



Liftmaster Universal Bin Lifter Operating Manual

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General Information

This manual contains important safety, installation and operating instructions for the unit. Read this manual thoroughly and completely, and retain for future reference. Bin lifters can cause serious injury to personnel or damage to property if used incorrectly, therefore do not use this machine for any other purpose apart from its intended use. Using bin lifters incorrectly may void warranty.

Graphical symbols definition used in this manual



The tick mark symbol represents any operation information that may help the user in operating and maintaining this machine.



The exclamation point within a circle symbol is intended to alert the user of the machine of the presence of important operating and maintenance instructions.



The lightning within a triangle symbol is intended to alert the user presence of uninsulated voltages encapsulated within the machine that may be of sufficient magnitude to constitute a risk of electrocution to the users.

Introduction

This service manual covers Liftmaster Universal Bin Lifter (Part No. UBL250HY1800).

Description

The Liftmaster Universal Bin Lifter is a battery powered industrial bin lifting equipment designed to lift wheelie bins that are in accordance to AS4123.1-2008 and dump waste into a larger bulk dump bins in a manner that is safe removing risks of injuries that may occur in manual handling of wheelie bins. This bin lifter is capable of lifting wheelie bin sizes of 80 L (21gal), 120 L (32 gal), 140 L (37gal) and 240 L (64gal). This bin lifter suits bulk dump bins of up to 1800mm high in a Flat dock operating set-up.

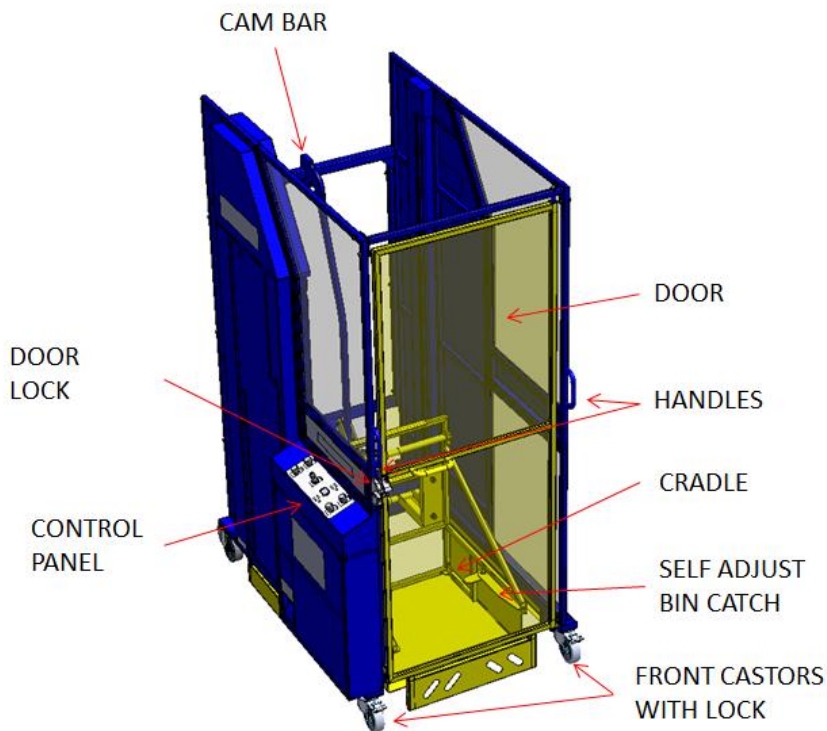
Safe Working Load (SWL) and maximum load capacity are as follows:

Part number	Safe Working Load	Max Load
UBL250HY1800	120Kg	250Kg



Although the bin lifter is capable of loads above SWL, these must be avoided to minimise the risk of personnel injury.

