

caizer

5000kg Alignment Scissor Lift

Operation & Maintenance Manual



W50+ Series2

Please read this manual before you get started.
You must read and understand the precautions for safety to protect your safety and any damage to your property.

NOTE TO THE USER

Thank you for purchasing Caizer Car Lift.
Please read this instruction carefully for safe and proper use of the car lift,
and keep it handy for future reference.

- This Manual is for model : **W50+ Series2**
- As for the assurance of safety in design and construction of car lift, read this Manual first.
- Please make sure that this manual is delivered to end users for their implementation of safety.
- Don't use the car lift in a potentially explosive atmosphere.

ANY PART OF THIS PRINT MUST NOT BE REPRODUCED IN ANY FORM
WITHOUT PERMISSION.
THIS PRINT IS SUBJECT TO CHANGE WITHOUT NOTICE.

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This manual was prepared in February 2017
Contents subject to change without notice
NO: CAW50P22017

WARRANTY CERTIFICATE

PRODUCT WARRANTY TERMS & CONDITIONS

Caizer warranty terms and conditions only apply to the original purchaser of Caizer Hoist sold by Powerrex Engineering or authorised agents / distributors. Powerrex Engineering warrants all Caizer hoist models against faulty components, workmanship or manufacture from the date of original purchase.

Costs for travel over 30kms from the closest Caizer hoist authorised service dealer will not be covered under this warranty and additional fees will apply. Other conditions apply refer next page for warranty inclusions and exclusions.

60 Months Warranty

- Structural steel.
- Mechanical parts

36 Months Warranty

- 3-Phase Electric motors
- Electrical wiring
- Hydraulic Pumps & manifolds
- Hydraulic hoses & fittings
- Hydraulic cylinder seals

24 Months Warranty

- Wire rope load & balance cables
- Air and electric operated lock release solenoids
- Pulleys, bushings and axles
- Carriage wear guides
- Hydraulic cartridge valves
- Electrical buttons & switches
- 240v AC & RAC Coils
- Remote control pendant

12 Months Warranty

- Single phase electric motors
- PC Boards all models

Warranty terms & conditions are subject to change at any time without notice

Powerrex Engineering reserves the right to conduct equipment inspections under warranty claim lodgement by an authorised agent / distributor prior to any warranty claims being approved.

Powerrex Engineering shall repair or replace at their option for the warranty period of parts returned to the factory freight pre-paid which prove upon inspection to be defective. Powerrex Engineering will not be responsible for any labour costs unless pre-agreed.

Powerrex Engineering must receive proof and date of purchase prior to proceeding with any supply of parts or repairs. The owner must first obtain approval from Powerrex Engineering prior to replacing parts or conducting repairs on any Caizer hoist still within warranty periods. Any replacement parts or repairs conducted by the owner unauthorised may result in voiding the warranty agreement and place all costs incurred onto the owner.

Warranty Exclusions

Warranty record of installation has not been received by Powerrex Engineering.
Warranty terms & conditions do not apply if the hoist has been:

Incorrectly installed by a non approved installer.

Warranties do not extend to any cosmetic defect not interfering with equipment functionality or any incidental, indirect or consequential loss, damage or expense that may result from any defect, failure or malfunction of a Caizer hoist or the breach or delay in performance of the warranty.

Mishandled, misused, wilfully damaged, neglected, improperly serviced and inspected, repaired, altered or defaced in anyway.

Any defect arising as a result of any failure to follow instructions either in the operating manual or product specifications.

Any defect arising from the use of non-approved parts or ancillary items attached to or in connection with the hoist.

Malfunctioning due to electrical surges or damage from natural disaster such as flood, fire, earthquake etc.

Damaged caused by rain, excessive humidity, corrosive environments or other contaminants.

Other items not listed but may be considered general wear parts.

Powerrex Engineering reserves the right to make design changes or add improvements to its product line without incurring any obligation to make such changes on product sold previously.

How to claim

Please make sure you have your address details, copy of original purchase invoice, hoist serial number and precise details of fault before contacting Powerrex Engineering on:
(02) 4255 7888 Toll Free: 1300 769 379 Email: sales@caizer.com.au.

Contact the person or agent whom you have purchased hoist from prior to contacting Powerrex Engineering.

Introduction

Thank you for purchasing a Caizer vehicle lift.

This vehicle lift has been constructed to the highest quality and safety standards.

The following pages are designed to supply the owner and or user of this lift with a basic guide for its proper and safe usage.

Please read these instructions thoroughly before using the lift. This guide contains instructions for installation, use and maintenance of vehicle lift : ***Caizer W50+ Series2***

The lift is composed of two platforms which must be securely anchored to the ground.
Lift is fitted with two single acting hydraulic cylinders for lifting, and electronic synchronisation.

The lift is powered by a 3 phase electric motor attached to a hydraulic pump, which delivers pressurised hydraulic oil to the cylinders enabling it to lift up to its maximum Safe Working Load (SWL) of 5000kg.

This lift's purpose is for performing vehicle servicing, repairing and inspections.

Follow the instructions in this guide to make sure lift is used correctly and safely, technical literature supplied is an integral part of this lift and must remain with the lift at all times.

Caizer declines all responsibility for any damage due to negligence and/or non-observance of this manual.

Intended Use

The Caizer W50+ scissor lift is suitable for lifting specific motor vehicles up to and not exceeding 5000kg. It is necessary to respect the parameters given by the "***Load Distribution Chart***" in accordance with ***EN1493/98***.

This Lift must not be used for any other purpose than lifting motor vehicles, Caizer will not be held liable for any damage or injury caused by improper use or non-observance of this manual.

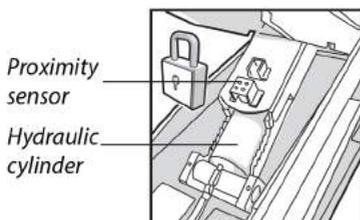
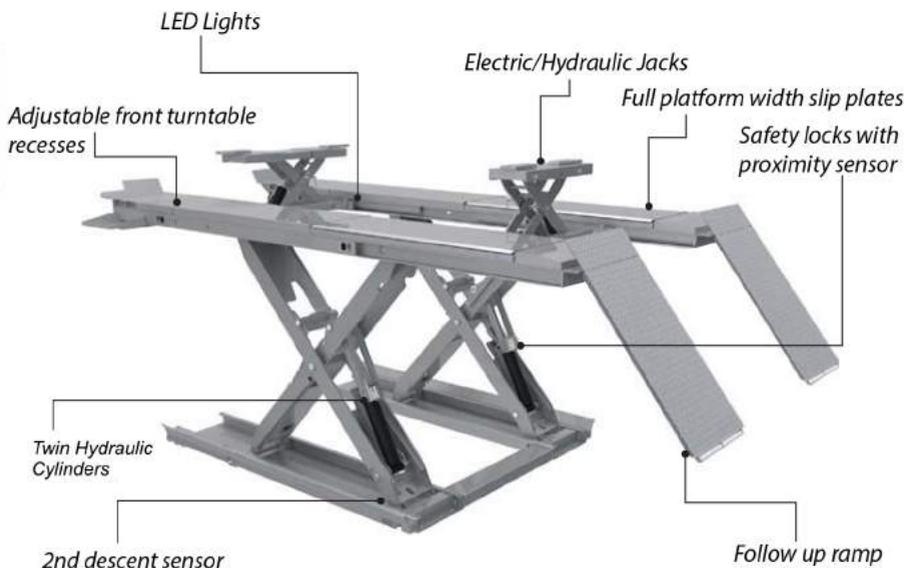
Do not install this lift in a windy or explosive environment

Lift is not suitable for use outdoors unless protected from the elements

Lift is not suitable for use in wash bay area

KEEP THIS AS WELL AS THE SUPPLIED TECHNICAL LITERATURE IN A SAFE PLACE
AND CONSULT WHENEVER NECESSARY.

