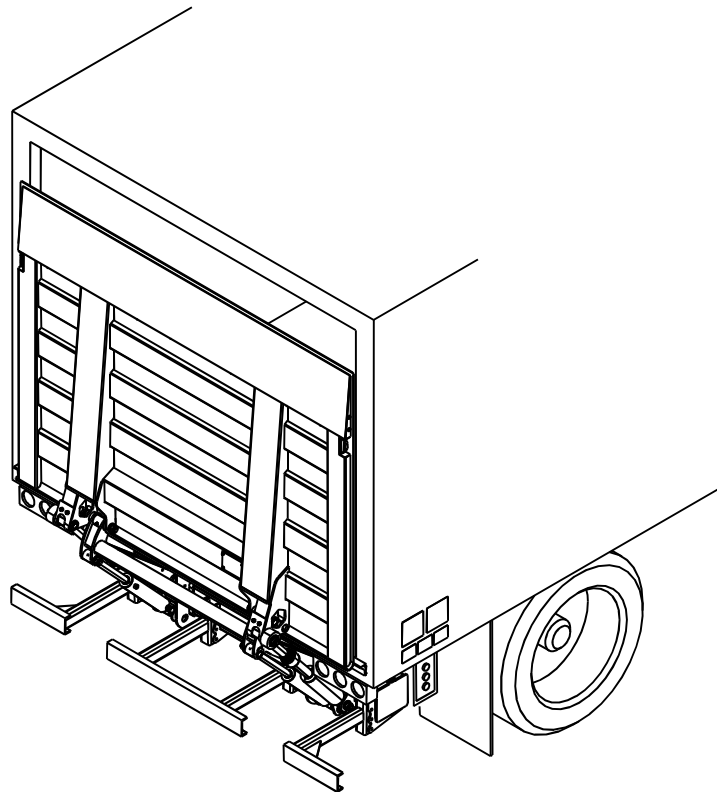# Parts Manual

BZ-33, BZ-44   GEN 7

3300 lb. & 4400 lb. Capacity Cantilever Liftgates

This manual identifies parts for Liftgates manufactured:

All Generation 7

Last Change

Date	Pages	Description
09/24/2019	10, 29	Added External Sensor and Pump with Tray Assembly.

Table of Contents

⚠	Improper operation and maintenance of this liftgate could result in severe personal injury or death. Read and understand the contents of the owner's manual and all warning and operation decals before operating and/or performing maintenance on this liftgate.

Introduction

Each Waltco liftgate is manufactured to stringent quality standards for years of reliable service. To ensure maximum performance of your Waltco liftgate, always specify and use "OEM Parts" from Waltco.

This manual does not provide procedures for the servicing and repair of Waltco liftgates. Service and repair should only be performed by an authorized Waltco distributor. For information on the nearest authorized Waltco distributor contact:

Waltco Lift Corp.
285 Northeast Avenue
Tallmadge, OH 44278
Phone: 800.411.5685
Fax: 800.411.5684
E-mail: parts@waltco.com

⚠	**The use of non-standard or makeshift parts can be extremely hazardous and result in serious injury or death.**

⚠	**Every vehicle that has a WALTCO Liftgate must have legible WARNING AND OPERATION DECALS clearly posted on the vehicle and an OWNER'S MANUAL in the vehicle at all times as a guide for proper operation and maintenance.**

How To Order Parts

Repairs should be made only by authorized mechanics using WALTCO Replacement parts.

When ordering repair or replacement parts, please include all the information asked for below. If this information is not available, a complete written description or sketch of the required part will help WALTCO identify and deliver the needed part to you.

_____
THE FOLLOWING INFORMATION MUST BE INCLUDED:

1. SERIAL NUMBER - [WALTCO liftgate serial numbers can be found on the Specification Tag attached to the mount frame. (On older units the Specification Tag is located on the side or bottom of the platform.)]

2. MODEL NUMBER - [Or capacity]

3. PLATFORM SIZE

_____
THEN INCLUDE THE FOLLOWING INFORMATION:

4. PART NUMBERS

5. DESCRIPTION

6. QUANTITY REQUIRED

_____
MAIL, E-MAIL OR PHONE YOUR REQUEST TO:

Waltco Lift Corp
285 Northeast Avenue
Tallmadge, OH 44278
1-800-411-5685
FAX: 1-800-411-5684
E-MAIL: parts@waltco.com

ALL PARTS ARE F.O.B. FROM THE SHIPPING FACTORY

_____
PLEASE NOTE:

To assure you of continuing and effective quality control, our warranty policy permits replacement of hydraulic cylinders, valves and motor pump units when their factory seals are intact. Parts under warranty will be exchanged promptly after careful inspection of the returned assemblies.
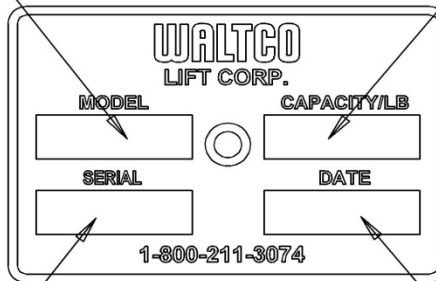
Model Information

Explanation of Specification Tag

BZ33 G7	Level Lift	3300 lbs.
BZ44 G7	Level Lift	4400 lbs.

MODEL NUMBER

RATED CAPACITY
Based on an evenly
distributed load on the
platform flat surface.

WALTCO
LIFT CORP.

MODEL   CAPACITY/LB
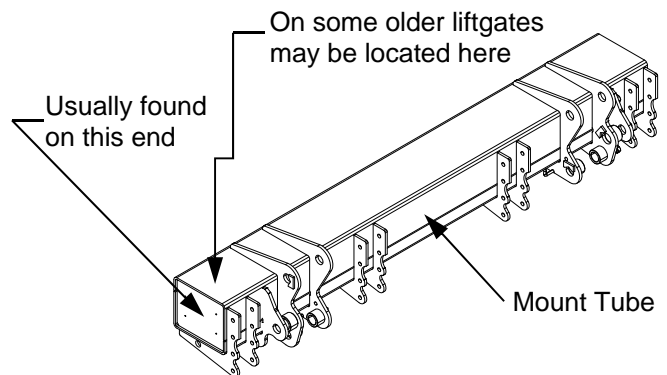
SERIAL   DATE

1-800-211-3074

SERIAL NUMBER
of liftgate. To be used
when ordering parts or
when contacting Waltco
for service or warranty
questions

**DATE OF
MANUFACTURE**
Month / Year

GR00241

LOCATION OF SPECIFICATION TAG

Can be found on driver's side, end of mount tube.

