LR Range

Installation and Service Manual

LR Installation and Service Manual

Contents

Section 1

Introduction

This publication is a reference document and is not a substitute for formal product training.

The Installation and Service Manual applies to the LR Range of Lifting Platforms.

You must have in your possession, the documents contained in this publication in order to correctly install, set-up, test, commission and service the lift.
Many of these documents are referred to throughout the instructions.

Each section is given a separate document number for ease of maintenance.

Before commencing the installation please read the **'Important Safety Advice'** given.

The **'Installation Tool List'** provides a list of all tools necessary to install the LR Lifting Platform (excluding building work tools). Non-standard tooling is given an 'Installation Tool' (IT) number within the list. You will find this number listed in the 'TOOLS' column of the Installation Instructions to indicate when these tools are required.

If you are unsure how to proceed with any aspect of the installation or service please contact Wessex Lift Co Ltd for advice.

Preventive checks and routine maintenance are essential to keep the lift in proper working order.

Over the long term they may save money, and will ultimately ensure safe and reliable operation of the lift and therefore customer satisfaction.

Both the lift user and the agency responsible for the funding of maintenance should be made aware of the need for regular maintenance by Engineers correctly trained to work on that particular item of equipment. The Wessex LR Lifting Platform should be checked and serviced at 6 monthly intervals, this is in accordance with both our own, and British Standards recommendations.

The Service Engineer will be required to carry out all of the routine safety checks which are be based on the appropriate appendix in BS 6440. The checking, setting and adjusting of the lift must be in accordance with our own detailed procedures as laid out within this manual.

Whilst working on the lift extreme care must be exercised whenever any panels are removed that leave moving or electrically live parts exposed. The lift user and any other persons within the property must be made aware of the maintenance activity before it is commenced and if appropriate the lift and its controls should be cordoned off.

The Engineer should be aware of the requirements of the Health and Safety at Work Act 1974 and take care to adhere to this.

The lift user and owner can help to be part of an effective maintenance program by being fully trained in the use of the lift and:

1. Informing the Maintenance Company of any unusual noises, operational difficulties, or anything that appears to be visually incorrect.
2. Informing the maintenance company of any change of use, i.e. a change of duty cycle (number of starts per hour)
3. Ensuring the lift is kept clean and clear of any obstructions.
4. Testing the battery backed functions on a weekly basis
5. Not exceeding the lift's maximum safe working load.
6. **Ensuring children and pets are kept well away from the lift when in use.**

Section 2

SAFETY WHEN WORKING ON THE LIFT

Safety must be of paramount importance when working on any lift. Normal workshop practices must be followed when carrying out the installation, repair or service.

Read the guidelines below before commencing any work to the lift.

General Safety Considerations

Before carrying out work on a lift, the following precautions must be adhered to:

- Read the Installation and Service Manual as appropriate.
- Ensure a competent engineer carries out the work.
- Ensure bystanders are not exposed to risk.
- Wear the correct personal protective equipment and clothing for the task being carried out, e.g. safety glasses, hearing protectors, gloves, protective footwear, overalls, etc.
- Adequately support the platform if any of the hydraulic system is being worked on, when the lift car is off the ground floor.

Override Box

During the installation and service it may be necessary to operate the lift using an override box, during which time no safety features will be operational on the lift. Before connecting this device safety barriers must be placed around the working area. Engineers should remain vigilant at all times while operating the lift with the override box, for both their own safety and members of the public.

Working below the platform

When working below the platform the following practices must be observed:

1. Isolate the mains power to the lift.
2. Disconnect the power to the powerpack and the lowering valve.
3. Place a scotching device in the specified location.

Unsupervised Children

Advise the user, and if applicable the customer that unsupervised children must not be allowed near the lift when it is in use. Present the customer with the document ‘Health and Safety at Work Guidelines’ before commencing the installation.

Safety Barriers

Where there is a risk to the public, safety barriers must be used at both levels.

Panels and Covers (Movable guards)

With the lift in motion, be aware that trapping and shearing hazards will be prevalent when panels and covers are not fitted. All panels and covers must be fitted before the lift can be commissioned and handed over to the user.

Laceration Hazards

Whilst the lifts are fully finished it should be realised that metal components may have sharp edges, care should therefore be taken during handling of components.

Safety Advice

Electrical Hazards

The lift operates on a 240V A.C. supply and a 24V D.C. control circuit; care should therefore be taken when working on the lifts electrical system.

Where appropriate, disconnect the lift power supply and the power to the powerpack and lowering valve before carrying out work on the lift. This will stop any risk that may arise due to unintentional movement of the lift, which could happen by the client pressing a remote call station without the engineer's knowledge.

Leaving in a safe condition after maintenance

The lift must never be left operable if there is any risk to those using it. All lift panels must be refitted after completion of works. You should always remind the customer that unsupervised children should not be allowed to play or stand near the lift whilst it is in motion.

Trapping and shearing hazards

The Engineer must take extreme care if the lift is operated and moved with any panels removed. You should also be aware that other people could operate the lift controls whilst the engineer is working on the lift.

HYDRAULIC SYSTEM

Wessex hydraulic lifts operate with high hydraulic pressures that are potentially dangerous. Before removing any components from the hydraulic circuit ensure that there is no hydraulic pressure in the system. This is achieved by lowering the lift onto the ground or a suitable support and continuing to operate the manual lowering valve for a short period after the lift has stopped.

If a fluid leak is suspected, do not attempt to trace the leak by wiping clean the pipes, with the hydraulic system under pressure, to establish where the leak is coming from. High pressure jets of fluid are capable of penetrating skin. Visually inspect the suspected area to find the leak. If you need to wipe the pipes clean, first release the hydraulic pressure.

Hydraulic Fluid

Health and Safety

Normally safe in use, however attention should be paid to the handling and storage information and to any necessary first aid measures.

Handling

Avoid prolonged or repeated skin contact. Gloves or barrier cream should be used when handling hydraulic fluid. Avoid inhalation of vapour, mist or fumes. Do not wear contaminated clothing.

Storage

Keep containers tightly closed.

First Aid Measures

- **Eyes**

  Flush the eyes with copious amounts of water. No emergency measures are necessary but if adverse eye effects follow, seek medical attention.

- **Skin**

  Wash any contaminated skin thoroughly with soap and water. No emergency measures are necessary but if adverse skin effects follow, seek medical attention.

Hydraulic Fluid Continued...

First Aid Measures

- **Inhalation**

  Remove the effected person to fresh air. If recovery is not rapid, seek medical attention.

- **Ingestion**

  Do not induce vomiting. No emergency measures are needed but if adverse health effects follow, seek medical attention.

- **Additional Information**

  Injection under the skin of hydraulic fluid under high pressure is a serious emergency requiring ***IMMEDIATE*** medical attention and hospitalisation, even if there is little in the way of symptoms or signs to suggest the severity of the injury.

Manual Handling

Lifting and moving loads by hand are one of the most common causes of injury at work. Many manual handling injuries result from repeated operations, but even one bad lift can cause a lifetime of pain and disability. It is the responsibility of the employer to avoid the need to carry out manual handling which creates a risk of injury. Where avoidance is not reasonably practicable, an assessment must be undertaken.

Before commencing the installation a Risk Assessment must be undertaken.

Prior to attending site to install, you must be familiar with this Risk Assessment and prepare yourself for any action which may be recommended, for example, use of a mobile hydraulic lifting hoist.

When installing or removing a lift:

- Ensure that access to and from the site is free from tripping and slipping hazards,
- Plan a route from your vehicle to the site which minimises the need for manual handling,
- Share heavy or awkward loads, but remember that some workers are stronger than others and no one is immune from injury.

Section 3

Method Statement

Company:	**Wessex Lift Company Limited**
Site Address:	
Activity:	Installation of Lifting Platform
Product:	LR Lifting Platform
Product No:	**LR800/LR900 & LR1100**
Arrival date:	
Arrival time:	Approx. 9.00am
Installation duration:	1 day Approx.
Personnel:	
Equipment:	• Hand tools • Hand power tools – 110V or less. PAT tested. • Manual handling aids – sack trucks and trolleys.
Materials used:	• Coated steel • Glass • Aluminium • Hydraulic fluid (see Health & Safety Data Sheet)
Risk assessment:	See 'Risk Assessment Form' *(Compiled at installation pre-inspection)*
Control measures:	• Site management to arrange vehicle unloading area at entrance to the building within 30m from lift area. The path to lift area must be clear of obstructions (e.g. building materials). • Installers must unload vehicle • Above personnel to attend site induction
Personal protective equipment:	• High visibility vests • Safety footwear • Hard hats • Eye protection
Emergency arrangements:	As advised at induction

Method Statement

Objective

The objectives of the Method Statement are to ensure the lift installation is completed in a manner, which minimises the health and safety risks to installation personnel and others, and to provide guidance on the installation sequence.

This method statement has been prepared for guidance on the installation of standard lifts. Non standard installations will have specific Method Statements, compiled by the Technical Sales Department which directly relate to a SPR/Customer Order.

Should site conditions or equipment prohibit installation in accordance with this method statement, the Installation Manager or Technical Sales Department should be contacted for a formal concession before any deviation from this method statement is carried out.

Responsibility

It is the duty of every employee to take reasonable care for the Health and Safety of himself and of other persons who may be affected by his acts or omissions at work. The customer and company must ensure a safe system of work and provide access to and from the site, which is free from tripping and slipping hazards and minimises the need for manual handling.

Health and Safety Reference Documents

Refer to the documents below for further Health and Safety advice. These documents should be in your possession. Ensure you read, understand and act upon their advice.

- Wessex Health and Safety Policy Statement

Technical Reference Documents

- Installation and Service Manual
- Pre & Post Installation Check Lists
- Risk Assessment
- Approved Concessions

Method Statement

Method

1. Ensure your arrival and departure on site is made known to the Site Representative.

2. Familiarise yourself with the site generally and in particular site safety rules and access / exit routes.

3. Complete a site safety Risk Assessment Record Sheet. The Installations Manager should be informed of any hazards which preventative and protective measures are not satisfactory.

4. Clean working conditions are essential to safety, ensure that work areas are kept clean, dry and free from tripping and electrical hazards at all times.

5. Carry out work in accordance with the relevant installation instruction.

Basic Installation Procedure

Sequence	Procedure
1	Identify lift area, carry out pre-installation check list and risk assessment.
2	Locate and fix gate to threshold. (Gate option only)
3	Locate scissor mechanism and floor assembly to lift area.
4	Fit hydraulic rams and connect to pump unit.
5	Fit bellows guides to both left and right sides.
6	Fit the left and right hand sides.
7	Fit ramp
8	Align lift with threshold and fix to the floor
9	Set-up limit switches.
10	Panel lift, fully test and handover.

Refer to the Installation and Service Manual for the complete procedure.

Section 4

Installation Tooling

Item	Tool	Quantity	Tool No
1.	2.5mm hexagon key	1	
2.	4mm hexagon key	1	
3.	5mm hexagon key	1	
4.	6mm hexagon key	1	
5.	Junior hacksaw	1	
6.	Senior hacksaw	1	
7.	Woodsaw	1	
8.	20mm hole saw and arbour	1	IT030/031
9.	32mm hole saw	1	
10.	M3 tap	1	
11.	M4 tap	1	
12.	M5 tap	1	
13.	M6 tap	1	
14.	M8 tap	1	
15.	3.3mm diameter HSS twist drill	1	
16.	4.2mm diameter HSS twist drill	1	
17.	5.2mm diameter HSS twist drill	1	
18.	6.5mm diameter HSS twist drill	1	
19.	8.5mm diameter HSS twist drill	1	
20.	10mm diameter HSS twist drill	1	
21.	6.5mm diameter SDS masonry drill	1	
22.	8.5mm diameter SDS masonry drill	1	
23.	10mm diameter SDS masonry drill	1	
24.	20mm diameter SDS masonry drill	1	
25.	13mm diameter flat wood bit	1	
26.	35mm SDS core drill assembly	1	IT032
27.	110V lead lamp	1	
28.	Cordless drill *(with crosspoint screwdriver bit)*	1	
29.	36V or 110V 3kg SDS drill	1	
30.	110V transformer	1	
31.	110V extension lead	1	
32.	Vacuum cleaner	1	
33.	$^{3}/_{8}$ drive ratchet	1	
34.	$^{3}/_{8}$ drive 50mm extension bar	1	

Installation Tooling

Item	Tool	Quantity	Tool No
35.	$^3/_8$ drive 100mm extension bar	1	
36.	7mm $^3/_8$ drive socket	1	
37.	8mm $^3/_8$ drive socket	1	
38.	10mm $^3/_8$ drive socket	1	
39.	13mm $^3/_8$ drive socket	1	
40.	17mm $^3/_8$ drive socket	1	
41.	19mm $^3/_8$ drive socket	1	
42.	No1 crosspoint screwdriver	1	
43.	No1 crosspoint screwdriver stubby	1	
44.	No2 crosspoint screwdriver	1	
45.	No3 crosspoint screwdriver	1	
46.	3mm flat blade screwdriver	1	
47.	5mm flat blade screwdriver	1	
48.	6.5mm flat blade screwdriver	1	
49.	8mm flat blade screwdriver	1	
50.	10mm flat blade screwdriver	1	
51.	Mains tester screwdriver	1	
52.	5.5mm combination spanner	2	
53.	7mm combination spanner	2	
54.	8mm combination spanner	1	
55.	10mm combination spanner	2	
56.	13mm combination spanner	2	
57.	17mm combination spanner	1	
58.	19mm combination spanner	1	
59.	Adjustable spanner	1	
60.	Wire strippers/cutters	1	
61.	Long nose pliers	1	
62.	Combination pliers	1	
63.	Diagonal side cutters	1	
64.	Crimping pliers	1	
65.	Circlip pliers	1	
66.	Dust sheet	2	
67.	5m Tape measure	1	
68.	Mastic gun	1	

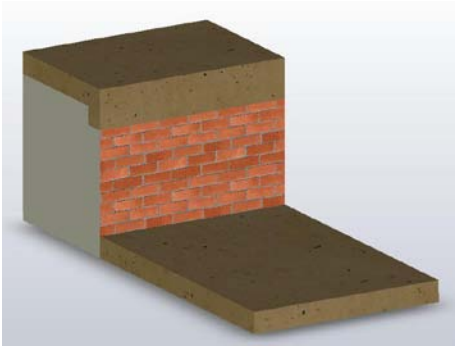
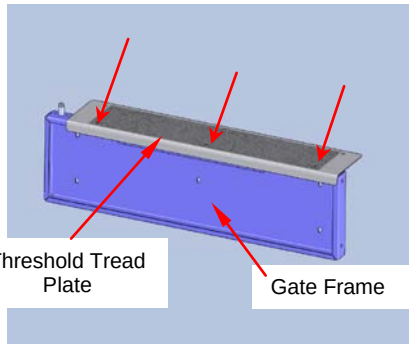
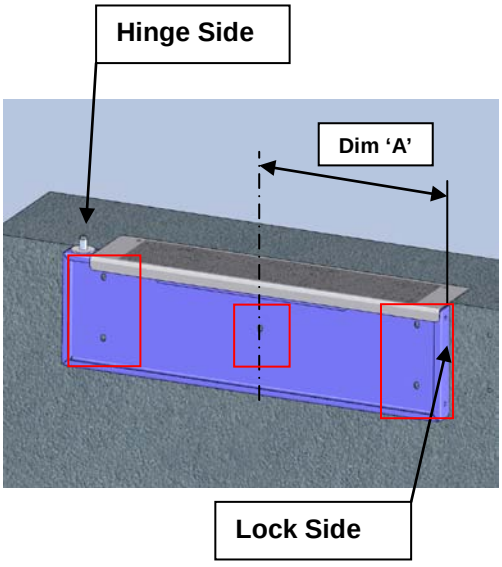
Installation Tooling

Item	Tool	Quantity	Tool No
69.	Safety barrier	2	
70.	1.2m Spirit level	1	
71.	Ratchet ‘T’ type tap wrench	1	
72.	Trimming knife with retractable blade	1	
73.	Crowbar	1	
74.	Small funnel	1	
75.	Bleed hose	2	HC03 0001
76.	Synflex swage kit	1	IT004/5/6/7
77.	Multimeter	1	
78.	Test clips	1	IT013
79.	Medium flat file	1	
80.	Hilti resin anchor kit	1	
81.	Molex extraction tool	1	IT027
82.	PCB trimming tool	1	IT028
83.	7mm nut spinner	1	
84.	8mm nut spinner	1	
85.	Clamps	1	IT039
86.	Hexagon bit set	1	IT040
87.	Suction lifters	2	
88.	Engineers hammer	1	
89.	Ram bleed tool	1	IT045

Note: This tool list covers the whole Wessex product range.

Section 5

Installation Procedure

Index	Procedure		Fixings
1.0		Perform the following checks prior to unloading your vehicle. • Identify yourself to the customer and briefly explain what you intend to do. • Carry out a site risk assessment before starting work. • Complete a pre-installation checklist. • Ensure the site complies with the builders work drawing and any site specific drawings.	
2.0		Note: Skip this section if the threshold gate option is not required. A gate must be fitted on rises above 380mm. A minimum threshold height of 250mm is required to fit a gate. Screw threshold tread plate to the gate frame	3 x M6x16 Skt csk button hd FF80 1008A4 3 x M6 Form 'B' Washers FF60 1110A4
3.0		Note: The gate frame is **NOT** fitted central to the lift. Mark the centre line of where the lift is fitting. Position the gate frame Dim 'A' from centre of the lift to the **LOCK** side. LR800 = Dim 'A' = 400 LR900 = Dim 'A' = 450 LR1100 = Dim 'A' = 550 Level the gate frame left to right with the tread plate resting on the upper **finished** floor level. Mark the four fixing holes and drill diameter 8mm x 113mm deep. Level front to back using the packers supplied. Secure to the threshold using the fixings supplied. Final levelling is achieved once the gate uprights are fitted.	5 x Anchor bolt FF42 2310 Gate Packer LR20 1276 *Note: If fixing to wooden joists use 4 x Coach screws M8x60 FF63 0024S 4 x Washers M8 Form 'C' FF60 2120S*

Installation Procedure

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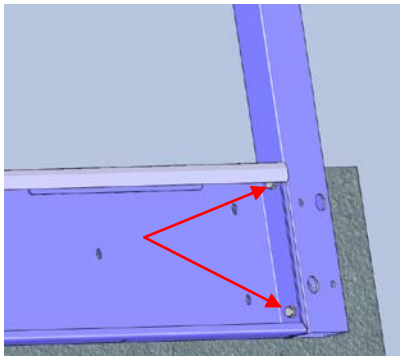
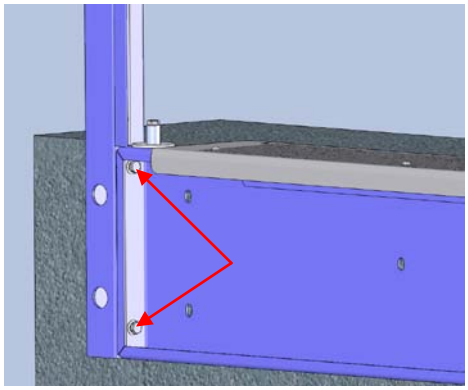
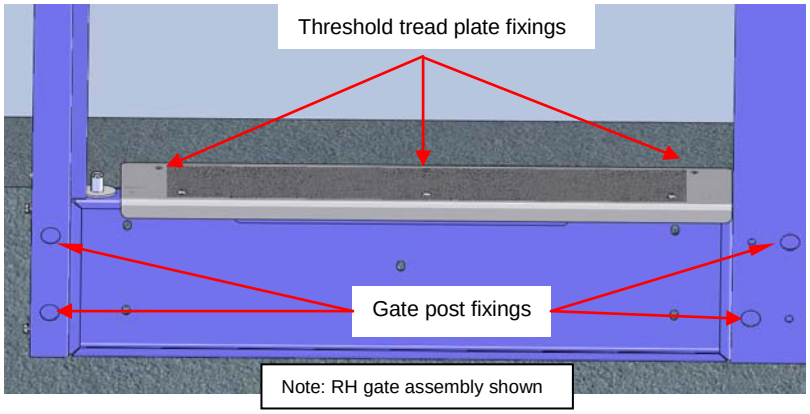
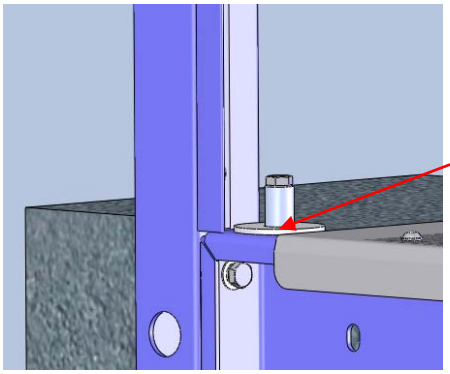
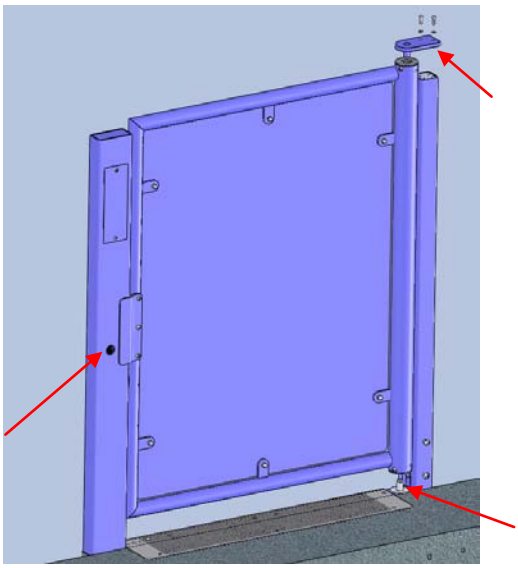
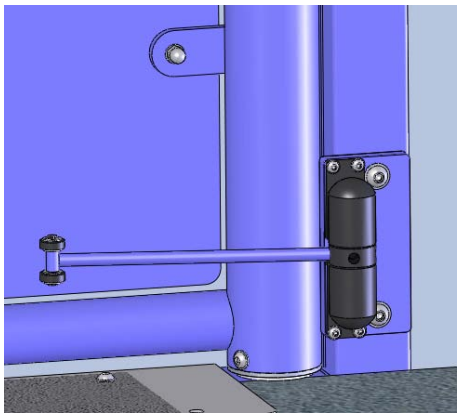
4.0		The gate handing is determined by looking into the lift at the upper level. The side the gate hinges determines the handing. Secure the lock post to the gate frame. Do not fully tighten the fixings at this stage.	2 x M8x20 hex head FF30 1209S 2 x M8 plain washer FF60 1120S 2 x M8 spring washer FF60 4120S
5.0		Secure the hinge post to the gate mounting frame. Do not fully tighten the fixings at this stage	2 x M8x20 hex head FF30 1209A4 2 x M8 plain washer FF60 1120A4 2 x M8 spring washer FF60 4120S
6.0	 Level the gate frame and posts. Use the packers supplied as necessary. The gate frame posts must be parallel and level with each other. With the gate frame and posts level, tighten the four upright fixings detailed in section 4.0 and 5.0. Fit the 4 x gate upright fixings, use packers supplied as necessary. Fix the threshold tread plate down to the upper landing using the 3 fixings as detailed. Note: Alternate fixings may be required depending on the type of base material being fixed to. Please seek advice if unsure.		3x No8x1”1/4 self tapper pozi csk FF16 0617S And suitable rawlplugs 4 x Anchor bolt FF42 2310 Gate Packer LR20 1276 *Note:* *If fixing to wooden joists use* *4 x Coach screws M8x60 FF63 0024S* *4 x Washers M8 Form ‘C’ FF60 2120S*

Installation Procedure

Index	Procedure		Fixings
7.0		Fit the gate washer. Lightly grease the hinge pin and washer.	1 x Washer FF61 0052
8.0			2 x M6x20 skt button hd screw 2 x M6 Form 'B' Washers FF60 1110A4 2 x Grommet dia 20 EC10 6006
	Grease the top hinge pin and fit it to the gate. Slides into the top orbital bearing. Fit the gate assembly onto the bottom hinge pin. Fit the two top hinge fixings. Ensure the lock shoot bolt aligns with the gate, when the gate is closed. Ensure there are no burrs where the lock bolt locates into the gate. Fit the lock grommets both sides of the gate frame uprights.		
9.0		Fit the door closer assembly. To tension the door closer: Turn the centre boss away with the steel bar supplied and screw the arm into the hole nearest the door. To increase tension, repeat the operation one hole at a time. Fit the door stop in a suitable place. Caution! Do not over tension the door closer. Over tensioning will cause the spring to buckle and the door to slam with excessive force.	2 x M8x25 skt button hd FF80 1210A4 2 x M8 Washers FF60 1110A4 MC01 0014 DOOR STOP

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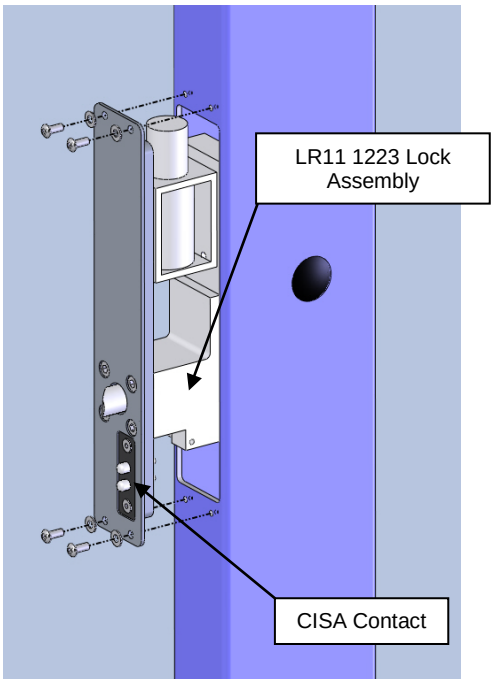
10.0	 Note: RH lock post assembly shown. Lock assembly is fitted up the other way on a LH hinged gate.	Note: The CISA contact can be adjusted if necessary, by adding or removing the spare packers provided. Ensure the CISA contacts are pressed in by at least 2mm when the gate is closed.	
	Procedure For Checking LR Gate Locks & Interlocks		
	Check the lift travels up and down correctly with the gate closed & locked. Call the lift so it stops approximately 250mm from the upper floor level. Manually open the gate at that level. Ensure you keep all parts of your body away from any trapping or shearing hazards at all times. Holding the gate open call the lift up by pressing the call button, the lift should NOT move. Hold the gate against the CISA contacts at a point just before the lock bolt engages in the hole. Call the lift up by pressing the call button, the lift should NOT move. If the lift operates without the gate properly locked, decommission the lift and request a replacement lock assembly.		