Features and characteristics



Safety Locks

Super strong air operated safety locks with proximity sensors only allows lift to lock when platforms in sync. (Prevents costly damage)



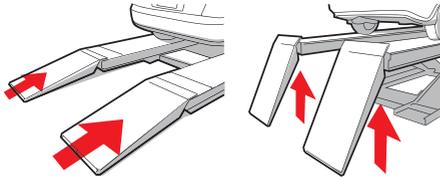
Hydraulic Cylinders

Twin hydraulic cylinders with electronic Synchronisation sensor system



Speed Control Valve

Hydraulic cylinders fitted with burst control valves, controls descent speed in case of hydraulic hose failure



Ramp

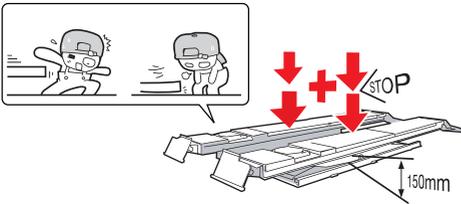
Follow up ramp with nylon rollers for smooth and quiet operation

Incorporated tyre stop



Work lamps

4-point platform LED work lights illuminates underside of vehicle



2nd Descent sensor

On descent lift stops approx 150mm from ground level, buzzer sounds re-press button lift will lower (foot protection device)



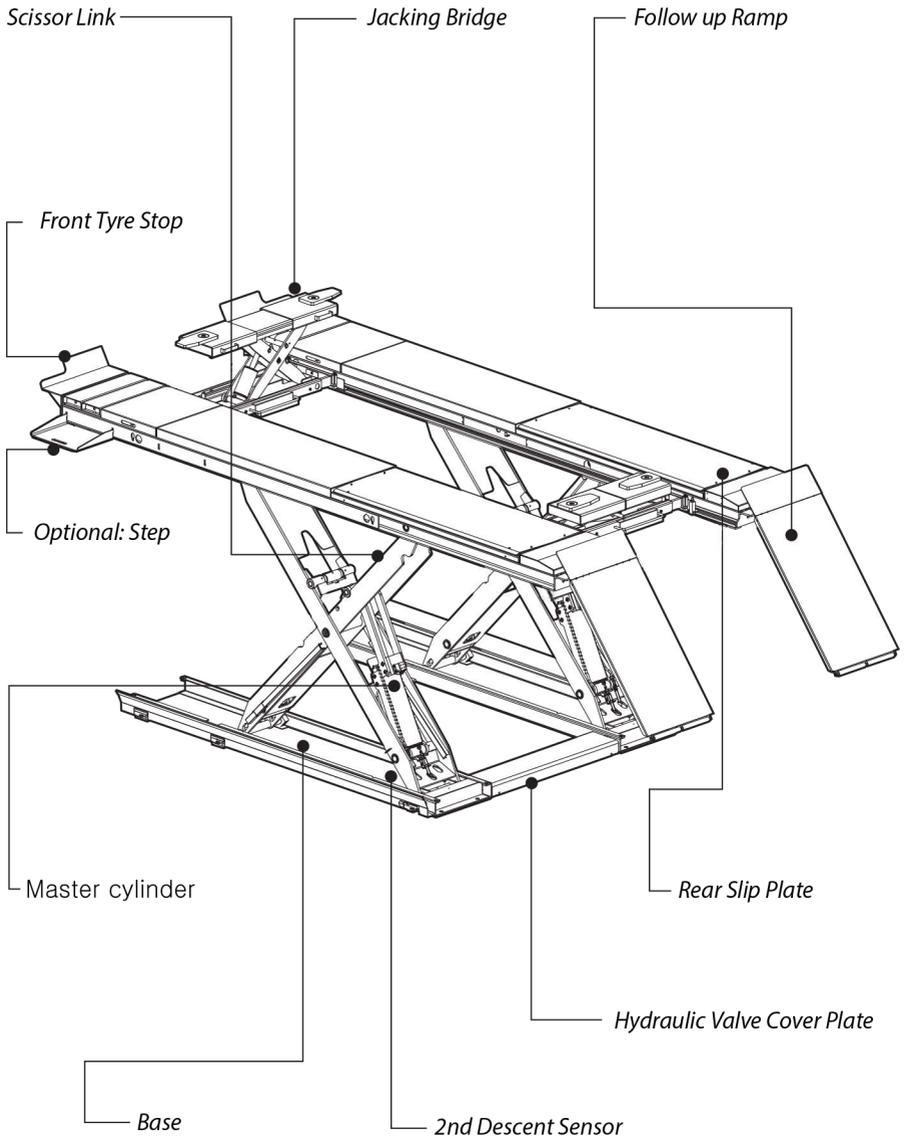
Platforms

Lift platforms are purpous built to perform vehicle wheel aligning multi-adjustable front turntable recesses with cover plates, and full platform width rear slip plates with easy glide nylon balls