On some older liftgates
may be located here

Usually found
on this end

Mount Tube

GR02226

Decals

INSTALLATION OF CONTROL DECALS

Install all decals listed below. Be certain they are installed in the proper location and are legible.

⚠ All decals must be in place and legible or all warranties are void.

Each of the following four (4) decals are to be positioned in a conspicuous place near the control switches as shown.

    80100850 – Safety Instruction Decal

    80101451 – Operation Decal

    80100828 – Important Decal

    80101370 – Hazard decal

One (1) of the following three (2) decals is to be positioned in a conspicuous place near the control switches as shown.

    80101415 – BZ-33 Capacity Decal

    80101416 – BZ-44 Capacity Decal

⚠ **If your liftgate is equipped with dual controls, an additional Safety Instruction decal (80100850) is to be placed in a conspicuous place near the second set of controls.**

To maximize decal adhesion to surfaces:
- Surface must be dry and clean
- Firm pressure must be applied to decal
- Minimum surface temperature 65º
  Heat gun may be used to heat surface
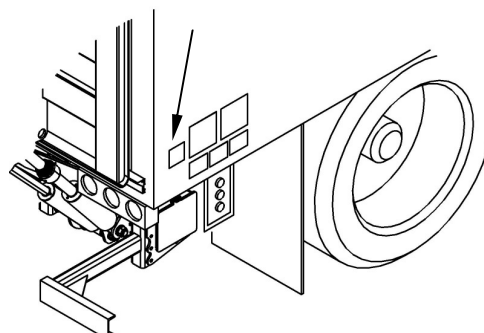
PLACE DECALS IN THIS AREA
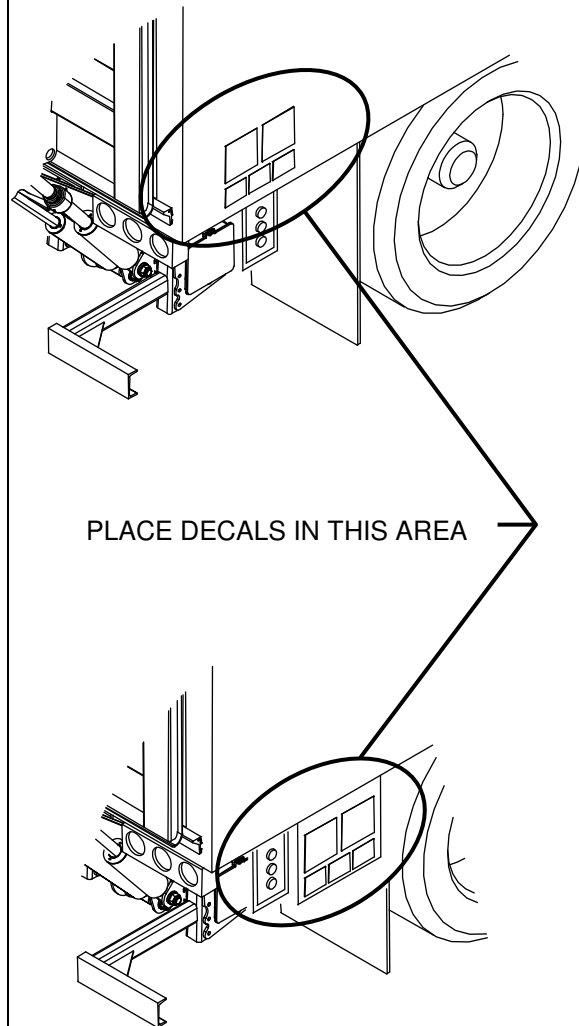
GR02913

INSTALLATION OF DRIVE-OVER WARNING DECAL

The following decal is to be positioned in a conspicuous place near the control switches as shown.

    80100592 – Drive Over Decal

⚠ **If unit is equipped with drive over kit decal 80101330 must be used in place of decal 80100592**.

GR02913A

Decals

INSTALLATION OF PLATFORM DECALS

The following decals are to be placed on the underside of the platform and both sides of vehicle as shown.

  75089296 – Stand Clear Decal (4)

One (1) of the following three (2) decals is to be positioned in a conspicuous place on the bottom of the platform as shown

  80101415 – BZ-33 Capacity Decal

  80101416 – BZ-44 Capacity Decal

STAND CLEAR DECALS HERE

CAPACITY DECAL HERE
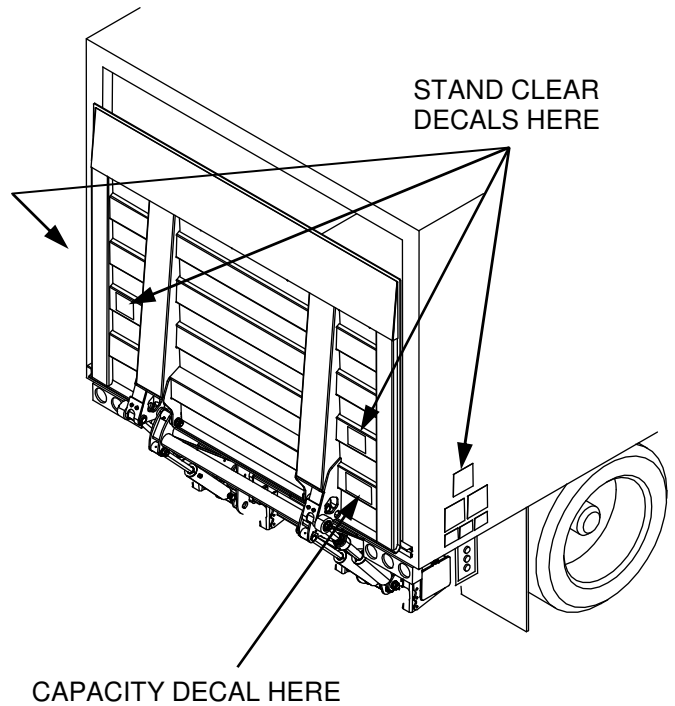
GR00511

INSTALLATION OF SAFETY TAPE

Tape (Z20290) is to be placed on the sides of platform so it is visible from the side and back of vehicle as shown.