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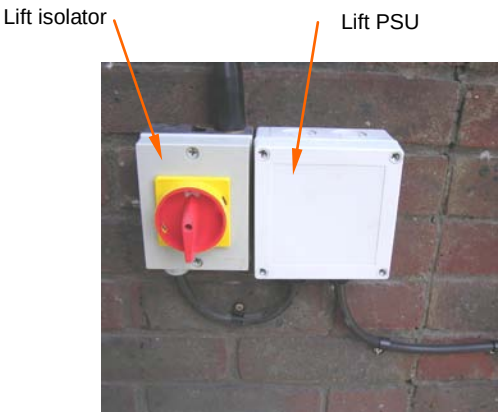
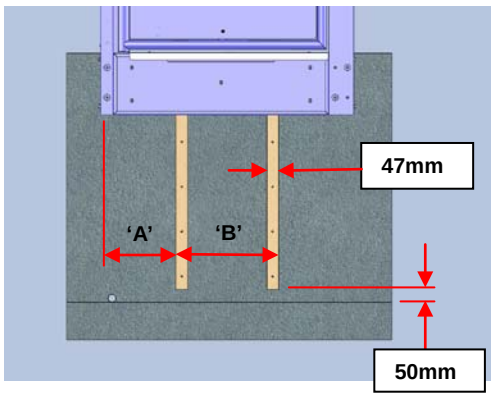
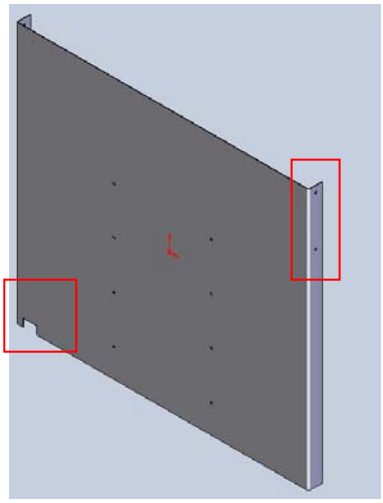
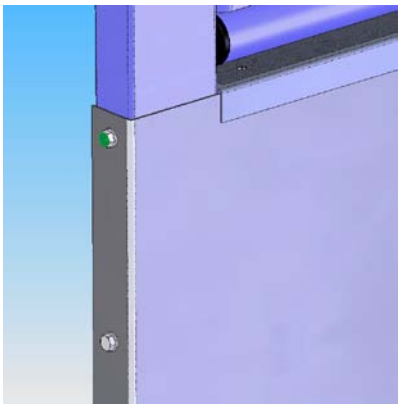
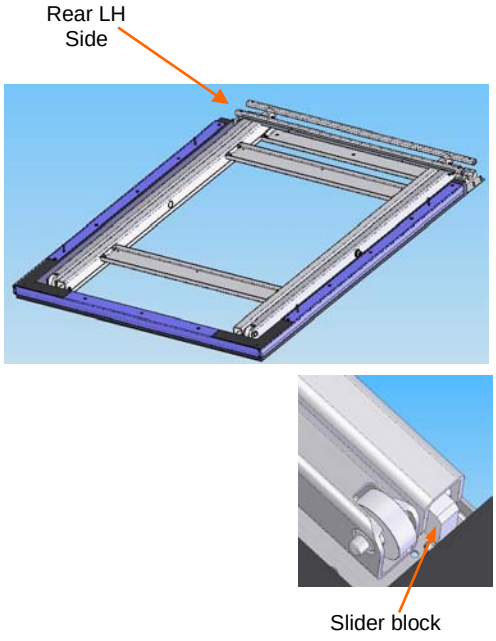
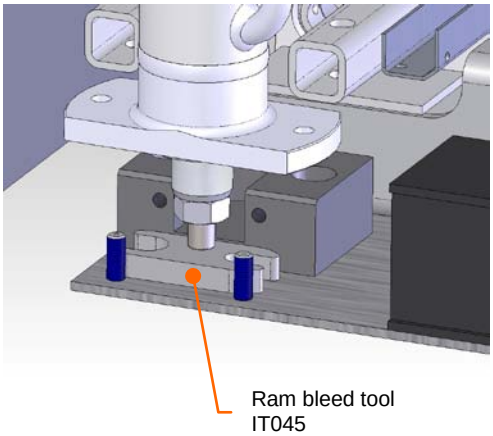
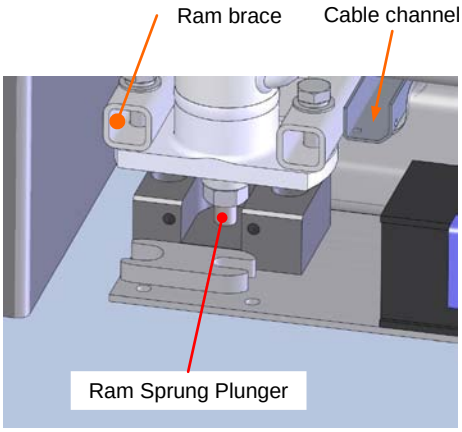
Index	Procedure	Fixings
11.0	  Locate the lift plug socket or isolator and fix the PSU *(power supply unit)* adjacent to it. For external & public access environments, use armoured cable or conduit and appropriate glands, to wire from the isolator to the PSU box. Note: The PSU must be within 12m of the lift. Refer to the wiring diagrams for connection details. Use the armoured cable supplied to wire from the PSU to the lift. (Min 1.5mm^2) **WARNING!** Wires must exit the PSU and isolator from the bottom face when they are fitted externally. The spacing for the saddles/clips must not exceed 300mm. Note: There are two types of PSU. Heavy duty & Standard duty. The heavy duty supply is fitted as standard on the LR900 lifts, optional on LR800 lifts. These must be used in conjunction with the correct lift PCB. EC15 1038 PCB must be used with LR10 8055 PSU assy. Heavy duty option. *(PSU box size 180x180x125)* EC15 1040 PCB must be used with LR10 8027 PSU assy. Standard duty option. *(PSU box size 130x130x100)*	‘P’ Clip 12mm diameter EC10 5087 Screw self tap 8x5/16” FF01 0609S
12.0	 **LR800 = Dim ‘A’ = 304mm Dim ‘B’ = 412mm** **LR900 = Dim ‘A’ = 348mm Dim ‘B’ = 424mm** **LR1100 = Dim ‘A’ = 402mm Dim ‘B’ = 516mm**	Cut two pieces of 50x47 wood to suit the threshold height as shown. Ensure the wood is orientated correctly to match the gate frame thickness. Fix the wood to the threshold face using suitable woodscrews and rawlplugs. Ensure it is level in all directions and flush with the gate frame uprights. *(Check the fixing positions do not clash with the holes pre-drilled in the gate cover panel)*	4 x FF16 0631 No8x3” Pozi csk wood screw

Installation Procedure

Index	Procedure		Fixings
13.0		The gate threshold panel will need cutting if the threshold height is below 1 metre. Before cutting, ensure the pre-drilled holes are at the top. Panel height = Threshold height – 4mm A cut-out will be required at the bottom of the panel for the lower call station and armoured cable entry. Make a 50mm wide x 30mm high cut-out at the bottom left side of the panel. The horizontal distance from the left side of the panel to the start of the cut-out is 26mm.	
14.0		Route the cables from the gate lock, upper call station and PSU. These will enter the lift where the cut-out in the plastic gate panel is located. Fit the panel to the gate frame uprights using the two holes on either side of the panel. Fit the front cover panel fixings into the wood screwed to the threshold. Quantity depends on the threshold height. Extra holes and fixings may be required if necessary. Leave the cables with the following lengths showing beyond the gate panel: Call stations - 600mm Gate Loom - 500mm Armoured cable – 500mm. *(Strip back the outer layer of the armoured cable by 700mm)*	4 x M8x20 Hex head screw FF30 1209S 4 x M8 plain washer FF60 1120S 8x No8x1”1/4 self tapper pozi csk FF16 0617S
15.0		Place the chassis assembly in a central position and approximately 1000mm away from the threshold. This will allow space to work around the lift. Ensure the slider block is orientated the correct way round. The chamfer should be facing up as shown.	

Installation Procedure

Index	Procedure		Fixings
16.0		A tool to help fit and bleed the rams is available. Fit the rams with the aid of the bleed tool as shown. *(This makes it easier to fit the ram and slide it underneath the ram brace.)* Ensure the master ram is fitted on left hand side. The master ram has a small diameter steel pipe welded to the side of it, as shown.	
17.0		Fix the rams to the ram brace. Grease the ram sprung plunger and nut.	4 x M8x35 hex bolt FF30 1212S 4 x M8 Washer FF60 1120S 4 x M8 spring washer FF60 4120S
18.0		Route the hydraulic hose, final limit switch cable and safety edge cable neatly into the cable channel. **CAUTION!** The cables and hydraulic hose must not protrude above the cable channel.	

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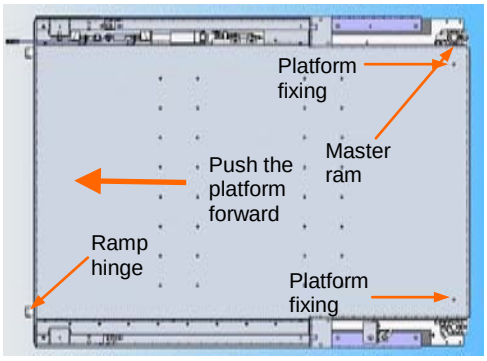
Index	Procedure		Fixings
19.0		**IMPORTANT!** Keep the platform surface protected until the installation is complete. Fit the platform assembly being careful not to damage the safety edge studs. They must align with the slots in the platform and safety edge bracket. Push the platform forward until the rear return flange is hard up against the ram brace. The platform must be parallel with the chassis frame. The ramp hinges must be at the opposite end to the rams. Fit the two platform fixings.	2 x M8x16 btn hd screws FF80 1216S 2 x M8 plain washers FF60 1120S
20.0		Cable tie the hydraulic hose and the cables neatly to the rams as shown. Note: The side panels aren't fitted at this stage.	

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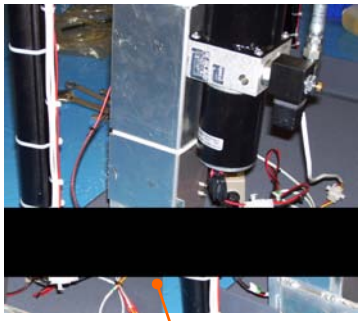
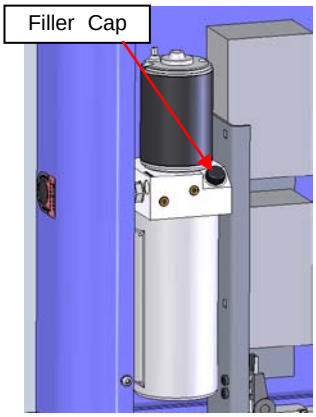
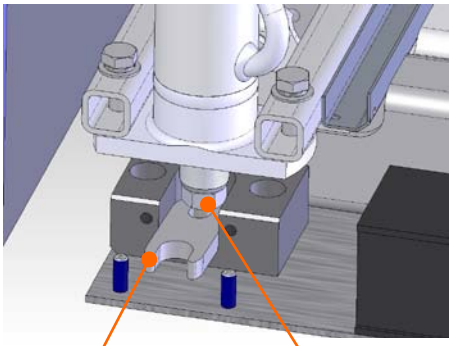
Index	Procedure		Fixings
21.0	 Powerpack support bracket	Slide the powerpack support bracket onto the platform LH side flange as shown. Locate the powerpack onto this bracket. Note this is a jigging bracket, if you were not supplied with one; bolt the powerpack in place. Connect the hydraulic hose from the top of the master ram to the powerpack.	
22.0		Ensure the lift is fully down, and fill the reservoir with hydraulic oil. Fill until the oil is level with the underside of the jubilee clip. Connect the bleed hoses using the retaining clips to both rams. Put the other end of the hoses in a plastic container. Note: The plastic container must have a breather hole.	MM31 5000 hydraulic oil HVI 22 Grade
23.0		Fit the ram bleed tool underneath the master ram rod. *(The ram rod must be fully retracted. If the sprung plunger isn't showing press the manual lowering valve in and lever the ram rod up)* The ram bleed tool will keep the ram in its synchronization zone and allow easier bleeding. *(Remove the ram bleed tool when the bleed procedure has been completed).* Stand on the LH side of the platform next to the master ram. This helps prevent the platform from rising whilst bleeding.	

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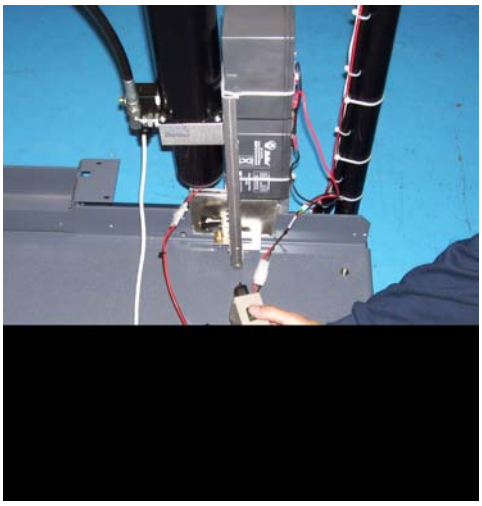
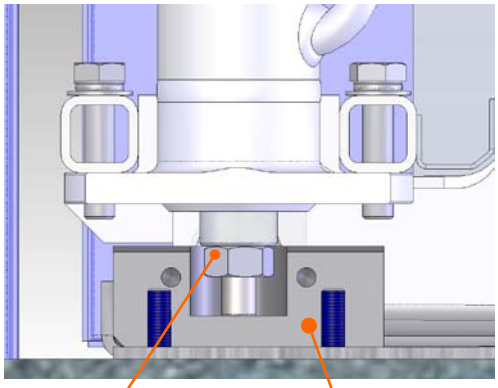
Index	Procedure		Fixings
24.0		**WARNING!** Beware of trapping and shearing hazards. Connect the override box to the powerpack and batteries. (Override box part number is LR10 8500). On current powerpacks all cable colours will match up and the batteries will plug into the override box using the six way molex connector. Note: If the motor leads are connected incorrectly the motor will run but it will not pump the hydraulic fluid. Press the up button on the override box for 2-3 seconds and then stop. STOP immediately if the platform starts to rise. **CAUTION!** Temporarily connect the safety edge to the platform. This will prevent damaging the safety edge studs when lowering the lift.	
25.0	 	Press and hold the down button on the override box for 3-4 seconds. *(Long enough to allow the sprung plungers to push the ram rods fully up.)* Repeat the procedure from section 20 until clear oil is coming from both bleed points. Remove the bleed hoses. Remove the bleed tool. Press the override box up button, the platform should raise level and when fully lowered the ram rods should spring up. **Stop immediately if the platform does not raise level.** Remember to hold the down button on the override box for at least 3 seconds, when the platform is fully down, to allow time for the ram rods to spring up. Check the ram rods spring up when the platform is fully lowered. If the platform is not going up level, lower the platform fully down and repeat the procedure from section 20. The platform should raise and lower level. Send the platform up and down a few times, checking the ram rods spring up when fully lowered.	

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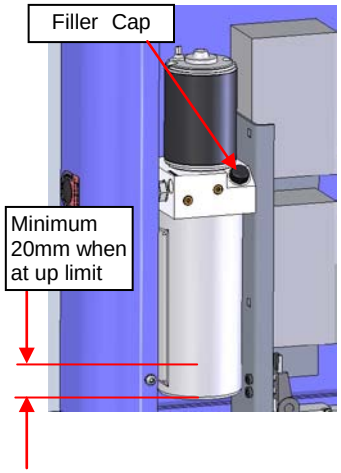
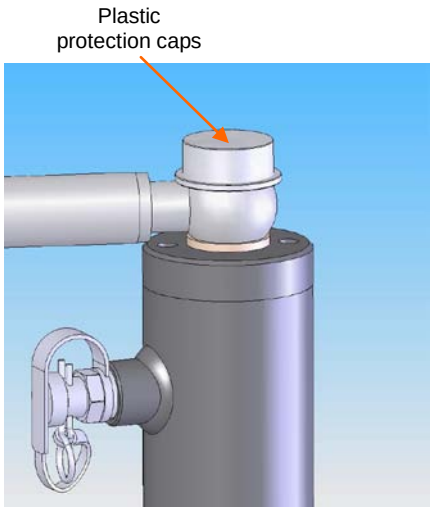
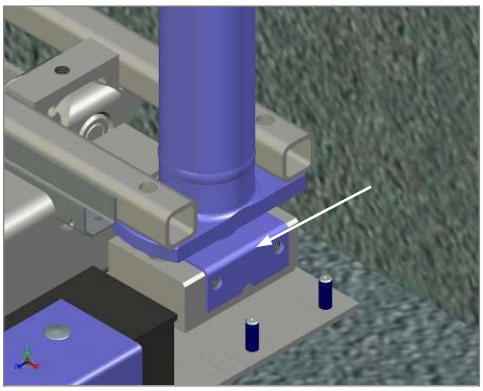
Index	Procedure		Fixings
26.0		Send the lift to its up limit watching the level of oil in the reservoir, stop if it gets below 20mm. If the oil level is below 20mm send the lift fully down, and add more oil and repeat this check.	
27.0		Fit the plastic protection caps to the top of both rams. Note: The side panels will vibrate if these aren't fitted.	2 x protection caps. EC10 6060
28.0		Fit the covers to the base of both rams. There are two different sizes. The LH (master) ram has a smaller cut-out than the RH cover.	1 x ram cover LH LR10 0059 1 x ram cover RH LR10 0211 4 x M6x10 skt btn hd FF60 1011S 4 x M6 plain washer FF60 0110S

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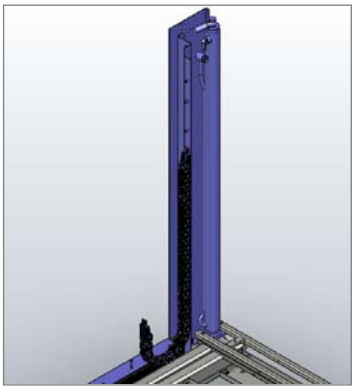
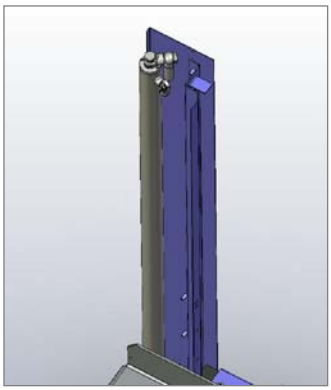
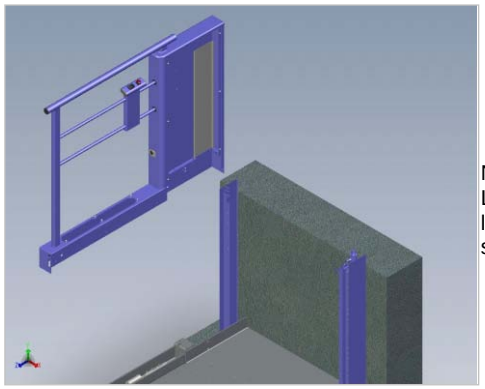
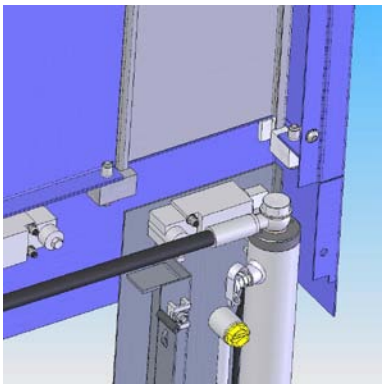
Index	Procedure		Fixings
29.0	 	Fit the left hand bellows guide assembly over the studs on the base frame. Fit two cable tie bases on top of the bellows guide as shown. This side only. The studs are located at the base of the rams; they can be seen on the view above.	2 x M6 full nyloc nut FF70 2100S 2 x M6 plain washer FF60 0110S 2 x Cable tie bases EC10 4009
30.0		Fit the right hand bellows guide assembly over the studs on the base frame.	2 x M6 full nyloc nut FF70 2100S 2 x M6 plain washer FF60 0110S
31.0	 Note: Limit switch levers not shown 		
	Lower the side panel over the bellows guide ensuring that it locates correctly into the aluminium guide channel through the nylon guide blocks.		

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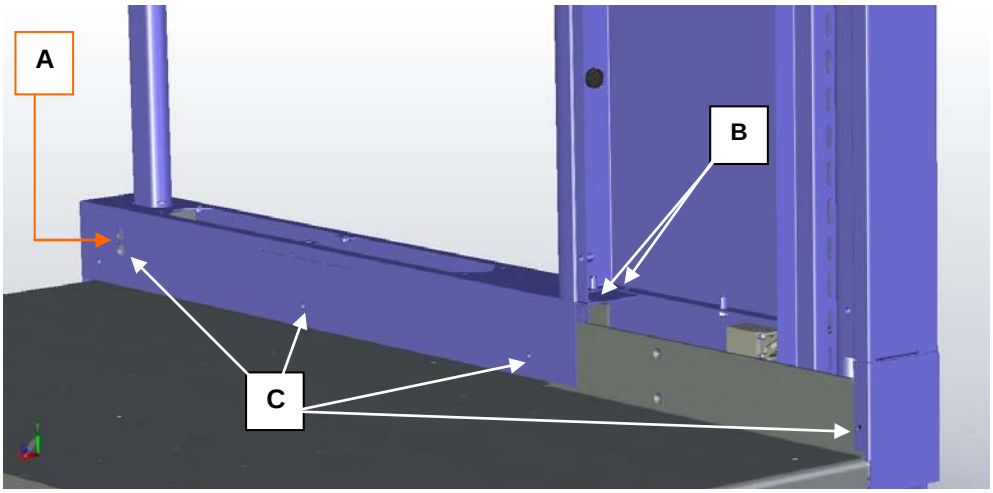
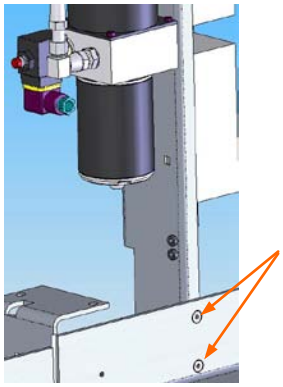
Index	Procedure	Fixings
32.0	 Fix the side panel to the platform. Put all fixings in loosely before tightening them. Note: Ensure the correct length fixings are used. Longer ones will foul the lift mechanism. Repeat this process on the right hand side. The fixing quantities shown are for both sides. *(No powerpack on the RH side)* Note: Powerpack assy is not shown in this picture.	**A** 4 x M8x20 skt cap head FF32 1209S **B** 4 x M6x20 hex head FF30 1009S 4 x M6 plain washer (thick) FF60 0100S 4 x M6 spring washer FF60 4100S 4 x M6 locking nut FF70 1100S **C** 8 x M6x10 btn hd screw FF50 1011S 8 x M6 plain washer (thin) FF60 0110S
33.0		Remove the powerpack assy from the support bracket (if used) and fix to the platform as shown.	2 x M6x16 skt csk hd FF34 1008S

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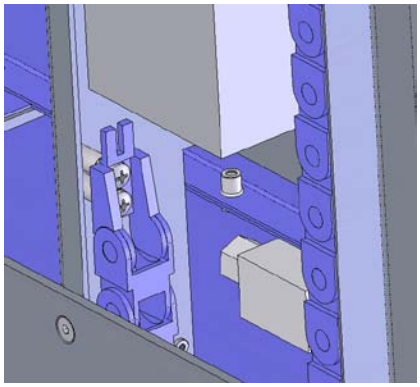
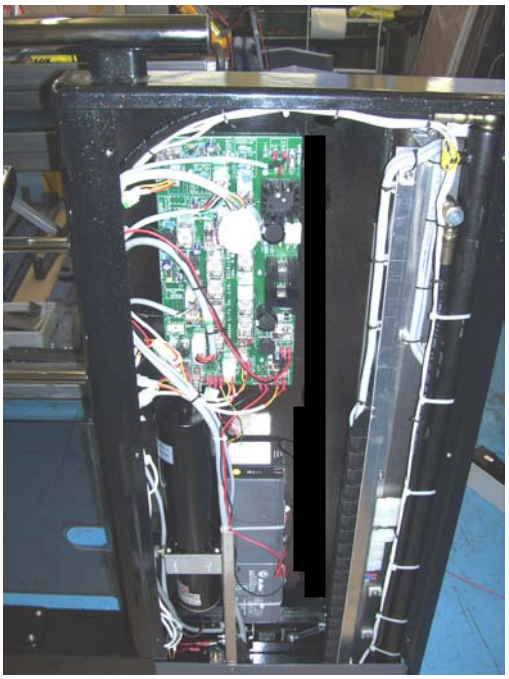
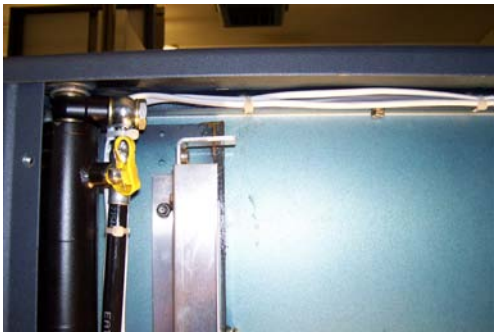
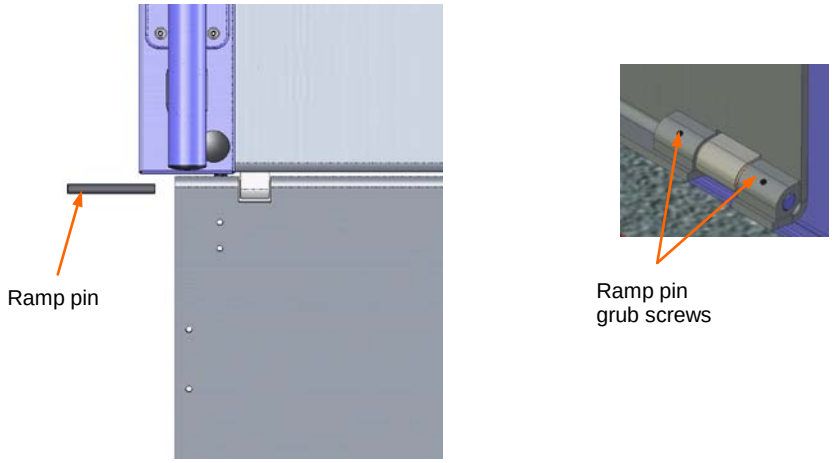
Index	Procedure		Fixings
34.0		Fix the trailing cable to the powerpack mounting bracket. It is spaced off the bracket by two plastic spacers. Ensure the trailing cable is fitted against the return flange of the platform and is not twisted. The trailing cable must be level vertically to ensure it is clear of the bellows when the lift travels.	2 x Spacer Nylon FF64 0008 2 x M6x30mm pozi pan screw FF18 1011S 2 x M6 plain washer FF60 0110S
35.0		Route the cables to the PCB connect up and cable tie neatly in place. All cables must be routed to the LH side of the PCB, to avoid them snagging on the bellows guides. Ensure the hydraulic hose and cabling from the master ram to the powerpack is clear of the down limit switch. **CAUTION!** Ensure the battery connections to the PCB are connected correctly. Black lead to the negative terminal. Red lead to the positive terminal. Connecting them incorrectly will damage the PCB.	
36.0		Right hand side panel cable routing. Fix the cabling to the RH side panel using cable ties and the spare holes which are punched in the side panel.	

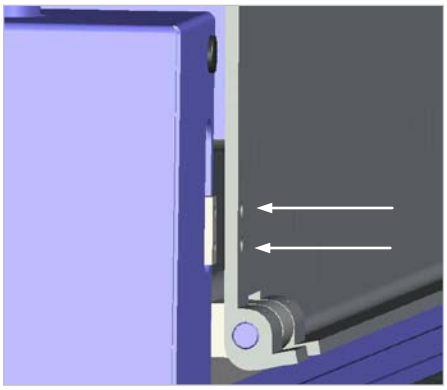
Installation Procedure

<table>
<tr><th>Index</th><th colspan="2">Procedure</th><th>Fixings</th></tr>
<tr><td rowspan="2">37.0</td><td colspan="2"> 
</td><td rowspan="2">2 x ramp pin
LR10 1019

4 x
M4x5mm
Grub Screw
FF46 0703S</td></tr>
<tr><td colspan="2">Grease the ramp pins before assembling.

Align the ramp to the hinges and fit the ramp pins flush at both ends of the hinge.

IMPORTANT!
Note: The ramp must rotate freely otherwise this will affect the actuating sensor bracket assembly.

Lock the ramp pins in place by tightening the 4 off grub screws.</td></tr>
<tr><td>38.0</td><td>  </td><td>Close the ramp, align the ramp block and fix together.</td><td>2 x M6x16
btn hd
screw
FF50 1012S

2 x M6 plain
washer
FF60 0110S</td></tr>
</table>

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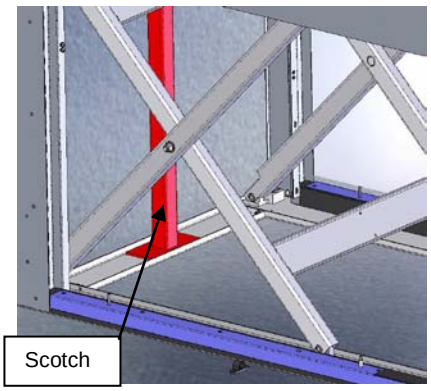
Index	Procedure	Fixings
39.0	  Raise the lift to a height of 900mm. **WARNING!** Disconnect the powerpack including the lowering solenoid to prevent any unexpected lowering of the platform. Place the scotch centrally in the rear chassis brace as shown above. Looking at the studs under the platform, counting from the front, remove the 1st 3rd and 5th nuts and washers from the studs if they haven't already been removed. Place the large nylon washer over the end of the roller spindle. One engineer lift the front of the platform and another engineer fit the guide angle over the studs ensuring that roller spindle is located in the angle. Grease the studs and fit the washers and nuts, grease the guide angles and the area around the roller. Repeat this on the RH scissor assembly. Remove the scotch and re-connect the powerpack.	2 x Nylon washers FF61 0033 6 x M6 plain washer FF60 0110S 6 x M6 Nylocs FF70 2100S 2 x Platform guide angle LR20 0803

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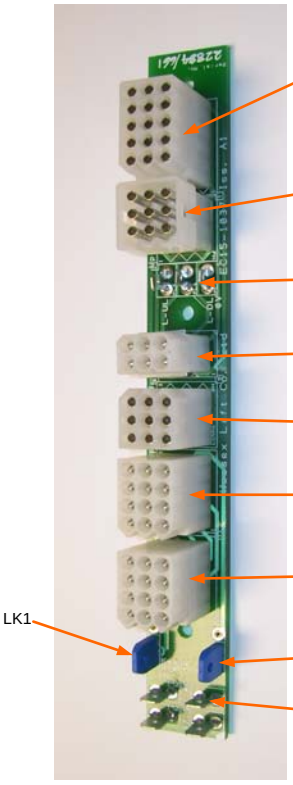
Index	Procedure	Fixings
40.0	 Position the unit up to the threshold. Connect the cables to the interface board. Refer to the section below for connection details. Ensure all the cables are secured neatly to the cable tie bases. **CAUTION!** DO NOT bundle any excess cable in this area as the lift travels past this area and could damage them.	
41.0	**INTERFACE PCB Connections** This is located on the LH bellows guide, as shown above. Can be accessed underneath the lift, when the platform is fully up with the bellows disconnected. **WARNING!** The scotch must be in place with the powerpack & lowering valve disconnected.	 Trailing Cable Upper Gate *(Bridging Option will need a shorting block fitted to enable Autohoming.* ***WARNING!*** *Only the latest version of bridging with switches on the arms should be set to autohome)* Accessory Interface Connections Down Limit Level Indicators (Option) Lower Call Station Upper Call Station Keyswitch Links *(LK2)* Position the links should be in as standard. 24V AC Supply	

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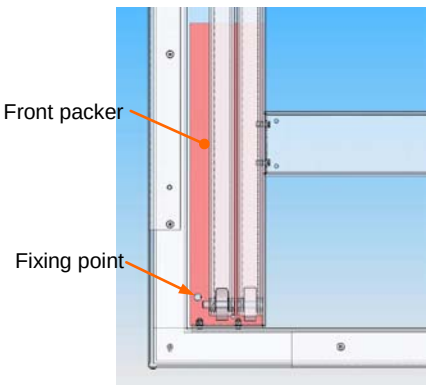
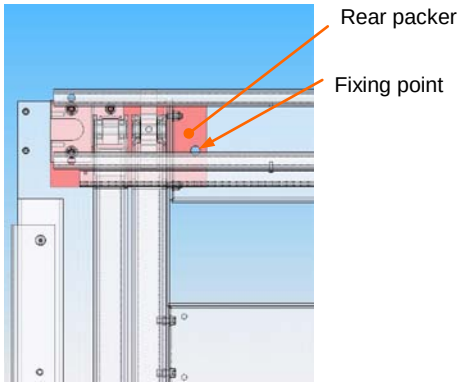
<table>
<tr><th>Index</th><th colspan="2">Procedure</th><th>Fixings</th></tr>
<tr><td rowspan="2">42.0</td><td colspan="2"> 


</td><td rowspan="2">4 x Fischer plug
FF62 0006

4 x Coach screw
M8X60
FF63 0024S

4 x Washer
M8 Form ‘C’
FF60 2120S

Front packer
LR10 0057

Rear packer
LR10 0058

Note:
If fixing to wooden joists use the same fixings without the fischer plugs</td></tr>
<tr><td colspan="2">Ensure the gap between the platform and the threshold is 10mm or less throughout the lift travel.