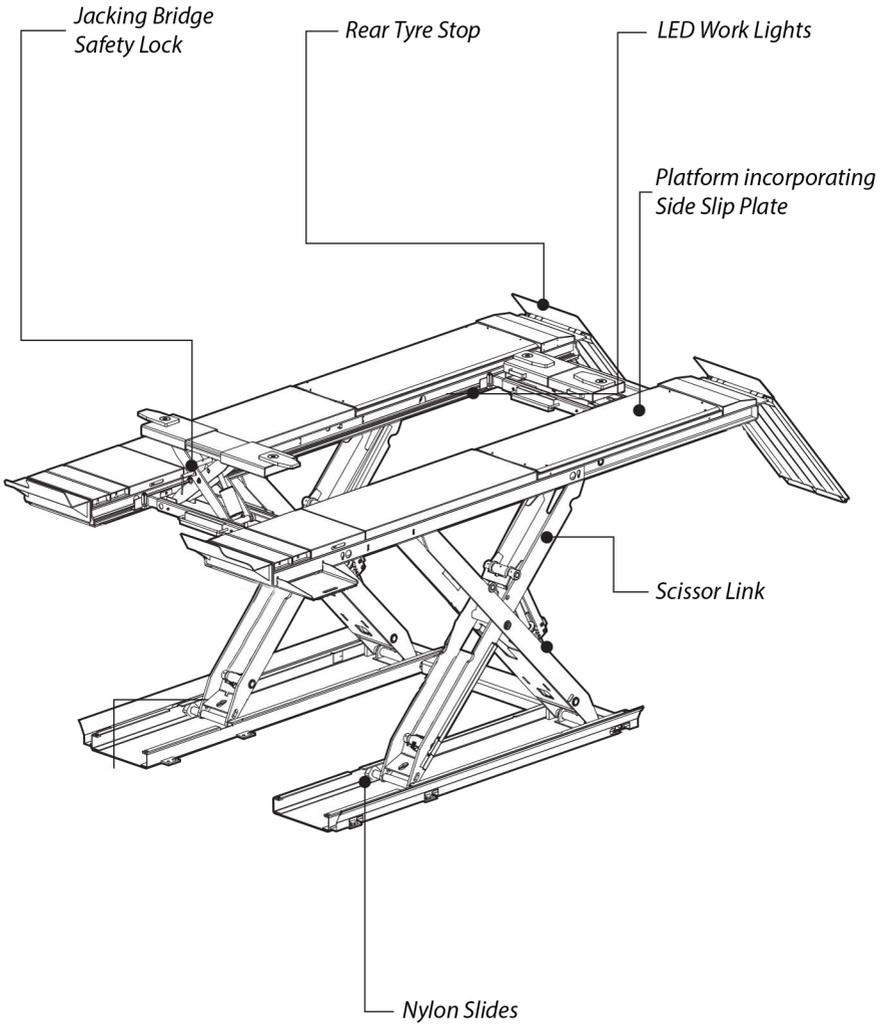


Lift Component Names

Introduction



Components contd



Control Console

W50+ Series2



- 1) Emergency Stop incorporating power lamp
- 2) LCD Display (Time, date, lift cycles, functions, error codes)
- 3) Down button, press lift will raise, locks will release and then descends down to 2nd descent sensor height buzzer will sound re-press down button to lower to ground.
- 4) Lock Button, lowers lift on to safety locks only allowed when LCD display panel shows: L : ON , R : ON
- 5) Mains Power Lockable Isolator Switch
- 6) Up Button, raises lift to required height, or up to maximum height set by limit switch.

AUTO button disabled for Australian market

LCD MENU SETTINGS

◆Initial System menu set ◆

No	System Menu	Comment	Set
1	Sensor Display	Raw(real) Value Display	Real Value View
2	Set Y.D.T	enter time, day etc	UP+DOWN (3Sec) and enter value
3	Usage Counter	Shows usage cycles	-
4	Usage DAY	Shows number of days used	-
5	Service INT	Service alarm interval set	12 Month / 6 Month
6	Left Control	Left platform control only	-
7	Right Control	Right Platform Control only	-
8	2nd Stage	Foot protection height	Value : 5
9	Sync Interval	Synchronising angle	Value : 0.3deg
10	Side Slip Auto	Side slip air lock	Turned off
11	Photo Sensor	Photo sensor level detection	Turned off
12	Lock Sensor	Lock sensor use	Turned on
13	Sensor Limit	Sensor height limit	Value : 40.0
14	Remote Control	Remote control Inter lock	Dual
15	Install Date	Installation date	UP+DOWN(3sec) ->enter value



Press MODE button to cycle through system menu 1 - 15
 UP & DOWN buttons to adjust settings
 ENTER button to set



Real time sensor value



Set Year, Date, Time
Press mode to cycle
up/down to adjust enter to set



Usage lift cycle counter



Number of days used



Service interval reminder
6 months / 12 months



Independent left platform
control
(Emergency use only)



Independent right platform
control
(Emergency use only)



2nd descent sensor
adjustable
standard setting : 5



Factory set 0.3



Factory set OFF (N/A)



Safety lock sensor: On



Dual : allows control from remote & control box simultaneously
Single: Allows only remote or control box operation



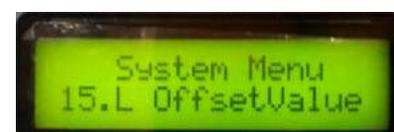
Fine tune adjustment of sensor right platform (drivers side)



Rear slip plate air locks
AUTO : Locked at ground level, while raising and descending
Unlocks when finger removed from up button
OFF: Use on/off switch side of control console to lock / unlock



Height limit sensor adjustable factory set 40
Ideal height setting 43



Fine tune adjustment of sensor
Left platform (passenger side)