IMPORTANT! Safety tape must wrap around side of platform as shown.

IMPORTANT! Safety tape must wrap around side of platform as shown.

GR00511

Decals

SAFETY TAPE AND FLAGS

Tape (Z20290) is to be placed on the sides of platform so it is visible from the side.

Locate corner flag mount brackets (Z20273), one on each side of platform and drill (3) holes per bracket into platform as shown. Use bracket as a template.
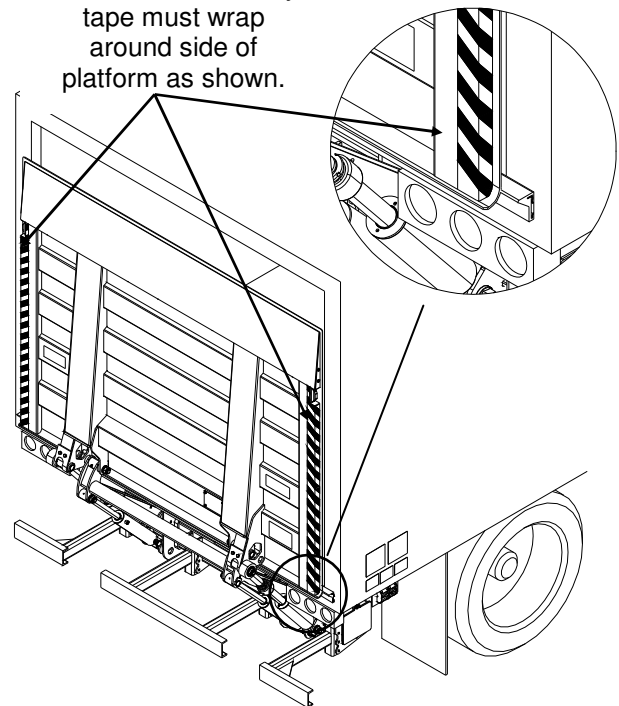
Using slotted head screws provided (three per bracket), install flag mount brackets as shown.

Slide flags (75089905) into mount brackets and crimp ends of each bracket to prevent flags from sliding out.

Tape

9"

Flag

9"

9"

Flag mount bracket
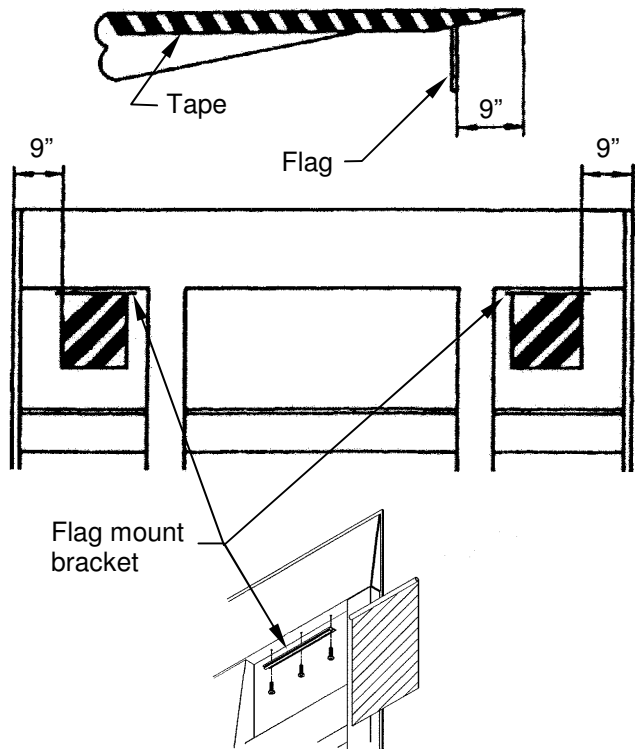
GR00043 & GR01761

SHUT-OFF DECAL

The following decal is to be placed next to the liftgate shut-off switch as shown.

75089267 – Liftgate Shut-Off Decal

PLACE DECAL AS SHOWN

GR00121

CIRCUIT BREAKER DECAL

The following decal is to be placed next to the liftgate circuit breaker as shown.