Figure 1: Main parts of Universal Bin Lifter



Model	UBL250HY1800
Safe Working Load	120 kg
Max Working Load	250 kg
Charging voltage	220–240 V
Operating voltage	12 V dc (motor)
Approx Gross Weight	350 kg
No. of lifts/day	100 lifts
No. of lifts/full charge*	~200 lifts
*based on brand new battery	

Figure 2: Outline diagram of Universal Bin Lifter

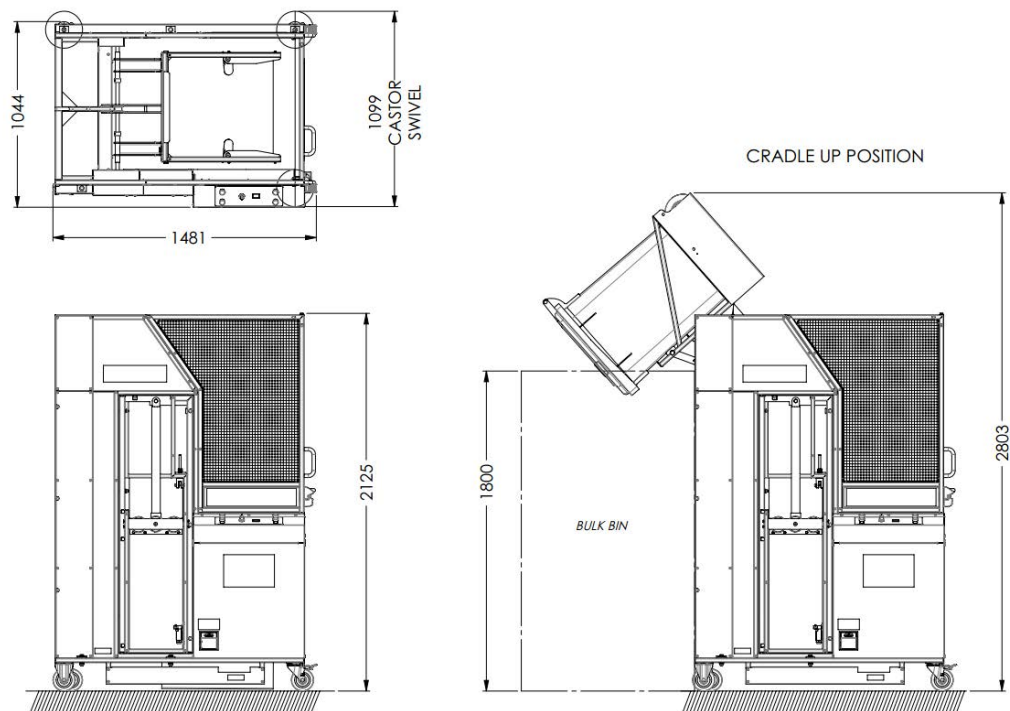
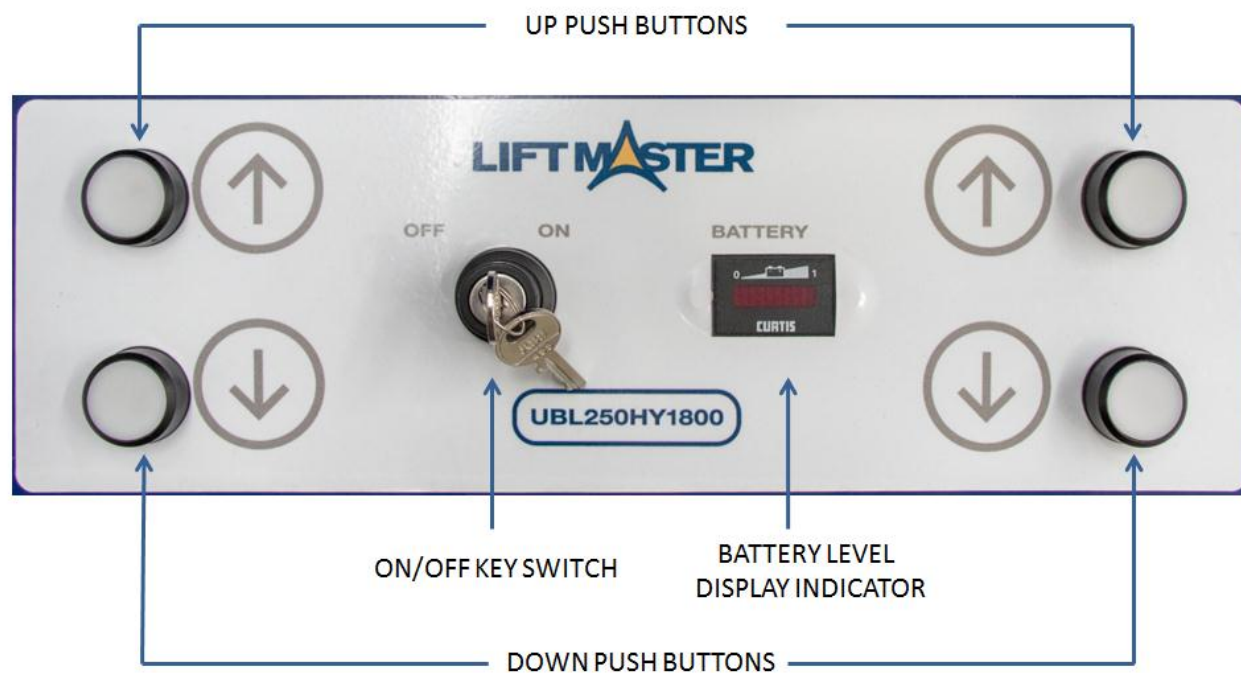