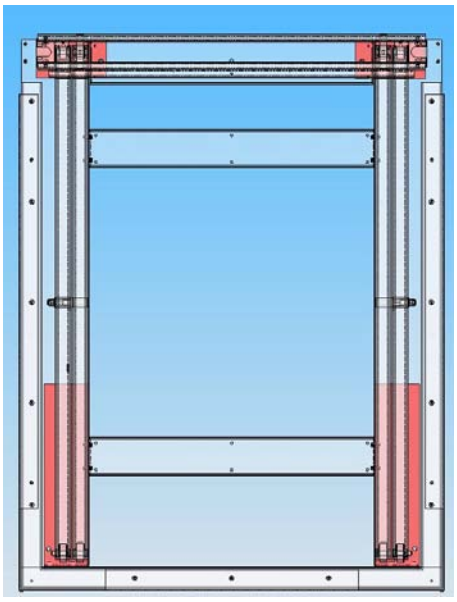
Raise the platform approximately 900mm.

WARNING!
Disconnect the powerpack including the lowering valve, and place the scotching device under the platform.

Check the chassis is level in both directions.

IMPORTANT!
Ensure the base level is correct to the builders work drawing.

If packing is required use the correct packers in the correct places.

Drill through 4xØ10.0 holes in the base frame and secure the unit to the floor using the fixings provided.</td></tr>
<tr><td>43.0</td><td>  </td><td>IMPORTANT!
The packers (if required) must be placed correctly as shown; this is where the load is distributed.

Clean any dust or debris away from inside the bellows area, preferably with a vacuum cleaner.</td><td></td></tr>
</table>

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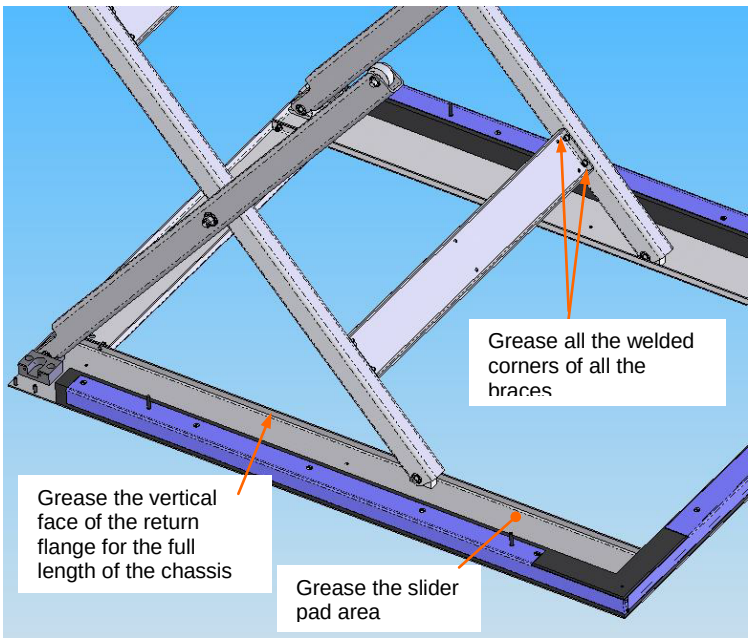
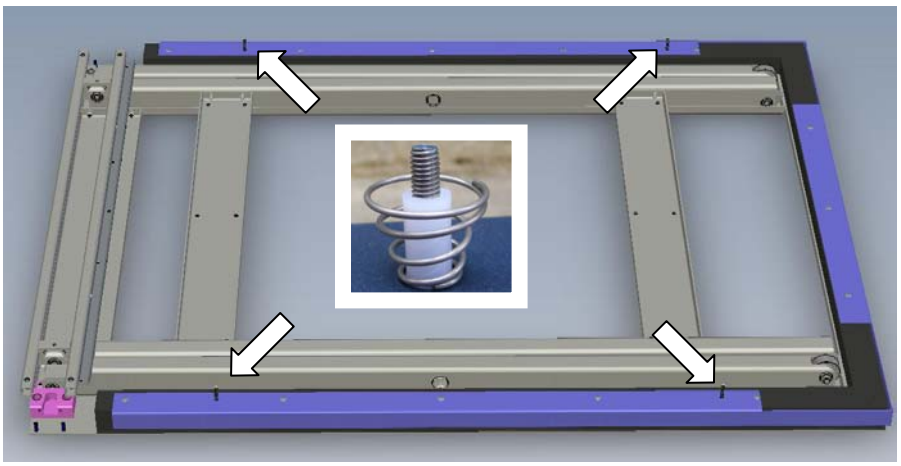
Index	Procedure	Fixings
44.0		
	Ensure all the areas to be greased are clean and free from dust etc… Grease the areas shown with the grease specified in the lubrication schedule. Position the lift at 1 metre rise and grease the entire area where the slider pad runs. **WARNING!** Ensure the scotch is still in position underneath the platform.	
45.0		4 x Spacer Nylon FF64 0008 4 x Conical spring MC04 6002
	Place the nylon spacers and springs over the 4 off M6 studs on the bellows safety edge as shown in the diagram above. Remove the scotch and re-connect the powerpack.	

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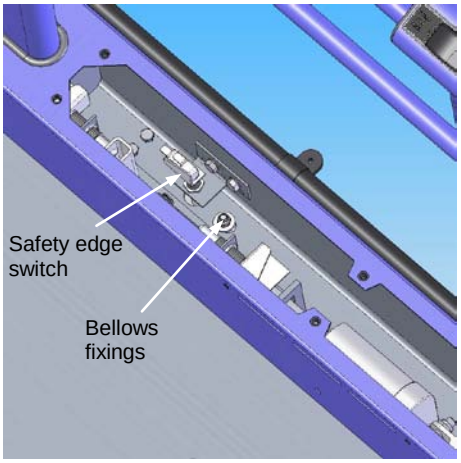
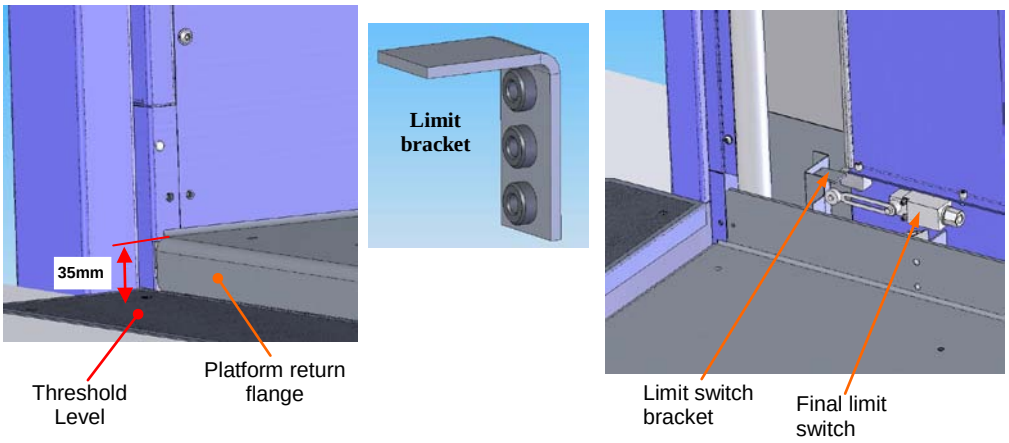
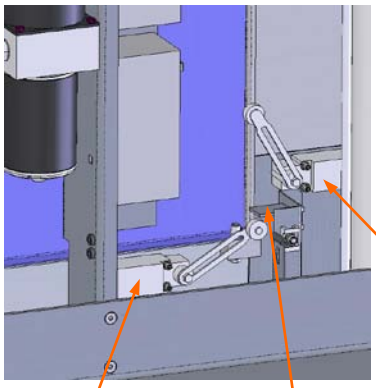
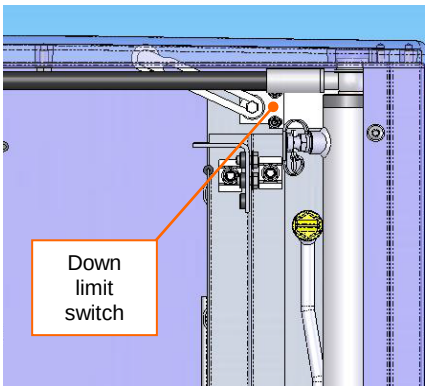
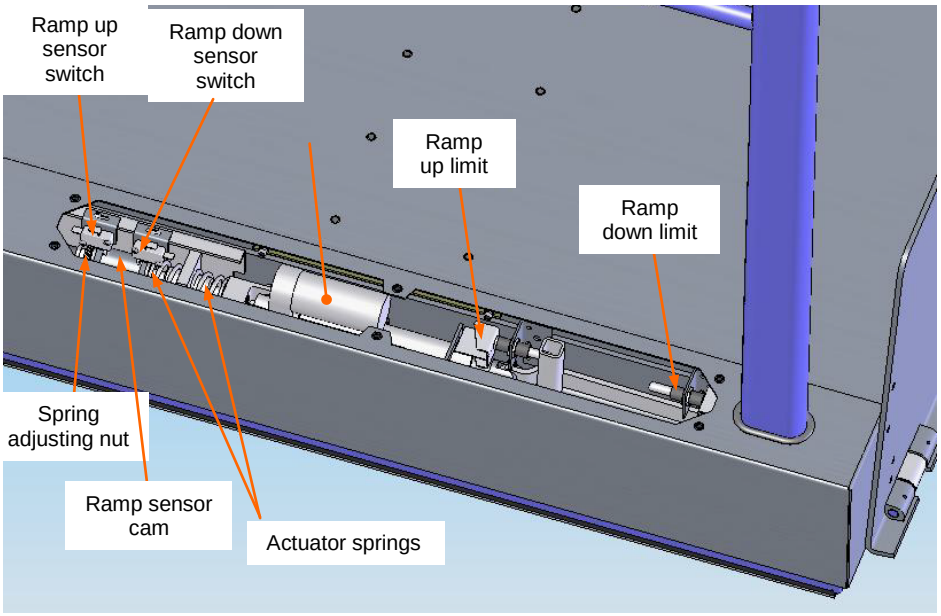
Index	Procedure		Fixings
46.0		Lower the lift down, ensuring the safety edge studs are aligned with all four slots in the platform and brackets. Fit the nylon washers and nuts, ensure the spacer is through the slot and not clamped underneath the platform. **IMPORTANT!** Do not over tighten these fixings as you may distort the nylon spacer. Check the safety edge stops the lift when operated in all four corners and at the midpoints when the lift is travelling down. There are four safety edge switches located in the corners of the lift. Check when the lift is fully down the safety edge switches aren't set too sensitive. There should be a minimum 2.5mm of travel before the switches operate. Refer to LR20 0800 for safety edge setting dimension.	4 x M6 half nyloc nut FF70 3100S 4 x M6 Nylon washer FF61 0035
47.0		The final limit switch is located on the RH side panel. The lever is pre-set horizontal and fully extended. This should never be changed. The position and angle of the up, down and final limit switch lever arms are pre-set in production and should never need adjusting. Fit and set the final limit switch bracket before setting the up limit. The final limit must be set to operate so the platform stops 35mm above the level of the threshold as shown in the figure above. Rises above 975mm the above setting isn't achievable, the rams will run out of stroke. For these rises the final limit must be set to operate just before the rams bottom out.	2 x M6x12 Hex head FF30 1007S 2 x M6 Plain washer FF60 0110S Limit switch bracket LR10 0049

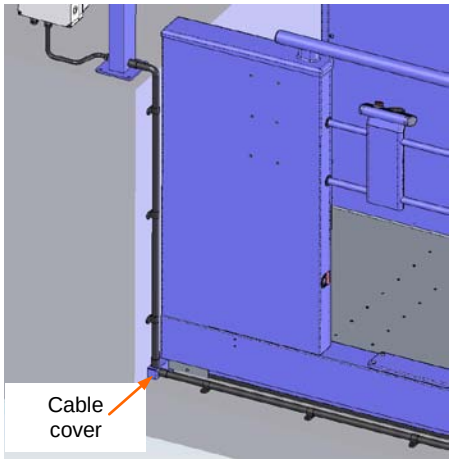
Installation Procedure

Index	Procedure		Fixings
48.0		The up limit switch is pre-set with the lever fully extended and set to 30 degrees. The up limit switch is a different type to the down limit and final limit. It has a dual purpose; it also activates the anti-creep function. *(The number on the case should be FR755)* *(The up & final limit are FR555)* Position the lift level or just below level with the finished threshold surface. **WARNING!** Disconnect the power to the powerpack, when initially fitting the up limit bracket to avoid the lift unexpectedly going up. Fit the limit switch bracket. Reconnect the powerpack and adjust the limit bracket until the desired level is achieved. NOTE: The first angular movement of the up limit switch lever activates the anti-creep function, when the lever is operated further the up limit switch is activated. *Note: The up limit will not release the threshold gate solenoid without an up call.*	2 x M6x12 Hex head FF30 1007S 2 x M6 Plain washer FF60 0110S Limit switch bracket LR10 0049
49.0		The down limit is set with the lever fully extended and pre-set to 60 degrees. It is operated by the side panel casting and must not be altered. *To check the limit switch lever angle, undo the lever fixing screw and set the lever to 90 degrees. Move the arm counter clockwise by 3 notches. This will set the arm to 60 degrees. Each notch is a 10 degree increment.* The down limit operates a timer which holds the lowering valve on; this allows the rams to synchronise. This timer setting must be checked. Send the lift to its up limit. **WARNING!** Beware of moving parts. Call the lift down and operate the down limit switch with a long screwdriver, the lift must continue down for a **minimum of 3 seconds**. This should be pre-set, if it requires altering adjust RV4 on the main PCB. *(Clockwise increases the time)*	

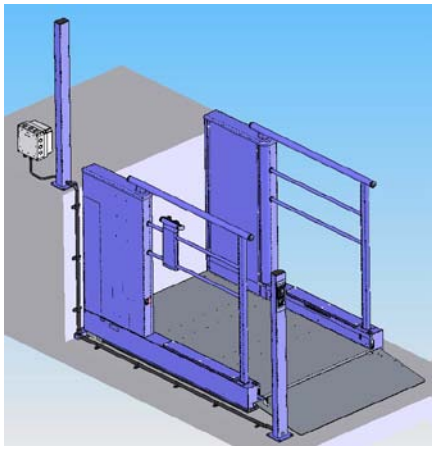
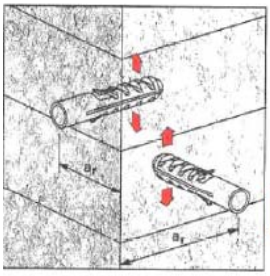
Installation Procedure

Index	Procedure	Fixings
50.0	 The ramp sensor switches are pre-set in production. Their operation must be checked on final installation. The ramp up sensor switch, *(which operates when you stand on the ramp)* must operate 2-3mm before the ramp sensor cam runs out of stroke. Set the ramp up limit so the ramp stops vertical; just touching the side panel protection grommet. *(Black grommet fitted to the front vertical face of the lower side panel)* Check the ramp up limit switch is set correctly by following the procedure below: • Send the lift up, whilst it is travelling up pull the ramp away from the lift. The lift should stop. • Release the ramp and it should spring back allowing the lift to operate as normal. If the lift won't operate check the ramp up limit is operated, if it isn't adjust it to increase the over travel. • Repeat this procedure until it is correct. Check the ramp down limit is set correctly by following the procedure below: • Set the ramp down limit switch to operate so the ramp stops when it touches the floor. • Check the ramp up sensor switch operates, by obstructing the ramp when it is rising. • Position the lift on the down limit, with the ramp down. • Stand on the ramp and send the lift up. The ramp up sensor switch should operate. Now get off the ramp and check the ramp will operate when pressing the up and down call. • If the lift doesn't operate, check the ramp up sensor switch and the ramp down limit aren't being operated at the same time. If they are adjust the ramp down limit switch, reducing the over travel and repeat the above check again. • Repeat this check standing at both ends and the middle of the ramp. **Check both ramp sensor switches are operated when obstructing the ramp in either direction of ramp travel.**	

Installation Procedure

<table>
<tr><th>Index</th><th colspan="2">Procedure</th><th>Fixings</th></tr>
<tr><td>51.0</td><td> 
</td><td>If there is no threshold gate required, and all of the cables are required on the same side, a cable cover can be used to allow both conduits to terminate at the same position.

In this situation the armoured cable can route through the front face of the call station, using an EC10 6018 cable gland. The armoured cable would need stripping back where it enters the call station post.

When there is a threshold gate the upper call station wire is routed through the gate post and behind the plastic gate panel.</td><td>Cable cover
LR10 1230</td></tr>
<tr><td rowspan="2">52.0</td><td colspan="2"> 
 
</td><td rowspan="2">8 x Fischer ‘S’ plug
FF62 0006

8 x Coach screws
FF63 0024S

8 x Washer M8 Form ‘C’
FF60 2120S

Note:
If fixing to wooden joists use the same fixings without the fischer plugs</td></tr>
<tr><td colspan="2">The lower call station post is usually positioned at the front of the platform as shown above.

Refer to site specific drawings if applicable for specific customer requirements.

Flush and surface mounted call stations are optional.</td></tr>
</table>

Installation Procedure

Index	Procedure	Fixings

The main control PCB has several links which can be changed to provide different operations.

The board is supplied pre-set with the following functions. Only change the links when the option is required by the correct paperwork.

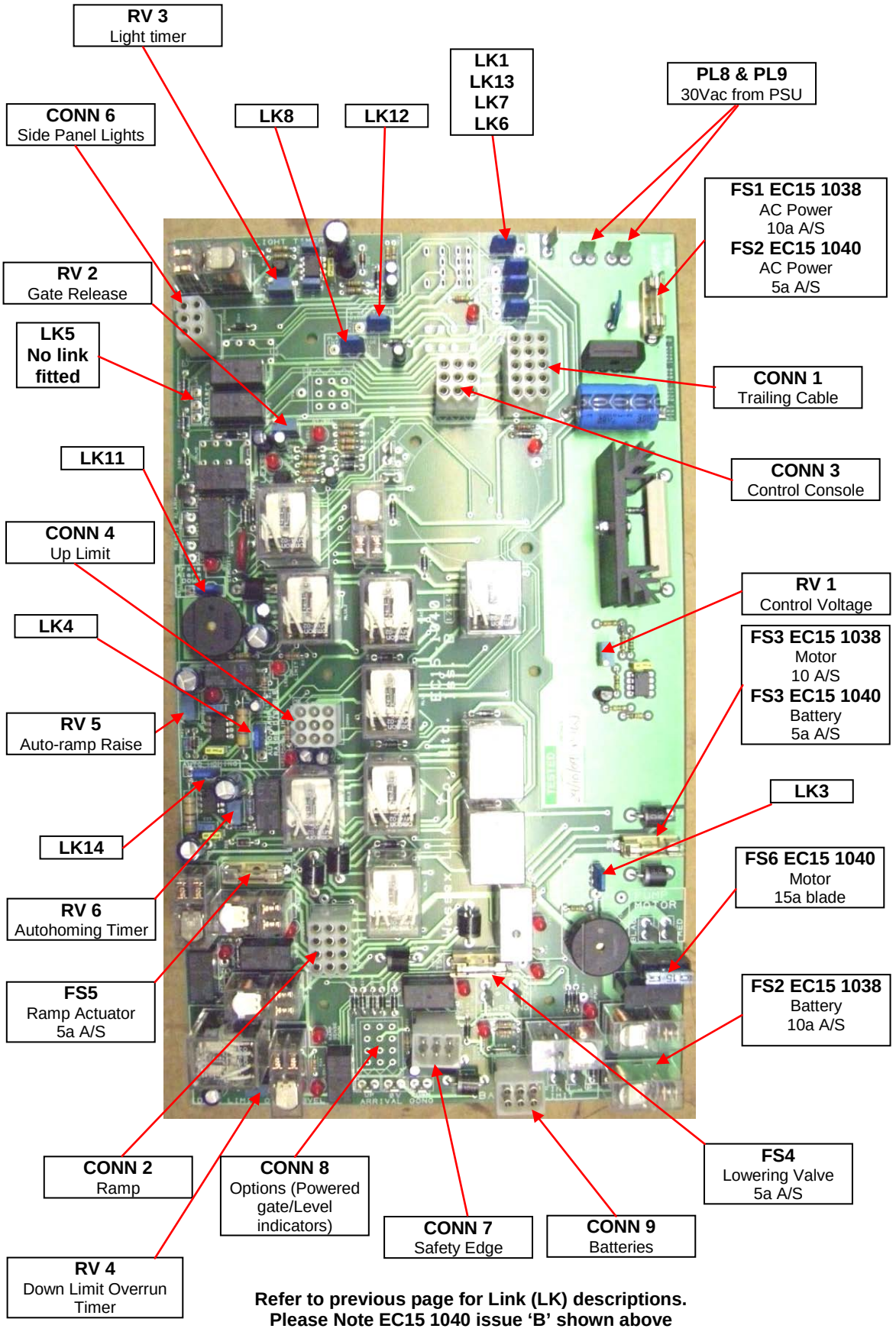
Keyswitch Configuration

	Keyswitches not required	**2-way keyswitching** (upper & lower level call stations)	**Upper level keyswitches only**	**Lower level keyswitches only**
Lift Main Control PCB LK1	Fitted *(bracketed Position)*	Removed *(Un-bracketed position)*	Removed *(Un-bracketed position)*	Removed *(Un-bracketed position)*
Interface PCB LK1	Any Position	Removed *(Un-bracketed position)*	Removed *(Un-bracketed position)*	Fitted *(bracketed Position)*
Interface PCB LK2	Any Position	Removed *(Un-bracketed position)*	Fitted *(bracketed Position)*	Removed *(Un-bracketed position)*

Lift Main Control PCB Links Std Positions

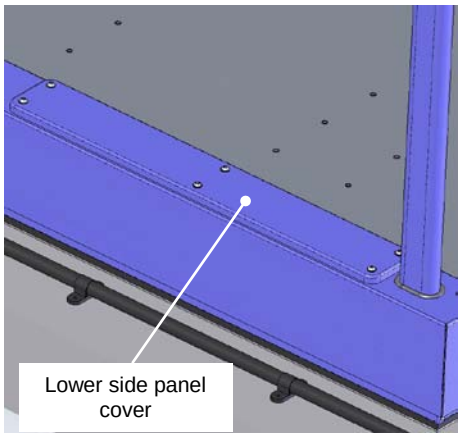
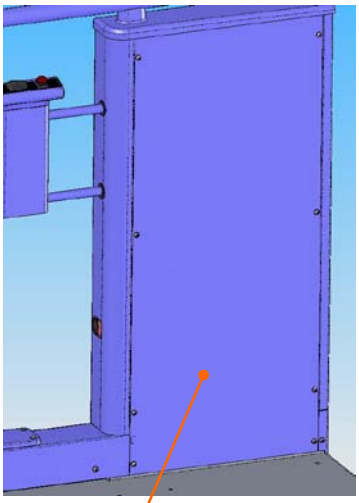
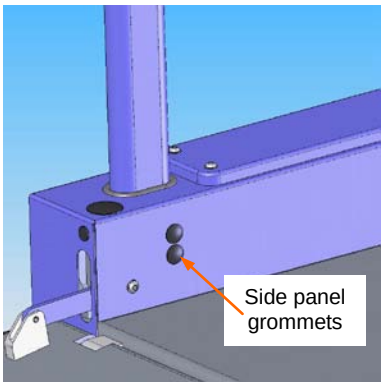
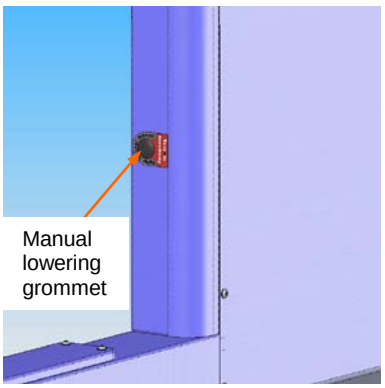
Link Number	**Description** *(Operation with the link in the std position)*	**Fitted** (bracketed position)	**Removed** (un-bracketed position)
1	Keyswitch *(Keyswitches will not function)*	✓	
3	Battery charge failure alarm *(alarm sounds when power switched off*	✓	
4	Ramp Auto Raise *(ramp will not auto raise)*	✓	
5	Momentary Operation (requires extra relays) *(call button requires constant pressure)*	No link fitted	
6	Bridging Plate-Up (Not used)	✓	
7	Bridging Plate-Down (bridging down switches overridden)	✓	
8	Platform Gate Interlock (not used)	✓	
11	Travel Alarm *(alarm sounds when auto-homing activates)*	✓	
12	3 Second Overrun Timer *(Required with momentary operation)*	✓	
13	Gate *(Threshold gate option working)*	Gate Fitted Position	
14	Autohoming *(Lift automatically lowers to the ground level after approximately 1 minute)*	✓	
PLS	Platform Level Switch (not used) Link must be fitted as standard	One position only	

Installation Procedure

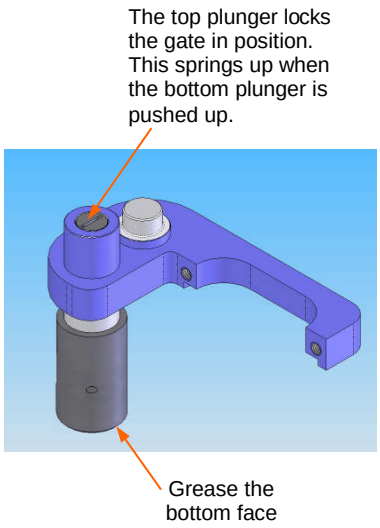
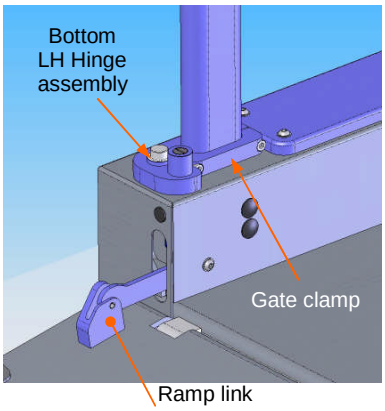
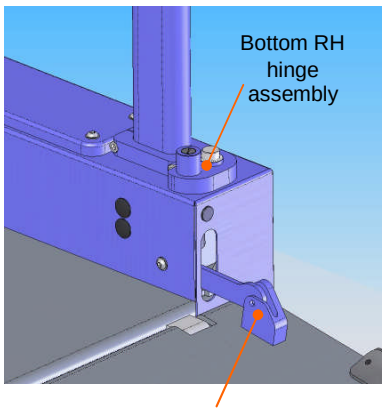
Index	Procedure	Fixings
53.0		

Refer to previous page for Link (LK) descriptions.
Please Note EC15 1040 issue 'B' shown above

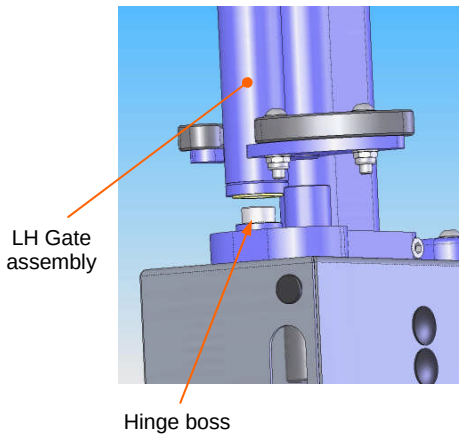
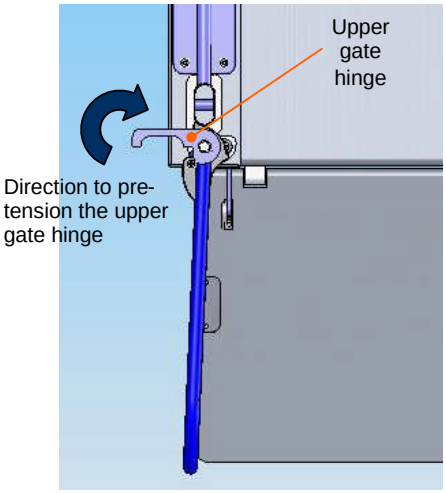
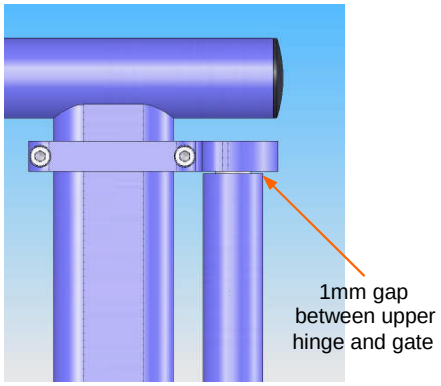
Installation Procedure

Index	Procedure		Fixings
54.0		Fit the lower side panel covers to both side panels. These are supplied with gaskets inside them. Tighten all the fixings gradually; be careful not to over tighten them. The return flanges of the cover should lightly clamp against the side panel. The gasket should not be visible when the fixings are fully tightened.	12 x M6 x 20 skt button hd FF50 1013S 12 x M6 washer thin FF60 0110S
55.0		Fit both side panel covers. **IMPORTANT!** Note: All fixings used on the LR are stainless steel. It is vital that only the correct fixings supplied by Wessex are used to validate the warranty given on this product.	8 x M6 x 10 skt button hd FF50 1013S 8 x M6 washer thin FF50 1011S
56.0	 		1 x Grommet 22mm EC10 6039 4 x Grommet 16mm EC10 6000
	Fit the manual lowering grommet. Fit the side panel grommets to both LH & RH side panels. Complete the Post-Installation Check List, Test and Examination Certificate and Acceptance/Handover Certificate.		

