. The lift should stop and the green 'UP' LED extinguish.



Send the lift to the upper level, and it will stop level with the upper aperture liner. With the door open, ensure there is a 1/2" gap between the bottom of the door and the aperture liner. To adjust, loosen both the M6 locking nuts (LHS) and the two M6 adjustment nuts (RHS).

MOTE: This adjustment must only be carried out with the lift a minimum of 12" away from the upper landing. Once adjusted tighten all four nuts.



Test Anti Creep

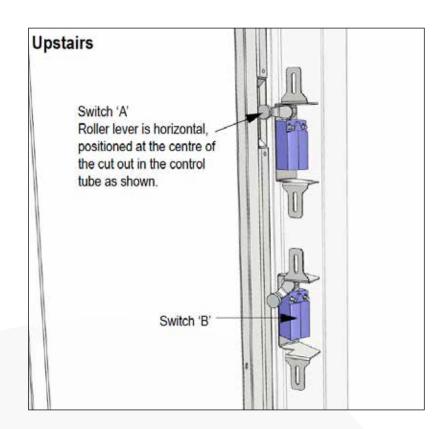
With the lift at the upper level, press 'DOWN' and 'STOP' quickly, the lift should return to the top limit.

Set Upstairs Door Zone Switch 'A'

When Lift is Upstairs at Finished Level

The top switch (marked 'A') of the control mechanism (upper door enable) should be adjusted so that its roller lever is horizontal, positioned at the center of the cut out in the control tube as shown.

MPORTANT: Ensure that there is a gap of 1/16" between the black roller of the two blue roller arm switches, and the back face of the control tube when in the slot.



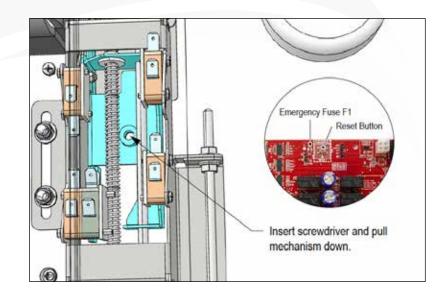
Test Final Limit

With the lift 4" off the ground floor, open the door manually.

Insert a screwdriver in the hole in the creep mechanism and pull mechanism hard down until final limit operates.

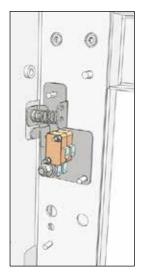
Emergency Fuse F1 should trip on the power pack PCB.

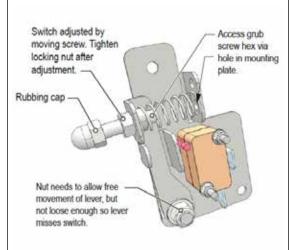
Reset the fuse.



Adjust Ram Cover Switch (up underpan override switch and creep enable switch)

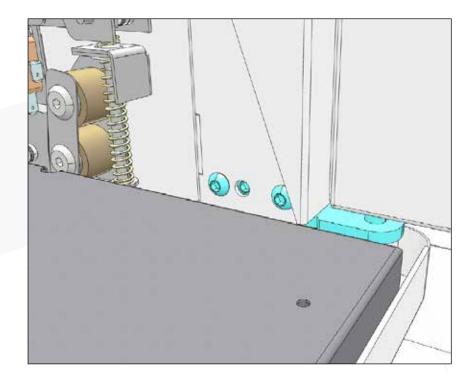
With the lift at the lower landing, adjust the grub screw to ensure the switch contacts are open circuit and remain open until the rubbing cap rolls off the outer ram cover. For transportation the lever is cable tied closed.





Adjust the Door

The door must be centrally aligned with the carriage. To achieve this, lift the carpet trim to reveal the lower hinge adjustment screws. Adjust the screws to pivot and/or translate the door as required. Once the required position is achieved, quarter turn each screw to lock the position.

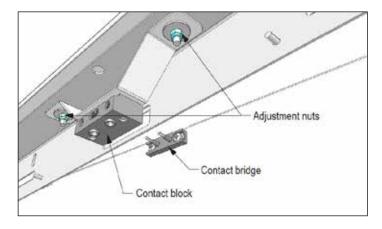


Adjust the Door Proving Switch

MIMPORTANT: The setup of the Door Proving Switch (DPS) is a safety critical adjustment that ensures the lift cannot travel without the door being locked.

This switch should be adjusted so that it is only made when the leading edge of the door is within 3/4" of being fully closed and no sooner.

The door should start lifting the door lock beak before the DPS contact bridge on the top of the door engages with the DPS contact block in the top of the door frame. This ensure that the lock beak switch breaks before the DPS is made.



The DPS is adjusted using the two adjustment nuts shown above. The fixings allow the contact block to move left and right to get good alignment with the contact bridge on the door and also in and out to ensure contacts are made at the appropriate time.

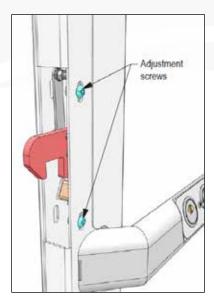
To test if the DPS is in a suitable position, slowly push the door closed by hand. If any of the emergency circuit LEDs illuminate before the door is fully locked, the DPS needs adjusting away from the door.

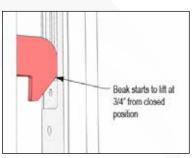
Adjust the Door Lock

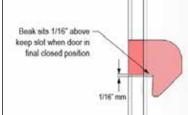
To adjust the beak vertically, loosen the two button-head screws.

When the door is fully closed, the beak should be set 1/16" above the keep slot.

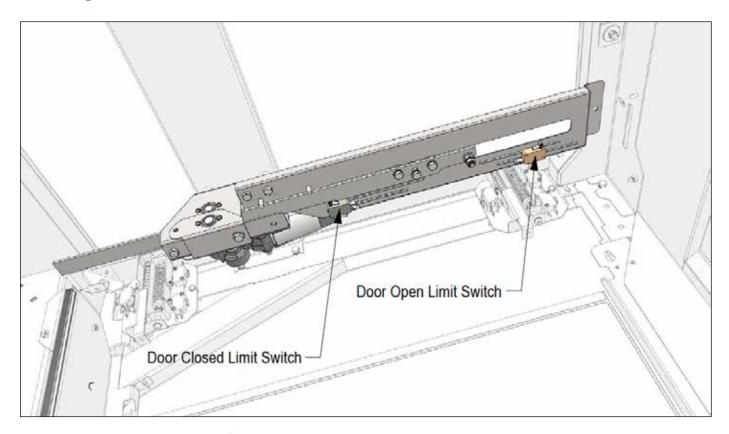
Once correct setting is achieved, fully tighten both screws.







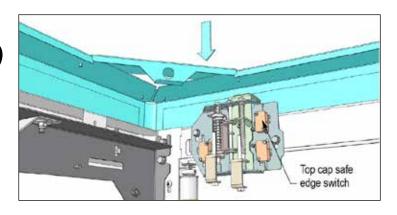
Set Up Door



- 1. Disconnect motor terminals and power the actuator to its center position. Re-connect the motor terminals. The system should now operate when the door button is pressed.
- 2. Adjust the current limit potentiometer (I lim) VR3 on Sling PCB to a state where the door will reverse direction when a reasonable force is applied to it when it is operating.
- 3. Reduce the limit switch override timer potentiometer VR2 on Sling PCB to zero and operate the door. Set the close limit micro switch such that the door stops just as the door starts to lift the lock, then increase the override potentiometer to increase the length of time the controller overrides the close limit switch. This is to ensure the door is firmly closed without the current limits operating.
- 4. Adjust auto close potentiometer so that the door closes automatically after approximately 1 minute if door is left open (VR4).
- 5. Finally to ensure closed limit switch connections are correct, press the door button to close door and then press door button twice rapidly in succession. If the actuator ceases to operate when door button is pressed again the common and N/C connections of J3 are wired incorrectly. By reversing these connections the actuator will operate normally.
- 6. Set the Open Limit Switch on the actuator (purple wires) to a position that gives complete access to the carriage (90 degrees to car side).

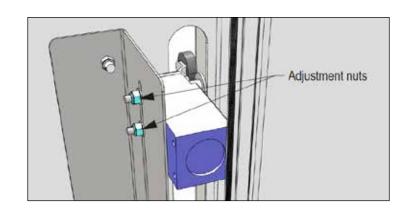
Adjust Top Cap Safe Edges Assemblies (Sides)

Ensure the top cap safety edges function correctly by pulling down on all four corners. The lift should stop when the cap has been pulled down approximately 1/4" at each corner.



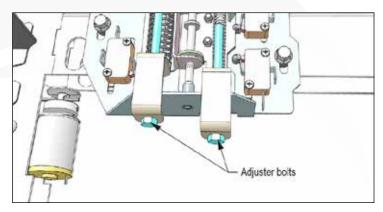
Top Cap Override

Adjust the top cap override switch so that the top cap safety surface is overridden no later than 1" before reaching the trapdoor, and no sooner than when the top cap has passed through the lower aperture.