Figure 3: Universal Bin Lifter control panel



Safety

When using any equipment, including this Bin Lifter, basic safety precautions should always be taken to reduce the risk of personal injury and damage to the unit. If in doubt, contact your supervisor or Liftmaster Sales Representative.



Only operate the Bin Lifter in accordance with this Operating Manual

Stay alert

- Always watch what you and other people are doing and the environment you are working in.

Always check for damaged or missing parts prior to use

- Do not operate the unit if there are damaged or missing parts on the unit or if in doubt.
- See the Parts Checklist (page 17) and Operating Instructions (page 11) of this manual for more details.

Consider the environment you are working in

- Do not leave the Bin Lifter outdoors unnecessarily, always store indoors when not in use.
- Ensure the ground is flat and does not have an incline greater than 3 degrees.
- Do not place Bin Lifter near open flames, or sparks.
- USE CAUTION WHEN MOVING HEAVY (50+ KG) WHEELIE BINS.

Wheelie Bins can cause injury to persons when heavy

- Always be aware of the specified S.W.L of the wheelie bin. Do not overload.
- The carriage on the Bin Lifter supports the use of specific wheelie bins, as specified in the introduction (Page 4).
- If in doubt of your wheelie bin, confirm the suitability of the wheelie bins before operation with the unit.
- Ensure that the wheelie bin is fitted into the machine in accordance with operating instruction (Page 12).

Do not use damaged or split wheelie bins

- Using damaged or split wheelie bins with the unit create health and safety hazards.
- Immediately replace damaged bins to prevent injury to persons.

Keep lid of wheelie bins closed during operation

- This prevents the contents of the wheelie bins from falling out before they enter the bulk dump bin.

Take caution during windy conditions

- Dust, liquids and other light waste can be blown out of the bin while being emptied and cause injury.

**Only operate the Bin Lifter when stationary**

- The Bin Lifter is designed to operate safely whilst it is stationary.
- Always activate the total brake on castors to keep the Bin Lifter stationary

Ensure that every part of your body is clear of moving parts during operation

- Making contact with the moving parts during operation can cause personnel injury or damage to the unit.
- Serious injury can occur if the unit is operated whilst someone is inside the unit. An internal latch release mechanism is fitted to allow the Bin Lifter door to be opened from the inside, in the unlikely event that someone is trapped inside the unit.

Do not shake Bin Lifter or attempt to loosen its contents from wheelie bin during operation

- Performing this action can cause serious injury to persons or damage to the unit.