80100829 – Circuit Breaker Decal

PLACE DECAL IN THIS AREA

GR00122

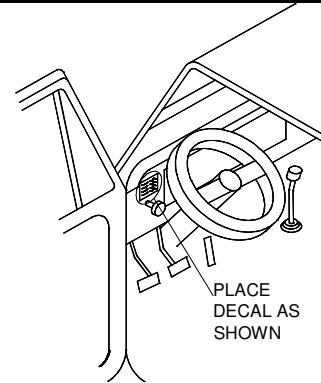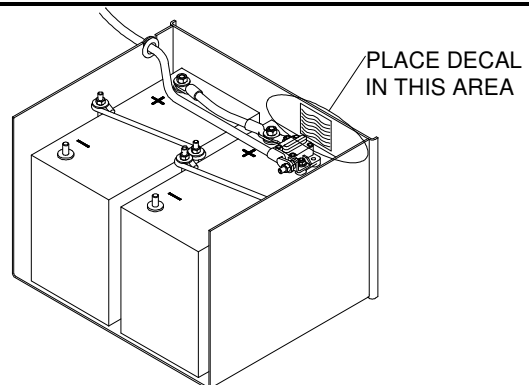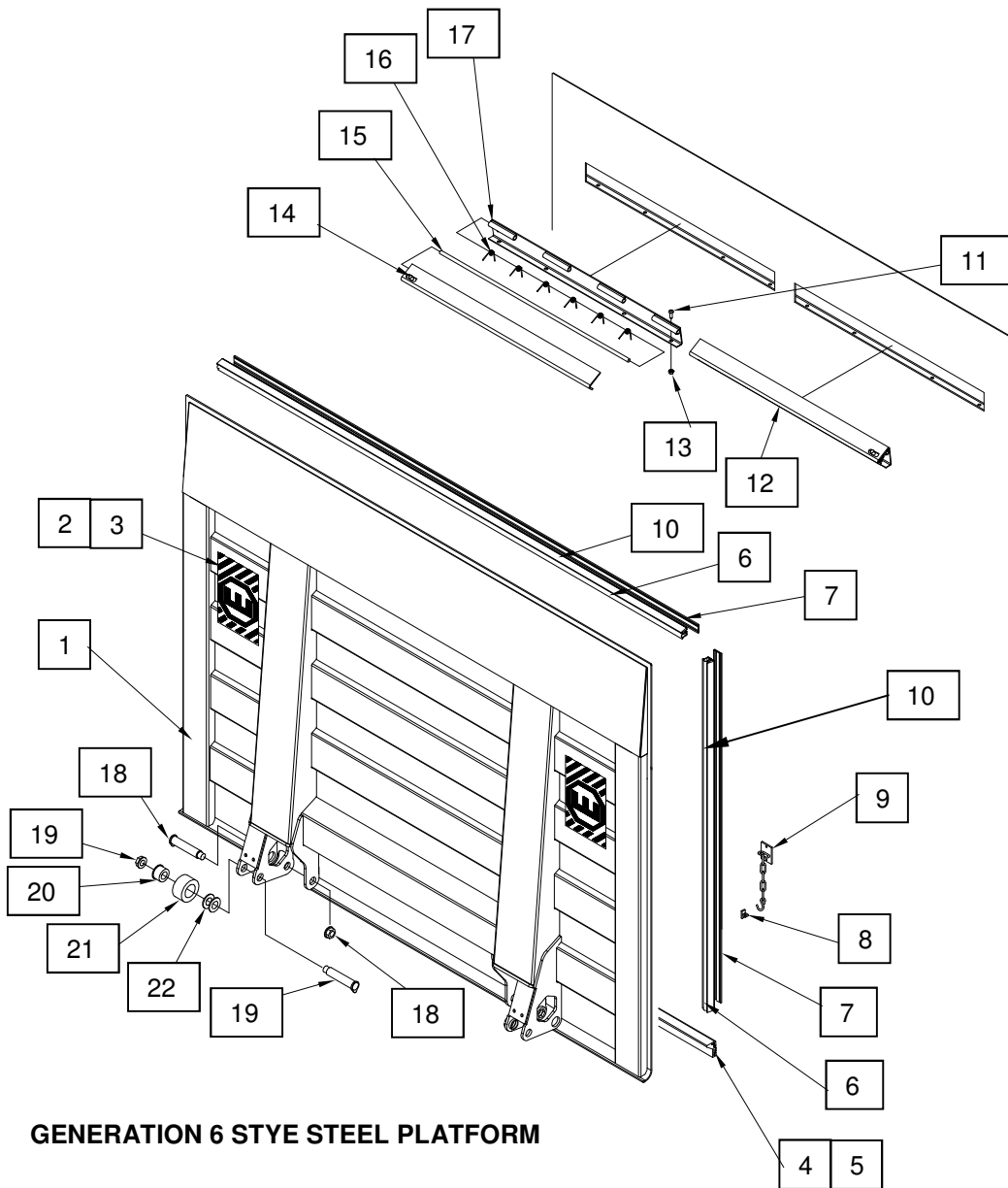| ITEM	PART NUMBER	QTY	DESCRIPTION
1	17010030	1	Platform, 48 x 94" Gen 6
	17010031		Platform, 60 x 94" Gen 6
	17010032		Platform, 72 x 94" Gen 6
	17010033		Platform, 84 x 94" Gen 6
	17010034		Platform, 48 x 100" Gen 6
	17010035		Platform, 60 x 100" Gen 6
	17010036		Platform, 72 x 100" Gen 6
	17010037		Platform, 84 x 100" Gen 6
	17010040		Platform, 48 x 94", with C/S Gen 6
	17010041		Platform, 60 x 94", with C/S Gen 6
	17010042		Platform, 72 x 94", with C/S Gen 6
	17010043		Platform, 84 x 94", with C/S Gen 6
	17010044		Platform, 48 x 100", with C/S Gen 6
	17010045		Platform, 60 x 100", with C/S Gen 6
	17010046		Platform, 72 x 100", with C/S Gen 6
	17010047		Platform, 84 x 100", with C/S Gen 6
2	Z20273	2	Corner flag mounting bracket
3	75089905	2	Corner flag
4	75089911	1	Steel rail for rubber sill 75089912 (optional)
5	75089912	1	Rubber sill (optional)
6	75089960	2	Rubber seal strip (specify length) (optional)