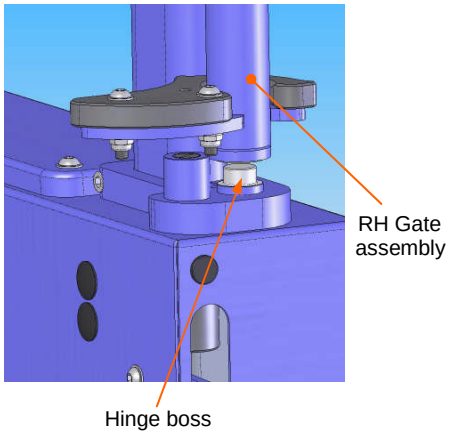
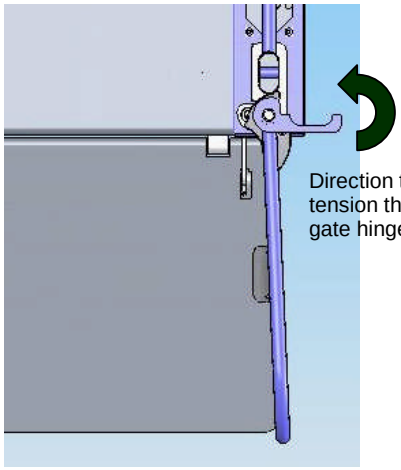
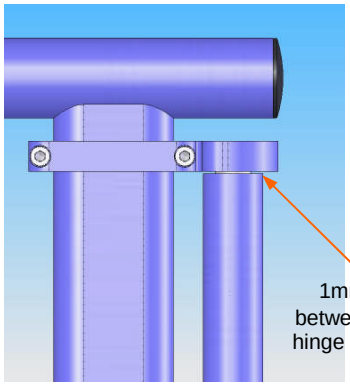
Section 6

Index	Procedure		Fixings
1.0		Before fitting the LH and RH bottom hinge assemblies, check both plungers are free moving. Press the black plastic plunger, the top plunger *(with the slot)* must spring up. *(LH bottom hinge assembly shown)* Apply grease as indicated.	LH bottom hinge assembly LR10 1417 RH bottom hinge assembly LR10 1429
2.0		Remove the grommet from the side panel, and fit the bottom LH hinge assembly. Place it directly on top of the side panel. Attach the gate clamp and tighten the fixings up. The ramp link arm assembly is different from the standard link arm. It has a shaped end and a wider ramp block, which drives the plastic plunger up and locks the gates in place. The LH ramp link arm assembly is supplied pre-assembled to the platform assembly. *(LR10 1435)* Fix the ramp link arm assembly to the ramp.	Gate clamp LR10 1411 2xM6x30 Skt button hd FF80 1011S 2x M6 washer thin FF60 0110S 2xM6x16 skt button hd screw FF50 1012S
3.0		The RH side panel slot is covered by a tape, cut this out before fitting the link arm assembly. *(This may change to a grommet or a breakout plate on later versions)* Fit the RH hinge assembly, as above. Fit the RH ramp link arm assembly. *(LR10 1436 Note: This doesn't need disconnecting to manually override the gates.)*	Gate clamp LR10 1411 2xM6x30 Skt button hd FF80 1011S 2x M6 washer thin FF60 0110S 2xM6x16 skt button hd screw FF50 1012S

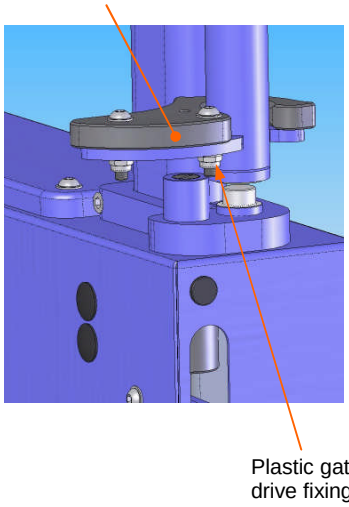
Twin Platform Gate Option

Index	Procedure		Fixings
4.0		Fit the LH gate assembly to the LH bottom hinge boss. Note: The gate assemblies are supplied with special dampening grease in the bushes. **CAUTION!** Be careful not to contaminate the plungers with this grease, when fitting the gates. Note: There are two widths of gates LR800 & LR900 versions. There should be a 60mm gap approximately between the gates when closed.	LR800 version LH gate assembly LR10 1401 LR900 version LH gate assembly LR20 1401
5.0		The upper gate hinge is attached to the gate with a tension spring. Before tensioning the upper gate, the hinge must be in the position shown. To tension the gate rotate the clamp in the direction shown below by 1¼ turns. **CAUTION!** DO NOT over tension the spring otherwise it will be permanently damaged. Holding the upper gate hinge assembly against the handrail tube (60x30 oval tube), assemble the other half of the clamp.	Gate clamp LR10 1411 2xM6x30 Skt button hd FF80 1011S
6.0		Ensure the upper gate hinge is fitted level and there is approximately a 1mm gap between the hinge and the gate as shown. *(Note: earlier versions had a large gap between the gate & hinge)* The gate when manually closed and released, should spring open at a slow constant speed.	

Twin Platform Gate Option

Index	Procedure		Fixings
7.0		Fit the RH gate assembly to the RH bottom hinge boss. Note: The gate assemblies are supplied with special dampening grease in the bushes. **CAUTION!** Be careful not to contaminate the plungers with this grease, when fitting the gates.	LR800 version RH gate assembly LR10 1402 LR900 version RH gate assembly LR20 1402
8.0		The upper gate hinge is attached to the gate with a tension spring. Before tensioning the upper gate, the hinge must be in the position shown. To tension the gate rotate the clamp in the direction shown below by 1¼ turns. **CAUTION!** DO NOT over tension the spring otherwise it will be permanently damaged. Holding the upper gate hinge assembly against the handrail tube (60x30 oval tube), assemble the other half of the clamp.	Gate clamp LR10 1411 2xM6x30 Skt button hd FF80 1011S
9.0		Ensure the upper gate hinge is fitted level and there is approximately a 1mm gap between the hinge and the gate as shown. *(Note: earlier versions had a large gap between the gate & hinge)* The gate when manually closed and released, should spring open at a slow constant speed.	

Twin Platform Gate Option

Index	Procedure	Fixings
10.0		The gates shut automatically when the ramp closes and are locked into position. Check the gates when closed are parallel with each other, and the plungers are locking them in position. *(When you try to push the gates open they shouldn't try and force the ramp down, they should be locked by the plungers which are driven up by the ramp blocks)* A fine adjustment can be made to align the gates. Loosen the plastic gate drive fixings and adjust the gate position. Tighten the fixings backup when the gates are parallel.

Electrical Drawings

Section 7

Electrical Drawings

LR10 8101	**LR Wiring Schematic (Std buttons)**	**Issue E**
LR10 8102	**LR Wiring Schematic (H/Spec buttons)**	**Issue F**
EC15 1038	**LR Circuit Diagram Heavy Duty**	**Issue B**
EC15 1040	**LR Circuit Diagram Std Duty**	**Issue B**
EC15 1037	**LR Interface PCB**	**Issue A2**
EC15 1044	**LR Circuit Diagram Powergate**	**Issue A**

POT	FUNCTION	REF
RV6	AUTO HOMING TIMER (10Sec to 4.0Min) Set to 1Min	E5
RV5	AUTO-RAMP RAISE (20 Sec to 4.5 Min)	D4
RV4	DOWN LIMIT OVER TRAVEL (1.0 Sec to 6.0 Sec)	G5
RV3	LIGHT TIMER (20 Sec to 4.5 min)	B5
RV2	GATE RELEASE TIMER (10 Sec to 30 Sec) - SET TO 15sec	C5
RV1	BATTERY CHARGING VOLTAGE - SET TO 27.5V	E6

LINK	FUNCTION	TO ENABLE FUNC	REF
LK1	Keyswitch Override - all call stations	Fit Link	(B6)
LK1	Keyswitch Override, Upper CS (interface PCB)	Fit Link	(C10)
LK2	Keyswitch Override, Lower CS (interface PCB)	Fit Link	(E10)
LK3	Charge Failure Alarm	Fit Link	(E6)
LK4	Auto Ramp Raise Disable	Remove Link	(E5)
LK5	Momentary Operation	Fit Link	(C5)
LK6	Bridging Plate Override (UP)	Fit Link	(C6)
LK7	Bridging Plate Override (DOWN)	Fit Link	(C6)
LK8	Platform Gate Interlock Override	Fit Link	(C5)
LK10	Platform Level Switch(Solder Link)	Remove Link	(G6)
LK11	Travel Alarm Down	Fit Link	(D4)
LK12	3Sec Timer(Momentary Operation)	Fit Link	(C4)
LK13	Upper Gate (Left Hand No Gate Right Hand Gate Fitted)	Fit Link	(B6)
LK14	Auto Homing Timer (Down)	Fit Link	(E4)

KEYSWITCH SETTINGS: LINK / REQUIREMENT	NO KS	2WAY KEY SWITCHING	UPPER KS ONLY	LOWER KS ONLY
CONTROL PCB LK1 IN		OUT	OUT	OUT
INTERFACE PCB LK1 ANY		OUT	OUT	IN
INTERFACE PCB LK2 ANY		OUT	IN	OUT

LED	FUNCTION	REF
LED.1	Control Voltage 27.5V	(E6)
LED.2	Stop Circuit	(D4)
LED.3	Gate Closed Interlock	(F5)
LED.4	Ramp Raised	(F4)
LED.5	Pump	(F6)
LED.6	Lowering Valve	(F6)
LED.7	Up Safety Circuit	(B6)
LED.8	Down Safety Circuit	(G5)
LED.9	Up Limit	(D5)
LED.10	Down Limit	(E5)
LED.11	Gate Release Trigger	(C5)
LED.12	Gate Release Timer	(C5)
LED.13	Upper Gate Solenoid	(D6)
LED.14	Down Limit Overtravel Timer	(G5)
LED.15	Ramp Sense Up	(F5)
LED.16	Ramp Sense Down	(G5)
LED.17	Auto-Ramp Raise Timer	(D4)

CONTROL PCB	EC15 1040	EC15 1038
PSU	LR10 8027	LR10 8055
VA	50	200
FS1	HBC 1.0A A/S	MCB 'C' 10A
FS2	HBC 2.5A A/S	HBC 10A A/S

TEST POINTS

TP1	RAMP ACTUATOR	(E4)
TP2	RAMP ACTUATOR	(F5)
TP3	PUMP RELAY	(F6)
TP4	0V. SWITCHED	(B6)
TP5	LOWERING VALVE	(F6)
TP6	0V. GATE SWITCHED	(F4)
TP7	UPPER GATE SOL.	(F6)
TP8	PLAT. GATE (N.F)	(C5)
TP9	LIGHT TIMER	(B5)
TP101	BATTERY CHARGE	(F6)

E	Power gate option added ECO 1437	WP 29.2.12
D	BRIDGING SWITCHES DESIGN CHANGED ECO 1394	J.W 17.8.10
ISS	ALTERATION	INTLS & DATE

KEY TO SYMBOLS

	PUSH-ON TERMINAL 6.35mm
TP7	TEST POINT
PX / RX	MOLEX CONNECTOR TYPE. P= PLUG HOUSING R= RECEPTACLE HOUSING X= NO. POLES
F M	MOLEX TERMINAL TYPE. M= MALE PIN F= FEMALE SOCKET

		N.T.S
DRN	J.W	DATE 11.2.03
CHKD		DATE
APPD		DATE

THIS DRAWING TO BE READ IN CONJUNCTION WITH DRG. No.S
EC15 1038 PCB LR CONTROL HEAVY DUTY OR
EC15 1040 PCB LR CONTROL STD DUTY

DESCRIPTION
LR WIRING SCHEMATIC STD SPEC BUTTONS

DRAWING No.
LR10 8101

SHEET 1 OF 1 SHTS

POT	FUNCTION	REF
RV6	AUTO HOMING TIMER (10Sec to 4.0Min) Set to 1Min	E5
RV5	AUTO-RAMP RAISE (20 Sec to 4.5 Min)	D4
RV4	DOWN LIMIT OVER TRAVEL (1.0 Sec to 6.0 Sec)	G5
RV3	LIGHT TIMER (20 Sec to 4.5 min)	B5
RV2	GATE RELEASE TIMER (10 Sec to 30 Sec) - SET TO 15sec	C5
RV1	BATTERY CHARGING VOLTAGE - SET TO 27.5V	E6

LINK	FUNCTION	TO ENABLE FUNC	REF
LK1	Keyswitch Override - all call stations	Fit Link	(B6)
LK1	Keyswitch Override, Upper CS (interface PCB)	Fit Link	(C10)
LK2	Keyswitch Override, Lower CS (interface PCB)	Fit Link	(E10)
LK3	Charge Failure Alarm	Fit Link	(E6)
LK4	Auto Ramp Raise Disable	Remove Link	(E5)
LK5	Momentary Operation	Fit Link	(C5)
LK6	Bridging Plate Override (UP)	Fit Link	(C6)
LK7	Bridging Plate Override (DOWN)	Fit Link	(C6)
LK8	Platform Gate Interlock Override	Fit Link	(C5)
LK10	Platform Level Switch(Solder Link)	Remove Link	(G6)
LK11	Travel Alarm Down	Fit Link	(D4)
LK12	3Sec Timer(Momentary Operation)	Fit Link	(C4)
LK13	Upper Gate (Left Hand No Gate Right Hand Gate Fitted)	Fit Link	(B6)
LK14	Auto Homing Timer (Down)	Fit Link	(E4)

KEYSWITCH SETTINGS				
REQUIREMENT / LINK	NO KS	2WAY KEY SWITCHING	UPPER KS ONLY	LOWER KS ONLY
CONTROL PCB LK1 IN		OUT	OUT	OUT
INTERFACE PCB LK1	ANY	OUT	OUT	IN
INTERFACE PCB LK2	ANY	OUT	IN	OUT

LED	FUNCTION	REF
LED.1	Control Voltage 27.5V	(E6)
LED.2	Stop Circuit	(D4)
LED.3	Gate Closed Interlock	(F5)
LED.4	Ramp Raised	(F4)
LED.5	Pump	(F6)
LED.6	Lowering Valve	(F6)
LED.7	Up Safety Circuit	(B6)
LED.8	Down Safety Circuit	(G5)
LED.9	Up Limit	(D5)
LED.10	Down Limit	(E5)
LED.11	Gate Release Trigger	(C5)
LED.12	Gate Release Timer	(C5)
LED.13	Upper Gate Solenoid	(D6)
LED.14	Down Limit Overtravel Timer	(G5)
LED.15	Ramp Sense Up	(F5)
LED.16	Ramp Sense Down	(G5)
LED.17	Auto-Ramp Raise Timer	(D4)

CONTROL PCB	EC15 1040	EC15 1038
PSU	LR10 8027	LR10 8055
VA	50	200
FS1	HBC 1.0A A/S	MCB 'C' 10A
FS2	HBC 2.5A A/S	HBC 10A A/S

TEST POINTS		
TP1	RAMP ACTUATOR	(E4)
TP2	RAMP ACTUATOR	(F5)
TP3	PUMP RELAY	(F6)
TP4	0V. SWITCHED	(B6)
TP5	LOWERING VALVE	(F6)
TP6	0V. GATE SWITCHED	(F4)
TP7	UPPER GATE SOL.	(F6)
TP8	PLAT. GATE (N.F)	(C5)
TP9	LIGHT TIMER	(B5)
TP101	BATTERY CHARGE	(F6)

F	Power gate option added ECO 1437	WP 29.2.12
E	BRIDGING SWITCHES DESIGN CHANGED ECO 1394	J.W 17.8.10
ISS	ALTERATION	INTLS & DATE

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		N.T.S
DRN	J.W	DATE 11.2.03
CHKD		DATE
APPD		DATE

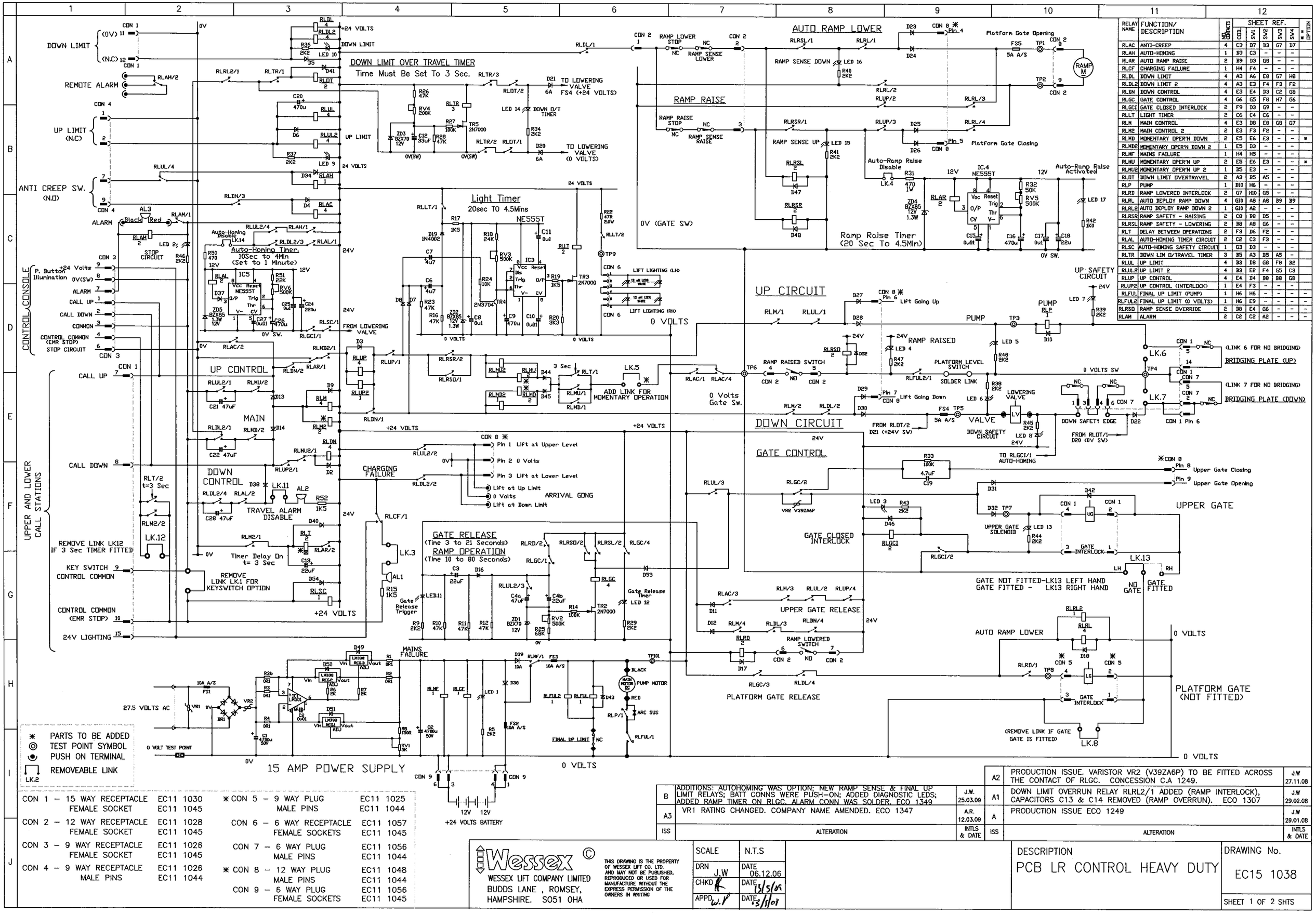
THIS DRAWING TO BE READ IN CONJUNCTION WITH DRG. No.S

EC15 1038 PCB LR CONTROL HEAVY DUTY OR
EC15 1040 PCB LR CONTROL STD DUTY

DESCRIPTION
LR WIRING SCHEMATIC HIGH SPEC BUTTONS

DRAWING No.
LR10 8102

SHEET 1 OF 1 SHTS



RELAY NAME	FUNCTION/ DESCRIPTION	NO. CONTACTS	SHEET REF. COL	SW1	SW2	SW3	SW4	* OPTION
RLAC	ANTI-CREEP	4	C3	D7	D3	G7	D7	
RLAH	AUTO-HOMING	1	B3	C3	–	–	–	
RLAR	AUTO RAMP RAISE	2	B9	D3	G8	–	–	
RLCF	CHARGING FAILURE	1	H4	F4	–	–	–	
RLDL	DOWN LIMIT	4	A3	A6	E8	G7	H8	
RLDL2	DOWN LIMIT 2	4	A3	E3	F4	F3	F2	
RLDN	DOWN CONTROL	4	E3	E4	D3	C2	G8	
RLGC	GATE CONTROL	4	G6	G5	F8	H7	G6	
RLGCI	GATE CLOSED INTERLOCK	2	F9	D3	G9	–	–	
RLLT	LIGHT TIMER	2	C6	C4	C6	–	–	
RLM	MAIN CONTROL	4	E3	D8	E8	G8	G7	
RLM2	MAIN CONTROL 2	2	E3	F3	F2	–	–	
RLMD	MOMENTARY OPER'N DOWN	2	E5	E6	E3	–	–	*
RLMD2	MOMENTARY OPER'N DOWN 2	1	E5	D3	–	–	–	
RLMF	MAINS FAILURE	1	H4	H5	–	–	–	
RLMU	MOMENTARY OPER'N UP	2	E5	E6	E3	–	–	*
RLMU2	MOMENTARY OPER'N UP 2	1	D5	E3	–	–	–	
RLOT	DOWN LIMIT OVERTRAVEL	2	A3	B5	A5	–	–	
RLP	PUMP	1	D10	H6	–	–	–	
RLRD	RAMP LOWERED INTERLOCK	2	G7	H10	G5	–	–	
RLRL	AUTO DEPLOY RAMP DOWN	4	G10	A8	B8	B9		
RLRL2	AUTO DEPLOY RAMP DOWN 2	1	G10	A2	–	–	–	
RLRSR	RAMP SAFETY - RAISING	2	C8	B8	D5	–	–	
RLRSL	RAMP SAFETY - LOWERING	2	B8	A8	G6	–	–	
RLT	DELAY BETWEEN OPERATIONS	2	F3	D6	F2	–	–	
RLAL	AUTO-HOMING TIMER CIRCUIT	2	C2	C3	F3	–	–	
RLSC	AUTO-HOMING SAFETY CIRCUIT	1	G3	D3	–	–	–	
RLTR	DOWN LIM O/TRAVEL TIMER	3	B5	A3	B5	A5	–	
RLUL	UP LIMIT	4	B3	D8	G8	F8	B2	
RLUL2	UP LIMIT 2	4	B3	E2	F4	G5	C3	
RLUP	UP CONTROL	4	E4	D4	B8	B8	G8	
RLUP2	UP CONTROL (INTERLOCK)	1	E4	F3	–	–	–	
RLFUL	FINAL UP LIMIT (PUMP)	1	H6	H6	–	–	–	–
RLFUL2	FINAL UP LIMIT (0 VOLTS)	1	H6	E9	–	–	–	–
RLRSD	RAMP SENSE OVERRIDE	2	D8	E4	G6	–	–	–
RLAM	ALARM	2	C2	C2	A2	–	–	–

CON 1 – 15 WAY RECEPTACLE	EC11 1030	* CON 5 – 9 WAY PLUG	EC11 1025		
FEMALE SOCKET	EC11 1045	MALE PINS	EC11 1044		
CON 2 – 12 WAY RECEPTACLE	EC11 1028	CON 6 – 6 WAY RECEPTACLE	EC11 1057		
FEMALE SOCKET	EC11 1045	FEMALE SOCKETS	EC11 1045		
CON 3 – 9 WAY RECEPTACLE	EC11 1026	CON 7 – 6 WAY PLUG	EC11 1056		
FEMALE SOCKET	EC11 1045	MALE PINS	EC11 1044		
CON 4 – 9 WAY RECEPTACLE	EC11 1026	* CON 8 – 12 WAY PLUG	EC11 1048		
MALE PINS	EC11 1044	MALE PINS	EC11 1044		
		CON 9 – 6 WAY PLUG	EC11 1056		
		FEMALE SOCKETS	EC11 1045		

A2	PRODUCTION ISSUE. VARISTOR VR2 (V39ZA6P) TO BE FITTED ACROSS THE CONTACT OF RLGC. CONCESSION C.A 1249.	J.W 27.11.08			
B	ADDITIONS: AUTOHOMING WAS OPTION; NEW RAMP SENSE & FINAL UP LIMIT RELAYS; BATT CONNS WERE PUSH-ON; ADDED DIAGNOSTIC LEDS; ADDED RAMP TIMER ON RLGC. ALARM CONN WAS SOLDER. ECO 1349	J.W. 25.03.09	A1	DOWN LIMIT OVERRUN RELAY RLRL2/1 ADDED (RAMP INTERLOCK), CAPACITORS C13 & C14 REMOVED (RAMP OVERRUN). ECO 1307	J.W 29.02.08
A3	VR1 RATING CHANGED. COMPANY NAME AMENDED. ECO 1347	A.R. 12.03.09	A	PRODUCTION ISSUE ECO 1249	J.W 29.01.08
ISS	ALTERATION	INTLS & DATE	ISS	ALTERATION	INTLS & DATE

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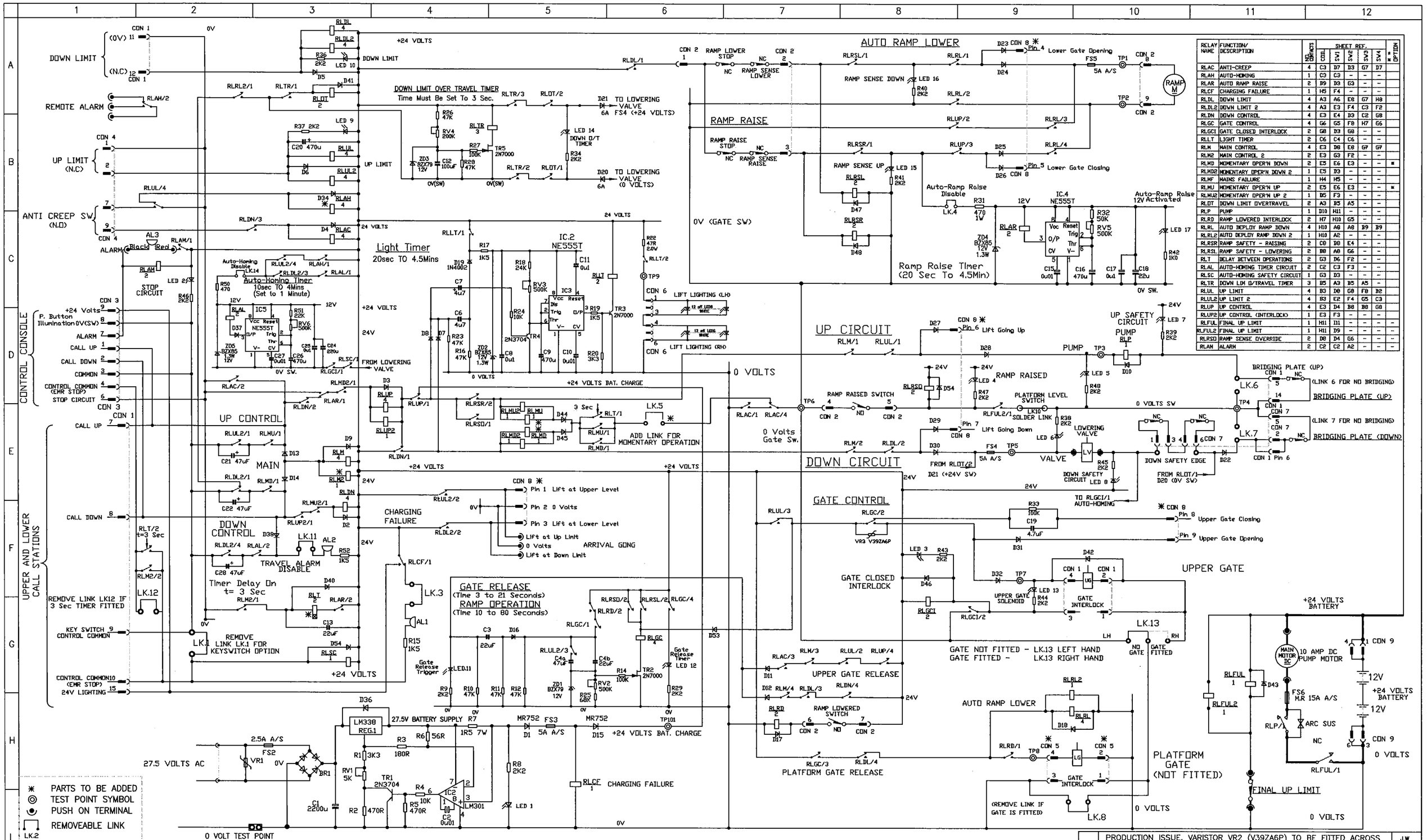
SCALE	N.T.S	
DRN J.W	DATE 06.12.06	
CHKD	DATE 13/5/08	
APPD W.P	DATE 23/11/07	