Ensure the immediate operating area of the Bin Lifter is clear of persons or objects during operation

- Always check that the area above and behind the Bin Lifter is clear.
- *Confirm that the clearance above the Bin Lifter during operation exceeds 1000mm or 1 metre.*

Do not force the Bin Lifter

- The Bin Lifter will perform efficiently and safely when operated correctly. Ensure that the internal warning decal is in good condition.

Turn off the Bin Lifter when not in use

- When not operating the unit, turn the unit OFF and remove the key to prevent accidental operation of the unit.

**All electrical cords and leads should be checked by operator prior to use****Only charge the Bin Lifter with the provided power lead****Avoid using the Bin Lifter while charging the battery****Maintenance of Bin Lifter parts must only be performed by a qualified technician**

- Contact your Liftmaster sales representative for servicing or maintenance issues.

Key (On / Off) Switch

Situated on the control panel, the key switch must be turned clockwise to switch the bin lifter 'on'. The battery level indicator bar will illuminate.



This Bin Lifter should be turned off whenever it is not in use.

Up/Down Push Buttons

These push buttons are situated on the control panel. Push buttons energise or de-energise the hydraulics, thus moving the cradle in up and down directions.

Battery Level Display Indicator

The illumination on the battery indicator located on the control panel indicates the amount of power left in the batteries. The battery level is indicated by a line and its nominal battery voltage is 12 Vdc.



BATTERY IS FULL



BATTERY IS EMPTY



Second to last bar illumination is flashing – this indicates that the battery voltage is approaching minimum voltage for the bin lifter to operate and must be recharged immediately.

Last and second to last bar illuminations flashing alternately – this indicates that the batteries have reached maximum discharge and the bin lifter must not be used.

IEC Plug

The IEC plug is found on the left corner area under the control panel. This is used for connecting the bin lifter to 10 A, 240V mains supply.



Do not expose this Bin Lifter to rain whilst charging.

Door Lock

The UBL250HY1800 Bin Lifter is fitted with a keyed locking mechanism which allows users to securely lock bin lifter door whilst in operation or when not in use. This door lock has a safety emergency release mechanism from the inside to prevent personnel being trapped inside the bin lifter.



Door Interlock

A door interlock mechanism is installed to inhibit the machine to be operated when the door is not closed.

Total Brake Castors



FREE MOVING POSITION



BRAKE POSITION

Operating Instructions

Safety Check

Before using the Universal Bin Lifter the operator should complete the following check:

- There are no signs of visible major damage to the unit
- No hydraulic fluid leakage
- The battery indicator shows adequate charge i.e. Indicator is illuminated "1"
- Area clear of persons and obstacles
- Clear area of trip, slip and fall hazards prior to operation
- Total brakes on castors functioning properly
- Main power has been disconnected and stored away from unit
- Ground is flat (max 3° slope) at site of operation

Positioning Bin Lifter to Bulk Dump Bin



Always ensure path of travel is clear of people and obstacles.

Do not move with a wheelie bin in the unit.

Always turn the unit OFF and disconnect the power lead before moving, to prevent accidental operation.

Prior to operation, ensure that no personnel or obstacles are within 2 meters of front or to the rear of the bin lifter.

Ensure that Total Brake is applied on castors prior to operation of the bin lifter.

1. Move to the side of the lifter to access the control panel.
2. Turn unit 'ON' and push the two "UP" push buttons simultaneously lifting the bin cradle off the ground by approximately 100 mm.
3. Turn the unit 'OFF'.
4. Deactivate the Total Brake on the castors.
5. Grasp both frame handles.
6. Move the unit in the desired direction at a slow walking pace.
7. Maneuver Bin Lifter so that it sits flush against the bulk dump bin.
8. Once in position, apply the Total Brake on the castors.
9. Fully open all of the lids on the bulk dump bin to provide clear access for the waste to drop in from the wheelie bin and to ensure that the wheelie bin and cradle do not interfere with any part of the bulk bin while in operation
10. Turn the unit ON and lower the cradle down.