Trapdoor Safety Switches -Spring Tension

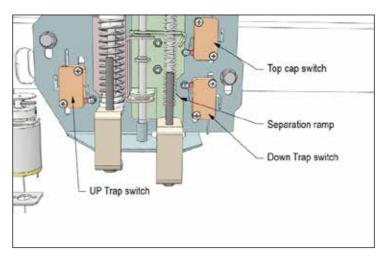
With the trapdoor picked up, adjust the spring tension so that the trapdoor is evenly balanced, allowing for both upward and downward movement. Use the adjuster bolts, and after the final adjustment tighten fully. Repeat this process on all four corners.



Trapdoor Safety Switches -Switch Adjustment

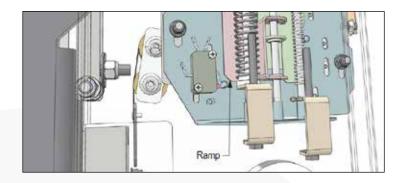
Up - With trapdoor picked up, pull down in each corner and make sure the 'UP Trap' safety switch activates on the ramp before the trapdoor hits a hard stop. Repeat this process on all four corners.

Down - With trapdoor picked up, push up in each corner and make sure the 'DOWN Trap' safety switch separates in the ramp before the trapdoor hits a hard stop. Repeat this process on all four corners.



Rear Safe Edge Mechanism

Pull the trapdoor hard down and make sure the final limit switch activates on the ramp. Ensure this final limit switch activates AFTER the up trap switches on the sides.

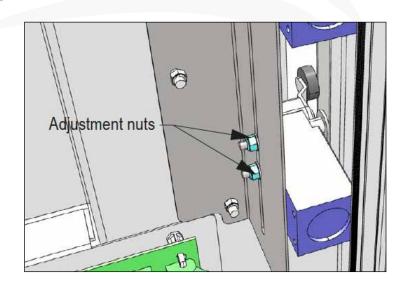


Trapdoor Override Switch

Place a 3/4" pad on the upper surface of the aperture liner and allow the trapdoor to strike the pad. The lift should stop and be able to travel up.

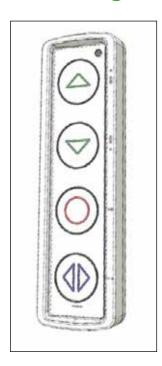
Adjustment is made on the trapdoor override switch.

Once this has been achieved, place a 3/8" pad in the same place and make sure the lift does not stop.



Call Stations

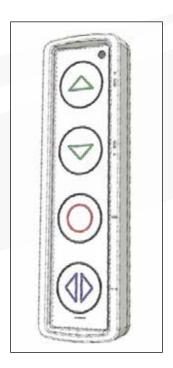
Mounting the Call Stations



Wall Mounted Call Station

Wireless Bluetooth wall control stations usually positioned 3ft from finished floor levels and min: 8" from boarding point and adjacent walls).

Avoid fitting the control stations near other home appliances that send wireless signals. Microwave ovens, Wi-Fi routers, cordless telephones, baby monitors, and home automation equipment can all affect the lift control signals.

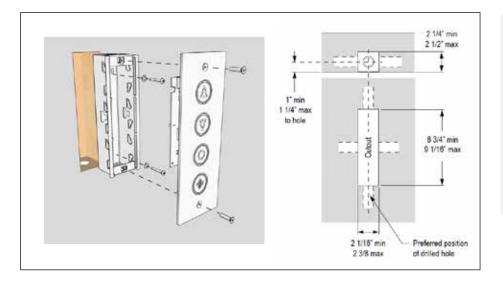


Flush Mounted Call Station

Optional flush mounted panel for solid or plasterboard walls.

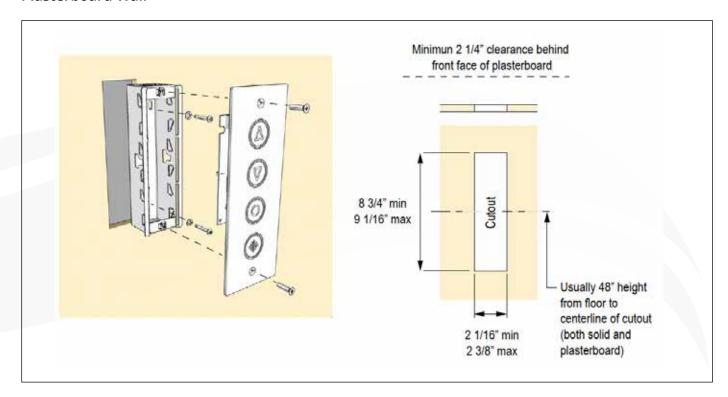
Installing Flush Mount Call Station

Brick / Solid Wall



⚠ NOTE: A Ø3/4" min by 5" min deep hole must be drilled in one of four directions into the brick and as close as parallel to the wall surface as drill will allow. Antenna must fit into hole. Select direction of hole based on individual site conditions.

Plasterboard Wall



Installing Smoke Alarms

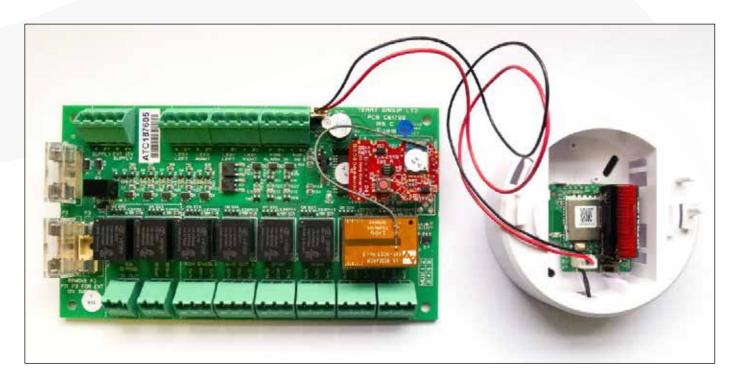
Fitting the Smoke Alarms

This section describes the processes to be followed in order to install the smoke alarm system on any lift containing the CE1798 control board.



Internal Alarm Connection Process

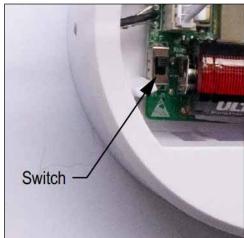
The third radio pattress should be connected to the flying lead of the CE1798 board with the red and black extension lead as shown below.



Connect

Plug alarm cable into pattress and switch on the radio base, the pattress LED will flash green twice per second. If not, please complete step 6.0 to reset the device.





1.2 Secure the alarm wire into the retaining slot.

▲ IMPORTANT: The wire can interfere with the radios antenna if not secured in the retaining slot.

Alarm Assembly

- Bring alarm and radio 2.0 base together then twist/slide to lock into place. The light will flash RED and the device will beep.
- Repeat this procedure for each additional alarm in the system.



Linking

- Press the TEST BUTTON on any assembled alarm, this will put it into linking mode and its light will flash red and green.
- Press the TEST BUTTON on the next alarm to put it in linking mode, it will flash red and green.
- Wait a few seconds for the alarm to beep and stop flashing its lights. The alarm is now linked.
- Repeat step 3.2 and 3.3 for each alarm to be added to the system.
- Once all alarms are linked, wait 20 seconds or press the test button on the first alarm to exit linking mode. If the test button is pressed on the first alarm to exit linking mode, the alarm will perform a test, step 4.1.

Linked Alarms Ready for Installation

- Press the TEST BUTTON on any one alarm 4.1 and wait for each linked alarm to sound. (Due to signal timings each alarm may trigger at the same time making it difficult to detect a faulty alarm). Please perform a test from each alarm in the system to ensure every alarm is successfully linked.
- Install the alarms, then test again with the alarms in position to ensure there are no radio range issues.

Linking Additional Alarms

To add a new alarm to an existing system complete step 1 and 2 for all new alarms.

- Open any already linked alarm and press the white RF button on the radio Pattress to enter 5.1 linking mode, the red and green led will flash as in step 3.1.
- **5.2** Repeat step 3.2 for all new alarms.
- 5.3 Press the white button on the already linked alarm to complete the process.

Device Reset

To reset the pattress and restore factory settings, Open the alarm device and hold down 6.1 the white RF button until the light turns RED. This will restore factory settings and unlink all devices, the light will flash green twice per second as in step 1.1.

Smoke Alarm Testing Procedure

To trigger alarm board, press the test button or use a smoke alarm board tester. It is advised that for the tests, a different alarm is triggered each time. If the system has more than two alarms, repeat test A so that each of the alarms is used as the trigger at least once.

Test A

- 1. Trigger smoke alarm with lift carriage at a landing. Press test button on smoke alarm, within 20 seconds ensure the lift deactivates.
- 2. Within 30 seconds ensure all connected smoke alarms sound.
- 3. After the triggered smoke alarm silences, ensure within 30 seconds all connected smoke alarms silence.
- 4. There is now an approximate 2-minute period when the lift remains deactivated. During this time pressing the key fob will make the lift beep twice.
- 5. When the lift is deactivated, ensure that the door will still open.
- 6. After the 2-minute period, ensure the lift automatically reactivates.