DESCRIPTION
PCB LR CONTROL HEAVY DUTY

DRAWING No.
EC15 1038

SHEET 1 OF 2 SHTS



RELAY NAME	FUNCTION/ DESCRIPTION	NO. CONTACTS	SHEET REF.: CON1	SV1	SV2	SV3	SV4	* = OPTION
RLAC	ANTI-CREEP	4	C3	D7	D3	G7	D7	
RLAH	AUTO-HOMING	1	C9	C3	–	–		
RLAR	AUTO RAMP RAISE	2	B9	D3	G3	–	–	
RLCF	CHARGING FAILURE	1	H5	F4	–	–	–	
RLDL	DOWN LIMIT	4	A3	A6	E8	G7	H8	
RLDL2	DOWN LIMIT 2	4	A3	E3	F4	C3	F2	
RLDN	DOWN CONTROL	4	E3	E4	D3	C2	G8	
RLGC	GATE CONTROL	4	G6	G5	F8	H7	G6	
RLGCI	GATE CLOSED INTERLOCK	2	G8	D3	G8	–	–	
RLLT	LIGHT TIMER	2	C6	C4	C6	–	–	
RLM	MAIN CONTROL	4	E3	D8	E8	G7	G7	
RLM2	MAIN CONTROL 2	2	E3	G3	F2	–	–	
RLMD	MOMENTARY OPER'N DOWN	2	E5	E6	E3	–	–	*
RLMD2	MOMENTARY OPER'N DOWN 2	1	E5	D3	–	–	–	
RLMF	MAINS FAILURE	1	H4	H5	–	–	–	
RLMU	MOMENTARY OPER'N UP	2	E5	E6	E3	–	–	*
RLMU2	MOMENTARY OPER'N UP 2	1	D5	F3	–	–	–	
RLOT	DOWN LIMIT OVERTRAVEL	2	A3	B5	A5	–	–	
RLP	PUMP	1	D10	H11	–	–	–	
RLRD	RAMP LOWERED INTERLOCK	2	H7	H10	G5	–	–	
RLRL	AUTO DEPLOY RAMP DOWN	4	H10	A8	A8	B9	B9	
RLRL2	AUTO DEPLOY RAMP DOWN 2	1	H10	A2	–	–	–	
RLRSR	RAMP SAFETY – RAISING	2	C8	D8	E4	–	–	
RLRSL	RAMP SAFETY – LOWERING	2	B8	A8	G6	–	–	
RLT	DELAY BETWEEN OPERATIONS	2	G3	D6	F2	–	–	
RLAL	AUTO-HOMING TIMER CIRCUIT	2	C2	C3	F3	–	–	
RLSC	AUTO-HOMING SAFETY CIRCUIT	1	G3	D3	–	–	–	
RLTR	DOWN LIM D/TRAVEL TIMER	3	B5	A3	B5	A5	–	
RLUL	UP LIMIT	4	B3	D8	G8	F8	B2	
RLUL2	UP LIMIT 2	4	B3	E2	F4	G5	C3	
RLUP	UP CONTROL	4	E3	D4	B8	B8	G8	
RLUP2	UP CONTROL (INTERLOCK)	1	E3	F3	–	–	–	
RLFUL	FINAL UP LIMIT	1	H11	I11	–	–	–	–
RLFUL2	FINAL UP LIMIT	1	H11	D9	–	–	–	–
RLRSD	RAMP SENSE OVERRIDE	2	D8	D4	G6	–	–	–
RLAH	ALARM	2	C2	C2	A2	–	–	–

✱ PARTS TO BE ADDED
◎ TEST POINT SYMBOL
● PUSH ON TERMINAL
LK.2 REMOVEABLE LINK

CON 1 – 15 WAY RECEPTACLE	EC11 1030	✱ CON 5 – 9 WAY PLUG	EC11 1025
FEMALE SOCKET	EC11 1045	MALE PINS	EC11 1044
CON 2 – 12 WAY RECEPTACLE	EC11 1028	CON 6 – 6 WAY RECEPTACLE	EC11 1057
FEMALE SOCKET	EC11 1045	FEMALE SOCKETS	EC11 1045
CON 3 – 9 WAY RECEPTACLE	EC11 1026	CON 7 – 6 WAY PLUG	EC11 1056
FEMALE SOCKET	EC11 1045	MALE PINS	EC11 1044
CON 4 – 9 WAY RECEPTACLE	EC11 1026	✱ CON 8 – 12 WAY PLUG	EC11 1048
MALE PINS	EC11 1044	MALE PINS	EC11 1044
		CON 9 – 6 WAY PLUG	EC11 1056
		FEMALE SOCKETS	EC11 1045

ISS	ALTERATION	INTLS & DATE
B	ADDITIONS: AUTOHOMING WAS OPTION; NEW RAMP SENSE & FINAL UP LIMIT RELAYS; BATT CONNS WERE PUSH-ON; ADDED DIAGNOSTIC LEDS; ADDED RAMP TIMER ON RLGC. ALARM CONN WAS SOLDER. ECO 1349	J.W. 25.03.09
A3	VR1 RATING CHANGED. COMPANY NAME AMENDED. ECO 1347	A.R. 12.03.09

ISS	ALTERATION	INTLS & DATE
A2	PRODUCTION ISSUE. VARISTOR VR2 (V39ZA6P) TO BE FITTED ACROSS THE CONTACT OF RLGC. CONCESSION C.A 1249.	J.W 27.11.08
A1	DOWN LIMIT OVERRUN RELAY RLRL2/1 ADDED (RAMP INTERLOCK), CAPACITORS C13 & C14 REMOVED (RAMP OVERRUN). ECO 1307	J.W 29.02.08
A	PRODUCTION ISSUE ECO 1249	J.W 29.01.08

SCALE	N.T.S	DESCRIPTION	DRAWING No.
DRN J.W	DATE 06.12.06	PCB LR CONTROL STD DUTY	EC15 1040
CHKD	DATE 15/5/09		
APPD J.W	DATE 15/5/09		SHEET 1 OF 2 SHTS

TRAILING CABLE PCB CONNECTIONS

15 WAY RECEPTACLE EC11 1030
Female Sockets EC11 1045

Pin No.	
1	GATE INTERLOCK UPPER
2	LOCK SOL. UPPER GATE
3	GATE INTERLOCK UPPER
4	LOCK SOL. UPPER GATE
5	BRIDGING PLATE (UP)
6	BRIDGING PLATE (DOWN)
7	CALL UP
8	CALL DOWN
9	COMMON
10	EMERGENCY STOP (COMMON)
11	DOWN LIMIT (0V) COMMON
12	DOWN LIMIT (N.C)
13	DOWN LIMIT (N.O)
14	BRIDGING PLATE (COMMON 0V SW.)
15	+24 Volt Lighting

LEVEL INDICATORS

Lift at Up Limit
0 VOLTS
Lift at Down Limit

PUSH ON TERMINAL
EC11 0043
(4mm Spade)

PUSH ON TERMINAL
EC11 0001
(6.35mm Spade)

27.5V AC
27.5V AC

TRAILING CABLE PCB CONNECTIONS

ADD LINK LK.1 IF KEYSWITCH IS NOT FITTED

LK.1

ADD LINK LK.2 IF KEYSWITCH IS NOT FITTED

LK.2

0 VOLTS

0 VOLTS

9 WAY PLUG
Female Sockets
EC11 1025
EC11 1045

Pin No.	
1	LOCK SOLENOID +
2	
3	LOCK SOLENOID -
4	
5	
6	
7	GATE INTERLOCK UPPER
8	GATE INTERLOCK UPPER
9	

UPPER GATE

12 WAY RECEPTACLE
Male Pins
EC11 1028
EC11 1044

Pin No.	
1	CALL UP
2	CALL DOWN
3	COMMON
4	0 Volt Lighting
5	+24 Volt Lighting
6	
7	KEY SWITCH
8	KEY SWITCH
9	KEY SWITCH COMMON
10	
11	STOP SWITCH
12	STOP SWITCH

If Keyswitch is not fitted
Add Link Between Pins 8 & 9

UPPER CALL STATION

12 WAY RECEPTACLE
Male Pins
EC11 1028
EC11 1044

Pin No.	
1	CALL UP
2	CALL DOWN
3	COMMON
4	0 Volt Lighting
5	+24 Volt Lighting
6	
7	KEY SWITCH
8	KEY SWITCH
9	KEY SWITCH COMMON
10	
11	STOP SWITCH
12	STOP SWITCH

If Keyswitch is not fitted
Add Link Between Pins 8 & 9

LOWER CALL STATION

6 WAY RECEPTACAL
Male Pins
EC11 1057
EC11 1044

Pin No.	
1	BRIDGING PLATE (UP)
2	BRIDGING PLATE(COMMON 0V SW.)
3	BRIDGING PLATE (DOWN)
4	0 VOLTS
5	NORMALLY CLOSED
6	NORMALLY OPEN

DOWN LIMIT

9 WAY RECEPTICAL
Female Sockets
EC11 1026
EC11 1045

Pin No.	
1	Lift at Up Limit
2	
3	0 Volts
4	
5	
6	
7	Lift at Down Limit
8	0 Volts
9	

LEVEL INDICATORS

PUSH ON TERMINAL
EC11 0001

27.5V AC
27.5V AC

ISS	ALTERATION	INITLS & DATE
A2	Track width increased on spade connections ECO 1323	JW 5.6.08

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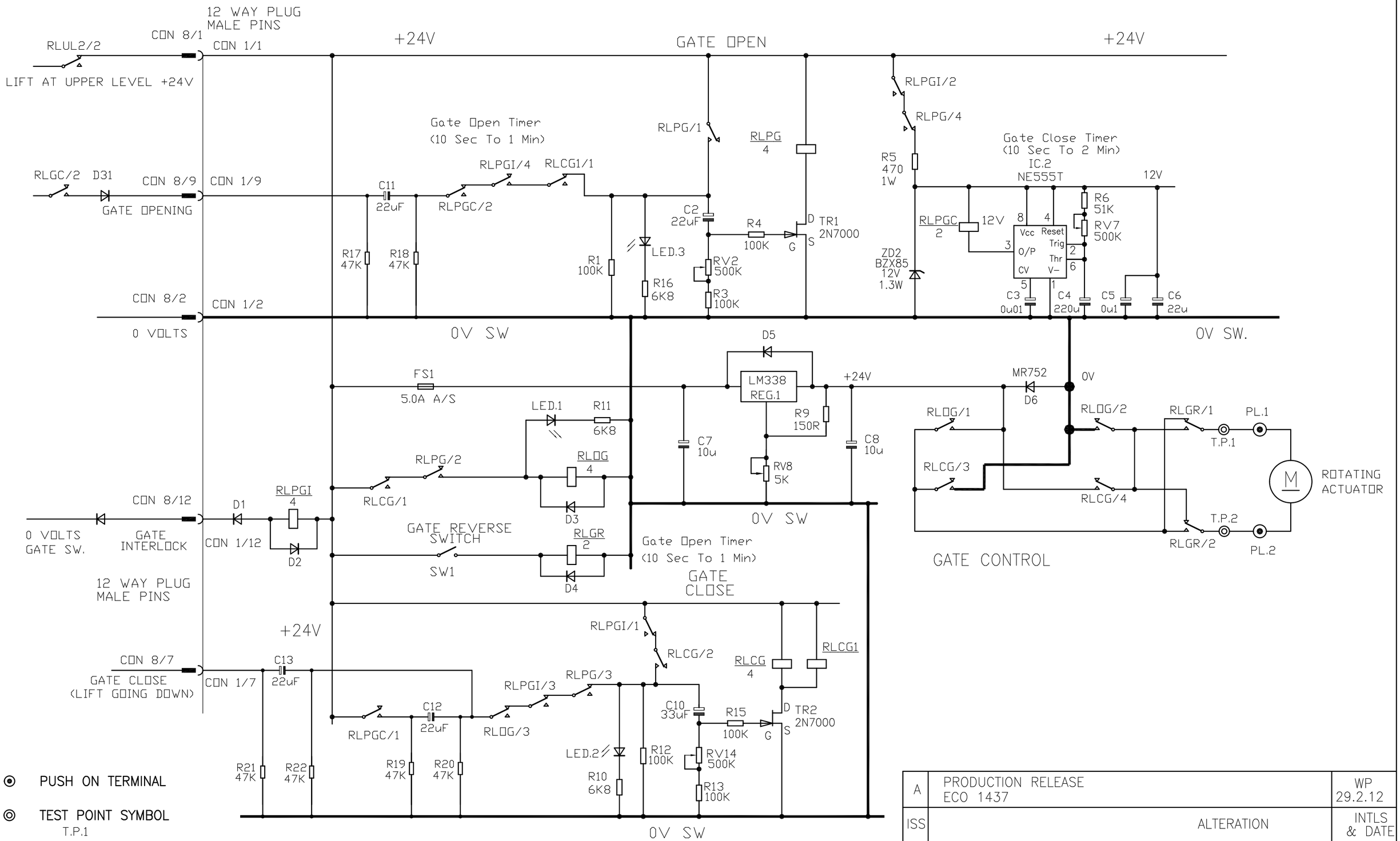
WESSEX MEDICAL EQUIP. CO. LTD
BUDDS LANE , ROMSEY,
HAMPSHIRE. SO51 0HA

	N.T.S
DRN J.W	DATE 11.2.03
CHKD	DATE
APPD	DATE

DESCRIPTION
PCB LR INTERFACE PART M

DRAWING No.
EC15 1037

SHEET 2 OF 2 SHTS



A	PRODUCTION RELEASE ECO 1437		WP 29.2.12
ISS		ALTERATION	INTLS & DATE

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WESSEX MEDICAL EQUIP. CO. LTD
BUDDS LANE , ROMSEY,
HAMPSHIRE. SO51 0HA

SCALE	
DRN	DATE
CHKD	DATE
APPD	DATE

THIS DRAWING TO BE READ IN CONJUNCTION WITH DRG. No.

DESCRIPTION

PCB LR POWER THRESHOLD DOOR

DRAWING No.

EC15 1044

SHEET 1 OF 1 SHTS

Lubrication Schedule

Section 8

Lubrication Schedule

Time of Application➔ Items to be lubricated🡻	Production	Installation	Service
Scissor Pivots	MM31 5010 Castrol CL Grease		MM31 5010 Castrol CL Grease
Slider Block Area		MM31 5010 Castrol CL Grease	MM31 5010 Castrol CL Grease
Bellow Guide	MM31 5010 Castrol CL Grease	Check it has been greased in production	MM31 5010 Castrol CL Grease
Ramp Pivots	MM31 5010 Castrol CL Grease	Check it has been greased in production	MM31 5010 Castrol CL Grease
Actuator Sensor Bracket	Kilopoise Grease MM31 5009	Check it has been greased in production	
Gate Hinges	MM31 5010 Castrol CL Grease	Check it has been greased in production	MM31 5010 Castrol CL Grease
Twin Platform Gates	Kilopoise Grease MM31 5009	Check it has been greased in production	

Section 9

Service Procedure

Procedure

The service schedule is based on recommendations by BS6440:1999.

A technically competent person should carry out the service and inspection within 6 months of commissioning the lift. Subsequent service intervals should not exceed 6 months.

Refer to the safety advice in section 2 before commencing any work.

Refer to the installation manual as an aid for servicing, and for details of assembly, setting switches etc…

1. Remove the side panel covers.
2. Remove the bellows fixings.
3. The up & final limit switch brackets will need to be removed if the lift rise is under 950mm.
4. Send the lift up to 1m and put the scotch in place.
5. Disconnect the power to the powerpack and the power to the lowering valve.
6. Clean any dust and debris from underneath the scissor area and apply the appropriate grease in the specified areas. *(Chassis & scissor braces, slider pads and roller areas)*
7. Check all the scissor and chassis fixings are tight.
8. Check the slider pads and rollers are not excessively warn.
9. Check the wiring around the interface PCB for any signs of damage.
10. Remove the scotch.
11. Reconnect the bellows.
12. Clean the bellows thoroughly with a damp cloth. *(When extended the full 1 metre)*
13. Refit the limit switch brackets.
14. Reconnect the power to the powerpack and lowering valve.
15. Check the safety edge stops the lift, when operated in all four corners and at the midpoints, when the lift is travelling down.
16. Check the operation of all call station switches and car controls.
17. Check the lift stops at both levels correctly.
18. Check the operation of the final limit.
19. Check the operation of the anti-creep switch.
20. Check the down limit overrun timer is set to the required time.
21. Check the ramp sensor switches and ramp limit switches are functioning correctly.
22. Check all wiring for signs of damage.
23. Check the battery charge voltage is 27.5 Volts.
24. Check the battery backup works. Turning the mains supply off to the lift, the lift should raise and lower a minimum of two journeys with a person on the platform.
25. Check the hydraulics for any signs of leaks.
26. Check the hydraulic fluid level with the lift fully down, and top up if necessary.
27. Check the manual lowering valve functions correctly.
28. If the rams require bleeding, refer to the LR Ram Service Bleeding Procedure.
29. Check all fixings are tight.
30. Check the threshold gate if applicable locks correctly and the interlocks are functioning correctly.
31. Check the platform gates *(if applicable)* lock correctly and open simultaneously.
32. Check the bridging if applicable is functioning correctly and the safety switches are working.

Service Procedure

Procedure

Ram Service Bleeding Procedure

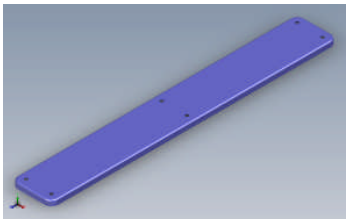
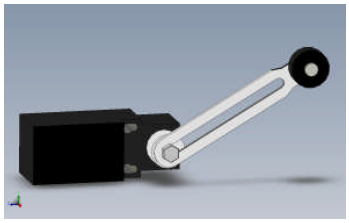
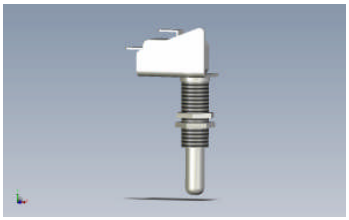
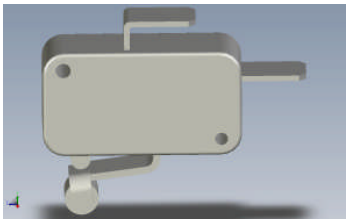
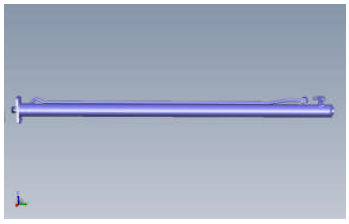
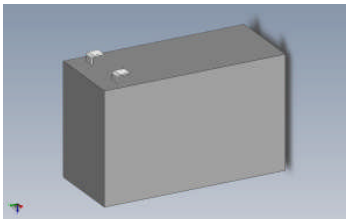
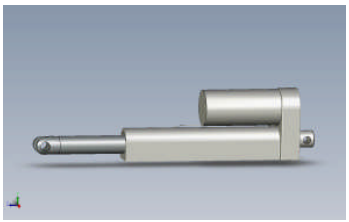
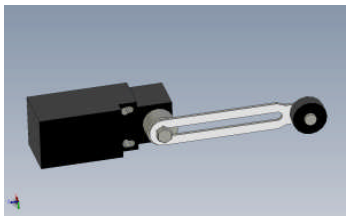
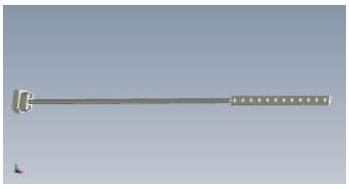
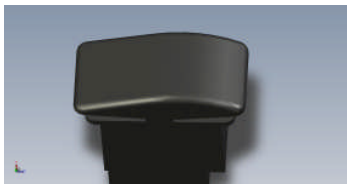
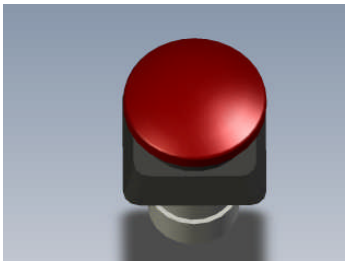
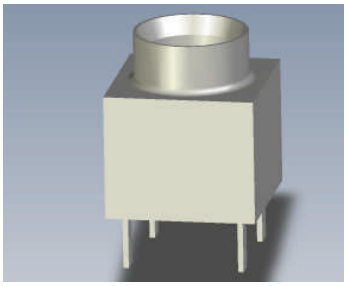
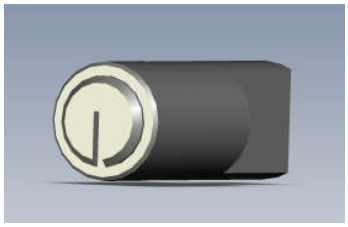
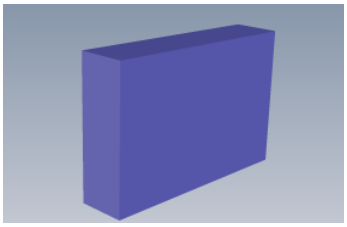
1. This procedure should only be used if the lift is completely assembled, and you have no access to fit the ram bleed tool.
2. If the platform is going up and down level, and is not spongy **DO NOT** bleed the rams. Proceed to the next step if you need to bleed the rams.
3. Press the manual lowering valve in until the lift is fully down, keep pressing it for a further 3 seconds to allow the rams to spring into their synchronisation zone.
4. Check the fluid level in the powerpack and fill as necessary.
5. Connect bleed hoses to both rams and clip in place. Put the other end of the hoses in a plastic container. Note: The plastic container must have a breather hole.
6. Press the up button for 1 second and wait for 2 seconds, then press the manual lowering valve for 3 seconds. Repeat this until only clear oil is coming out of the bleed hoses.
   STOP immediately if the platform rises.
7. Remove the bleed hoses from both rams and fit the dust covers to the rams, clip them in place.
8. Check the fluid level in the powerpack and fill as necessary.
9. Send the lift up, the platform should raise level, if not stop immediately and lower the lift. Press the manual lowering valve in until the lift is fully down, keep pressing it for a further 3 seconds to allow for the rams to spring into their synchronisation zone.
10. Send the lift up again, the platform should raise level, if not stop immediately and lower the lift down. Press the manual lowering valve in until the lift is fully down, keep pressing it for a further 3 seconds to allow for the rams to spring into their synchronisation zone.
11. If the platform will not go up level repeat the bleed procedure from the beginning. If this still doesn't work go to the next step.
12. If the platform rises whilst you are bleeding the rams you can create a hydraulic lock. The only way of clearing this, with the lift fully assembled is to disconnect the hydraulic hose completely from where it connects to the powerpack. You must ensure the lift is fully down and you have a lot of rag to catch the oil which will come out. Connect the hose back to the powerpack and repeat the bleed procedure.
13. The platform should now go up and down level.

The theory of how the rams work: -

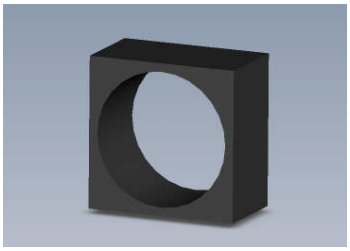
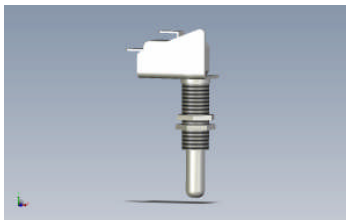
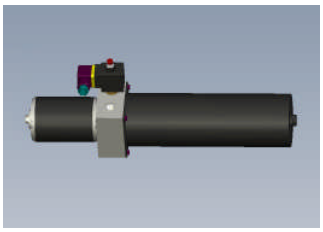
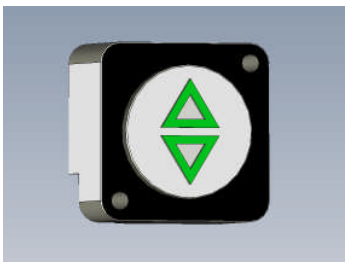
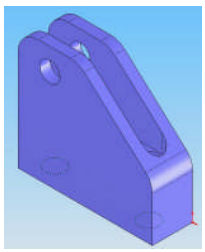
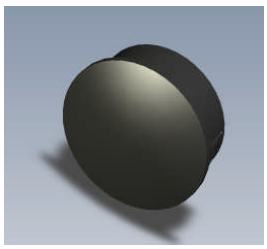
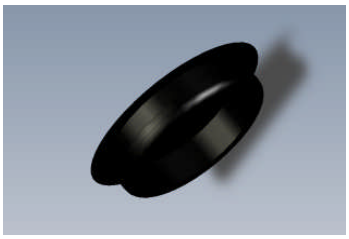
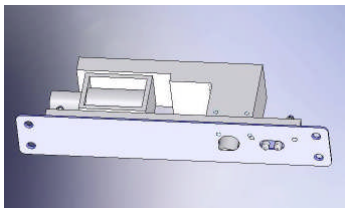
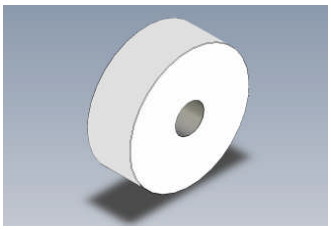
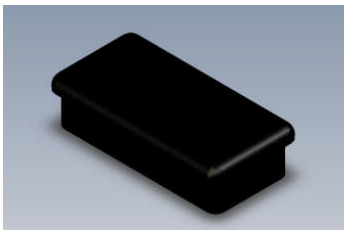
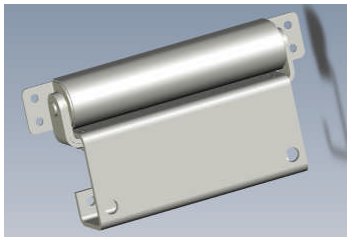
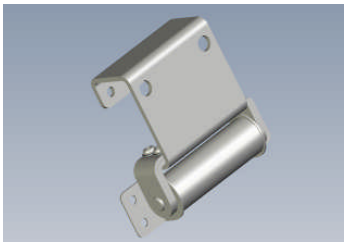
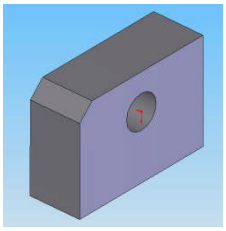
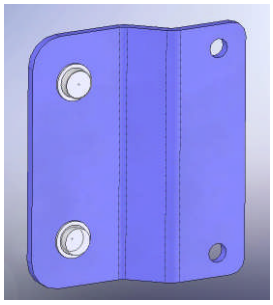
The pressures between the rams can only be equalised when the rods are fully down and the ram rods are pushed up by the springs. This is the synchronisation zone. They can only be bled properly with both bleed hoses attached and the rams in the position described above. This allows oil to flow between both rams flushing out the air.

Section 10

Replacement Parts

		
LR10 0422 Pod Cover	**EC08 3039 Up Limit/Anti creep switch**	**EC08 1517 Safety edge switch**
		
EC08 1520 Ramp Safety Switch	**HC00 1021 Ram LH Master**	**EC14 3006 Battery 12v 9Ah**
		
PT04 0011 Ramp Actuator *(NOT VM Actuator)*	**EC08 3034 Down Limit and Final Limit Switch**	**HC00 1022 Ram RH Slave**
		
LR10 0426 LED Assembly	**EC08 2104 Rocker Switch**	**EC08 2113 Emergency Stop**
		
EC08 2114 EM Stop Button Contact Block	**EC08 4009 Key Switch Body**	**EC08 2115 Key Switch Contact Block**

Replacement Parts

		
EC10 6041 Key Switch Bezel	**EC08 1507 Ramp Limit switch**	**HC00 0023 Hydraulic Powerpack**
		
EC08 2182 Button push dual arrow	**LR10 1045 Ramp block**	**EC10 6000 Grommet 16mm**
		
EC10 6039 Manual Lowering Grommet	**LR20 1263 Lock Assembly**	**LR10 0025 Scissor Roller**
		
EC10 6032 Gate Post End Bung	**LR20 1258 Gate Hinge Top**	**LR20 1257 Gate Hinge Bottom**
		
LR10 0038 Scissor Slider Block	**LR20 1304 Striker plate (6mm hole)** *(LR20 1202 Striker plate 4mm hole)*	

Section 11

LR Range

Technical Sales Specification

Contents

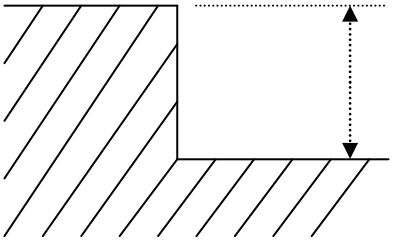
Introduction

This document outlines the technical specification for the Low Rise Lifting Platform and is to be read in conjunction with drawing no. LR00 7000 & LR00 9000

1 Basic Specification

- Vertical lifting platform to 1000mm floor to floor travel
- 2-way rocker post mounted call stations.
- Open side panels
- Internal or External application
- Automatic power folding ramp
- Autohoming to ground level

2 Product Lifting Range



Maximum Threshold Height = 1000mm

3 Platform Dimensions (usable area)

LR800	1450 x 800 mm
LR900	1450 x 900 mm
LR1100	1450 x 1100 mm

4 Lift Footprint Dimensions (ramp deployed & no gate)

LR800	1890 x 1004 mm
LR900	1890 x 1104 mm
LR1100	1890 x 1304 mm

Minimum Recommended Shaft Width:

LR800	1304mm
LR900	1404mm
LR1100	1604mm

Please note that we do not recommend the LR is fitted any closer than 70mm to any continuous vertical surface.