Place the wheelie bin into the unit

1. Ensure the bin cradle is at its lowest point or floor level.
2. Using the key supplied, unlock door lock and open door.
3. The Bin Lifter is now ready to accept wheelie bins.
4. Wheel the wheelie bin forward onto the cradle.
5. Ensure the bin is sitting in the center of the platform and the wheels of the bin have the self-adjust bin catches above them.
6. Close the door until the door lock latches securely. (For UBL250HY1800 Model only)

The Bin Lifter is now ready to lift the wheelie bin and empty its contents.

Lifting and lowering the bin cradle

1. Check area is clear and no obstructions exist around the unit.
2. Turn key switch clockwise to the 'ON' position.
3. Press and hold both UP buttons simultaneously on the control panel to lift the carriage up and empty the wheelie bin. When in Full UP position, bin lifter will automatically stop.
4. Press and hold both DOWN buttons on the control panel until the carriage stops automatically at its lowest point.



If the bin cradle does not move up and down smoothly, the battery may need recharging or the wheelie bin may be overloaded.

- The machine will not operate above its maximum capacity load limit
- **If the problem persists please contact your Liftmaster Sales Representative.**

5. Turn the key switch to 'OFF' and remove the key when the unit not in use. .



It is recommended that the Bin Lifter be left on charge when not in use.

It is recommended that the keys are removed from the operating panel and the door lock when the unit is not in use, to avoid risk of the unit being tampered with and/or to eliminate the risk of the keys being damaged or presenting a catching/tearing hazard from people moving around the unit.

Charging the battery



The Universal Bin Lifter should be charged in a well-ventilated area.

1. Always charge batteries once the job is done or day's use is complete.
2. Always leave batteries on charge until the battery level display indicator indicate that it is full.



Opportunity charging is NOT recommended. This can shorten battery life.

- Never leave batteries in a discharged state as this will shorten battery life.
- For maximum battery life, a battery must be recharged to 100% capacity. Not recharging to 100% may result in premature battery failure. Batteries are not covered under warranty if they are not recharged properly.
- Check all connections are tight and in good condition.
- Ensure there is enough airflow around the Bin Lifter to help keep the batteries as cool as possible.

If batteries are not used for lengthy periods of time, it is recommended to give them a maintenance charge once every 2 months.

The bin lifter is installed with an automatic charger. The automatic features on the charger together with sealed gel batteries ensures that there is a minimum amount of gas, if any at all, expelled from the batteries during charging.

Maintenance



Maintenance must only be carried out by certified technician and is only to be carried out when the cradle is in down position.

Personal Protective Equipment (PPE) should be worn by persons involved in the maintenance of the machine or when handling lubricated products and hydraulic fluids in order to minimize the potential of skin irritations.

Batteries

Ensure regular recharging of batteries. The batteries installed are SEALED, and are maintenance FREE.



Do **NOT** try to open these batteries.

Control Circuit Fuse

The control circuit is protected against inadvertent current over-loads. The fuse is located underneath the control panel.

This 5 A fuse can be accessed via service panel under the control panel of the bin lifter.

Power Circuit Fuse

The Bin Lifter is fitted with a 125 A fork lift type fuse in the battery supply circuit. Failure of this fuse indicates the Bin Lifter has sustained overload or an internal malfunction that requires immediate service. If the Power Circuit Fuse has tripped, contact Electrodrive Pty. Ltd. for machine service.



Do not attempt to replace power circuit fuse as hazardous currents may be present.

General

Any damage audible or visible to the Universal Bin Lifter should be addressed at the time of discovery. Electrodrive Pty. Ltd. can provide parts and service support on request through its service partner company, Serviced Equipment.

Serviced Equipment Pty Ltd

Phone: 1300 934 471

Email: info@servicedequipment.com.au

Warranty

Electrodrive Pty. Ltd. warrants that the Universal Bin Lifter is free from defects in materials and workmanship for a period of twelve months from the date of dispatch from the Electrodrive plant at 10A Burwood Ave, Sunshine North, Victoria.