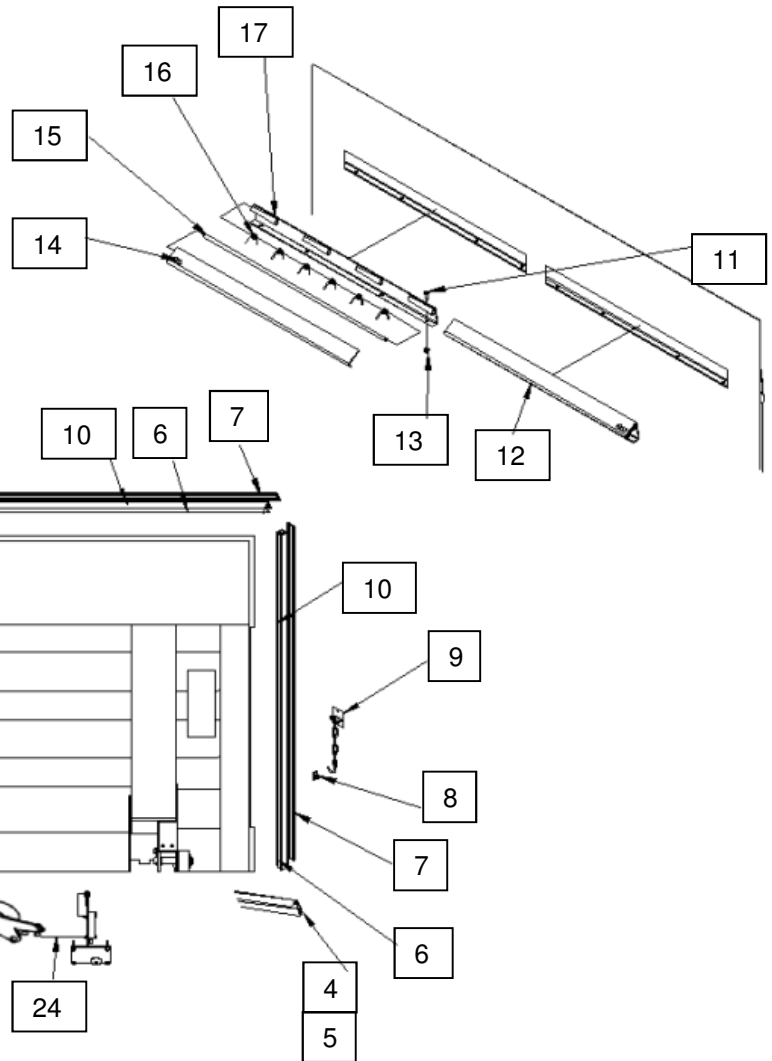| ITEM	PART NUMBER	QTY	DESCRIPTION
7	75089961	3	Steel rail for 75089960 (59" long) (optional)
	75090087		Steel rail for 75089960 (98" long) (optional)
	75089936		Aluminum double rail for 75089960 and 75089937 (optional)
8	10111700	2	Chain clip (optional)
9	10193000	2	Latch chain (optional)
10	75089937	3	Rubber air foil (specify length / optional)
11	75086857	8	Button head socket
12	14640051	1	Cart stop, driver side
12	14640001	1	Cart stop, curb side
13	75085005	8	Hex nut
14	14641501	1	Stop assembly, curb side
14	14641551	1	Stop assembly, street side
15	14241201	2	Cart stop pivot pin (1 per cart stop)
16	14241601	12	Cart stop spring (6 per cart stop)
17	14641001	2	Cart stop base assy (1 per cart stop)
18	Z32785	2	Pivot Bolt Complete, Dia 30 L=186
19	Z32785	2	Pivot Bolt Complete, Dia 30 L=186
20	Z51564	2	Spacer Sleeve
21	Z50755	2	Support Wheel
22	Z21674	4	Washer

Warning: This page for Gen 6 style platforms only. Gen 6 platforms can be identified by the rectangular cutouts for the pin retainers.
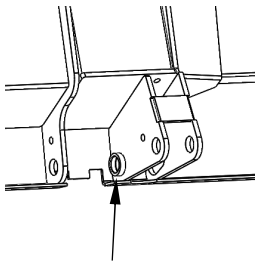

GENERATION 6 STYE STEEL PLATFORM

WALTCO LIFT CORP
BZ GEN 7

REVISED: 03-15-18
E.O. 10338
REV 01

PM-980

ITEM	PART NUMBER	QTY	DESCRIPTION
	17010010		Platform, 48 x 94"
	17010011		Platform, 60 x 94"
	17010012		Platform, 72 x 94"
	17010013		Platform, 84 x 94"
	17010014		Platform, 48 x 100"
	17010015		Platform, 60 x 100"
	17010016		Platform, 72 x 100"
	17010017	1	Platform, 84 x 100"
	17010020		Platform, 48 x 94", with C/S
	17010021		Platform, 60 x 94", with C/S
	17010022		Platform, 72 x 94", with C/S
	17010023		Platform, 84 x 94", with C/S
	17010024		Platform, 48 x 100", with C/S
	17010025		Platform, 60 x 100", with C/S
	17010026		Platform, 72 x 100", with C/S
	17010027		Platform, 84 x 100", with C/S
2	Z20273	2	Corner flag mounting bracket
3	75089905	2	Corner flag
4	75089911	1	Steel rail for rubber sill 75089912 (optional)
5	75089912	1	Rubber sill (optional)
6	75089960	2	Rubber seal strip (specify length) (optional)
7	75089961	3	Steel rail for 75089960 (59" long) (optional)

ITEM	PART NUMBER	QTY	DESCRIPTION
	75090087		Steel rail for 75089960 (98" long) (optional)
	75089936		Aluminum double rail for 75089960 and 75089937 (optional)
8	10111700	2	Chain clip (optional)
9	10193000	2	Latch chain (optional)
10	75089937	3	Rubber air foil (specify length / optional)
11	75086857	8	Button head socket
12	14640051	1	Cart stop, driver side
12	14640001	1	Cart stop, curb side
13	75085005	8	Hex nut
14	14641501	1	Stop assembly, curb side
14	14641551	1	Stop assembly, street side
15	14241201	2	Cart stop pivot pin (1 per cart stop)
16	14241601	12	Cart stop spring (6 per cart stop)
17	14641001	2	Cart stop base assy (1 per cart stop)
18	Z34367TL	2	Support wheel kit (includes 19-22)
19	Z21643TL	2	Snap ring
20	Z21674TL	2	Washer 31x58x4mm
21	Z75137TL	2	Support wheel
22	Z34152TL	2	Lock kit for pin
23	Z34347TL	2	Pin and lock kit (includes #22)
24	Z75762TL	1	Angle sensor kit –Inside platform mounted
24	Z77795TL	1	Angle sensor kit –Exterior mounted

Warning: This page is for Gen 7 style platforms only. Gen 7 platforms can be identified by this boss which extends towards the center of the platform.