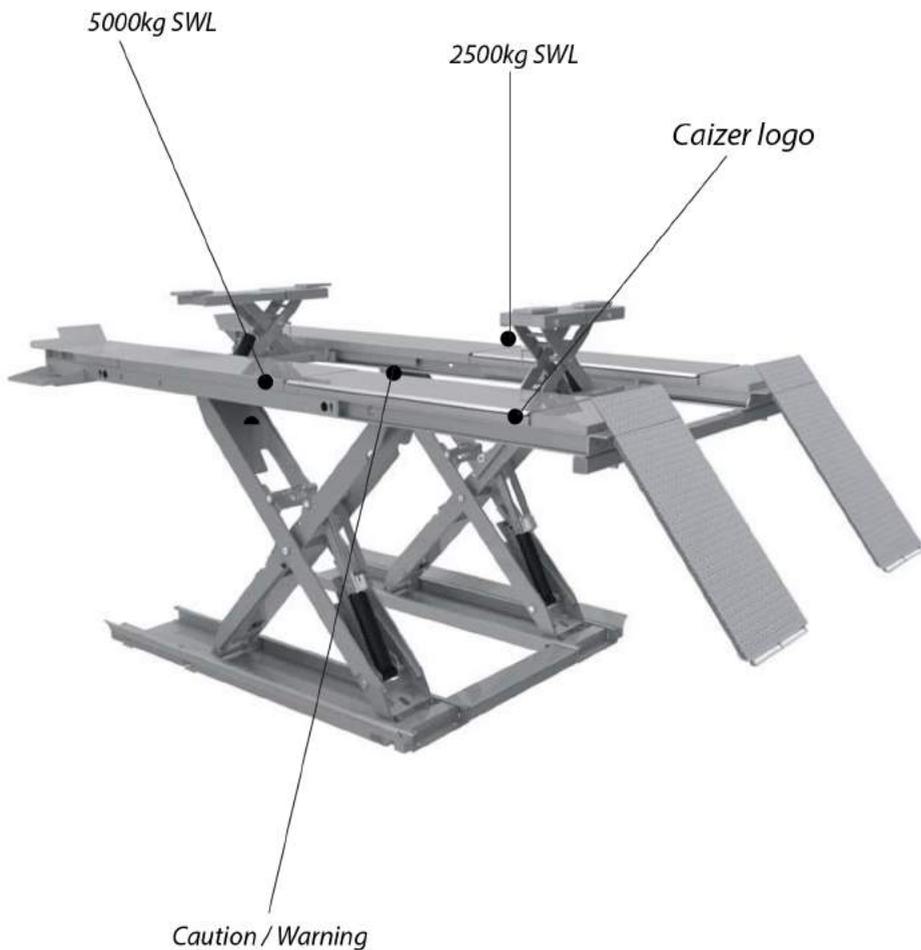
Set at time of original install

Specification

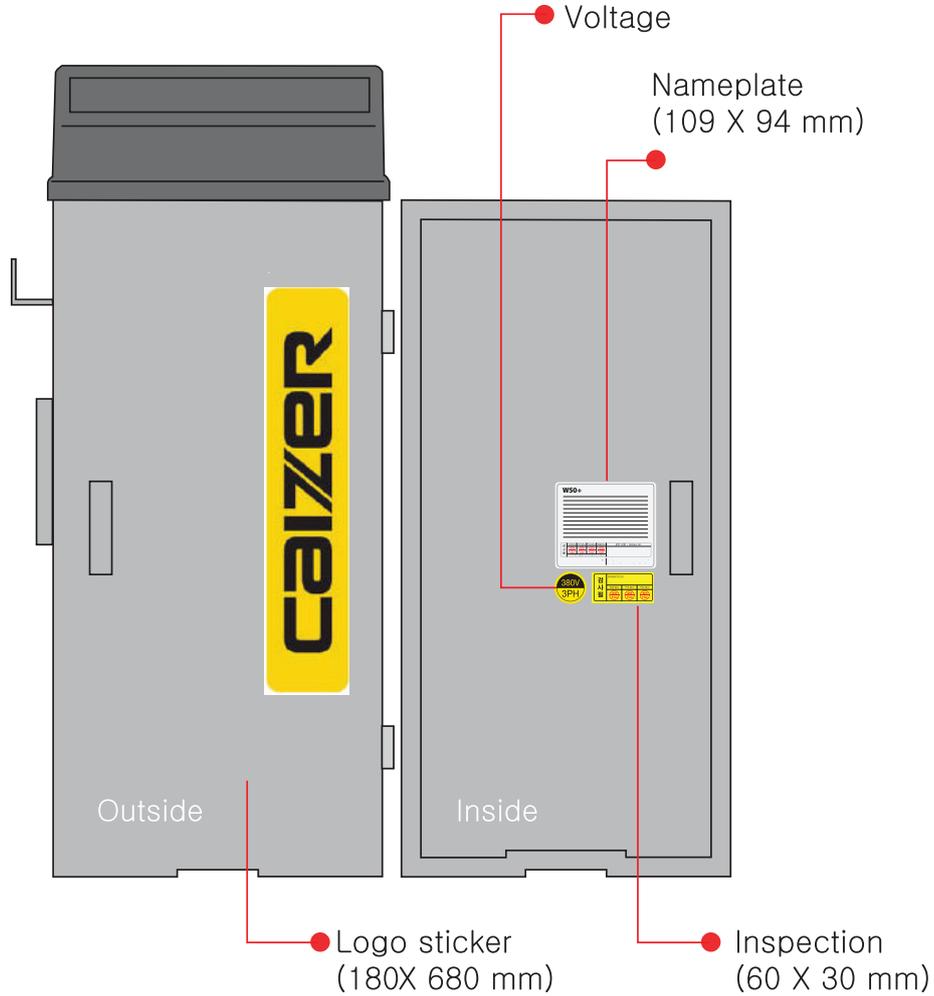
Model Name	W50+ Series2
Capacity	Main 5000kg SWL / 2500kg Jacks
Used Hydraulic Pressure	260 Bar (relief valve setting)
Overall Max.Height	1930mm
Min.Runways Height	265mm
Stroke	Main 1665mm / Jack 330mm
Lifting Time	Approx 40-60 Secs
Lowering Time	Approx 35-45 Secs
Standard Motor	3ph: 4hp x 4p / 380-425v 50-60hz
Net Weight	Approx 2300kg
Layout Dimension (L/H/W)	(L) 6005 x (W) 2210 x (H) 265mm

Caution Sticker Layout

1. Main Body



2. Control Panel



Safety

3. Name Plate

W50+ Series2	WHEEL ALIGNMENT SCISSORS LIFT	MADE IN KOREA								
MODEL NO.	W50+ (Series2)									
CAPACITY	5000kg									
MAX.HEIGHT	Main: 1930mm									
MIN.HEIGHT	265mm									
LIFTING TIME	Approx 40-60 Secs									
LOWERING TIME	35-45 Secs									
POWER & MOTOR	3ph: 3hp x 4p 380-415v 50/60hz									
NET.WEIGHT	Approx 2300kg									
DATE OF MANUFACTURE										
검사필	<table border="1"> <tr> <td>외관검사</td> <td>구조검사</td> <td>기능검사</td> <td>최종검사</td> </tr> <tr> <td>합격 PQC</td> <td>합격 PQC</td> <td>합격 PQC</td> <td>합격 PQC</td> </tr> </table>	외관검사	구조검사	기능검사	최종검사	합격 PQC	합격 PQC	합격 PQC	합격 PQC	SERIAL NO
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※ 주의! 용량이 없을경우 교체서비스를 받으실수 있습니다.										

Operational Safety Precautions

Avoid Accidents

Please make sure all personnel fully understand safety warnings as shown below.



Safety



Do not operate lift with persons underneath, in vehicle or on platforms



Move away from the lift area in case of emergency



Do not exceed the Safe Working Load of the lift if unsure check vehicle weight first



Not following these safety warnings can lead to critical accidents, please make sure all personnel read and thoroughly understand safety procedures and warnings



Warning before use

Only trained personnel should operate this lift



Make sure vehicle weight is centered on lift



Do not operate damaged lift. Report to supervisor



Make sure vehicle hand brake is applied before disembarking



Operational Safety Precautions



Caution During Operation

No Unauthorised personnel in the lift area



Make sure area under lift is clear before lowering



Do not apply excessive movement to vehicle on lift



Do not raise lift until vehicle is in correct position



Safety

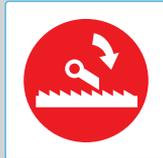


Caution During Operation

To avoid injury make sure feet are clear of platforms when lowering



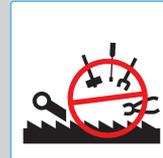
Make sure safety locks are engaged before working under lift



Do not open control panel before isolating mains power



Only authorised technicians should repair or make adjustments to lift



Do not use high pressure cleaner on or around the lift



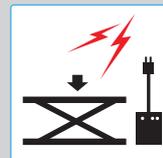
Read manual thoroughly before using lift



Keep lift clean and free of debris



To protect lift from electrical surges, make sure power is turned off when not in use



Lift Installation Site

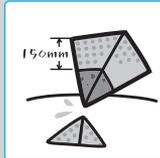


This lift should be installed by experienced persons
Failure to do so could cause lift to fail and result in injury or death

Checklist

Site

Concrete floor must be level and minimum thickness of 150mm



Concrete must be minimum 25mpa steel reinforced



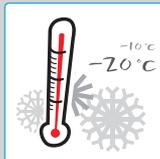
This lift is designed for indoor use only protected from the elements



Installation

Location

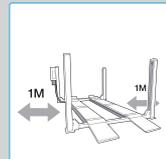
Lift location temperature range must fall between -10 to 50 Degrees C



Position lift for easy and safe vehicle access

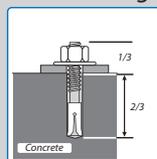


Please adhere to local laws in regards to safe distances from fixed structures



Lift must be installed in a dry well drained location. If lift gets wet make sure it is dried prior to operation

Make sure 2/3 of foundation bolt is below ground for safe securing

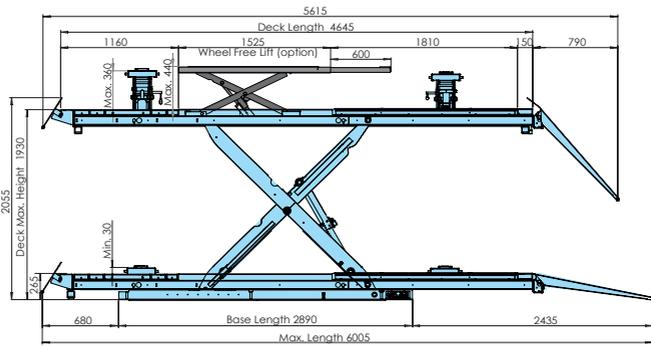
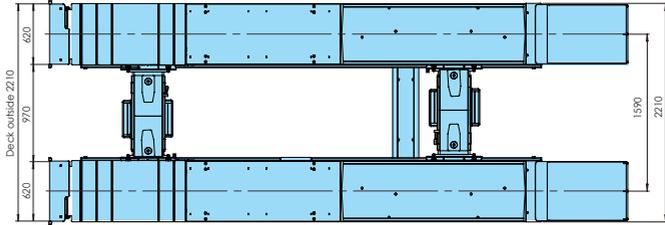