If a defect is reported, Electrodrive will repair or replace the defective part, at its own discretion. This warranty does not apply if the Universal and Simplicity Plus Bin Lifter has been misused, damaged, or modified in any way.

Please be aware that modifications and misuse will void your warranty.

The following activities (including, but not limited to) are examples of these:

Maintenance

- The machine is re-wired by an unauthorized service agent
- The hydraulic circuit and all lifting mechanism are tampered by an unauthorized service agent
- There are modifications done to the body or frame of the machine
- Use of non-specified parts (Electrodrive genuine parts)
- The machine is serviced by an unauthorized service agent

Misuse

- Overloading the unit during operation
- Carrying people
- Overriding door interlock mechanism
- Exposed to rain or other precipitation
- Exposed to a corrosive environment
- Not being charged adequately

General wear items covered under warranty

- Push Buttons
- Door Lock
- Hydraulic Seals
- Castor Wheels
- Door Interlock Mechanism
- Cable
- Bearings
- Rollers
- Cam Bar
- Pulley (Sheaves)
- Hydraulic Power Unit (including pump)
- Hydraulic Cylinder (including hose)
- Door (including hinge mechanism)
- Key Switch
- Battery Display Indicator
- Electrical Contactors
- Bin Cradle Assembly



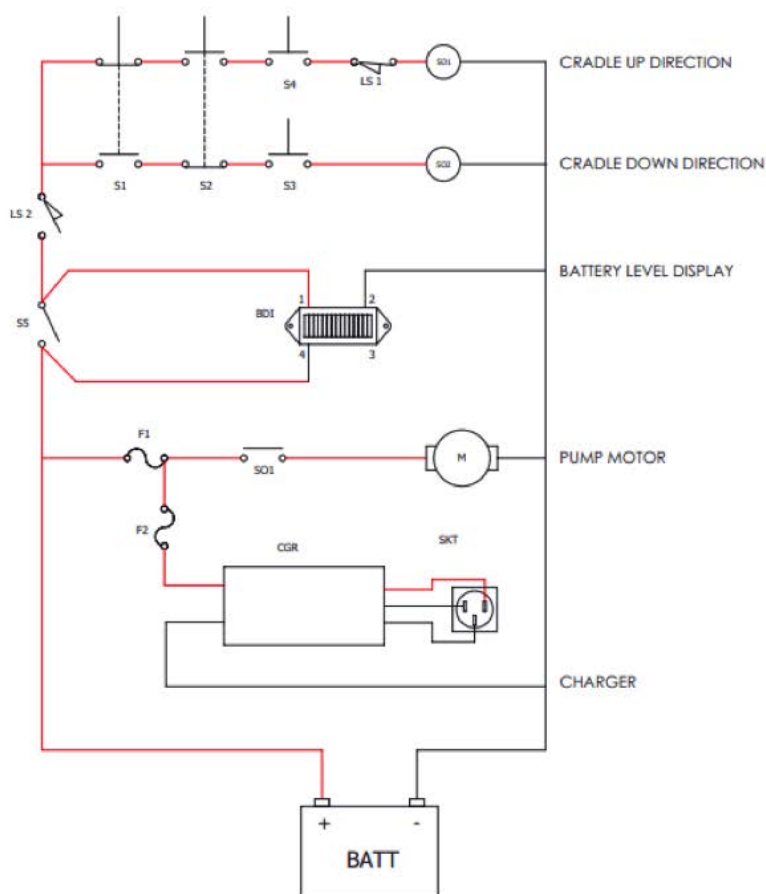
If you are interested in extending your warranty period through a regular service program, please contact Electrodrive on 1800 333 002. Note that batteries and chargers are not included.