Test B

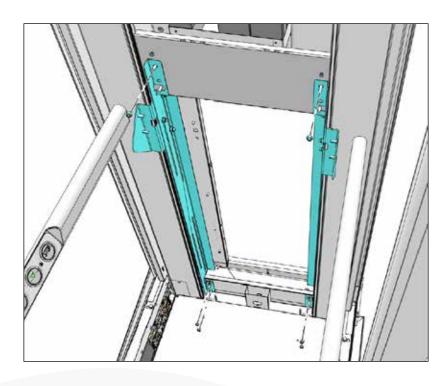
- 1. Move lift away from landing.
- 2. Trigger smoke alarm. Press test button on smoke alarm, count to 5, press again, count to 5 and press again.
- 3. Within 30 seconds ensure all connected smoke alarms sound.
- 4. Ensure the lift continues to travel.
- 5. Let lift reach a landing and ensure the lift deactivates..
- 6. After the triggered smoke alarm silences, ensure within 30 seconds all connected smoke alarms silence.
- 7. There is now an approximate 2-minute period when the lift remains deactivated. During this time pressing the key fob will make the lift beep twice
- 8. When the lift is deactivated, ensure that the door will still open.
- 9. After the 2-minute period, ensure the lift automatically reactivates.

Panel Up Lift

(after final testing has been carried out)

Fit Seat Brackets

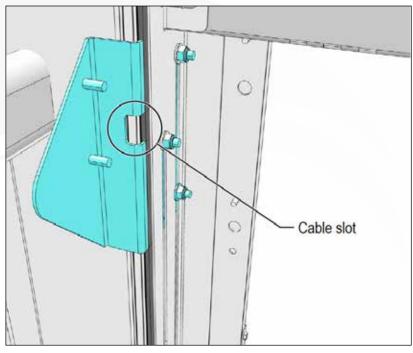
Fit seat brackets with 6 x M6 Nyloc nuts.



Before fitting the rear panel, 2. Before Hulling the control route the emergency control cables through the slot in the seat bracket.

> Similarly, route the phone cable on the opposite side.

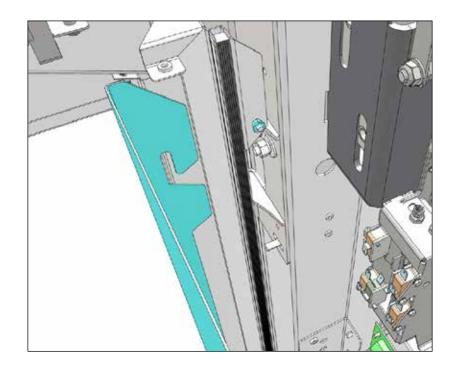
To adjust the seat height, loosen the three Nyloc nuts and slide brackets to the desired height.



Fit Rear Panel

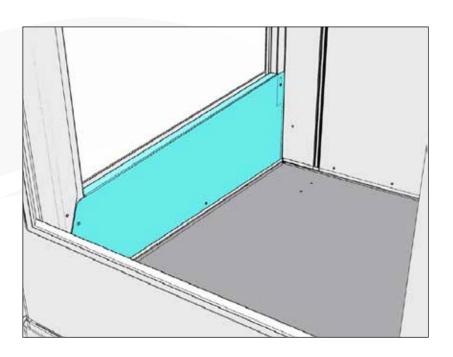
Hook the rear center panel onto the RH and LH studs. Vertically align and slide the panel down to fully engage within the slots.

Fasten the bottom of the panel in the center with M4 Torx Head screw. (The two adjacent holes are for removal purposes only).



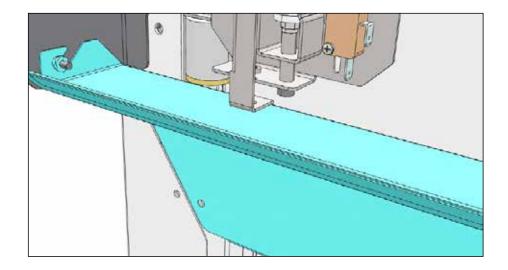
Fit Lower Side Panels

Fit both lower panels with 2 x M4 Torx head screws.

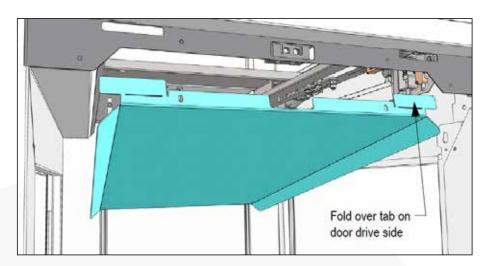


Fit Ceiling Panels

Hook ceiling sides onto studs and secure with M4 Torx head screw.

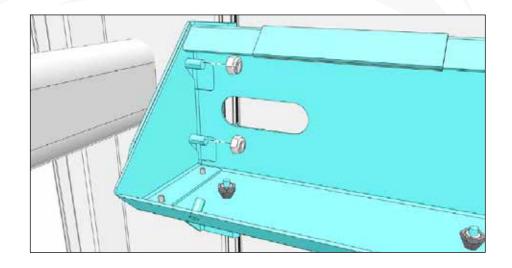


2. Fold over tab in ceiling panel on door drive side. Rotate the ceiling panel downward and locate it on the two studs at the rear of the door crossbar. Push up the back of the panel and secure using 2 x M4 Torx head screw.



Fit Seat

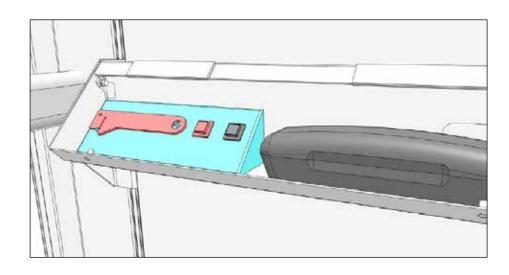
Connect seat rest base with 4 x M6 Nyloc nuts.



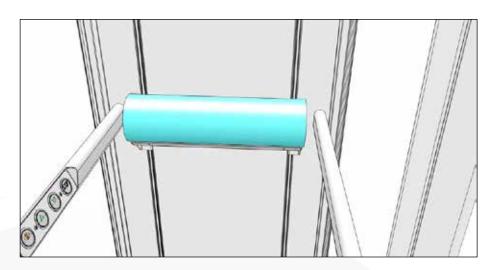
2. Connect up control cables and clip Connect up emergency the control panel in place.

Connect phone cable.

Insert one emergency release tool, and attach the other on the back of a guide with supplied magnets.

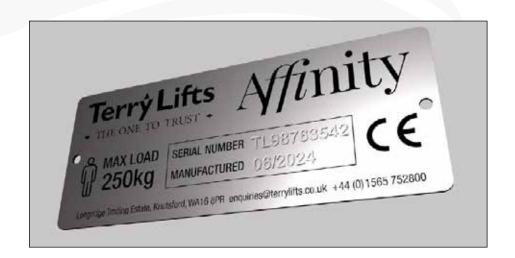


3. Attach the seat cushion with Velcro strips.



Mount Load/ Serial Plate

Mount the load plate using two 3.2 mm x 6 mm steel rivets.



Fault Finding

Notes on Fault Finding

- 1. Before commencing fault finding using the flow chart:
 - Check the status of all LED's and fuses and take any necessary action
 - Check door is closed
 - Ideally the lift should be in mid position i.e. off its limit switches
- 2. Note that LED's on the sling board are only illuminated during the "Light on" period (initiated by up/down/ door signal) and when the user LED panel is disconnected.
- 3. Voltage checks indicate 13.6V this will vary according to battery condition and where it is being measured but under no load conditions should never be below 11.5V.

Affinity Fault Finding - Emergency Circuit

ORANGES from '7' takes out ALL LED's on car user display

Checks 1, 2, 3, 4, 5, 6

Done at Power Pack PCB (CE2098)

Checks 2A, 7, 8, 9, 13 and 14

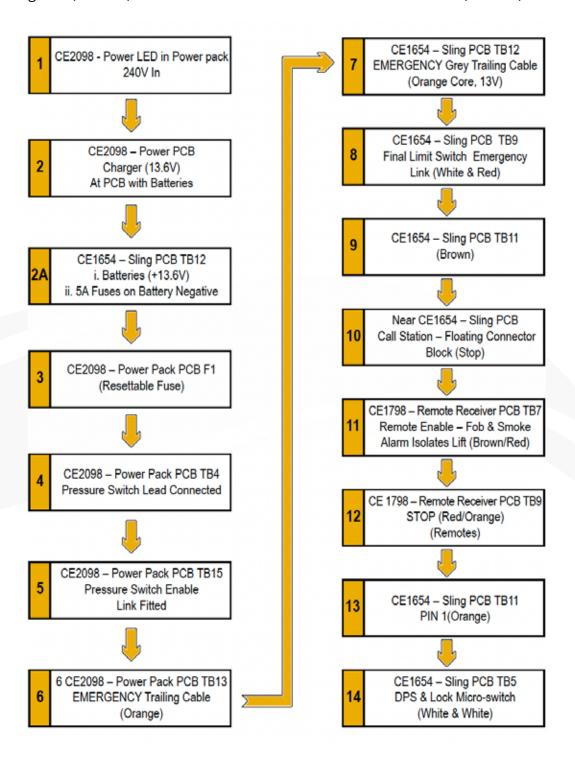
Done at Sling PCB (CE1654)