Make sure site is suitable for size of lift check all measurements



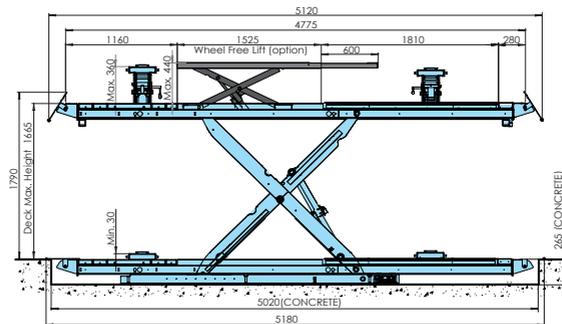
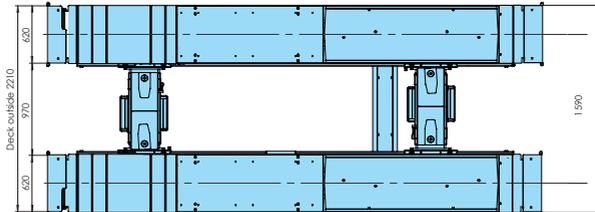
Installation Layout

On-Ground



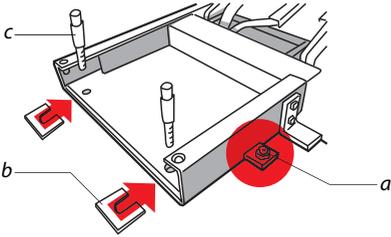
Installation

In-Ground



Installation Procedure

- a) Base level adjuster bolt
- b) Levelling shim
- c) M16 Tru-bolt



Levelling Bases

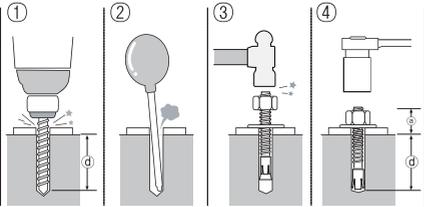
1

Level bases by adjusting base level allen key bolts (a)

Fit shims around Tru-bolt area under base. it is critical inner and outer sides of base under the lift platform slides are supported if excess shimming is required

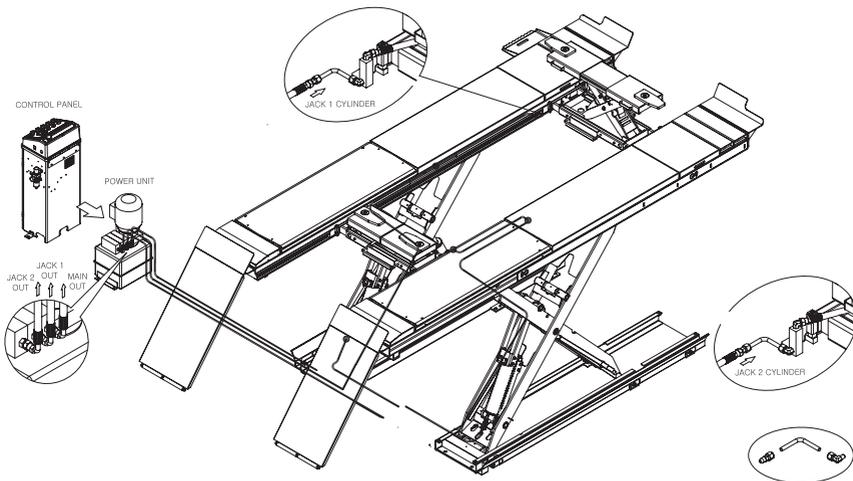
2

Drill 100mm depth holes using 16mm masonry drill bit (d)



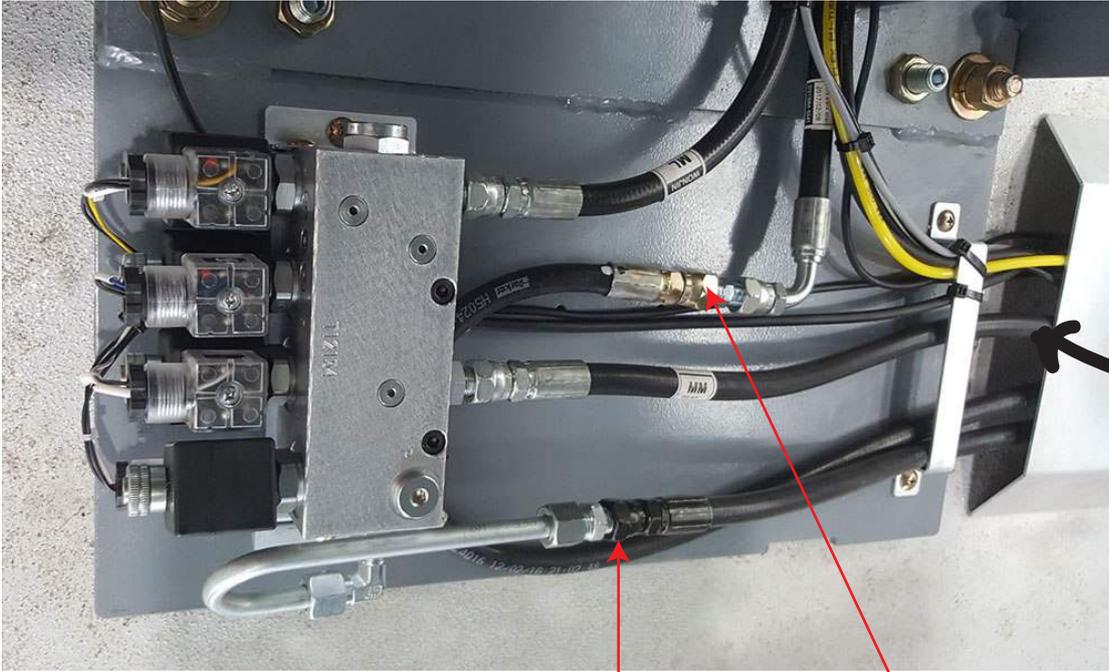
Clean out hole from dust and debris
 Insert supplied M16 Tru-bolt and hammer into hole
 Tighten Tru-bolt using torque wrench to 100nm
 Re-check levels and adjust if required