This is to comply with BS 6440: 2011 recommendations on handrail clearances. See Illustration. ***Fig 4.1***

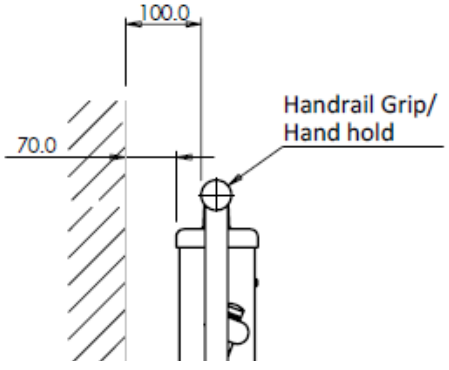


Figure 4.1 - Handrail

5 Lift Speed

20mm per second

6 Drive System

Hydraulic cylinders with a 24Vdc Hydraulic Powerpack

7 Safe Working Load

300 kg (47 stone)

8 Electrical Specification

LR800 Arrangement:

- Simply plugs into 3 pin plug socket as standard. If this is not available, a socket must be installed at an agreed location prior to lift installation. (By sub contractor)
- Battery powered as standard. The batteries are constantly trickle charged. An alarm will sound in the event of power failure to the lift.
- Battery charger enclosure size 130mmH x 130mmW x 100mmD
- Battery charging supply 24Vdc is fed to lift via 6m armoured cable. Optional 12m length available. (See 'Options')
- Optional supply is via a RCD protected 230V 50Hz 13A fused spur.
- Optional 24V direct feed with battery back-up is available.
- Optional external supply via 230V, 20A rated double pole lockable isolator, enclosed to IP65 fitted adjacent to lift

LR900 & LR1100 Arrangement:

- RCD protected 230V 50Hz 13A fused spur supply as standard. (By sub contractor)
- Direct 24Vdc powered as standard. The unit is battery backed and will offer continued use in the event of a power failure.
- Power supply enclosure size 180mmH x 180mmW x 125mmD
- Battery charging supply 24Vdc is fed to lift via 6m armoured cable. Optional 12m length available. (See 'Options')
- Optional external supply via 230V, 20A rated double pole lockable isolator, enclosed to IP65 fitted adjacent to lift

9 Control Switches

Standard

- Post mounted call stations to upper and lower levels with Up & Down rocker switch.
- In car, Up & Down rocker switch, plus emergency Stop Button
- 'Hold to run' operation
- Note: Upper and lower call stations are post mounted as standard.

Optional High Specification

- Post mounted call stations to upper and lower levels. Tactile and illuminated.
- In car controls up, down, alarm and emergency lowering. Tactile and illuminated.
- 'Hold to run' operation
- Note: Upper and lower call stations are post mounted as standard.

10 Safety Features

- Platform and ramp safety sensitive devices as standard.
- Manual emergency lowering

11 Lift Weight

200 kg un-laden

12 Finish and Colour Specification

- Colour - Bleu 700 Sable
- Standard finish from the Collection Futura range by Akzo Nobel. A special range of architectural powder coatings (Interpon D1036) which provides excellent durability and colour retention and conforms to the requirements of all the major European architectural finishing standards. EN12206. Qualicoat Class 1 and GSB.
- Other finishes are available from this range. See options. Please contact us for details.
- Alternative finishes from BS or RAL collection available on application.
- Platform & Powered Ramp - Slate Grey Powder Coated finish with non-slip surface.
- Nitro-Carburised Finished Steel & Aluminium Construction
- Nitro-Carburised Finished Steel is a low temperature surface treatment which gives a shallow hard surface on steel materials with an aesthetic black finish and is highly corrosion resistant.

The treatment gives increases in the yield strength on steel sheet and pressings to a magnitude of two to three of non-treated material.

Corrosion resistance is far superior to chrome and zinc finishing processes. The microporous non-metallic surface layer is diffused into the parent material and provides excellent resistance to wear and seizure enhancing the low frictional characteristics. This family of treatments are globally accepted as being environmentally "green" processes due to the low temperatures used and no requirements for acids and metal compounds as used in other surface applications.

13 Loadings

Lift base – 5Kn
Threshold –2.5Kn / Fixing

14 Standards Compliance

- Built in compliance with BS 6440:1999 - specification for Lifting Platforms.
- Part M Building Regulations 2004 when fitted with appropriate options.

15 Options

- **Threshold Gate**:

  Powered or Manual Self-Closing Gate with interlock.

  A gate is recommended when threshold height is greater than 380mm.

  Upper level operating controls are fitted to the gate frame as standard.

  Available with glass infill panel or powder coated aluminium infill panel.

  The gate is not available on threshold heights less than 250mm
- Side panel decorative glass infill panel. (Not full infills)
- Side panel clear plastic full infill.
- 2-way key switching for Upper/Lower Call Stations.
- Power Supply - Hard-wired spur (installed by sub contractor).
- Power Supply - External isolator (installed by sub contractor).
- Surface or flush mounted call controls. This option requires a suitable surface adjacent to the lift to affix these controls.
- Platform barrier arms.
- High specification control buttons. Tactile and illuminated. (Part M)
- Arrival chimes. (Part M)
- Direct 24Vdc supply option with battery back up. This option can be used when heavy usage is expected. Standard on LR900.
- 12m armoured cable option (distance between lift and PSU).
- Remote surface or flush mounted call stations.
- Remote post mounted call stations.
- Special colour Interpon, RAL and BS collections.
- Voice annunciation and platform level indication.
- Auto-ramp raise.
- Bridging. Powder coated aluminium steps with automatic bridging plates.

  Threshold height 250-1000mm.
- All types of special requests considered.

16 Manufacturers Warranty

The manufacturers warranty begins 12 months from commission and hand over

	Parts	Labour	Planned Services	Anti-Corrosion
Supply only UK & Export	12 mths	n/a	See price list	60 mths
Supply & Install UK Mainland	12 mths	12 mths	See price list	60 mths
Supply & Install UK Non – Mainland & Export	12 mths	n/a	See price list	60 mths

Additional service and extended warranty packages are available upon request.

Anti-Corrosion Warranty
All new Wessex LR Lifting Platforms are covered by a five year anti-corrosion warranty.

Wessex, or a Wessex Authorised Repairer, must carry out all repair work undertaken under the anti-corrosion warranty. The warranty covers corrosion, which occurs on any surface of the Lifting Platform.

The warranty does not cover corrosion caused by neglect, accidental damage or other external influences.

Maintaining Your Anti-Corrosion Warranty
To ensure that any warranty claims are processed quickly and efficiently, please observe the following guidelines:

- The Lifting Platform should be thoroughly examined by a technically competent person at intervals not exceeding six months, as recommended in BS 6440:1999 Section 8.2.
- Paint work or any other damage identified during these inspections, including any to the underside of the Lifting Platform, must be reported promptly to Wessex Lift Co. Ltd.
- Claims cannot be accepted for corrosion that occurs as a result of un-repaired or improperly repaired paintwork or neglect.
- The warranty does not apply to parts, panels or materials that have not been approved by Wessex Lift Co. Ltd.

Maintenance Recommendations
Regular care and maintenance will enhance the appearance of the Lifting Platform; it will extend the life of the paintwork and is essential for ensuring the continued effectiveness of the protection against corrosion.

Although modern paints are durable and resistant to many external hazards, they cannot reasonably be expected to be totally resistant to all. You should, therefore, take particular care with your paintwork; for example birdlime can have an extremely corrosive effective on your paintwork and should be removed as quickly as possible. Periodically clean with a non-abrasive mild soap detergent and buff with a lint free cloth. Glass can be cleaned using a non-smearing window wipe.

Builders Work Drawings

Section 12

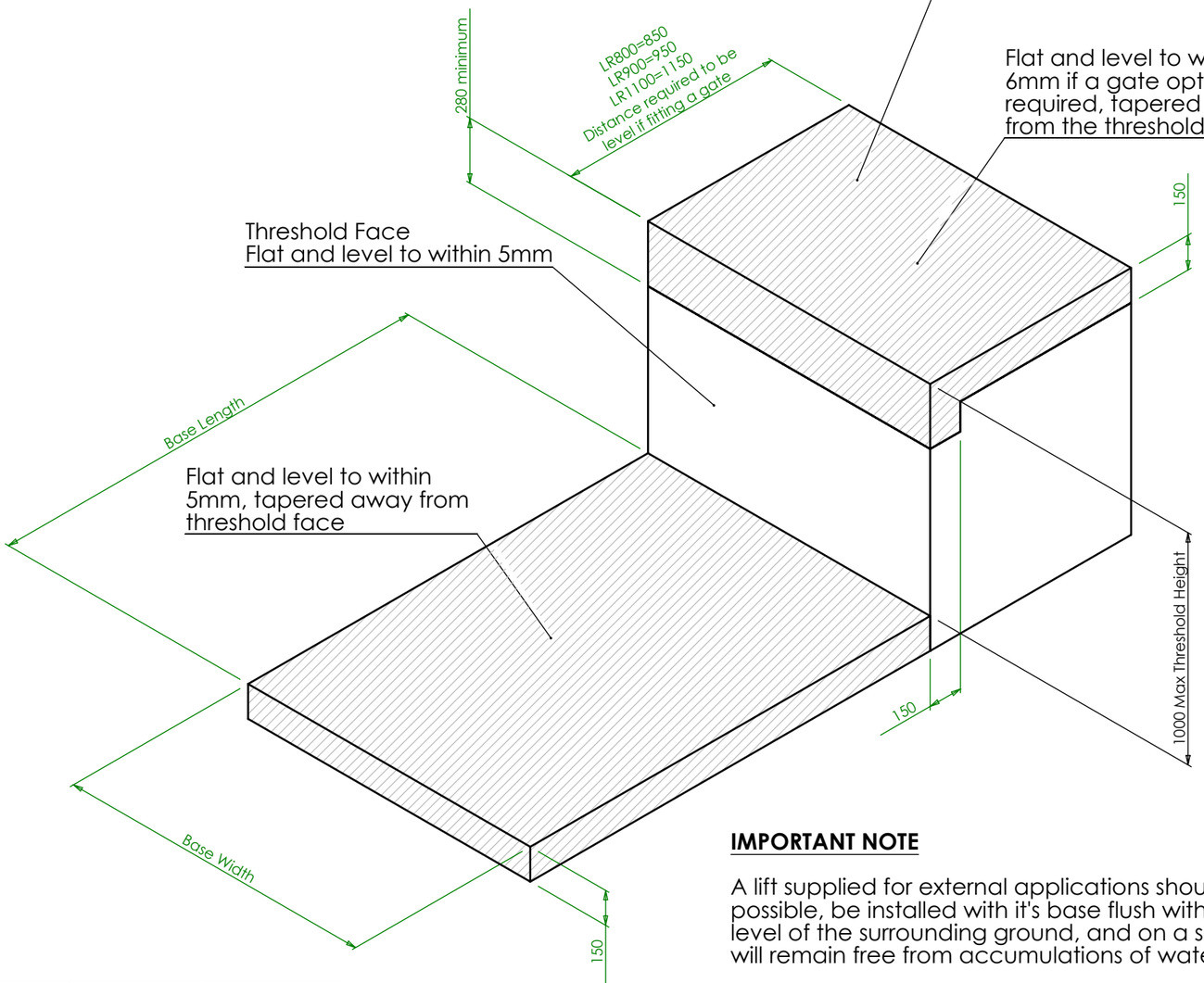
Builders Work Drawings

LR00 9000	**LR Builders Work Drawing Concrete**	**Issue H**
LR00 9002	**LR Builders Work Drawing Wood**	**Issue C**
LR00 7000	**LR Lift Specification**	**Issue E**
LR00 7001	**Bridging Assy 810-1000mm**	**Issue B**
LR00 7002	**Bridging Assy 610-810mm**	**Issue B**
LR00 7003	**Bridging Assy 440-610mm**	**Issue B**
LR00 7004	**Bridging Assy 250-440mm**	**Issue B**

Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask

Note 1
The top Concrete slab (1000x280x150) is only required to be built to these specifications, when the gate option is required.



BASE SIZE	LR800	LR900	LR1100
BASE WIDTH	1304	1404	1604
BASE LENGTH Without a gate	1990	1990	1990
BASE LENGTH With a gate	2045	2045	2045

IMPORTANT NOTE

A lift supplied for external applications should wherever possible, be installed with it's base flush with, or above, the level of the surrounding ground, and on a standing which will remain free from accumulations of water.

Wessex reserves the right to decline warranty claims arising from any accumulation of water within the base.

Notes:-
There must be no under-floor heating or any pipework in the area of the lift base and threshold.

The lift applies a maximum load of 5KN to the base.

A concrete base is required, with a minimum of 150mm depth.

If the gate option is required, a concrete threshold as specified will be required.

The base and vertical face of the threshold must have a smooth finish and be level to within 5mm.

A minimum clearance of 2m is required above the first floor level.

Note: The threshold must be capable of withstanding a load of 2.5kN/fixing, when the gate option is fitted.

Base size for bridging option LR800 lifts only		
Threshold Height	**LR800 Base Length with bridging**	**Base Width**
810-1000	3040	1304
620-810	2770	1304
440-620	2510	1304
250-440	2250	1304

Alteration	Initials	Date	Issue
SMALL BRIDGING ADDED ECO 1438	WP	23/03/2011	H

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
TOLERANCES unless otherwise stated:
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

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TITLE:
LR BUILDERS WORK DRG CONCRETE

DWG NO:
LR00 9000

SHEET 1 OF 1

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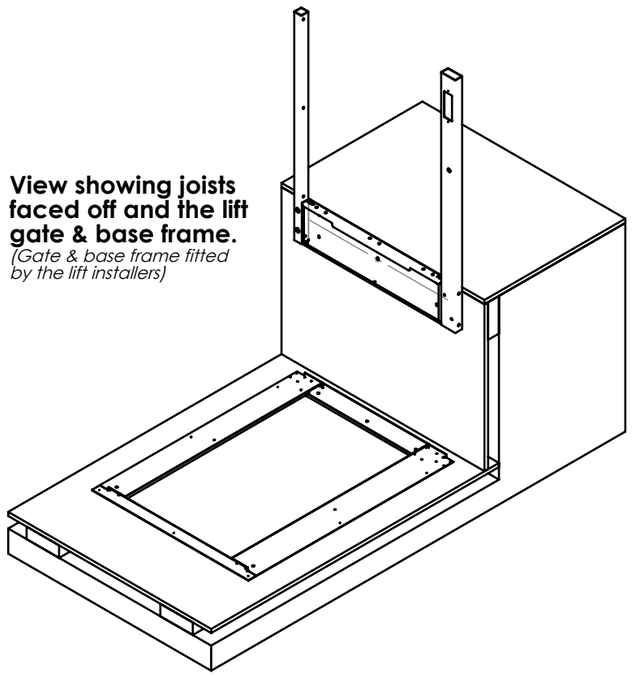
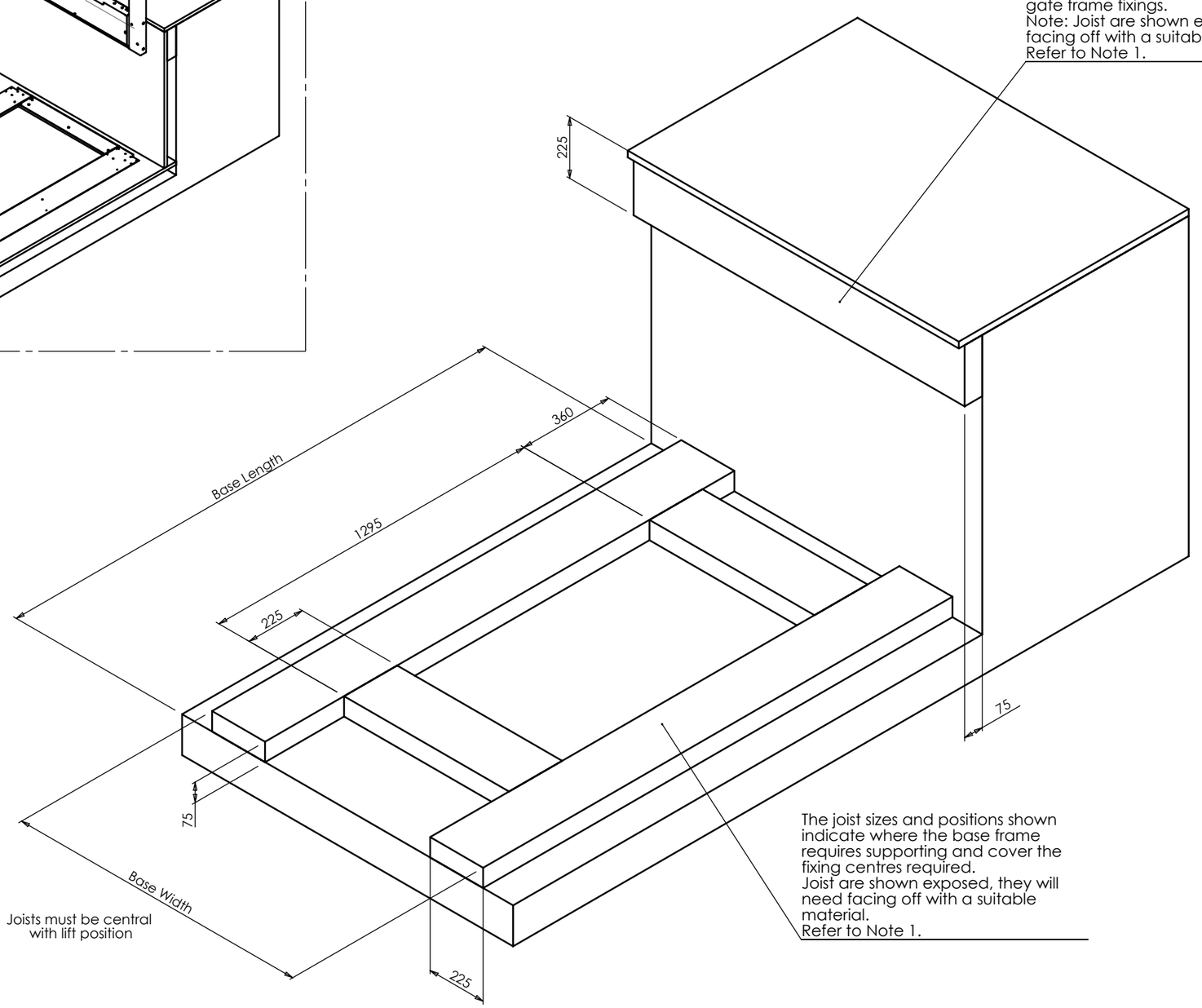
Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask



View showing joists faced off and the lift gate & base frame.
(Gate & base frame fitted by the lift installers)

BASE SIZE	LR800	LR900	LR1100
BASE WIDTH	1304	1404	1604
BASE LENGTH Without a gate	1990	1990	1990
BASE LENGTH With a gate	2045	2045	2045



This joist is only required if fitting a gate.
Minimum 225x75 Joists required in positions shown.
Must be securely fixed and capable of withstanding a minimum load of 2.5kN/gate fixing. Refer to LR00 7000 gate frame drawing to ensure the joist fixings do not clash with the gate frame fixings.
Note: Joist are shown exposed, will need facing off with a suitable material.
Refer to Note 1.

The joist sizes and positions shown indicate where the base frame requires supporting and cover the fixing centres required.
Joist are shown exposed, they will need facing off with a suitable material.
Refer to Note 1.

Joists must be central with lift position

Notes:-

There must be no under-floor heating or any pipework in the area of the lift base and threshold.

The lift applies a maximum load of 5KN to the base.

The base and vertical face of the threshold must have a smooth finish and be level to within 5mm.

A minimum of 2m is required above the first floor level.

This construction is only recommended for internal applications only.

Note: Threshold must be capable of withstanding a load of 2.5kN/fixing, when the gate option is fitted.

Note 1.
Important:
The joist sizes shown are a guide and may change depending on specific site conditions. They must be supported by a suitable construction to ensure they take the loading required.

The lift applies a maximum load of 5kN to the base. The joists must be supported and capable of withstanding this load.

Alteration	Initials	Date	Issue
Updated ECO 1412	WP	23/03/2011	C

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
TOLERANCES unless otherwise stated:
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

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TITLE:
LR BUILDERS WORK DRG WOOD

DWG NO:
LR00 9002

SHEET 1 OF 1

File Location "J:\QES\Eng_drgs_current\LR\LR Current\LR00\

Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask

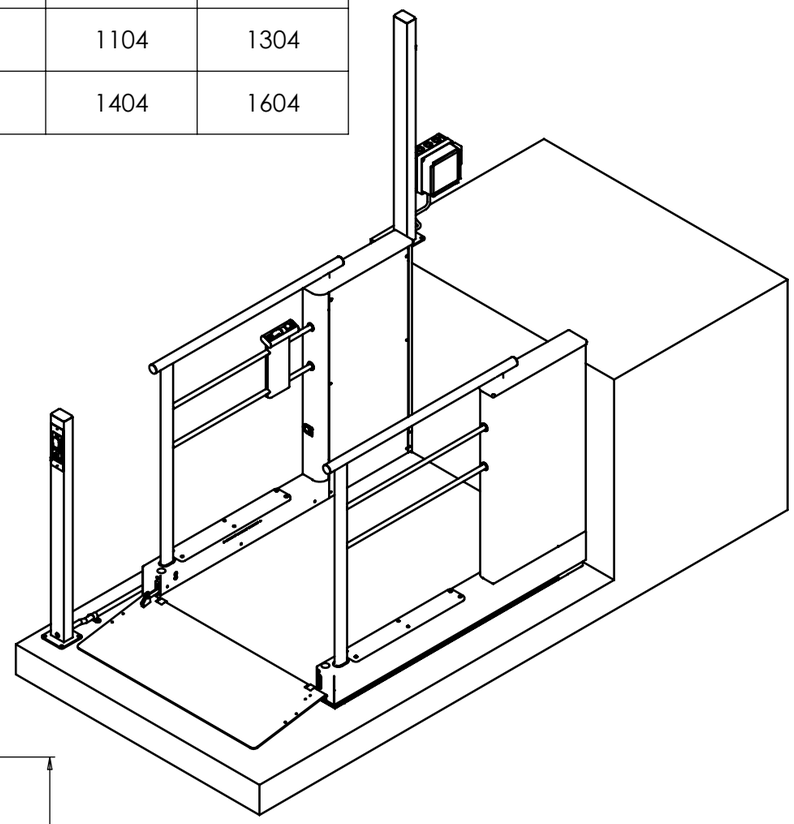
Technical Information

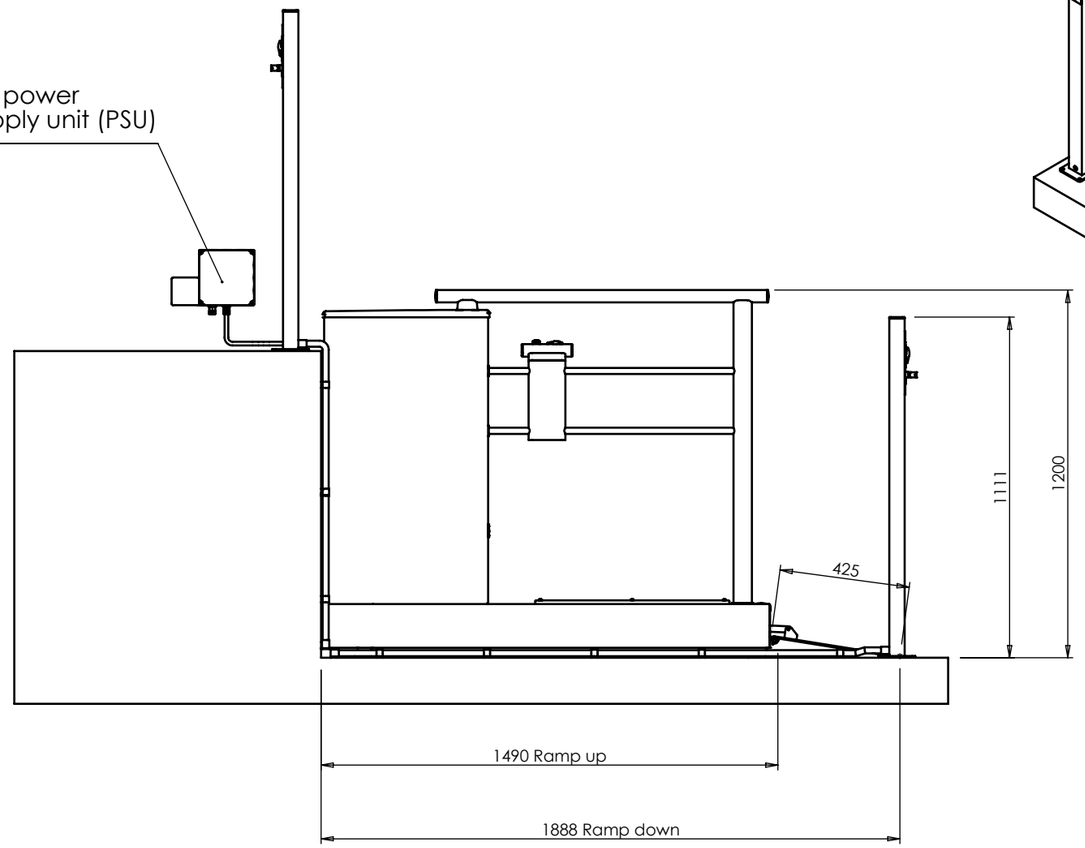
Built in Compliance with BS 6440:1999
Safe working load = 300Kg
Maximum threshold height = 1000mm
Lift speed = 20mm/sec
Ramp gradient = 1:6
Power supply = 230Vac 50Hz single phase & earth
Lift operating voltage = 24Vdc
Battery Powered raise and lowering
Manual emergency lowering
Hydraulic drive
Total lift unladen weight = 200Kg
Suitable for internal and external use

A turning circle of diameter 1500mm is recommended at the entrance and exit points of the lift.

A minimum of 2m is required above the first floor level.

	LR800	LR900	LR1100
Useable Platform Width	800	900	1100
Useable Platform Length	1450	1450	1450
Lift External Width Dimension	1004	1104	1304
Recommended Minimum Width to fit the Lift	1304	1404	1604





Notes - Lift Clearances

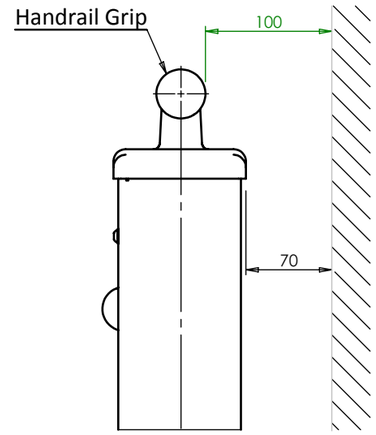
Please note that it is not recommended the LR is fitted any closer than 70mm to any continuous surface.

This is in compliance with BS 6440: 2011.

See Handrail Detail 'A' Below

Side panel (full infills) are available, these can overcome certain hazards.
e.g.Dwarf walls at the ground floor, which are below 1200mm high.

Each site presents different risks, these must be assessed and addressed accordingly.



Detail 'A'

Alteration	Initials	Date	Issue
CLEARANCE DETAILS UPDATED TO REFLECT BS 6440: 2011 ECO 1443	HTHP	23/05/12	E

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
TOLERANCES unless otherwise stated:
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

DRAWN BY:	WP	DATE: 24/03/2011	
MATERIAL:	N/A		
FINISH:	N/A		
Weight:	N/A		
SCALE: 1:50			Sheet Size A3

TITLE: LR Lift Specification No Gate

DWG NO: LR00 7000

File Location "J:\QES\Eng_drgs_current\LR\LR Current\LR00\

Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask

Technical Information

Built in Compliance with BS 6440:1999
Safe working load = 300Kg
Maximum threshold height = 1000mm
Lift speed = 20mm/sec
Ramp gradient = 1:6
Power supply = 230Vac 50Hz single phase & earth
Lift operating voltage = 24Vdc
Battery Powered raise and lowering
Manual emergency lowering
Hydraulic drive
Total lift unladen weight = 200Kg
Suitable for internal and external use

A turning circle of diameter 1500mm is recommended at the entrance and exit points of the lift.

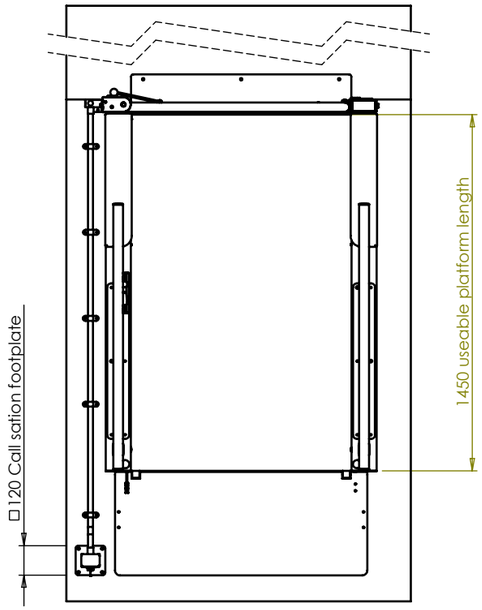
A minimum of 2m is required above the first floor level.