Checks 10

Done on Floating Connector Block near Sling PCB

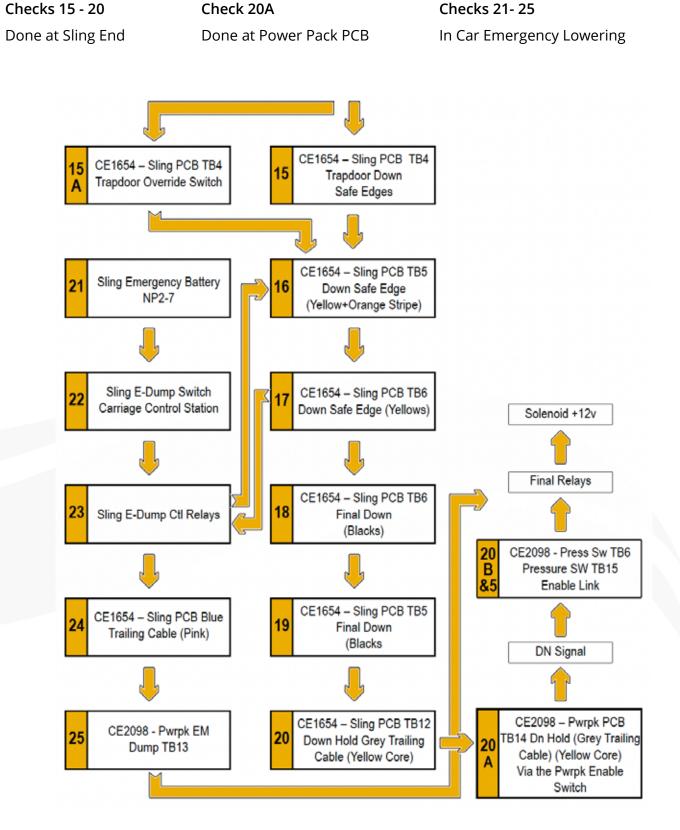
Checks 11+12

Done at Remote Receiver (CE1798)



Affinity Fault Finding - Down Hold

BROWNS up to '20A' takes out YELLOW LED's in user display

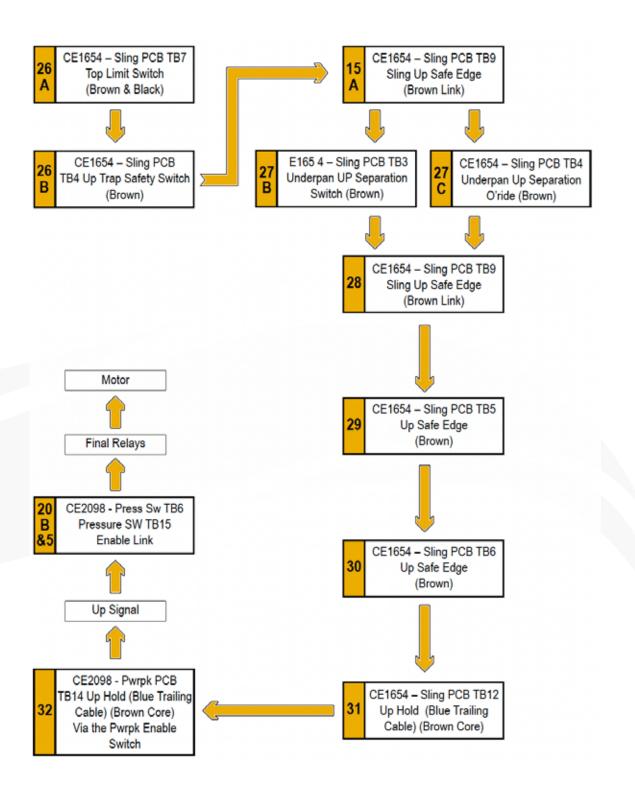


Affinity Fault Finding - Up Hold

YELLOWS up to '32' takes out GREEN LED's on car user display

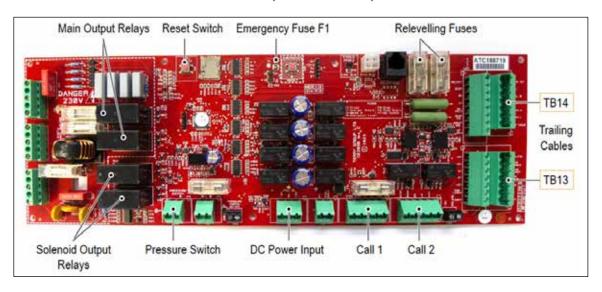
Checks 26A-31 Check 32

Done at Sling End Done at Power Pack PCB



Electrics and Wiring Diagrams

Main Controller PCB (CE2098)



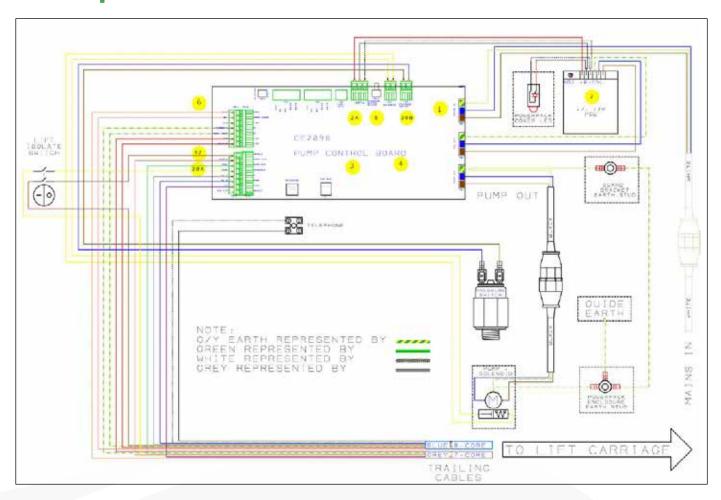
Function of Fuses on Main Controller PCB

FUSE	FUSE RATING	TYPE OF CIRCUIT PROTECTED
F1	1 Amp	Feed emergency circuit – will blow when up or down signal is given and the safety circuit board is detecting a fault.
F2	500 mA	Creep Input from re-leveling system.
F3	500 mA	Dump Input from re-leveling system.
F4	5 Amps	Mains output to Charger PSU.
F5	10 Amps	Main Pump Output.
F6	10 Amps	Mains Input Supply.
F7	5 Amps	Solenoid Out.
F8	5 Amps	Emergency Lower.

Function of LED's on Main Controller PCB

1 Red (R)	Emergency Circuit Active RL2	6 Red (R)	Solenoid Drive RL9
2 Red (R)	Pump Drive RL1	Yellow (Y)	+3v3 Ok
3 Red (R)	Pump Drive RL4	8 Green (GR)	+5V Ok
4 Red (R)	Stop Active RL4	9 Red (R)	+12V Ok
5 Red (R)	PIC Running RL5	10 Red (R)	Solenoid Drive RL14

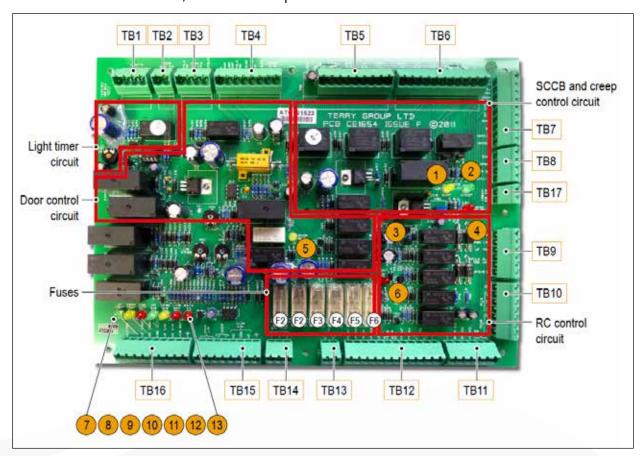
Power pack PCB Interface



CE1654 Sling PCB

Connector, LED, and Sectional Layout Diagram

Numbered circles shown, illustrate LED positions.



Function of LED's on Sling PCB

1 Dump	Yellow (Y)	Active when lift is dumping
2 Creep	Green (Gn)	Active when lift creeping
3 Zone Ctl O/P	Red (R)	ON = fuse OK (No. 6)
4 Zone Ctl O/P	Red (R)	ON = fuse OK (No. 6)
5 Door Magnet	Red (R)	Normally ON
6 Light Timer	Red (R)	ON when UP, DOWN or DOOR button is pressed
Up Trap	Green (Gn)	Normally ON
8 Down Trap	Yellow (Y)	Normally ON
9 Emergency	Red (R)	ON if emergency circuit is made
10 Up S/E	Green (Gn)	ON = circuit made
11 Down S/E	Yellow (Y)	ON = circuit made
12 Low Battery	Red (R)	ON when Battery Output is low (less than 11.5V)
13 Battery Door Fuse	Red (R)	Permanently illuminated

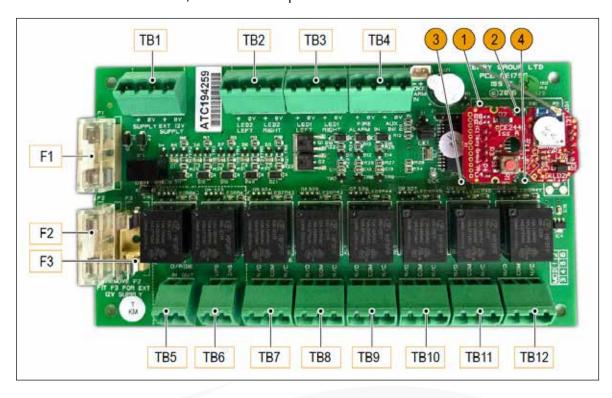
Function of Fuses on Sling PCB

FUSE	DESCRIPTION	FUNCTION
F1 (3A)	Door Enable and Light Circuitry	Provides power to the Light and Door enable switches of the Creep / Dump Control Mechanism
F2 (5A)	Door Control Circuit	Protects the door control relays, voltage regulators and motor current sense circuitry
F3 (1A)	Door Protection Circuit	Protects Motor auto-close circuitry
F4 (5A)	Aux Feed — 12V to top controller	Only goes to top controller via TB12 pin 6. If removed then after a few seconds all LED's except LED 1 go out. This fuse provides charge current from the CE2098 board to the lifts batteries
F5 (5A)	Remote Control and Creep Control	Power circuit for receivers and Creep control mechanism
F6 (2A)	Creep Control Voltage Regulator	Protects Creep Controller Voltage regulator from over current