Hydraulic Hose Connections



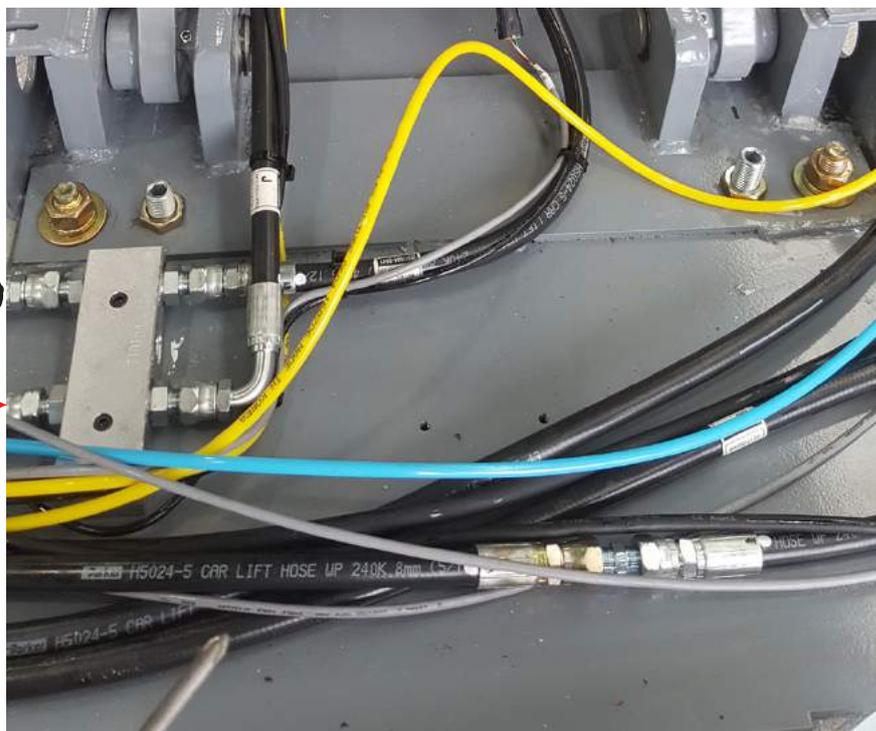
SAMPLE PHOTOS NEXT PAGE

Rear of left hand base (passenger side)



Main hose connection
from control box

Rear jack hose
connection from
control box

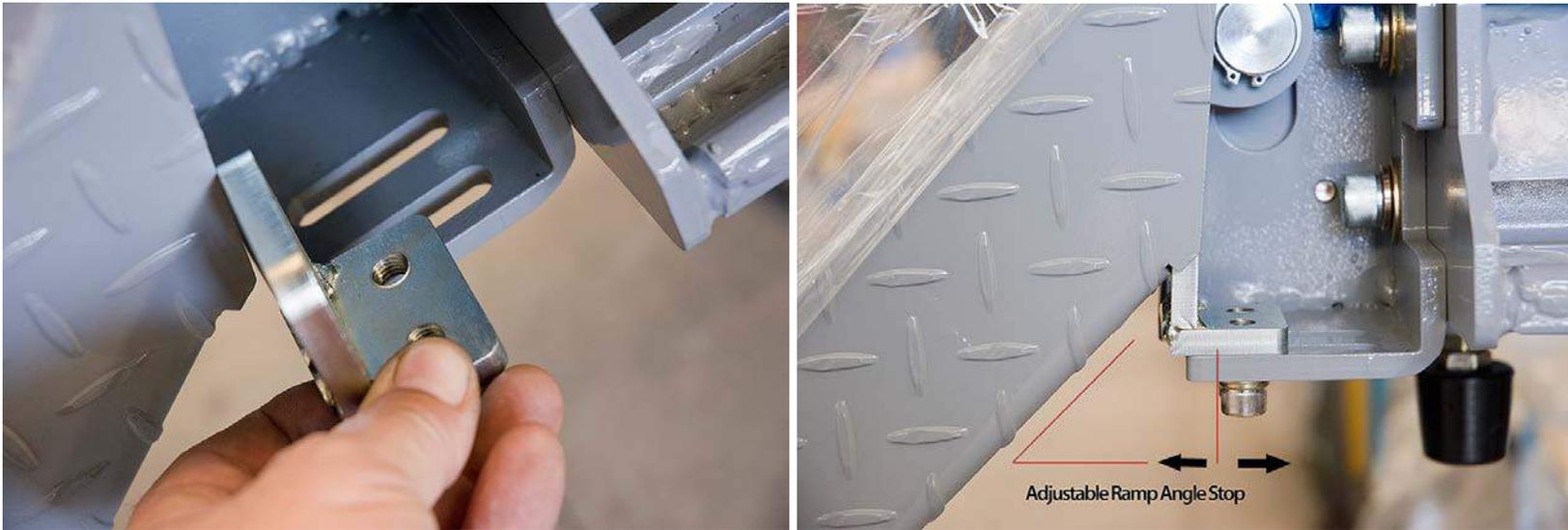


Rear of right hand base (drivers side)

Fitting Ramp Angle Adjustment Brackets

Adjustable brackets shown below attach to rear of each platform (4 x Brackets in total)

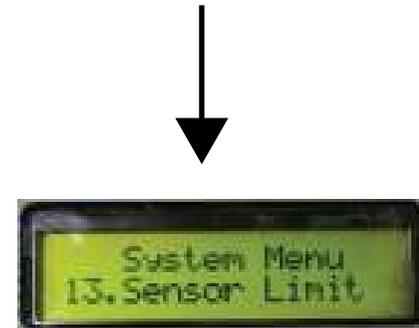
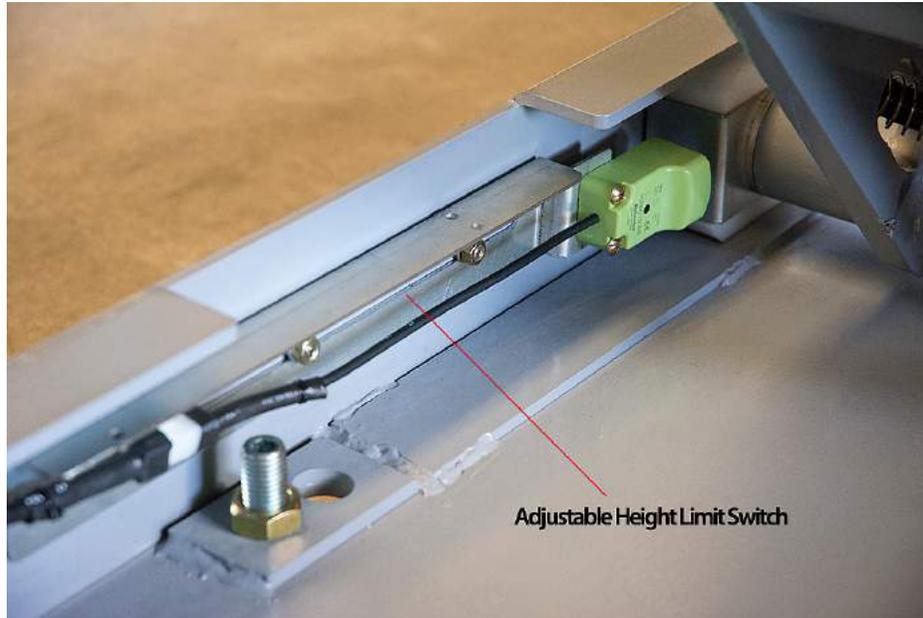
The reason for these brackets is to adjust the angle of the drive up ramp at time of installation, mainly used when concrete floor is not level, adjusting bracket decreases the angle of the ramp so when lowering hoist on to uneven/unlevel ground it will roll out and prevent jamming.



Height adjustable limit switch

Caizer W50+ is fitted with an adjustable height cut off switch (pictured below) , please make sure this is adjusted to stop hydraulic cylinders from fully stroking out. Also handy to lower lifts maximum height in case of low ceiling workshop.