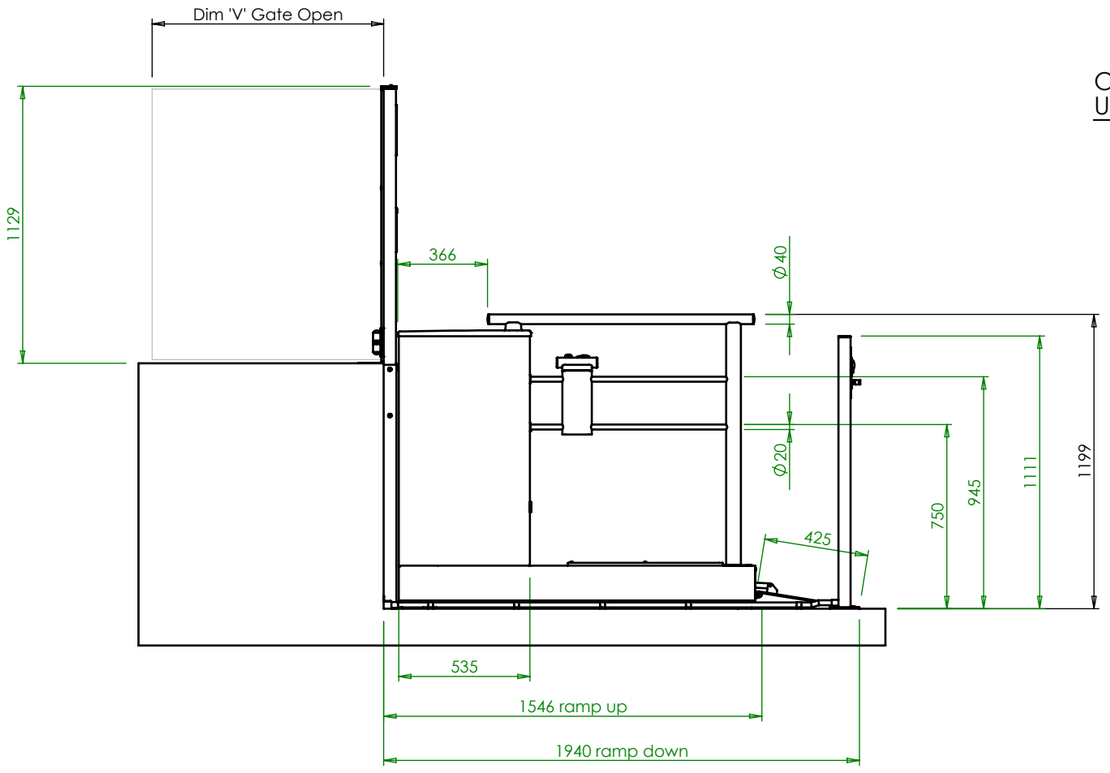
	LR800	LR900	LR1100
Useable Platform Width Dimension 'Y'	800	900	1100
Useable Platform Length	1450	1450	1450
Lift External Width Dimension 'W'	1004	1104	1304
Recommended Minimum Width Dimension 'X'	1304	1404	1604
Gate Frame Width Dimension 'Z'	1015	1115	1315
Gate Open Dimension 'V'	844	944	1144

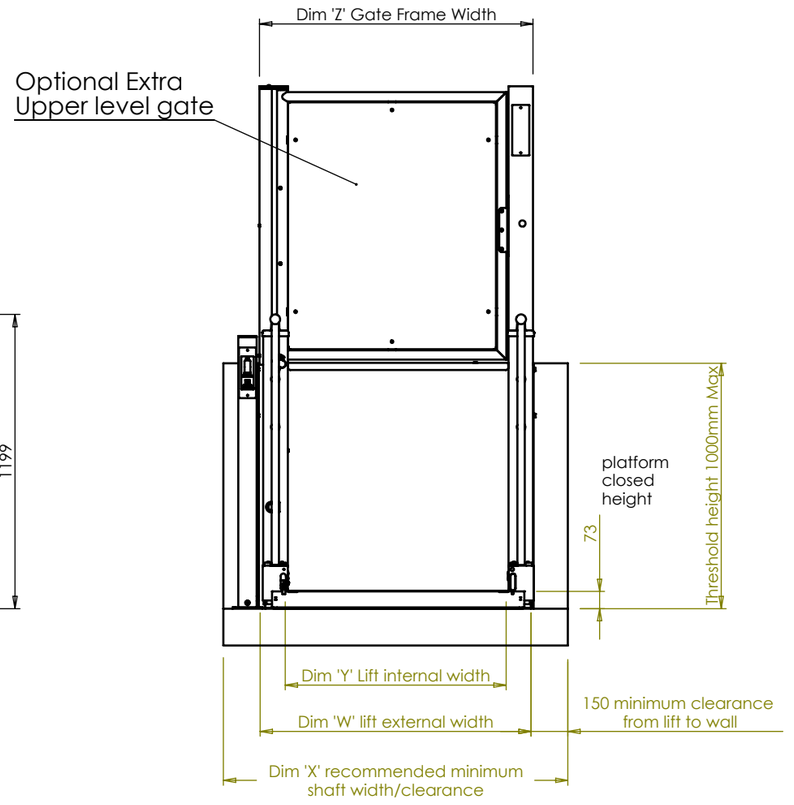
UPPER LEVEL GATE OPTION DETAILS

Must have minimum of 250mm threshold height when fitting a gate.

The gate post will house the upper level call controls.







Notes - Lift Clearances

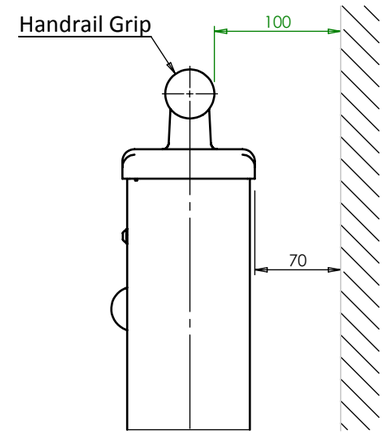
Please note that it is not recommended the LR is fitted any closer than 70mm to any continuous surface.

This is in compliance with BS 6440: 2011.

See Handrail Detail 'A' Below

Side panel (full infills) are available, these can overcome certain hazards.
e.g.Dwarf walls at the ground floor, which are below 1200mm high.

Each site presents different risks, these must be assessed and addressed accordingly.



Detail 'A'

Alteration	Initials	Date	Issue
CLEARANCE DETAILS UPDATED TO REFLECT BS 6440: 2011 ECO 1443	HTHP	23/05/12	E

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
TOLERANCES unless otherwise stated:
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

DRAWN BY: WP | DATE: 22/03/2011
MATERIAL: N/A
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Weight: N/A
SCALE: 1:25 | Sheet Size A3

TITLE:
LR Lift Specification With the Gate Option

DWG NO:
LR00 7000

SHEET 2 OF 5

File Location "J:\QES\Eng_drgs_current\LR\LR Current\LR00\

Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask

Upper call controls are usually fitted to the gate posts when a gate option is picked, unless otherwise stated.

The call stations may be fitted either side of the lift.

The lifts power supply unit may be fitted anywhere outside of the lifts footprint, within 12m. It must always remain easily accessible.

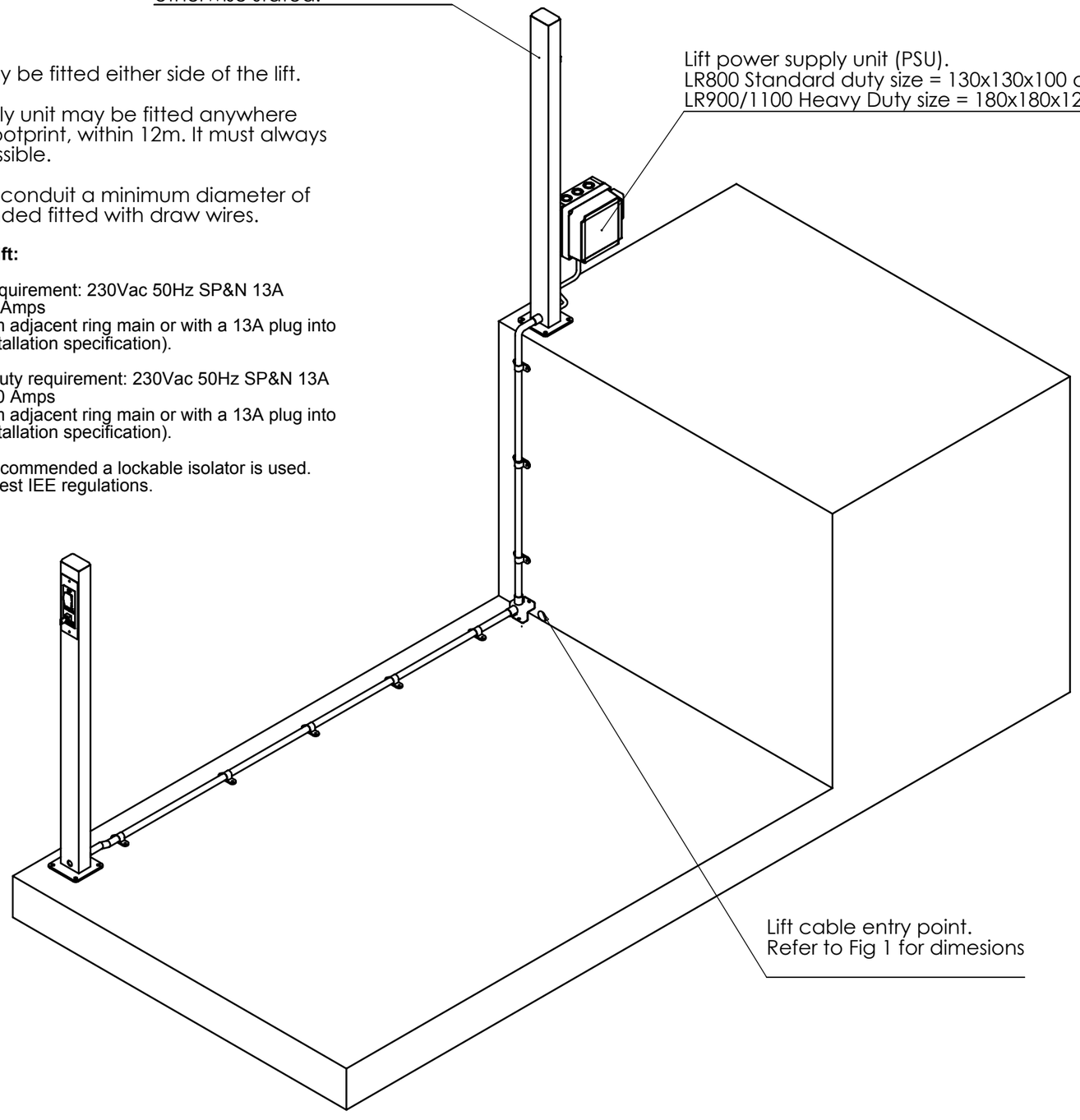
If fitting concealed conduit a minimum diameter of 40mm is recommended fitted with draw wires.

Power Supply to the Lift:

LR800 Standard duty requirement: 230Vac 50Hz SP&N 13A
Fused Spur. Fused at 5 Amps
May be wired either from adjacent ring main or with a 13A plug into ring main. (domestic installation specification).

LR900/LR1100 Heavy duty requirement: 230Vac 50Hz SP&N 13A
Fused Spur. Fused at 10 Amps
May be wired either from adjacent ring main or with a 13A plug into ring main. (domestic installation specification).

For public access it is recommended a lockable isolator is used.
Must comply with the latest IEE regulations.



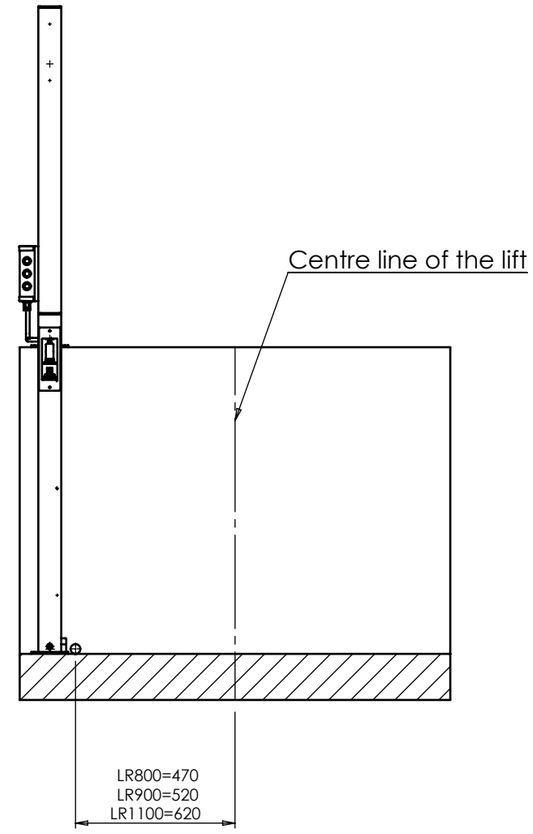


Fig 1
Front view of lift threshold face.

All the lift cables enter the lift at the LH corner hard against the threshold wall.

The cable from the PSU is a 12mm OD armoured cable.

The cables from the call stations are 7 core dia 7.5mm. (one upper and one lower call station).

Note if a gate is fitted, the upper call station will be integral with the gate post, and no conduit to the upper call station is required.

Alteration	Initials	Date	Issue
CLEARANCE DETAILS UPDATED TO REFLECT BS 6440:2011 ECO 1443	HTHP	23/05/12	E

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
TOLERANCES unless otherwise stated:
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

DRAWN BY: WP | DATE: 24/03/2011
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SCALE: 1:20 | Sheet Size A3

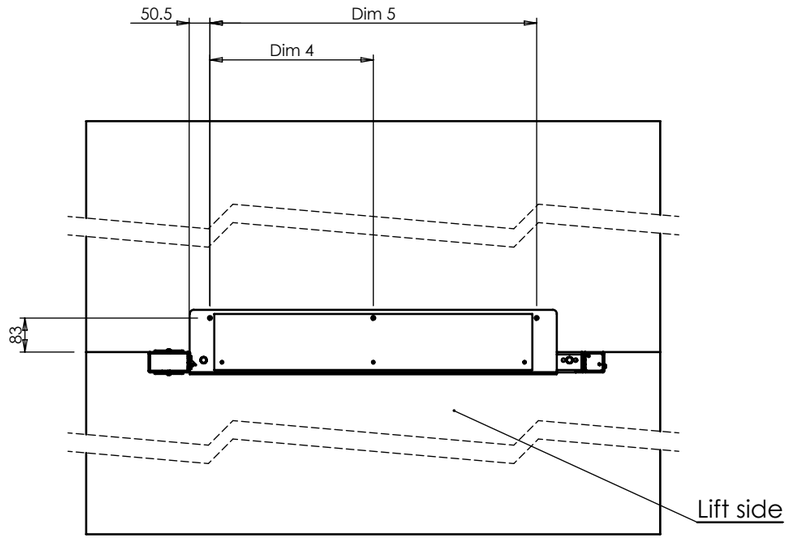
TITLE:
LR LIFT SPECIFICATION WIRING DETAILS

DWG NO:
LR00 7000

File Location "J:\QES\Eng_drgs_current\LR\LR Current\LR00\

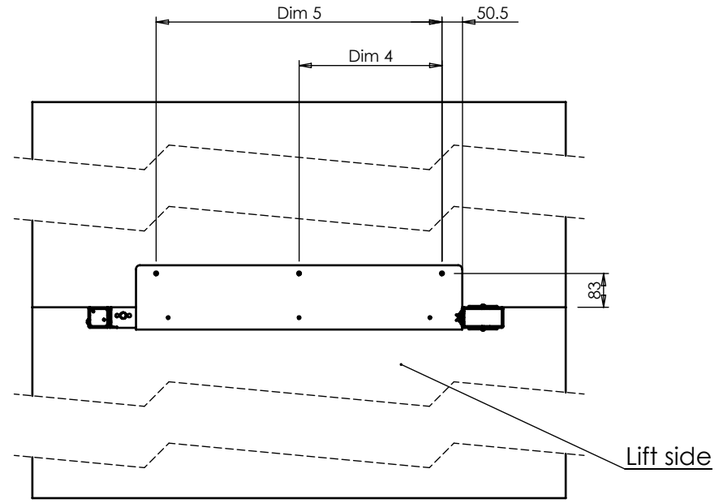
Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask

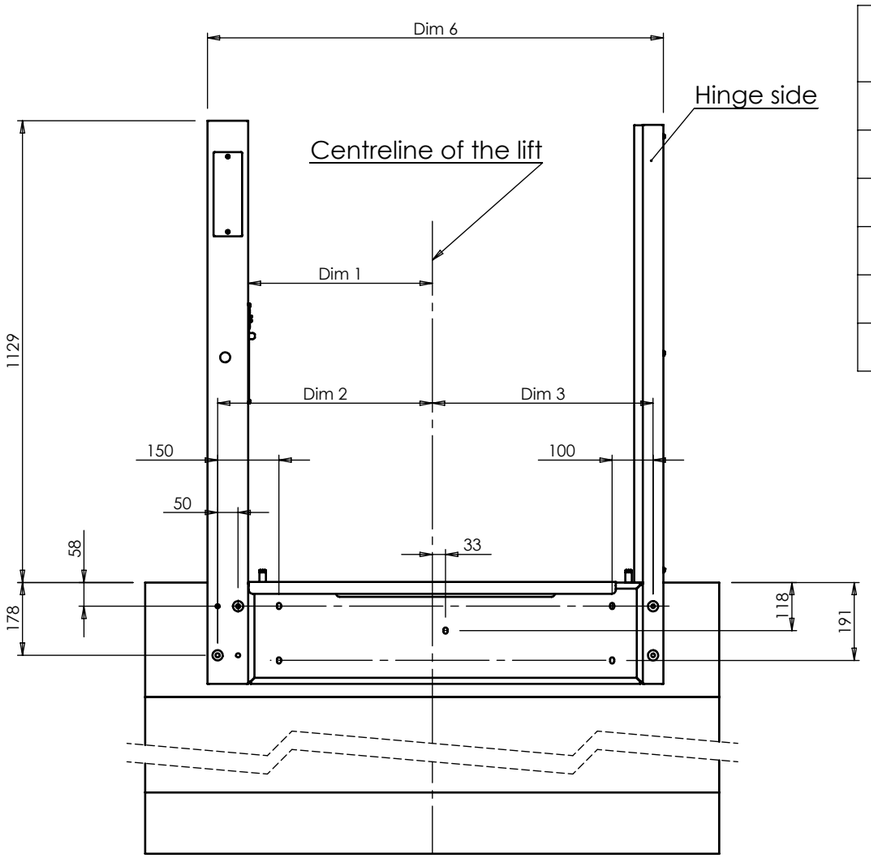


LH Threshold Gate Fixing Centres

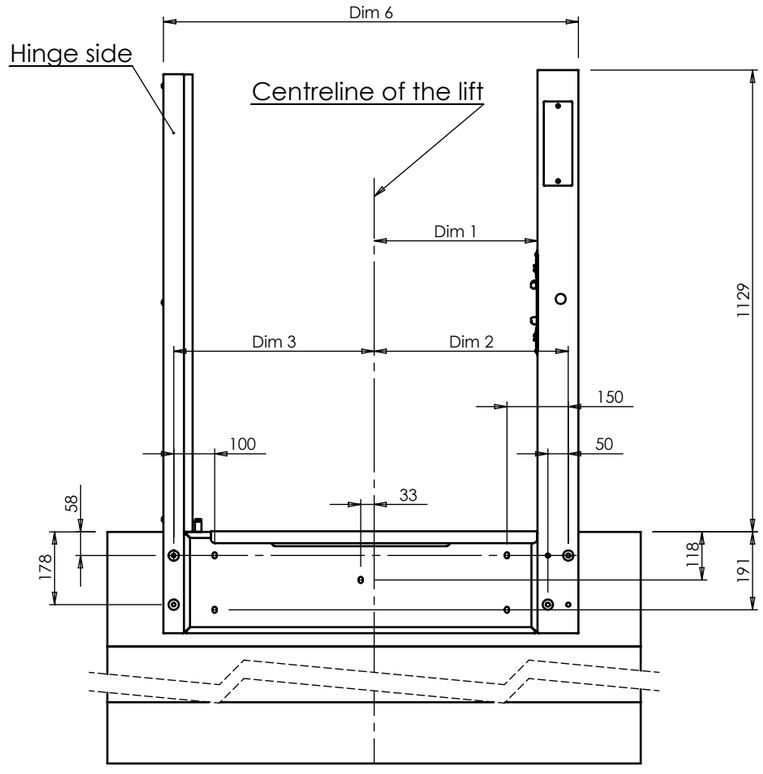
Please note the threshold gate is handed, by looking at the hinge side of the gate frame from the upper level.



RH Threshold Gate Fixing Centres



	LR800	LR900	LR1100
Dim 1	400	450	550
Dim 2	475	525	625
Dim 3	490	540	640
Dim 4	349.5	399.5	499.5
Dim 5	699	799	999
Dim 6	1015	1115	1315



Alteration	Initials	Date	Issue
CLEARANCE DETAILS UPDATED TO REFLECT BS 6440: 2011 ECO 1443	HTHP	23/05/12	E

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
TOLERANCES unless otherwise stated:
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

DRAWN BY: WP | DATE: 02/04/2007
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TITLE:
LR Lift Specification Gate frame fixings

DWG NO:
LR00 7000

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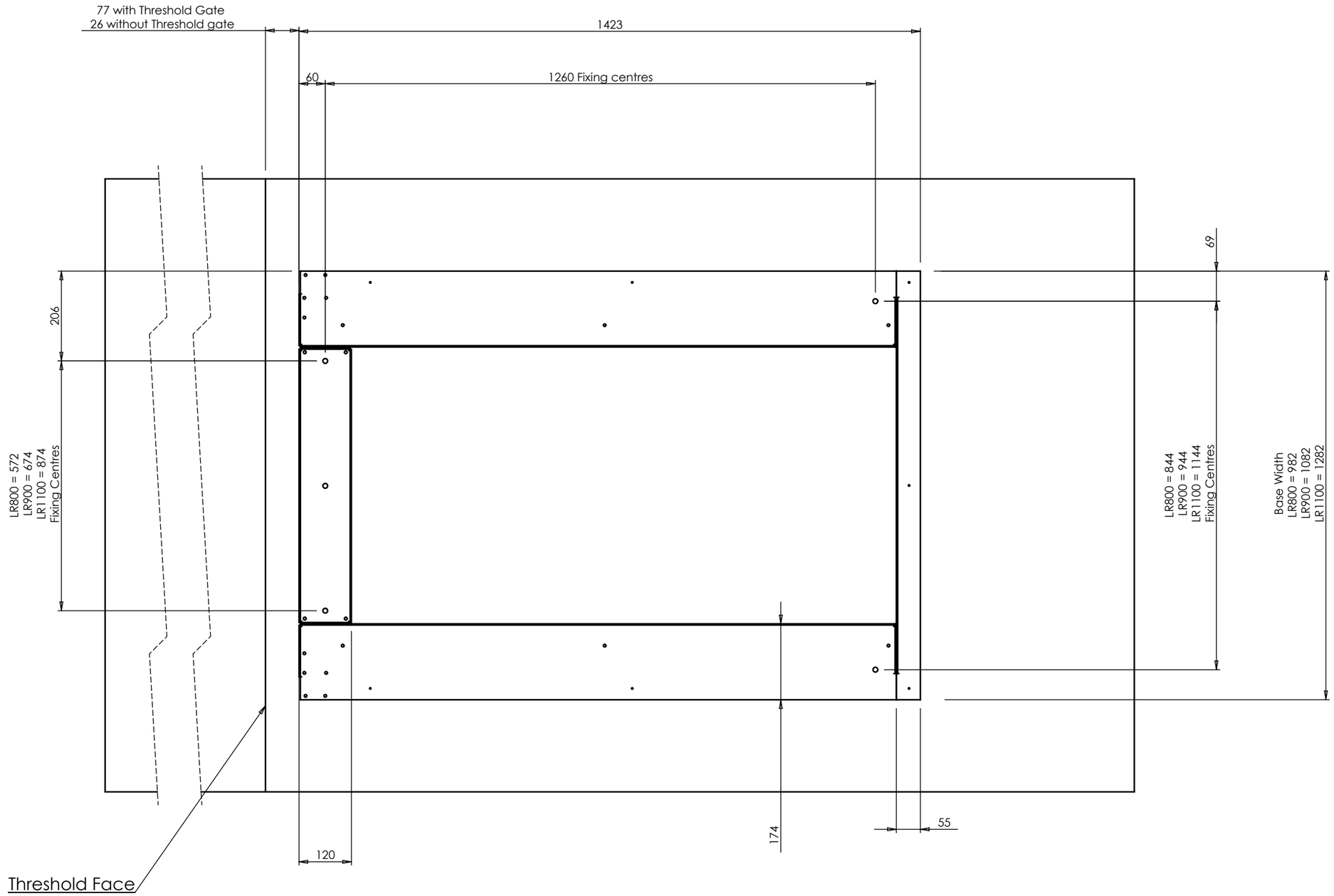
Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask



Alteration	Initials	Date	Issue
CLEARANCE DETAILS UPDATED TO REFLECT BS 6440:2011 ECO 1443	HTHP	23/05/12	E

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
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Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

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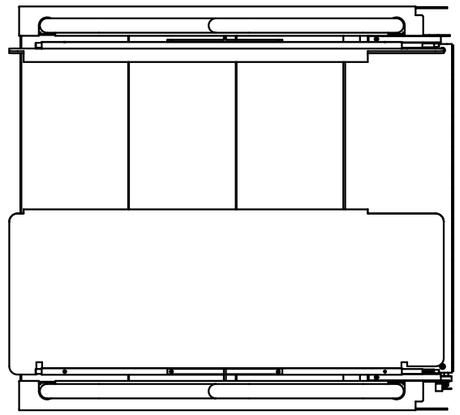
TITLE:
LR Lift Specifications Base Dimensions

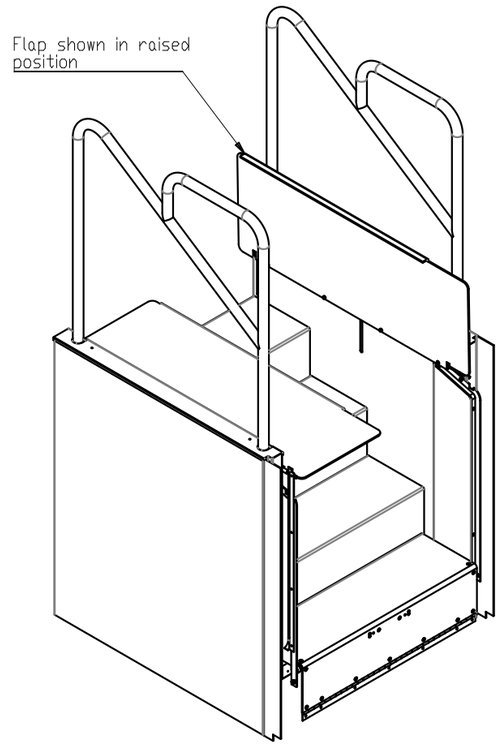
DWG NO:
LR00 7000

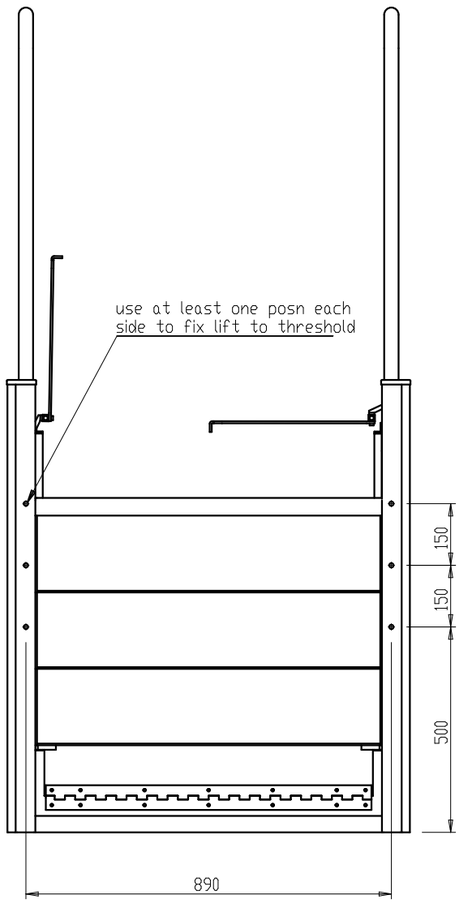
File Location "J:\QES\Eng_drgs_current\LR\LR Current\LR00\

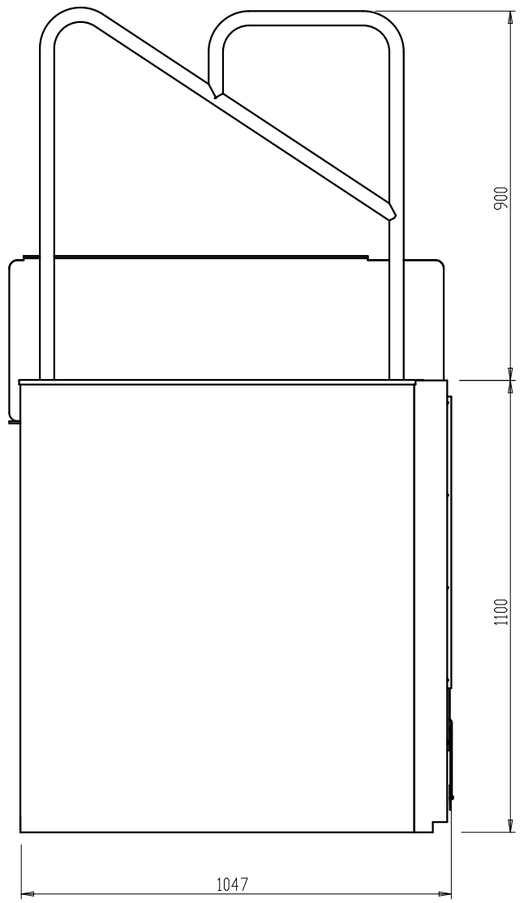
Third Angle Projection

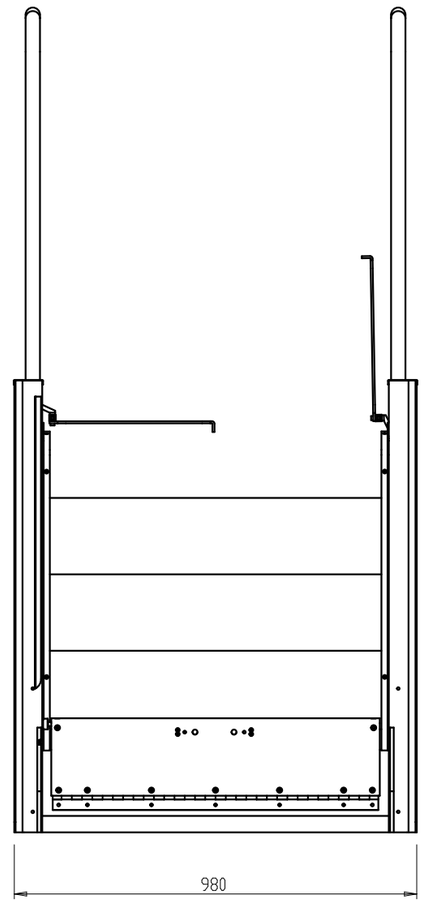
Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask











Rise range 810-1000mm

Note
Refer to Builder's Work drawing
LR00 9000 for base details

Alteration	Initials	Date	Issue
Note changed ECO 1438	DJM	21/3/12	B

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

Unless Otherwise Stated All Dimensions are in mm.
TOLERANCES unless otherwise stated
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

DRAWN	NAME DJM	DATE 05/03/2008
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FINISH:	Refer to details	
Weight	Refer to details	
SCALE:1:20		Sheet Size A3

TITLE:

BRIDGING ASSY
1000

DWG NO.