CE1798 Remote Receiver PCB

Connector, LED, and Sectional Layout Diagram

Numbered circles shown, illustrate LED positions



Function of LED's on Remote PCB

1 Heartbeat System processor is active

2 Program Flashing when programming

3 Signal Flashes when valid data remote signal is received

4 Power Illuminated when power is present on the PCB

Function of Fuses on Remote Receiver PCB

FUSE	DESCRIPTION	FUNCTION
F1 (500mA)	Board Fuse	Protects the Low Voltage Devices
F2 (2A)	LED Fuse	Protects the +12V Supply to LEDs
F3	Alternate Power LED Fuse	Not Fitted

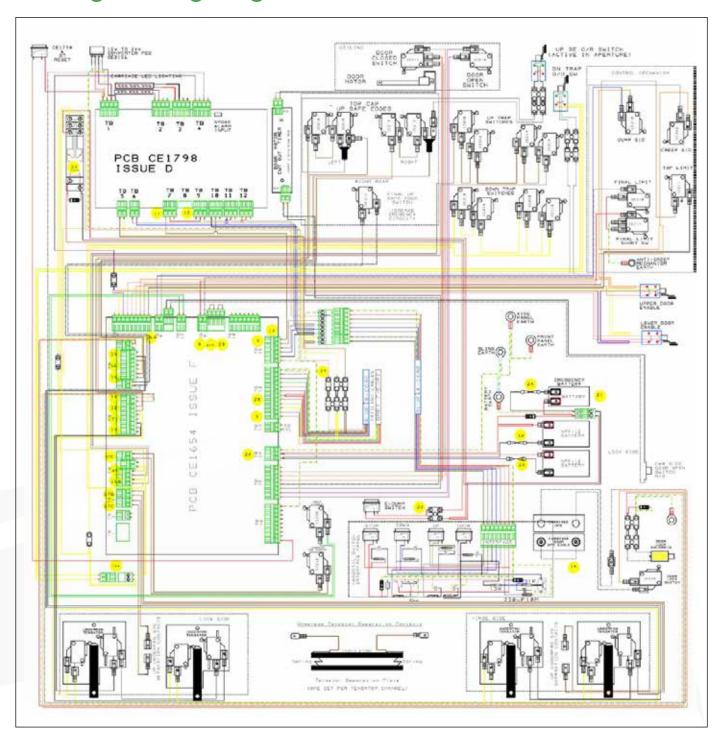
Fault Finding on the CE1798 Board

BEEPS	CAUSE

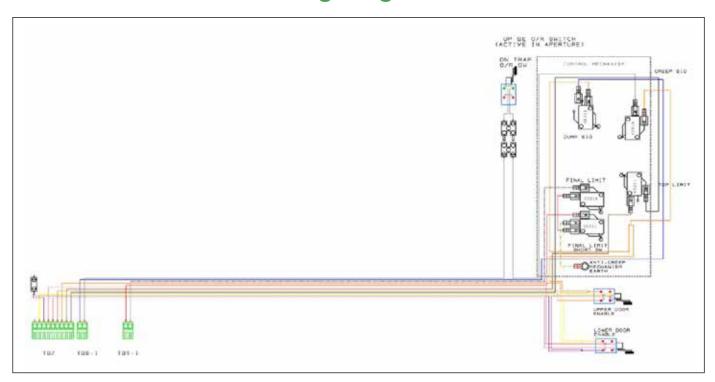
Single short beep every 2 minutes from CE1798 PCB.

Low Handset battery. Replace CR2450 batteries in handset.