Height cut off can now also be set at control box, press mode button then go to setting 13, adjust range up to 45 (ideal setting 43)



2nd descent now set at control box, press mode button then got to setting 8, adjust to desired height (ideal setting 5)



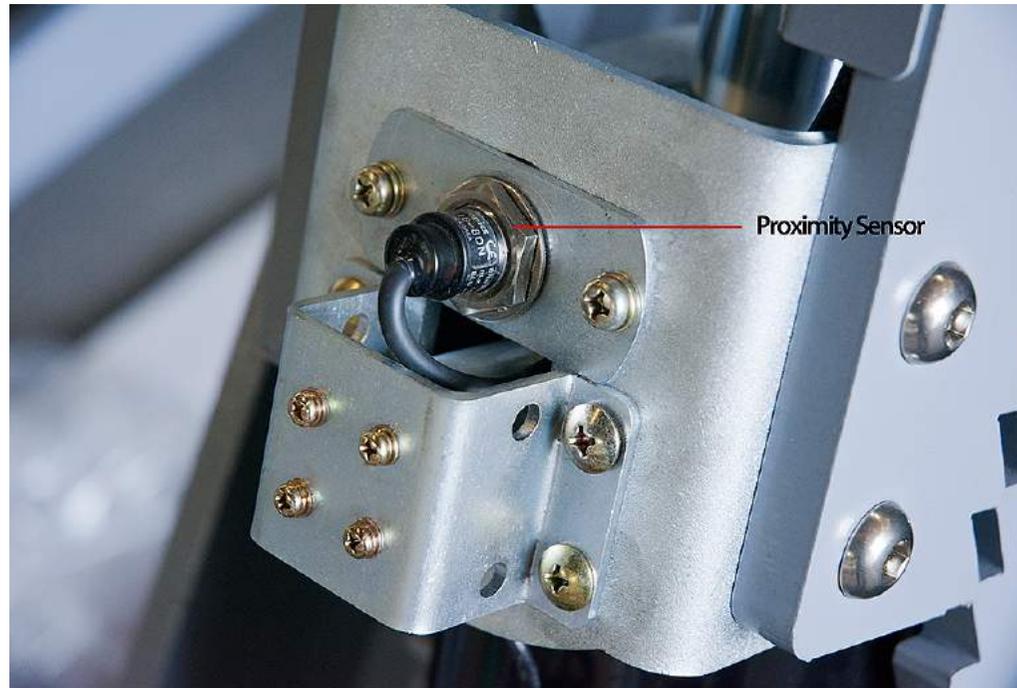
Note: Press enter button to save settings

Caizer W50+ Safety Lock Sensors

Caizer W50+ is fitted with 2 x Proximity sensors attached to upper side of safety locks (1 per side) as hoist is raising please note at intervals (LOC) is shown on LED display, hoist will only lower onto safety locks while (LOC) is displayed by pressing Green Lock Button on control console.

Proximity sensors protect hoist from being lowered on to locks if platforms are out of level / hydraulic balance.

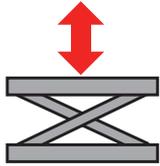
Other Brand Hoists not fitted with these type of sensors require costly repairs to safety locks when inadvertently locked when platforms out of level.



Final Steps Before Use

Check Points

Before lifting any vehicles check the following points



Test Operation

Raise lift to full height to test height cut off switch, 3 x full cycles

Controls

Make sure control buttons operate smoothly on control panel and remote control

Check for leaks

Check all hydraulic hose fittings for signs of leaks, reseal and tighten if required

Check bolt tension

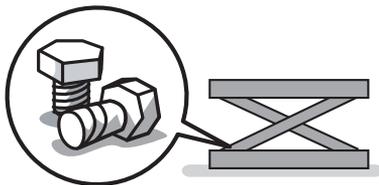
Double check tension of all fitted bolts including base foundation Tru-bolts

Exterior clean

Clean exterior of lift, make sure it is fitted with SWL and other safety warning / compliance stickers

Remove debris

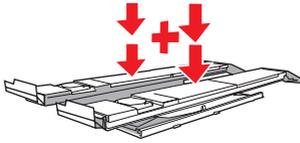
Remove any left over packing materials or debris from around lift



Implement simple daily checklist for key areas of lift functions

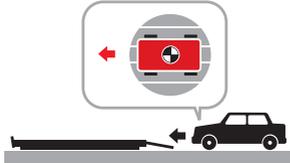
Operation

1



Make sure lift and jacking bridges are at full lowered position

2



Make sure vehicle approach is as center as possible to platforms may require help first few times

Driving on precautions



Take extra care driving on lift if tyres are wet



Drive slowly onto lift

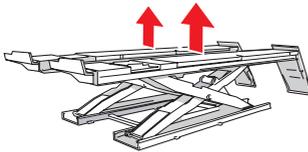


Apply handbrake before disembarking



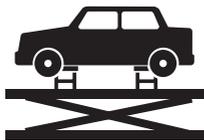
Close vehicle doors do not lift with persons inside

3



Press up button to reach desired height press lock button to lower onto safety locks

4



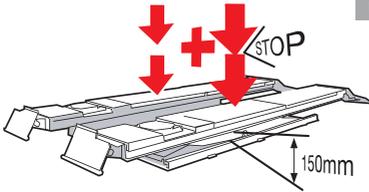
Push up button on LH inner platform to raise front and or rear jack just enough to clear platforms, slide out extensions and flip plates if required, place rubber blocks under lift points press jack up button to desired height then set safety lock handle in place

5



After completing vehicle service/repair reverse above procedure the lower lift to ground level.

Lift Operation

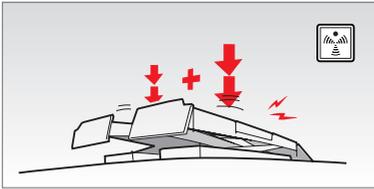


1 Descent

Press down button if lift is resting on lock position, lift will raise first safety locks will disengage, then lift will descend to approximately 150mm from ground level

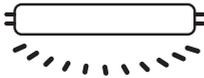
2 2nd Descent Sensor

At approximately 150mm from ground level buzzer will sound, make sure area around lift is clear, then press down button again to lower to ground level



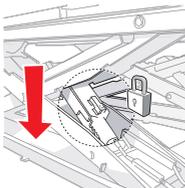
3 LED Work Lights

Lift is fitted with 4 x LED light bars to illuminate underside of vehicle on/off switch is located on right hand side of control panel



4 Safety Lock Sensor

Safety locks are fitted with proximity sensors, as lift is raising "Loc" will show on LED panel at intervals when "Loc" is showing lift can be lowered onto safety locks.
If LH and RH platforms are out of level with each other sensors will not allow lift to lower onto safety locks.



Lift Maintenance and Service

Lubrication of lift should be done every 3 months



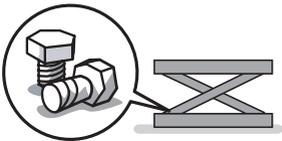
1 Grease Points

Using grease gun inject grease into nipples on all link and cylinder axle pins including jack bridge pins



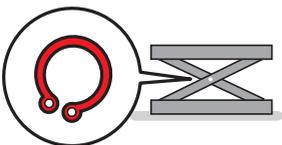
2 Oil / Spray Lubrication

Spray lubricant/oil on both upper platform and base slide channels



Cleaning

Lift should be cleaned on a regular remove any rubbish or debris left over from vehicle servicing



Replace any broken/missing circlips if found

Emergency Descent Procedure



Remove any objects from under lift before releasing safety locks



Mains Power Outage

How to manually lower lift in case of power outage

1

Safety Lock Release

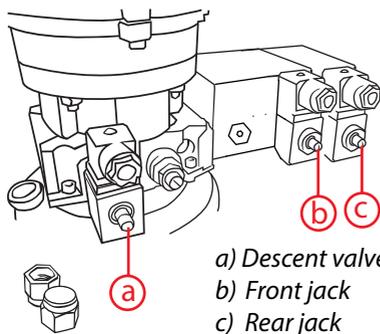
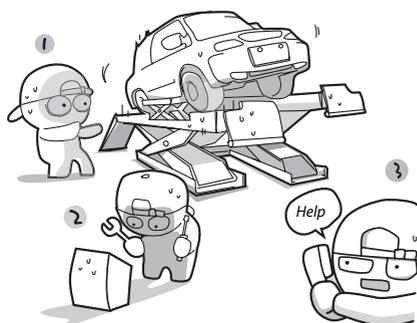
(1) Lift up upper safety lock wedge up with cardboard etc enough to clear lower lock teeth (2)

Note: If lift has been lowered onto locks and upper lock cannot be lifted by hand Trolley jack with prop will be required to jack up platform just enough to release load from lock to perform above procedure. Lower and remove jack after lock has been wedged.