GENERATION 7 STYLE STEEL PLATFORM

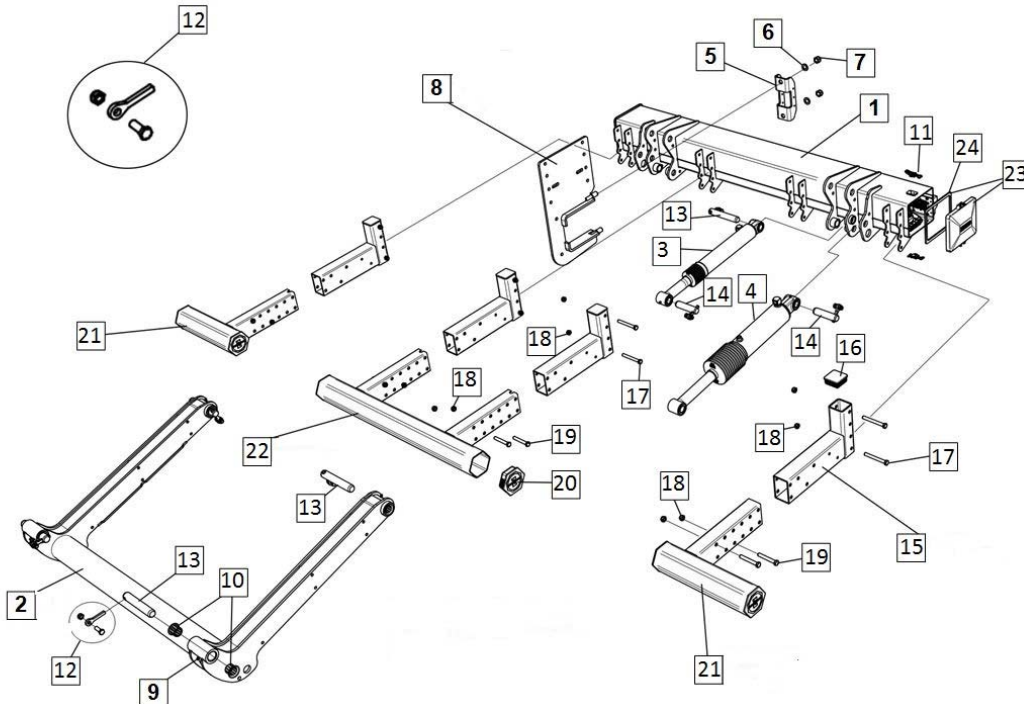**LIFT CORP**
BZ GEN 7

Page 10

REVISED: 08-26-19
E.O. 10610
REV 02

PM-964

ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z75992TL	1	Support Frame
2	Z75640TL	1	Lift Arm (-135) (Short arms 29-1/2" cc)
	Z75639TL	1	Lift Arm (-155) (Long arms 34-1/4" cc)
3	Z59219TL	2	Lift Cylinder (Short Arm)
	Z59220TL	2	Lift Cylinder (Long Arm)
4	Z72848TL	2	Tilt Cylinder (Short Arm)
	Z73000TL	2	Tilt Cylinder (Long Arm)
5	Z75651TL	2	Bracket
6	Z21429TL	4	Washer 23x40x3
7	Z20171TL	4	Nut M22
8	Z34361TL	2	Mounting Bracket, Complete (includes 5-7)
9	Z21376TL	4	Grease Nipple M6
10	Z33614TL	4	Bushing Set
11	Z34350TL	1	Latch
12	Z34152TL	10	Locking Pin Kit
13	Z34332TL	2	Axle Complete. Dia=30, L=180
14	Z34335TL	4	Pivot Bolt Complete Dia=30, Length=144
15	Z33872TL	4	Bumper Bar Inner Part Complete (includes 16-18)
16	Z22183TL	4	Plastic Cover, 70x70
17	Z21597TL	8	Screw M12x100
18	Z21664TL	16	Nut M12
19	Z21828TL	8	Screw M12x80
20	Z20281TL	6	Plastic Cover
21	Z34113TL	2	Bumper Bar, Outer Part Complete (includes 18-20)
22	Z33874TL	1	Bumper Part, Center Part Complete (includes 18-20)
23	Z75691TL	1	End Cover Complete (includes 24)
24	Z75689TL	1	Gasket

WALTCO LIFT CORP.
BZ Gen 7

PM-965

BZ MOUNT FRAME (Long & Short Arms)

WALTCO LIFT CORP.
BZ Gen 7

PM-965

ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z20516TL	1	Hose Kit (includes 2-5)
2	Z34363TL	1	Hydraulic Hose ø1/4 x 2770mm
3	Z34364TL	1	Hydraulic Hose ø1/4 x 3240mm
4	Z34365TL	1	Hydraulic Hose ø1/4 x 3120mm
5	Z34666TL	1	Hydraulic Hose ø1/4 x 2580mm
6	Z34345TL	1	Hydraulic Hose ø1/4 x 850mm
7	Z34346TL	2	Plug 3/8" including Washer
8	Z34356TL	1	Adapter cpl. 3/8" – ¼"
9	Z20498TL	4	Adapter 3/8" – 3/8"
10	Z20516TL	4	Washer 3/8"
11	Z31174TL	9	Swivel Joint Complete, Dia=1/4"
12	Z32193TL	4	Swivel Joint Complete, Dia=3/8"
13	Z75818TL	2	Constant Flow Valve Complete 6l/min
14	Z54368TL	1	Connection Adapter, Tilt Complete
15	Z58645TL	1	Elec Safety Valve Complete 12V
16	Z54131TL	1	Elec Safety Valve Complete 12V
17	Z71187TL	1	Elec Safety Valve Complete 12V
18	Z33797TL	1	Pressure Guard, 60b incl. Cable amp., 2.1m
19	Z34357TL	1	Hose Clamp. Complete, Pair
20	Z34358TL	4	Hydr. Hose ø1/4" x 1700mm
21	Z21606TL	3	Cable Seal PG 16
22	Z22880TL	4	Screw M6x35
23	Z75663TL	1	Hydr. Hose Block
24	Z75680TL	1	Gasket
25	Z75989TL	1	Connection Adapter, Lift Complete