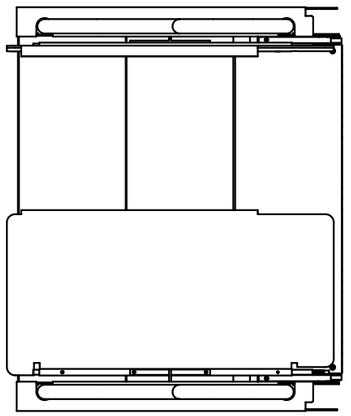
LR00 7001

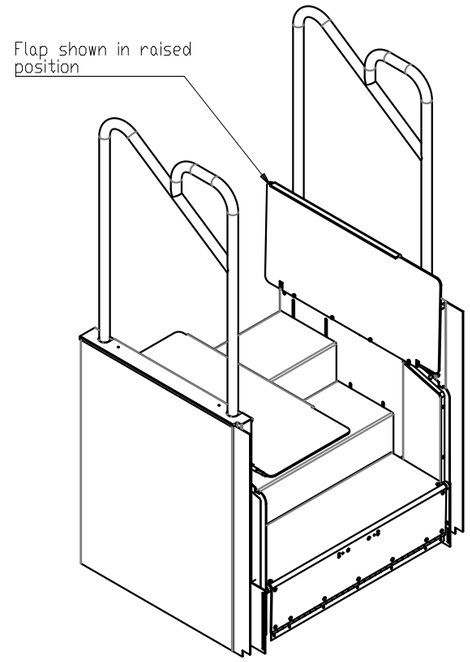
SHEET 1 OF 1

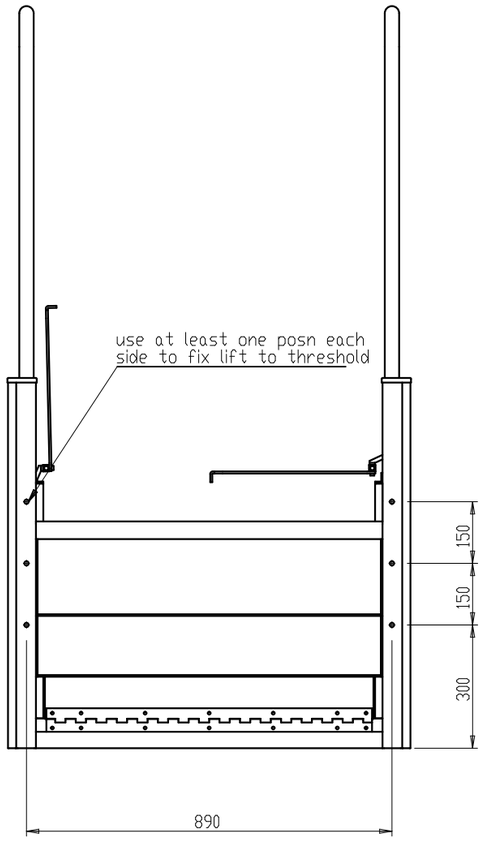
File Location "J:\QES\W_I_P\RUN_DMC\LR10 1700\

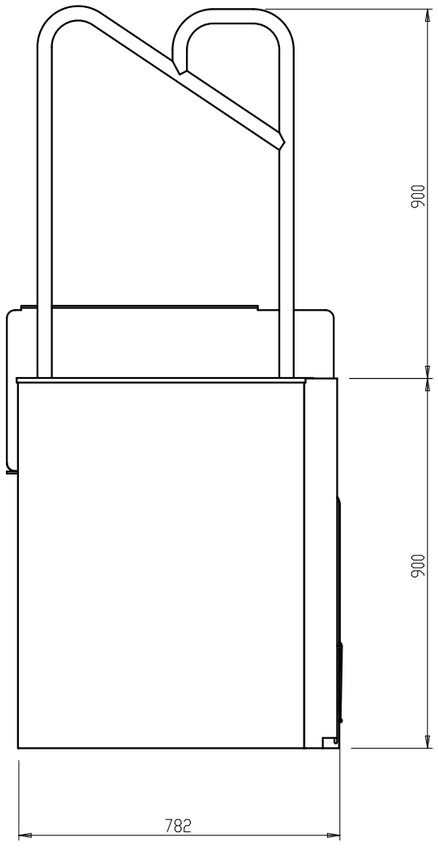
Third Angle Projection

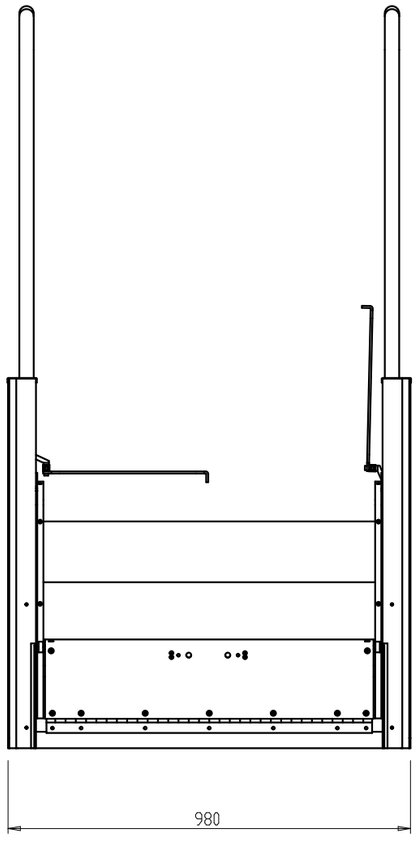
Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask











Rise range 620-810 mm

Note
Refer to Builder's Work drawing
LR00 9000 for base details

Alteration	Initials	Date	Issue
Note changed ECO 1438	DJM	21.3.12	B

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

Unless Otherwise Stated All Dimensions are in mm.
TOLERANCES unless otherwise stated
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

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FINISH:	Refer to details	
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TITLE:
BRIDGING ASSY
810

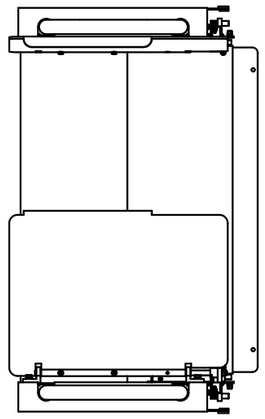
DWG NO.
LR00 7002

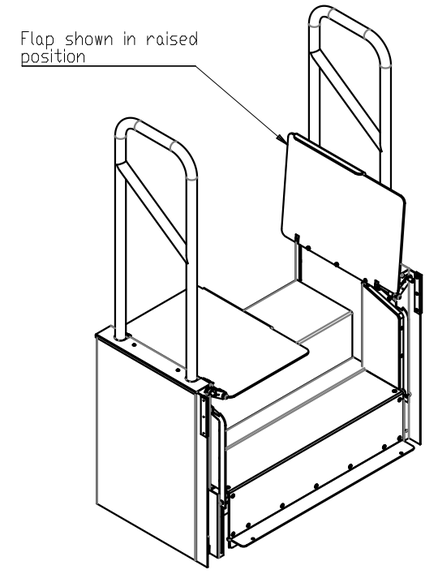
SHEET 1 OF 1

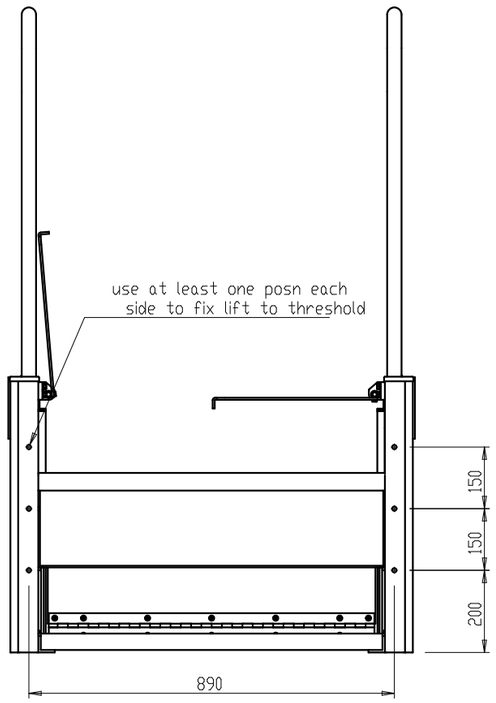
File Location 'J:\QES\W_I_P\RUN_DMC\LR10 1700\

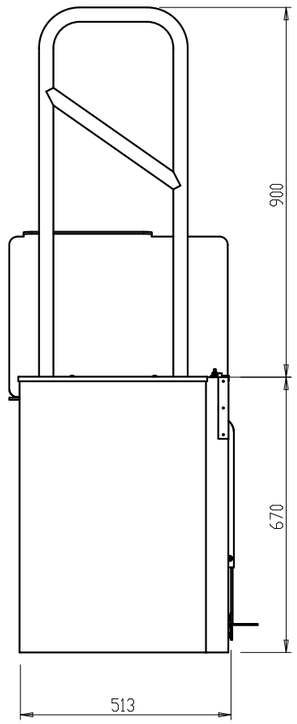
Third Angle Projection

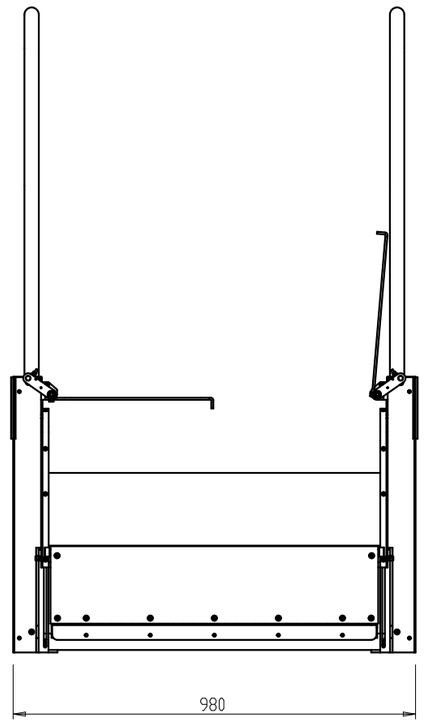
Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask











Note
Refer to Builder's work drawing
LR00 9000 for base details

Rise range 440-620

Alteration	Initials	Date	Issue
Note changed ECO 1438	DJM	21.3.12	B

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

Unless Otherwise Stated All Dimensions are in mm.
TOLERANCES unless otherwise stated
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

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TITLE:

BRIDGING ASSY 620

DWG NO.

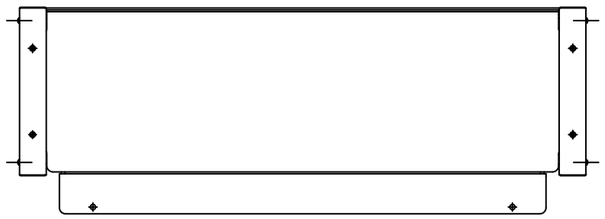
LR00 7003

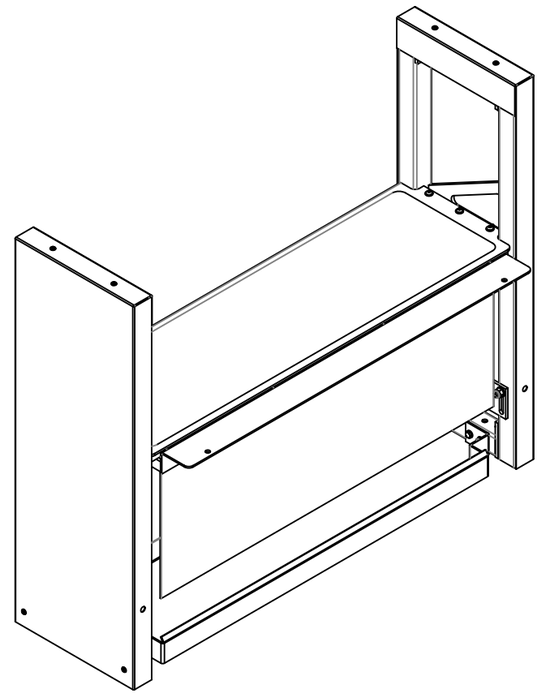
SHEET 1 OF 1

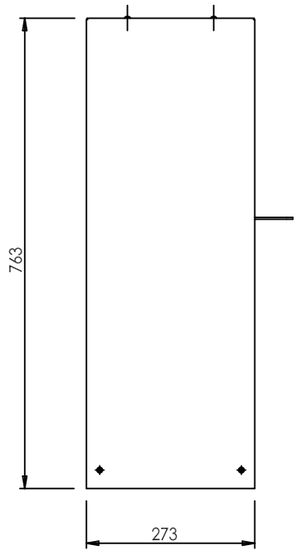
File Location 'J:\QES\W_I_P\RUN_DMC\LR10 1700\

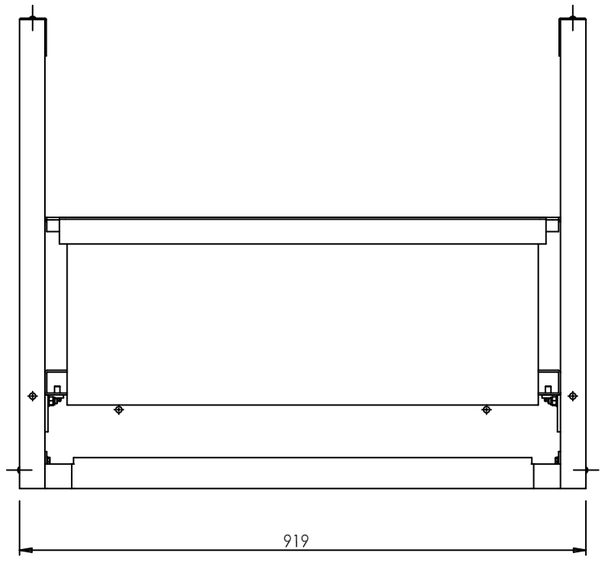
Third Angle Projection

Remove All Sharp Edges
Do Not Scale
If In Doubt - Ask









Note
Refer to building work drawing
LR00 9000 for base details

Rise Range 250-440

Alteration	Initials	Date	Issue
Note changed ECO 1438		21/03/2012	B

Wessex Lift Company Limited,
Budds Lane, Romsey, Hampshire,
SO51 0HA

All dimensions are in mm unless otherwise stated.
TOLERANCES unless otherwise stated:
Decimal Places:
X = ±1
X.X = ±0.25
X.XX = ±0.13
ANGULAR: ±0.5°
Thread ISO Coarse Class 6
Hole sizes = H11

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MATERIAL: SEE LIST
FINISH:
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SCALE: 1:10
Sheet Size A3

TITLE:
BRIDGING ASSY
440

DWG NO:
LR00 7004

SHEET 1 OF 1

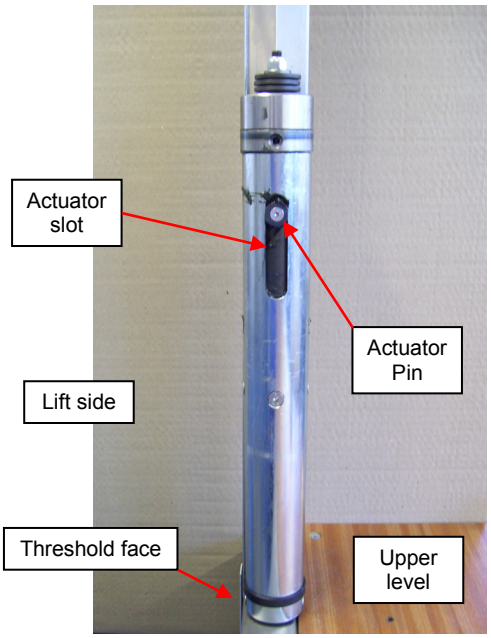
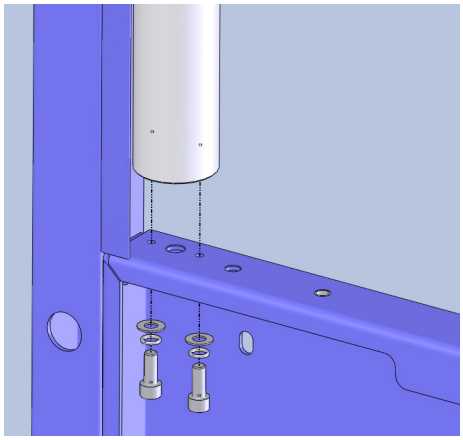
File Location "J:\QES\Eng_drgs_current\LR\LR Current\LR00\

Archive Drawings

Section 13

Section 14

Threshold Power Gate Option

Threshold Power gate Option			
1.0		The slot must be fitted parrallel with the threshold face when fitting the gate actuator. The actuator is shown in the closed position (Pin at the top of the slot) It may be supplied in either the closed or open position. Check this before orientating the gate. RH Hinge shown.	PT04 0013 LR Gate Actuator
2.0		Fit the power gate actuator to the hinge side gate frame. (RH hinge shown) Thread the actuator cable through the centre hole in the gate frame.	2 x M8x20 skt cap head FF32 1209S 2 x M8 plain washer FF60 1120S 2 x M8 spring washer FF60 4120S

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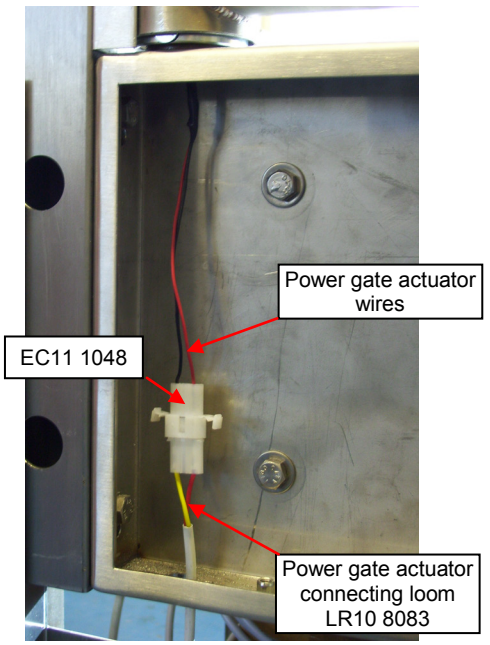
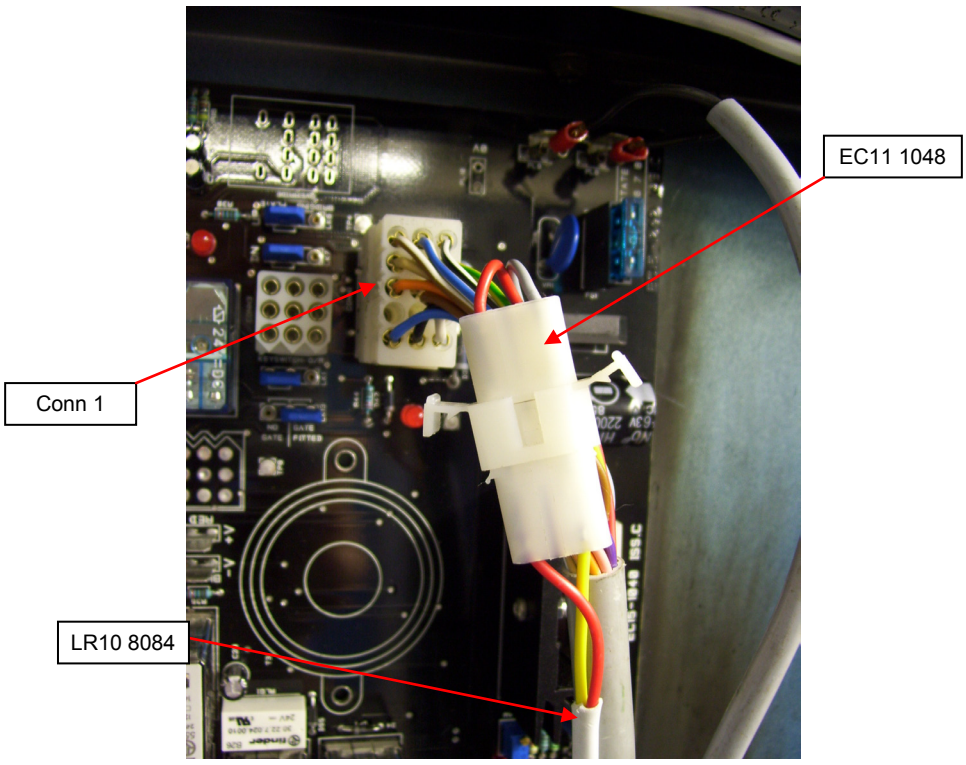
3.0		Fit the 3 way molex connector EC11 1048 to the actuator lead, pin 1 black wire & pin 3 red wire. Connect the power gate actuator connecting loom LR10 8083 from the down limit loom connector to the actuator.	
4.0			
	Loom LR10 8084 *(2 core cable)* connects to the 3 way molex connector coming from the trailing cable loom Conn 1. Note: If retrofitting the power gate, the grey and red wire from connector 1 will need removing from the 15 way molex plug and fitting into a 3 way molex connector EC11 1048, to allow LR10 8084 loom to connect to it.		

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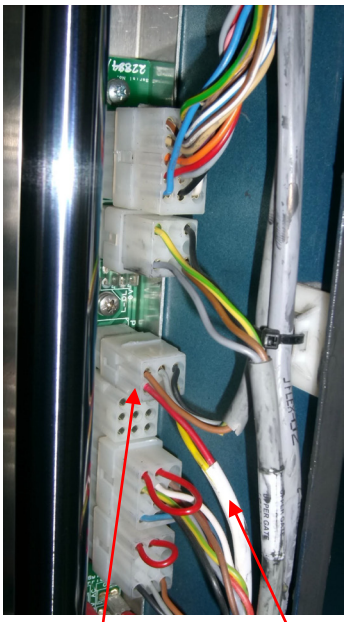
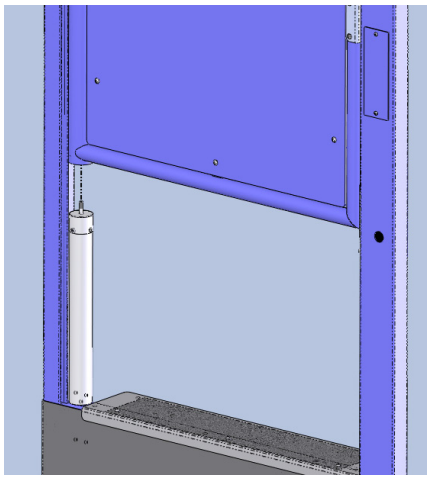
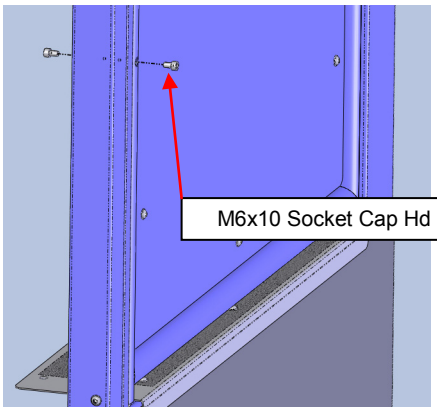
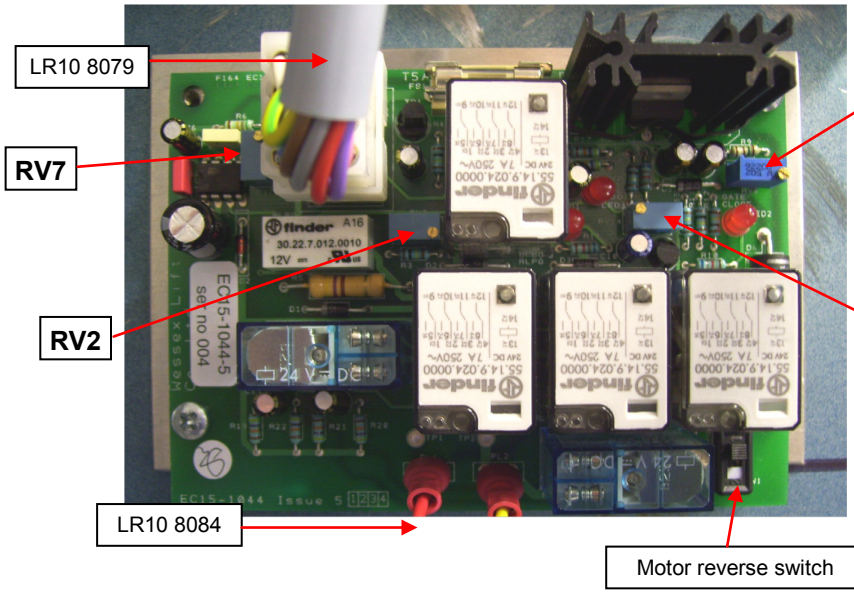
5.0	 	Interface PCB Connection: The power gate actuator loom LR10 8083 connects into the down limit loom: • 6 way down limit loom Connector Pin 1 yellow wire. • 6 way down limit loom Connector Pin 3 red wire. Ensure all the wires are cable tied neatly in place.	
6.0		Remove the lower two rubber blanking grommets in the gate (*if fitted*). Lower the gate assembly onto the actuator and fit the top hinge. Refer to section 1 for correct orientation. *Note: If retrofitting the Power gate option, you will need to remove the bottom boss fitted to the gate.*	
7.0	 	Align the holes in the gate frame, with the actuator tapped holes and fit two off M6x10 Socket Cap Head Screws.	FF32 1006A4 M6x10 Socket Hd Cap Screw

Threshold Power Gate Option



EC15 1044 Threshold Power gate PCB

LR10 8079 Loom threshold power gate connection

LR10 8084 Loom power gate PCB to trailing cable

8.0

R7 = Adjusts the delay before the gate starts closing.
R2 = Adjusts how far the gate opens.
R14 = Adjusts how long the gate closes for. *(Note:The door interlock stops the gate when closing)*
R8 = Adjusts the speed of the door.
Motor reverse switch = Changes the direction of actuator operation.

The threshold power gate PCB loom LR10 8079 connects to connector 8 on the main PCB.

The loom LR10 8084 *(2 core cable)* connection:

- Red to PL1
- Yellow to PL2

When setting RV14 ensure the time exceeds the gate close time by a minimum of 3 seconds. To test this:

- Time how long it takes for the gate to close.
- Open the gate.
- Press the down button to start the gate close cycle.
- Manually prevent the door from fully closing, otherwise the gate interlock switch will turn off the power gate unit.
- Time how long the gate actuator operates before it automatically switches off.
- Adjust RV14 accordingly. *Clockwise increases time.*

9.0

Check the gate opens and closes correctly.

It is recommended the gate stays open for a minimum of one minute. This must be discussed with the customer and adjusted to suit their needs, to ensure there is enough time for them to exit the lift before the gate starts closing.

Ensure the customer is fully aware of the operating instructions detailed in the user manual.

Check the gate interlock and lock switch are functioning correctly as detailed in the Lift installation instructions.