2) Contact Caizer 02 4255 7888 for guidance on lowering platforms



Performing this procedure is potentially very dangerous only to be performed by competent person who fully understands the steps set out in this manual



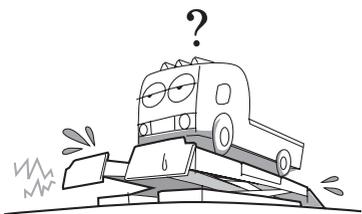
a) Descent valve
b) Front jack
c) Rear jack

Lowering Jacks

- 1) Push in and hold pressure on relevant centre pin of valve b or c
- 2) While holding pressure on valve pin, turn knurled end of valve (a) anti-clockwise to lower jack
- 3) When jack is fully lowered close valve (a)



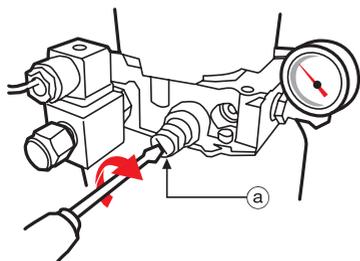
Turn vave (a) very slowly to ensure lowering speed is slow and safe



2 Powerpack pressure



Powerpack pressure is set by manufacturer. If the lift does not lift rated capacity contact lift supplier / service technician



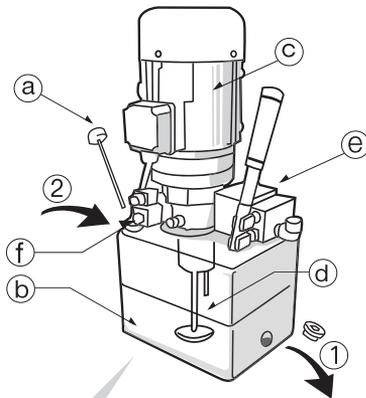
Relief Valve Adjustment

- 1) Remove main hose from side manifold fit pressure gauge to fitting and tighten.
- 2) Remove cap nut from relief valve (a) loosen outer lock nut, while pressing up button wind in centre of relief valve with allen key until below pressure is measured. Tighten lock nut re-fit cap nut, remove gauge and re-fit hose.

Relief Valve Pressure Setting

Caizer W50+: 260 Bar

Hydraulic Oil Change



a) Dip stick
b) Oil reservoir
c) Electric motor
d) Oil pickup filter
e) N/A
f) Descent valve

1) Oil drain
2) Oil fill

3

Oil change procedure

Hydraulic oil is recommended to be replaced within 3 months of installation and at 24 month intervals.

Oil Change Procedure.

- 1) Remove 3 x screws each side of outer control console close to bottom edge.
- 2) Remove retaining nut from descent valve and slide off coil.
- 3) Carefully slide out powerpack from console
- 4) Drain oil into suitable container by removing drain plug (1)
- 5) Re-fit drain plug, fill reservoir with 32-46 grade hydraulic oil, check level with dipstick.
- 6) Slide powerpack back into console, re-fit coil to descent valve, and fit outer side console screws.

Tip

When oil is replaced at 24 month interval, remove oil reservoir and clean oil pickup filter before filling with new hydraulic oil.

Troubleshooting

	Symptom	Check List	Corrective Action
H Y D R A U L I C S Y S T E M	Powerpack Abnormal Noise	1) Rated Capacity Exceeded 2) Relief valve activated 3) Hydraulic oil level low	1) Do not exceed lift capacity 2) Adjust to 260 bar 3) Top up oil, bleed system
	Oil Leak	1) Damaged hose 2) Leaking fittings 3) Leaking Seals	1) Replace hose 2) Tighten fittings 3) Contact service agent
	Oil Contamination	Check hydraulic cylinder for signs of water / air	Replace hydraulic oil 24 month intervals
	Not Lifting	1) Check limit switch connection 2) Check oil level 3) Check for air bubbles in oil	Contact service agent
	Not Lowering	1) Safety locks disengaging 2) Check descent valve operation	Contact service agent
	Seized Components	Check for sufficient lubrication	Lubricate moving parts every 1-3 months
E L E C T R I C A L S Y S T E M	Electric motor noisy or not operating	1) Check for motor damage 2) Check for blown fuses 3) Check button contacts 4) Check upper limit switch 5) Check external power supply 6) Check Emergency stop button	1) Replace motor 2) Replace fuse 3) Replace button 4) Reset limit switch 5) Repair external power 6) Deactivate emergency stop
	Blown Fuses	1) Check magnetic contactor 2) Check circuit breaker capacity 3) Check for damaged wiring / water	Contact service agent
	Electric motor running but not lifting	1) Check phase rotation 2) Check solenoid valve operation 3) Check for oil leaks	Contact service agent

Maintenance

Inspection and Periodic Maintenance

Interval	Item	Inspect For	Method	Action	Replace
W E E K L Y	Controls	Correct Function	Test	Replace if Required	When Required
	Safety Locks	Correct Function	Test	Contact service agent if required	
3 M O N T H S	Main Pivot Pins	Lack of lubrication	Visual	Lubricate or Replace Contact agent	2-3 Years
	Pivot pin retainers	Cicrlips and grub screw tension	Check	Tighten / replace	When required
	Base and platform slides	Wear / lack of lubrication	Visual	Lubricate or replace	When required
	Height Limit Switch	Correct Function	Test	Adjust or replace	When required
	Foundation Bolts	Tension	Check	Tighten to 125Nm	When required
6 M O N T H S	Electrical Components	Correct Function	Test	Replace if required	When required
	Hydraulic Oil	Level	Check	Top up 32-46 Grade	24 Months
1 2 M O N T H S	Hydraulic Seals	Oil Leaks	Visual	Replace Contact Service agent	When required
	All Above				

Check record of intervention

All the operations made on the machine in the course of time must be reported here below so as to have an updated situation of the efficiency of the machine.

The user must carry out both cleaning and greasing operations according to the instructions give in this manual.

any operation concerning the replacement of parts is strictly reserved to authorised and trained staff.

DATE	OPERATION	PART EVENTUALLY REPLACED

DATE	OPERATION	PART EVENTUALLY REPLACED

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DATE	OPERATION	PART EVENTUALLY REPLACED

The logo for Powerrex Engineering Pty Ltd features a stylized 'P' on the left, followed by the word 'POWERREX' in a large, bold, italicized sans-serif font. Below 'POWERREX' is the text 'ENGINEERING PTY LTD' in a smaller, italicized sans-serif font. The entire logo is set against a grey background.

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