WALTCO LIFT CORP.
BZ Generation 7

REVISED: 09-2019
E.O. 10610
REV. 02

PM-966

BZ HOSES
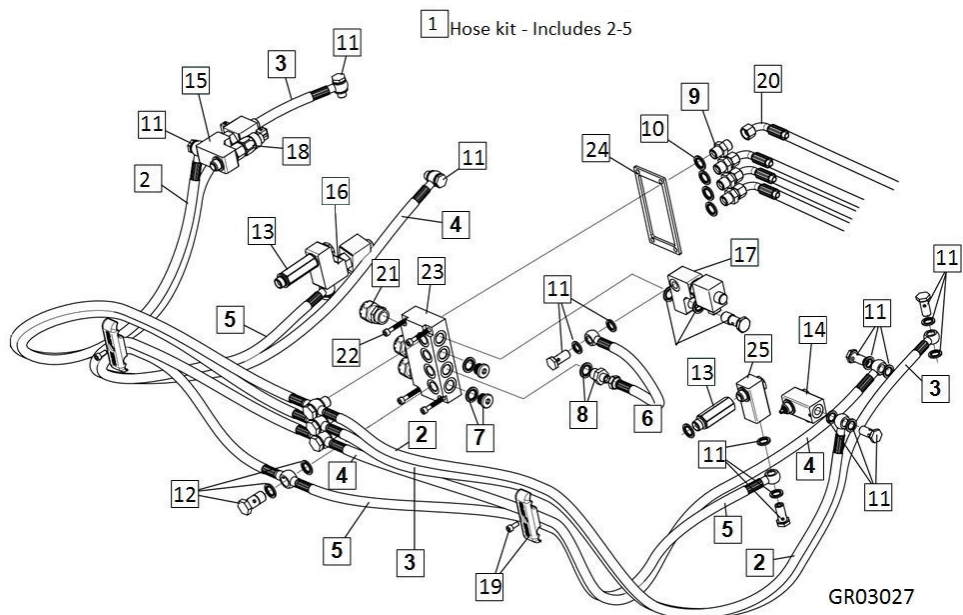
GR03027

WALTCO LIFT CORP.
BZ Generation 7

REVISED: 09-2019
E.O. 10610
REV. 02

PM-966

Page 12

ITEM	PART NUMBER	QTY	DESCRIPTION
-	Z72848TL	1	Tilt cylinder, 29-1/2" lift arm, BZ-33/44
	Z73000TL	1	Tilt cylinder, 34-1/4" lift arm, BZ-33/44
09	Z21376TL	2	Grease Zerk M6
11	Z32863TL	2	Bushing cpl.
14	Z33621TL	1	Bellow, Clamp and Cable Tie
17	Z32624TL	1	Gasket Set

WALTCO LIFT CORP.
BZ GENERATION 7

REVISED: 3-2018
E.O. 10338
REV. 01

PM-968

TILT CYLINDER

17 **Gasket set**
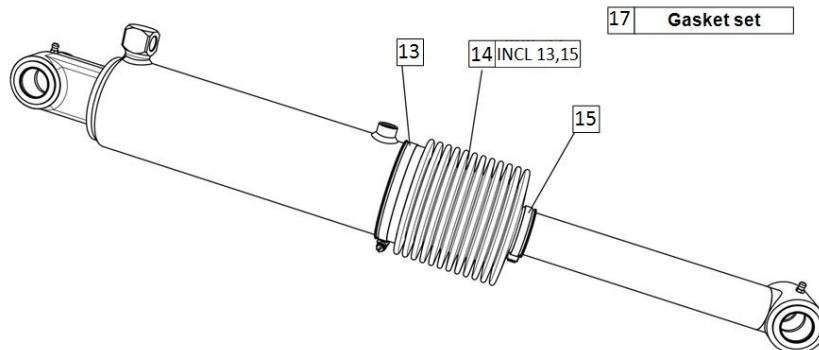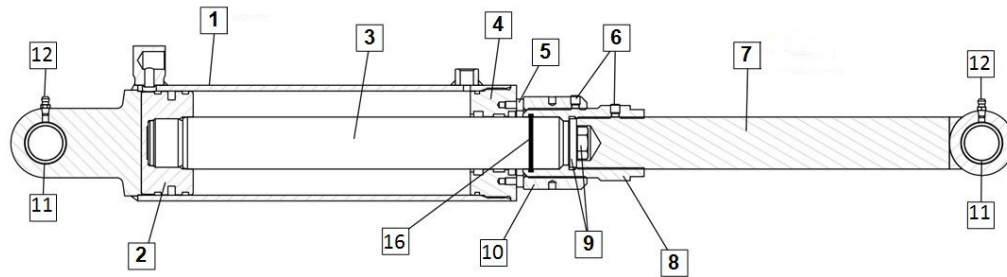
GR03029

WALTCO LIFT CORP.
BZ GENERATION 7

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REVISED: 3-2018
E.O. 10338
REV. 01

PM-968

ITEM	PART NUMBER	QTY	DESCRIPTION
-	Z59219	1	Lift cylinder, 29-1/2" lift arm, BZ-33/44
	Z59220	1	Lift cylinder, 34-1/4" lift arm, BZ-33/44
08	Z21376	2	Bushing cpl.
09	Z33621	2	Grease Zerk M6
11	Z32863	1	Bellow, Clamp & Cable Tie
12	Z32624	1	Gasket Set

WALTCO LIFT CORP.
BZ GENERATION 7
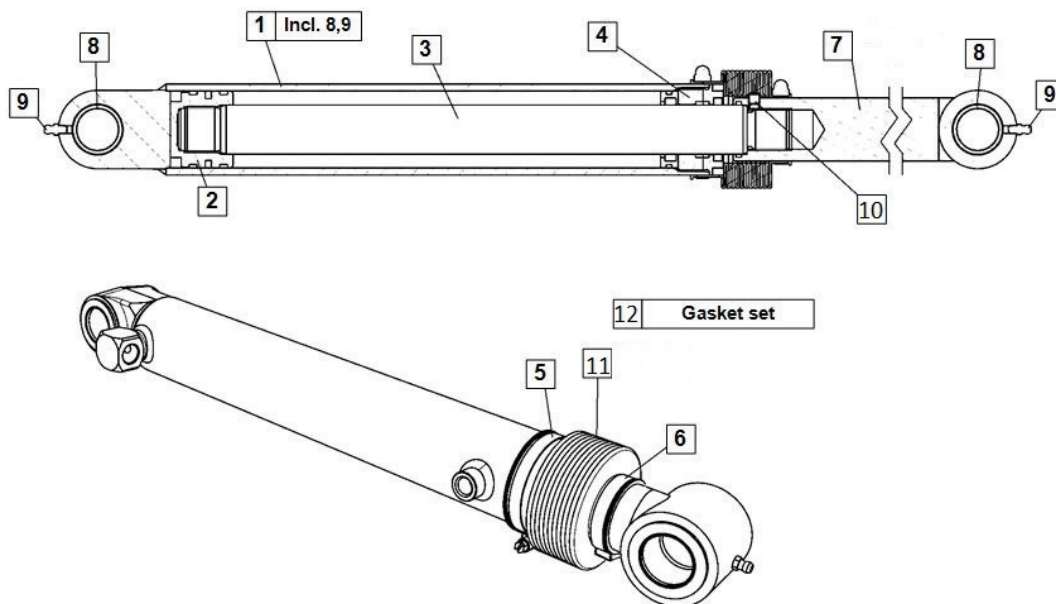
PM-967