Spare Parts List

Index	Part Number	Description
1	SPPLGHBL250CONTNO	Contact block normally open
2	SPPLGHBL250HOLDER	Contact block holder
3	SPBUTHBL250PL	Push button, plain white
4	SPPLGHBL250CONTNC	Contact block normally close
5	SPLMAONOFFSW	Key switch
6	SPLMUBBATIND	Battery display indicator
7	SPREL12VNO	12 V normally open relay
8	SPSPRUBL25001002	UBL250 foot plate spring RHS
9	SPSPRUBL25001001	UBL250 foot plate spring LHS
10	SPSUBUBL25014001	Bin Lifter universal roller assembly
11	SPLMUBELCSMART	12 & 24 V smart charger
12	SPLMUBIECPLATE	IEC screw in plate
13	SPLMRUBBERBOOT	IEC connector insulation boot
14	SPMCHPULLY	Pully - IP9703 tension idler
15	SPLMSIMPLIMITSW	Limit switch 0
16	SPSETi-5802	UBL250 25x25 plug with threaded hole
17	SPLMUBDRLATCH	Door latch
18	SPCBLUBL25001002	Universal Bin Lifter 240 L cable assembly LHS
19	SPCBLUBL25001001	UBL250 wire rope assembly rhs
20	SPEL2500	Panel mount fuse holder
21	SPLMUBLBATTGEL	63 AH gel battery
22	SPEL2495	Fuse, base mount holder 425A
23	SPFUS125ABLTOWN	125 Amp bolt down fuse
24	SPFUS5AMP3AG	Fuse 5 amp 3 ag
25	SPJUR125/JZF	J core pu 125 dia wheel plate fixed
26	SPJUR125/JZH	J core pu 125 dia wheel bolt hole swivel
27	SPSUQ125G/MZHTB	M125 gry pu tyr,nyl ctr,q-brg g-tg/znc,swv b-h0l,tb frk.

Index	Part Number	Description
28	SPWIRUBL250PANLOOM	Bin Lifter Universal Control Panel Wiring Loom
29	SPWIRUBL250MOTLOOM	Bin Lifter Universal Motor Wiring Loom
30	SPWIRUBL250BATLOOM	Bin Lifter Universal Battery Loom
31	SPUBL250HYDCYL	UBL250HY1800 Hydraulic Cylinder
32	SPUBL250HYDMOTPMP	UBL250HY1800 Motor and Pump Unit
33	SPUBL250HYDMOTSOL	UBL250HY1800 Solenoid

Circuit Diagram



ITEM	REF	DESCRIPTION
1	S1	DOWN, NC/NO SWITCH
2	S2	UP, NO/NC SWITCH
3	S3	DOWN, NO SWITCH
4	S4	UP, NO SWITCH
5	S5	KEY SWITCH
6	LS1	CRADLE UP POSITION LIMIT SWITCH
7	LS2	DOOR INTERLOCK MICRO-SWITCH
8	SO1	SOLENOID 1
9	SO2	SOLENOID 2
10	BDI	BATTERY DISPLAY INDICATOR
11	M	HYDRAULIC PUMP MOTOR
12	F1	5 AMP 3 AG, CONTROL FUSE
13	F2	125 AMP, MAIN FUSE
14	CGR	BATTERY CHARGER
15	SKT	IEC SOCKET CONNECTOR
16	BATT	BATTERY

NOTE:
1. SEE OPERATING MANUAL FOR COMPLETE SPARE PARTS LIST.

Service Log

Service recommendations

To ensure your Universal Bin Lifter is kept in a safe and reliable condition, it is important to maintain a preventative maintenance program. Maintain a log of the service work on the cards following, and always use an Approved Electrodrive Service Agent to conduct the works. The service personnel will be provided with all necessary documents and components in service repair, including but not limited to, circuit diagrams, component part lists, descriptions, service checklists and spare parts.

6 month service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

12 month service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

18 month service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

2 year service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

2½ year service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

3 year service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

3½ year service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

4 year service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

4½ year service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			

5 year service			
Date of service		Service agent	
Machine serial number			
Summary of works			
Next service due:			