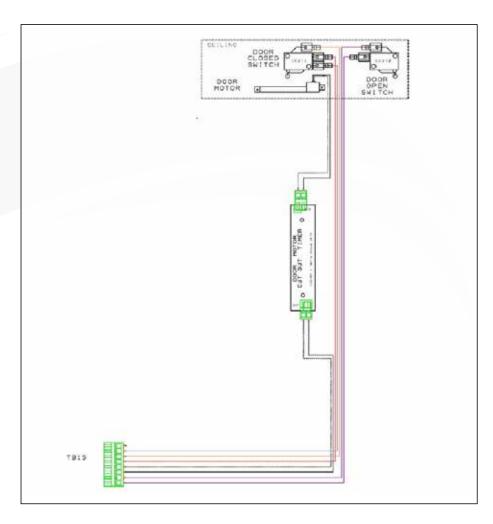
Carriage Wiring Diagram



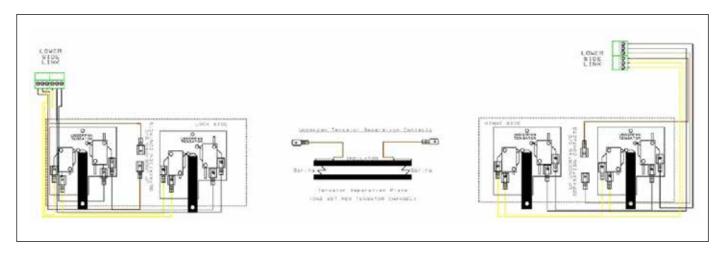
Control Mechanism Wiring Diagram



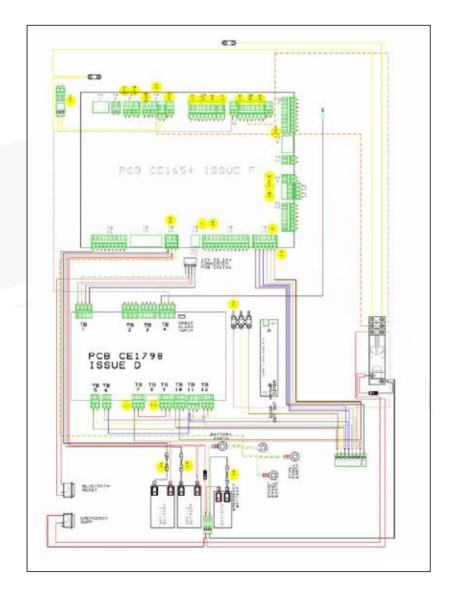
Door Wiring Diagram



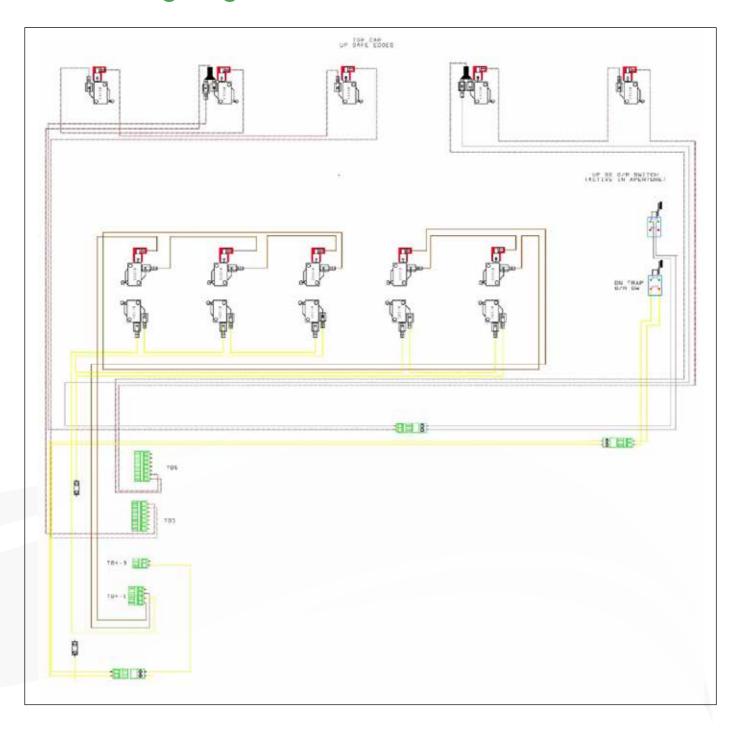
Floor Wiring Diagram



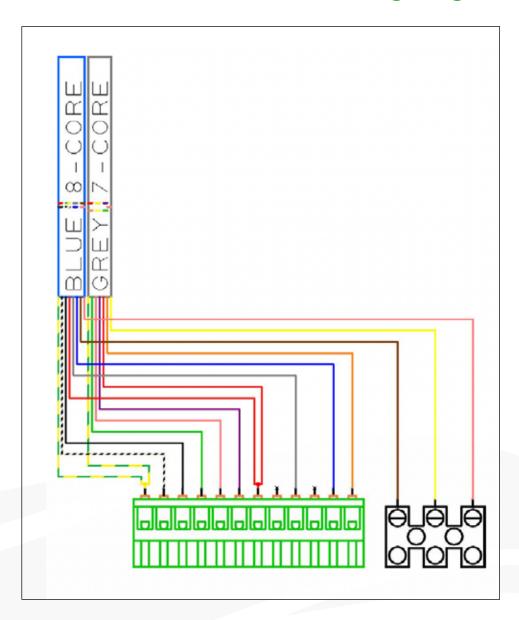
Sling Wiring Diagram



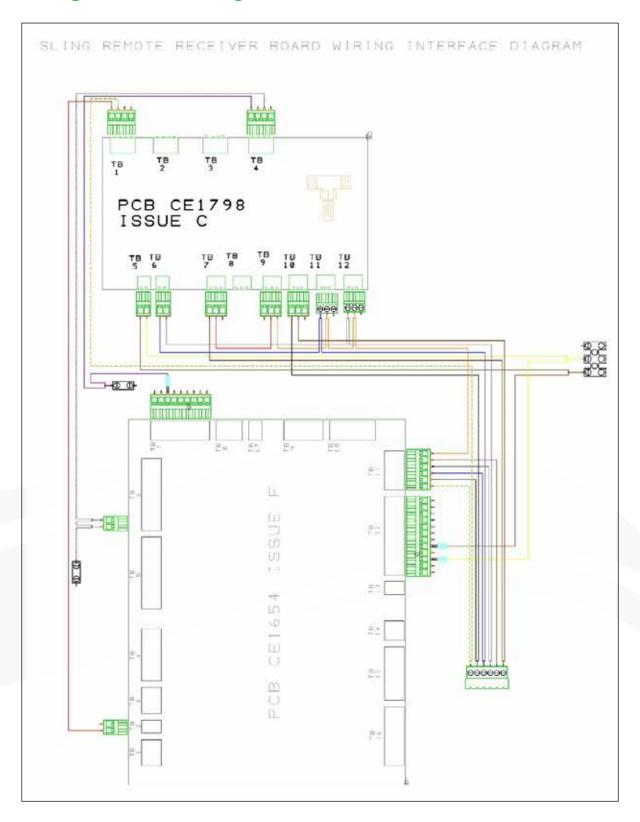
Sides Wiring Diagram



Control Station Interface Wiring Diagram



Sling Board Wiring to Remote Receiver Board



Commissioning the Lift

Final Testing

⚠ IMPORTANT: Final testing must be completed by a competent person - AmeriGlide defines a "competent person" as a lift engineer who has undergone specific training on AmeriGlide products, has passed the appropriate tests and been issued with a certificate of competence by the "Company" or one of its authorized agents.

- 1. After installation the 'Test Certificate' within this document (Page 70) must be completed and returned to AmeriGlide.
- 2. On every visit to an installation the basic safety system checks should be completed as indicated in the 'Service Points' section of this document (Page 76). These checks are defined in the 'Homelift Master Definitions' section of this document (Page 78).



Homelift Installation Test Certificate

CUSTOMER INFOR	RMATION AND HAND	OOVER
Specify the Lift:		
Lift Reference:		
Description of Lift:	Lift with partially / ful Car with no enclosure	
Location: Name:		
	Address:	
	Post Code:	
OFFICIOATE OF A	ACCEPTANCE BY BU	DOLLACED / LICED
	ACCEPTANCE BY PU	
☐ Control locations	and operations	Power supply location
☐ Safety features		☐ Contents of lift operation booklet
☐ Emergency lower	ing procedure	☐ Contact details
☐ Cleaning procedu	ıre	
l	the pu	urchaser / user of this homelift, Serial No
have received and u	nderstood verbal and	written instructions (including recommendations for
periodic inspection a	and servicing) and a d	lemonstration on the correct and safe use of this homelift
and emergency ope	ration from	·
I	confirm	the engineer has taken me through the safety checks.
Signature: Date:		
Name:		

LIET CDECIFICATION				
LIFT SPECIFICATION				
Manufacturer:				
Date of Manufacture (mm/do	d/yy):			
Length of travel:		_ mm	Lift Serial No.:	
Number of levels: 2				
Safe working load:		_ kg	Location of Hydraulic Drive:	
Rated speed: .06 m/s				
Type of Drive System: Direct	Acting			
Electrical Supply: Contract	13A			
	240V			
	1 Phase 50l	hz		
SITE PREPARATION TEST	- Refer to th	e 'Site Pre	eparation' section within the Guide	
Aperature Construction				
a. Confirm the Aperature has b	een construct	tion using	Double Joists as detailed in the Specification Guide	
b. Confirm Joist Hangers have been used				
c. Confirm Aperature construct	ion has been	approved	by Building Control	

EXAMINATION AND TESTS

Electro-Hydraulic Drive Lift Test

	•				
a.	Record S	static-Hydraulic Fluid Test Pressure (ref	er to Hydraulic Ram Tes	t Sheet)	Bar
b1	. Provide	the following details of the Pump Unit	(as stated on Data Plate))	
	Manu	ıfacturer:			
	Serial	or Reference No.:			
	Type:	Gear			
b2	. Measure mid-poir	e and record the following normal runr nt travel	ning operational data wh	nen the Car is at i	its
	Car lo	oading condition Hydraulic Pressure			
	Empt	y, DOWN:	Bar		
	Rated	I, UP:	Bar		
c.	Enter the	e pressure at which the Relief Valve op	erated		Bar
d.	Confirm	the integrity of the pipework is accept	able		
e.	Confirm	the Relief Valve is secured against una	uthorized interference		
f.	Confirm	operation of the Manual Lowering Val	ve lowers the Car		
g.		that when held stationary over a perionsition of travel, the Car does not creep			
h.	Confirm the landi	the Anti-Creep Device automatically leing level.	vels the platform within	+/- 20 mm of	
i.	Confirm	the lift stops within +/- 10 mm of the fl	oor level		
j.	Confirm	the Anti-Creep Device operates with th	ne doors in both the ope	n and closed po	sitions \square
k.	What is t	the Journey Time Setting?		UP	secs
				DOWN	secs
l.	The pres	sure at which the Pressure Switch ope	rated		Bar
m.	Confirm hydraulio	the certificate for the equipment prov c failure	ided show means to pro	tect against	
n.		ails of certificates (by means of serial nation of serial nation of serial nation of serial nations.)	, , , ,	eration of the	
	Device Ram	Serial No.:			

EXAMINATION AND TESTS Electrical Tests a. Creep Control Voltage (8.8V) b. Charger Voltage (13.6V) c. Check Control Circuit voltage does not fall below 11.5V when the lift is traveling down d. Mains Voltage at time of test e. Confirm the polarity of the Mains is correct f. Confirm Insulation Resistance to earth exceeds 500 Megohms g. Confirm the resistance of the earch protective path is less than 0.1 Ohms h. Confirm Insulation Resistance on Safety Circuits exceeds 500 Megohms i. Confirm the Car is earthed by a separate Conductor j. Confirm metal work enclosing live electrical conductors is bonded to the main earthing terminal by protective conductors k. Check all Fuse Ratings **Mechanical Tests** a. Lifestyle: Confirm the wall and ceiling structure is adequate (if unsure, then a full load test must be carried out following installation.) HFE, Harmony Lifts: Confirm the on-site Load Test has been successful and there has been no permanent deformation (photos are required). b. Confirm the Car clears all obstructions when driven at rated speed c. Confirm Blocking Device supplied operates correctly.

Ge	eneral
	Confirm a correct Load Plate is fitted in the Car and other notices are displayed as appropriate
b.	Confirm the Door is fitted with an appropriate Lock that functions properly

c. Confirm operation of Final Lift Switch (ensure Emergency Circuit Fuse trips).

e. Confirm Lift operates satisfactorily whilst transporting the user and their equipment

d. Confirm the operation of the 2-way communication system if fitted.

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(For further information please refer to XB00587 - Homelift Safety Check Support)

Specify Type of Lift: _____

S	AFETY CHECKLIST		PASS	N/A
a.	Lock Operation	 Apply reasonable pressure to the door over the full length of travel to ensure it does not unlock and the lift does not stop 		
		2. Ensure the door lock is engaged in the keeper with a maximum of 2mm clearance between the underside of the lock and the bottom of the slot in the door		
		3. Ensure the door beak is appropriately tight		
		 Ensure the door cannot be released from a door button when outside of the door zones 		
b.	Emergency Door Release	 Ensure the emergency door release tool(s) are available / instructions are attached to lower guides 		
		With the lift on the ground floor, ensure the external tool disengages the lock and the door opens fully. (Use the tool from the Property and NOT your own)		
		Disconnect the door arm linkage, power the door mechanism closed and ensure lift will not travel when		
		4. Return the tools and instructions		
c.	Call / Car Control Station	 Ensure all of control stations work correctly: UP / DOWN / DOOR buttons 		
	Operations x 4	2. STOP buttons		
		3. Remote On / Off Fob operation		
d.	In Car Control Station Emergency Lowering (Mains power MUST be	1. With the lift mid travel remove the cover plate to expose the hard wired call station and press and hold the Emergency lowering button (Harmony / Harmony FE) or use the Key and Down (Lifestyle) to test the lowering function		
	to ensure the only power comes from the	2. Ensure the lift is traveled all the way to the ground floor and that the underpan override does NOT come in (the lift MUST stop in the Yellow Underpan Circuit)		
	emergency battery)	3. Restore the mains power and reconnect main batteries		
e.	Door Cables (Harmony only)	With the Lift on the first floor: Visually check both door cables for wear and tear.		
		 Disconnect the door opener arm and power the door shut. Close the latch so the user LEDs are lit and manually move the Door backwards and forwards slowly and check there are no flickering LEDs. 		
		Note - Any Damage to either of the cables or flickering LED's requires a full door cable replacement fitting immediately		

(For further information please refer to XB00587 - Homelift Safety Check Support)

SAFETY CHECKLIST		PASS	N/A					
 a. Safe Edges For all safe edges, the following MUST be checked: 1. Lift stops 2. Rides away from the obstruction 3. Correct LED extinguishes 4. No sticking edges / surfaces 	 Car Top Up safe edges: FE / HFE / Lifestyle x 4 Corners Harmony 3 Surfaces, LH Car x 2, RH Car x 2, Car Door Top x 2 Trapdoor Up safe edge x 4 corners Trapdoor Down safe edge x 4 corners Up Underpan safe edge x 2 sides Down Underpan safe edge x 4 corners and center Sling Top safe edge x 2 Door Bottom safe edge x 2 sides Door Ramp safe edge x 2 sides (Mk1 FE only) Ramp Proving switch safe edge x 1 (Mk1 FE only) 							
b. Telephone	1. Check the operation of in car telephone							
c. Battery Backup	With lift at the top, turn off the mains and check the lift descends fully.							
ENGINEER								
I certify that on (mm/dd/yy) I thoroughly examined this lift and all the above items have been checked and are satisfactory. If the Lift fails any basic safety system checks it must be taken out of service immediately.								
Signature:	Date:							
Name:								
Organization:	Organization:							
CUSTOMER								
I agree that the work s	specified has been carried out.							
Signature:	Date:							
Name:								

Homelift Service Points

(Please refer to relevant Installation Manual for Master Definitions)	Tick if required $\; \Box \;$
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NO.	POWER PACK CHECKLIST	PASS	ADJUSTED	N/A
1.	Oil level in pump unit			
2.	Manual emergency lowering			
3.	Operation of final limit switch (emergency reset required)			
4.	Torx screws fitted to both the cover and release flap			
5.	Condition of hose and fittings			
6.	No leaks			
7.	Clear out any debris			
8.	Safety scotch available			
9.	Mains power indicator			
10.	Refer to check 43 whilst PCB is exposed			
No		D 100		N1/A
NO.	GUIDES CHECKLIST	PASS	ADJUSTED	N/A
11.	No oil in the catch tank			
12.	Condition of hose and fittings			
13.	Security of the ram attachment bolts			
14.	Security of control tubes			
15.	Guide join fixings			
16.	Lower level wall / floor fixings			
17.	Aperture liner to guide fixings			
18.	Upper level wall / ceiling fixings			
19.	Infills fitted where the gap from the rear of guides to wall / window exceeds 100 mm			П
I	exceeds 100 mm			
NO.	APERTURE / TRAPDOOR CHECKLIST	PASS	ADJUSTED	N/A
20.	Fixings in place		ADOCCIED	
21.	Tacfire condition			
22.	Intumescent sealant in place			
23.	Infill strips in place			
24.	False ceiling cables replaced			
25.	Trapdoor override switch			
26.	Trapdoor suspension cables			
27.	No wiring fouling the trapdoor arm			
28.	Trapdoor sits evenly in the aperture			
_0.	Sp. 2.50. 5.65 Greenly tile aportare		_	_

(Please refer to relevant Installation Manual for Master Definitions)

NO.	CARRIAGE CHECKLIST	PASS	ADJUSTED	N/A
29.	Hydraulic ram bottoms out fully			
30.	Door alignment at both landings			
31.	Door set up			
32.	Door proving switch position			
33.	Final down safety switches			
34.	Check both the door zone switches are secure			
35.	Check the operation of the anti-creep system			
36.	Seat fixings			
37.	General fixing			
38.	Clear out any debris between floor and underpan			
39.	Tensator springs			
40.	Glazed panels			
41.	Underpan override switch			
42.	In car lighting			
43.	Charger voltage in the region of 13.5v with in car lighting disconnected			
44.	Battery voltages remains greater than 12.0v during down travel			
45.	Earth continuity between mains earth and carriage chassis			
NO.	LUBRICATION CHECKLIST	PASS	ADJUSTED	N/A
46.	Door cables			
	Door cables Door lock			
46.				
46. 47.	Door lock			
46. 47. 48.	Door lock Door drive mechanism			
46. 47. 48. 49.	Door lock Door drive mechanism Top limit plunger			
46. 47. 48. 49. 50.	Door lock Door drive mechanism Top limit plunger Sling rollers	 	ADJUSTED	 - - - - - -
46. 47. 48. 49. 50. 51.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs		ADJUSTED	
46. 47. 48. 49. 50. 51.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST	PASS	ADJUSTED	
46. 47. 48. 49. 50. 51. NO. 52.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs	PASS	ADJUSTED	
46. 47. 48. 49. 50. 51. NO. 52. 53.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms	PASS	ADJUSTED	
46. 47. 48. 49. 50. 51. NO. 52. 53. 54.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms Operation of smoke alarms	PASS	ADJUSTED	
46. 47. 48. 49. 50. 51. NO. 52. 53. 54. 55.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms Operation of smoke alarms Check the operation of the re-levelling system	PASS	ADJUSTED	
46. 47. 48. 49. 50. 51. NO. 52. 53. 54. 55. 56.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms Operation of smoke alarms Check the operation of the re-levelling system Trailing cable / energy chain	PASS	ADJUSTED	
46. 47. 48. 49. 50. 51. NO. 52. 53. 54. 55. 56. 57.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms Operation of smoke alarms Check the operation of the re-levelling system Trailing cable / energy chain Trunking	PASS	ADJUSTED	
46. 47. 48. 49. 50. 51. NO. 52. 53. 54. 55. 56. 57. 58.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms Operation of smoke alarms Check the operation of the re-levelling system Trailing cable / energy chain Trunking Load plate secured	PASS	ADJUSTED	N/A
46. 47. 48. 49. 50. 51. NO. 52. 53. 54. 55. 56. 57. 58. 59.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms Operation of smoke alarms Check the operation of the re-levelling system Trailing cable / energy chain Trunking Load plate secured Emergency release / lowering tools available	PASS	ADJUSTED	N/A
46. 47. 48. 49. 50. 51. NO. 52. 53. 54. 55. 56. 57. 58. 59. 60.	Door lock Door drive mechanism Top limit plunger Sling rollers Tensator springs GENERAL CHECKLIST Replace batteries in all controls and fobs Replace batteries in smoke alarms Operation of smoke alarms Check the operation of the re-levelling system Trailing cable / energy chain Trunking Load plate secured Emergency release / lowering tools available User manual available	PASS	ADJUSTED ADJUSTED	N/A

Homelift Master Definitions

Power Pack

- 1. Oil level in pump unit With the lift parked at the upper level, there should be at least a quarter of the remaining oil visible in the tank. Note - Only top up the oil with the lift parked at the lower level.
- 2. Manual emergency lowering Send the lift up from the ground floor around 300 mm, ensure that the underside of the lift is clear, then pull the cord to lower the lift to the floor.
- 3. Operation of final limit switch With the lift at the lower level, push hard down on the limit switch plunger until the final limit switches activate. This will require either CB2 or the reset button pressing on the power pack controller.
 - For Phase 1 lifts where the controller is at the top of the guides, send the lift up and press the final limit switch. The lift will stop and then continue to travel once released.
- 4. Torx screws fitted to both the cover and release flap Ensure that the screws securing both the cover and the emergency release flap are T20 Torx screws to prevent unauthorised access.
- 5. **Condition of hose and fittings** Check that all hydraulic fittings are tight and the hose is not damaged or perished.
- 6. **No leaks** Ensure that there are no leaking fittings.
- 7. Clear out any debris Remove any build-up of debris.
- 8. Safety scotch available Ensure that the safety scotch is available and can be fitted into the front face of the left hand guide.
- 9. Mains power indicator Ensure the red power light is lit when the mains is on.
- 10. Refer to check No. 42 whilst PCB is exposed With the trailing cable disconnected, check that there is a minimum of 13.6v on the 'batt' terminal of the PCB.

Guides

- 11. No oil in the catch tank Remove the catch tank cover and check there is no oil in the tank.
- 12. Condition of hose and fittings Check that all hydraulic fittings are tight and the hose is not damaged or perished.
- 13. Security of the ram attachment bolts Check that the 2 bolts securing the ram brackets to the outside of the lower left hand guide are tight.
- 14. Security of control tubes Check that the control tubes are securely fixed in place throughout the full length of the guides.
- 15. **Guide join fixings** Check that fixings on all of the guide joins are secure.
- 16. Lower level / wall fixings Check that the lower guides are securely attached the floor or wall.
- 17. Aperature liner to guide fixings Check that the guides are securely fixed to the upper aperture liner.
- 18. Upper level wall / ceiling fixings Check that the upper guides are securely attached to the wall or ceiling.
- 19. Infills fitted where gap exceeds 100mm to rear wall / window Check that the lift has infills fitted where the gap from the rear of the guides to a wall or window exceeds 100 mm.

Aperture and Trapdoor

- 20. Fixings in place Check that both the upper and lower aperture liners are securely fixed in place.
- 21. Tacfire (superlux) condition Check that the tacfire is undamaged on all 4 faces of the aperture liner.
- 22. Intumescent sealant in place Check that the tacfire is adequately sealed with intumescent paste around all joins and around the guides.
- 23. Infill strips in place Check that both aperture infill strips are in place and adequately sealed around with intumescent paste.
- 24. False ceiling cables replaced On a Lifestyle / Salise lift, replace all 4 false ceiling cables.
- 25. Trapdoor override switch When the lift is travelling down, place a 20 mm pad on all 3 surfaces (1 side at a time) of the upper aperture liner and ensure the lift stops and the down travel is inhibited until the pad is removed. The lift should be able to travel away from the obstruction only. The lift should, however, continue running when a 9mm pad is placed on all 3 surfaces.
- 26. Trapdoor suspension cables Check that the trapdoor arm suspension cables are in good condition, showing no signs of fraying.
- 27. No wiring fouling the trapdoor arm Check that no wiring is obstructing the operation of the trapdoor arm.
- 28. Trapdoor sits evenly in the aperture Check that when the trapdoor settles in the upper aperture liner, it sits evenly and flush to the surface in all 4 corners.

Carriage

- 29. Hydraulic Ram bottoms out fully With the lift parked at the lower landing, the underside of the carriage should be sat a minimum of 5 mm above the highest part of the ground floor. To check the car is fully down, pull the emergency lowering cord and repeat the check.
- 30. Door alignment at both landings With the lift parked at each landing, disconnect the linkage bar and manually close the door checking that the door beak enters the lock slightly below the center of the lock. When firing the lock solenoid, the beak should release from the lock.
- 31. Door set up Turn down 'limit override' on the sling PCB and with the door linkage bar connected, close the door and check that the door beak just touches the lock, but the door does not lock. With limit override turned up slightly, the door will pull firmly closed.
- 32. Door proving switch position Manually close the door and check that the door proving switch is only made when the door is securely locked in place and no sooner.
- 33. Final down safety switches With the carriage away from the floor, check that all 4 final down safety switches only activate when the underpan is pulled hard up to the underside of the carriage floor and no sooner.
- 34. Check both the door zone switches are secure Check that both of the door zone switches are secure and when located in their specific slots, the roller head is a maximum of 2 mm from the back of the slot.
- 35. Check the operation of the anti-creep mechanism 1. With the lift at the upper landing, press down and stop before the upper door zone leaves the slot in the control tubes. The lift should return to the upper landing 2. Using a screwdriver, push down on the top of the creep mechanism and as soon as the lift starts to descend, let go and the lift should return to the upper landing.
- 36. **Seat fixings** Check that the seat frame fixings and the seat pad fixings are secure.

- 37. **General fixings** Check that the following fixings are in place and secure:
 - Center brace to sling
 - Center brace to carriage sides
 - Axle nuts and securing screws
 - Door hinges
 - Carriage to floor
 - Underpan to Tensator channels
- 38. Clear out any debris between floor and underpan With the bottom of the lift at a suitable height, pull down the underpan carefully and clean out any debris.
- 39. Tensator springs With bottom of the lift at a suitable height, carefully pull down the under pan and inspect the springs for any wear and tear. There should be no cracks visible in any of the springs.
- 40. Glazed panels Check that none of the glass panels are damaged or loose.
- 41. Underpan override switch With the lift raised up from the ground floor, place a 9mm pad under all 4 corners of the underpan (1 corner at a time) and check that the lift stops as soon as it comes into contact with the pad. When the lift stops, it should be possible to lift the underpan and remove the pad. It is then necessary to place a 4mm pad under all corners and repeat the check, however, the lift should not stop and continue its travel to bottom out on the ram.
- 42. In car lighting Check that any in car lighting is operational and times out accordingly.
- 43. **Charger voltage** in the region of 13.5v with lighting disconnected With both the batteries and the in car lighting disconnected from the sling PCB, check that the voltage on the battery terminals of the PCB is in the region of 13.5V - 14v dc.
- 44. Battery voltages remains greater than 12.0v during down travel With the lift parked at the upper level and with the in car lighting connected, measure the battery voltage for the duration of the down travel. The voltage should not fall lower than 12.0V.
- 45. Earth continuity between mains earth and carriage chassis Connect a suitable test meter set to ohms, from the earth terminal of the mains power supply to the trailing cable earth and then from trailing cable earth to the lift chassis. All readings should be less than 1.0ohm.

Lubrication

- 46. Door cables With the door open, apply a small amount of grease to the 2 door cables.
- 47. **Door lock** With the lock open, apply a light oil to the moving parts of the cams.
- 48. **Door drive mechanism** Apply a light coating of oil to the moving parts of the drive system.
- 49. Top limit plunger Apply a light coating of oil to the spring plunger of the creep / limit mechanism.
- 50. Sling rollers Apply a light coating of oil to the sling and lateral rollers.
- 51. **Tensator springs** With the lift at a comfortable height, carefully pull down the underpan and apply a light coating of oil to the Tensator springs.

General

- 52. Replace batteries in all controls and isolation fobs
- 53. Replace batteries in smoke alarms Where the smoke alarms have AA batteries fitted, replace at both landings.
- 54. **Operation of smoke alarms** Send the lift halfway up, trigger the lower alarm, count to 5 and trigger again. The upper alarm should sound and when the lift lands it should be out of service but the door should still open. Repeat the process on the upper alarm.
- 55. Check the operation of the re-leveling system 1. With the lift parked at the upper level, press down and immediately press stop and the lift should relevel. 2. Using a screwdriver, push down the creep mechanism plunger and when the lift starts to descend, release and the lift should rerun to the upper level.
- 56. **Trailing cable / energy chain** Visually inspect the trailing cables and energy chain for any signs of wear / damage.
- 57. **Trunking** Check that all trunking is secure and in good condition.
- 58. **Load plate secured** Check that the plate displaying the safe working load is secured in place.
- 59. **Emergency release / lowering tools available** Check that the customer has the emergency door release key and the torx driver for the powerpack.
- 60. User manual available Check the user manual is available.
- 61. No standing passengers unless lift is fully enclosed For a Harmony lift, the user must be either seated on the folding seat, or in a wheelchair.
- 62. All covers and fasteners in place Check that all covers are secured in place with appropriate fasteners.
- 63. Service history updated in user manual Record the details of the service within the user manual.

Installation Feedback Form

For us to better monitor and report on installations, please take the time to complete and return within 7 days of installation.

INSTALLER DETAILS		
Company:		
Name:		
Email:		
Date: Lift Reference:		
PLEASE ANSWER THE FOLLOWING QUESTIONS	YES	NO
1. Were all the parts present?		
2. Were all the parts free from damage?		
3. Were all the parts packed as expected?		
4. Was everything manufactured correctly?		
5. Was the paint quality to an acceptable standard?		
6. Was the specification of the lift as ordered?		
7. Was the end user satisfied with the product?		
If any answers are 'No', add further details, and where possible include photographs.		
ADDITIONAL COMMENTS		

Safety Signs



ACCESS TO AUTHORIZED PERSONNEL ONLY

I confirm that I have been informed of the nature of work being undertaken, and that due to danger of injury, access to the lift-preparation rooms is prohibited until work has been completed.

Signature:		
Name:	Date:	

A CAUTION: OPEN FLOOR

Inspection and Maintenance

XB00580 - Through Floor Lifts Inspection and Maintenance

MOTE: This document applies to Harmony, HFE, Lifestyle and Affinity

This lift should be serviced at least once every 12 months by a trained and competent person. For reference, the service schedule and safety critical checks are included in the installation manual.

To ensure the ongoing reliability of the lift, the following components should be replaced at the intervals indicated below.

COMPONENT	INTERVAL
Landing station, car control and remote enabler batteries	12 months
Smoke alarm batteries (where AA batteries are fitted)	12 months

The following components are subject to general wear and tear and must be thoroughly inspected and where necessary, replaced immediately when showing any signs of wear as indicated below. The lifespan of these components will vary subject to the usage of the lift.

COMPONENT	INTERVAL
Tensator Springs	Hair line fractures to the individual springs. Where one one spring is showing signs of fatigue, we would recommend that all springs are replaced 12 months
Trailing Cables	Any bubbling, splits, or damage to the outer core of the flex
Door Cables	Any bubbling, splits, or damage to the outer core of the flex
Trapdoor Pick Up Arm Wires	Any fraying wires or damage to the crimped connections

Lift Disassembly / Safe Disposal of Hazardous **Materials**

Batteries & Printed Circuit Boards (PCB)

The batteries and PCB's within this product should not be disposed of with other household waste at the end of their working life. Where batteries are marked with the chemical symbols Hg, Cd or Pb, it indicates that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

If batteries are not properly disposed of, these substances can cause harm to human health or the environment. Batteries and PCB's that are no longer required for this lift, at the end of their working life, should be returned to an approved waste disposal facility for safe disposal.

Oil

Oil from the drive system should be disposed of via an authorized waste disposal contractor, to an approved waste disposal facility.

NOTE: This lift must be disassembled by a competent person who has been fully trained in the installation of this lift and is qualified to provide safe disconnection of the lift from the mains terminal.