LIFT CYLINDER

PM-967

ITEM	PART NUMBER	QTY	DESCRIPTION
1	**Z33653TL**	1	Cylinder Bellows kit ø55-70/35-45mm, 80-90/45mm

WALTCO LIFT CORP.
BZ GENERATION 5+

CYLINDER BELLOWS KIT
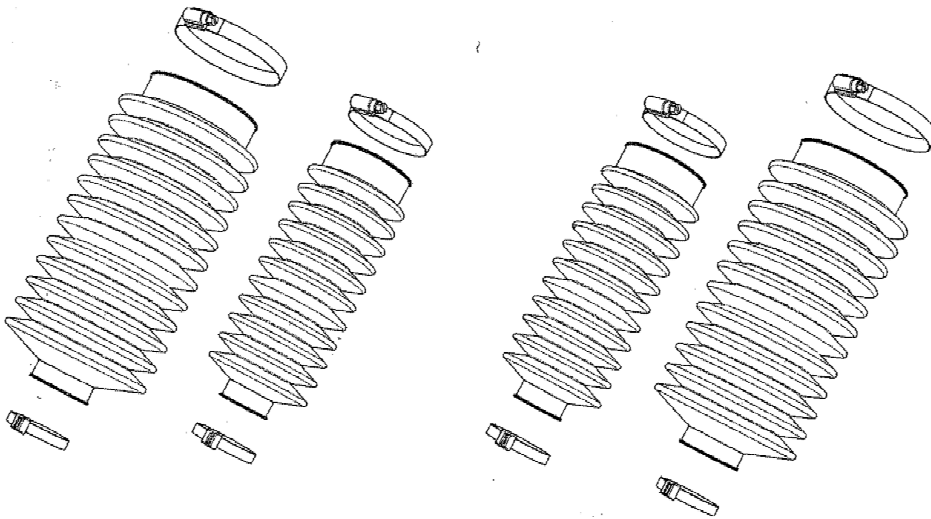
WALTCO LIFT CORP.
BZ Generation 5+

ITEM	PART NUMBER	QTY	DESCRIPTION
	Z59323TL		Hydraulic Unit 7050, 12V, 200B 2.5cc
	Z59325TL		Hydraulic Unit 7050, 24V, 200B 2.5cc
1	Z32206TL	1	Electric Motor, 12V
	Z32207	1	Electric Motor, 24V
2	75098349	1	Pump, complete, 2.5cc
3	Z33651TL	1	Valve Block, 12V
	Z33420TL	1	Valve Block, 24V
4	Z32432	1	Overflow Valve
5	75098353	1	Reverse Valve
6	Z32561	1	Filler Cap
7	Z33067	1	Strainer 400μ
8	Z33070	1	Strainer Tube
9	Z32482	1	Return Tube ø10mm x 300mm
10	Z32483	1	Return Tube ø1/4" x 250mm
11	Z32797	1	Switch, 12V
	Z32798	1	Switch, 24V
12	Z52038	1	Assembly Plate
13	Z22434TL	1	Gasket
14	Z52035	1	Clamp
15	75098364	1	Carbon Brush Kit, 12V
	Z32059	1	Carbon Brush Kit, 24V
16	Z32060	1	Heat Guard
17	75098366	1	O-Ring Set
18	Z32691	1	Ground Plate
19	Z22161	2	Screw, M10 x 12mm
20	Z22162	1	Screw, M10 x 25mm
21	Z32560	1	Plastic Tank
22	Z32567	1	Adapter Block
23	75098358	1	Motor Brace
24	Z33395	4	Screw w/Washer

HYDRAULIC PUMP UNIT
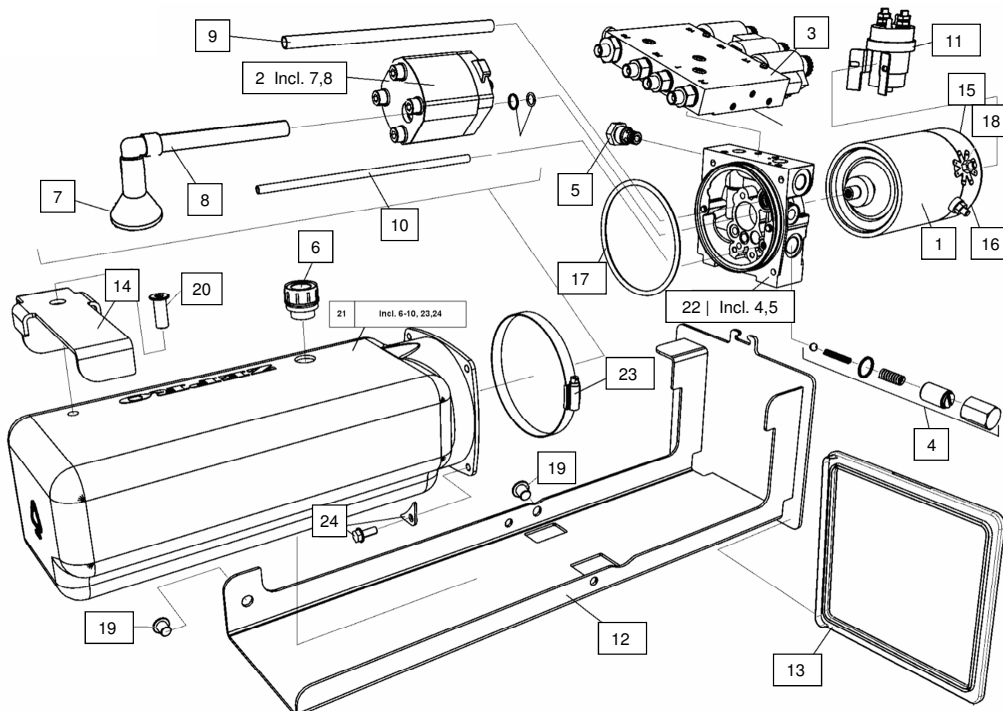
ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z31836	1	O-ring set cpl.
2	Z32963	2	O-ring, 2 pcs – 17.3mm x 2.4mm

WALTCO LIFT CORP.
BZ GENERATION 5+
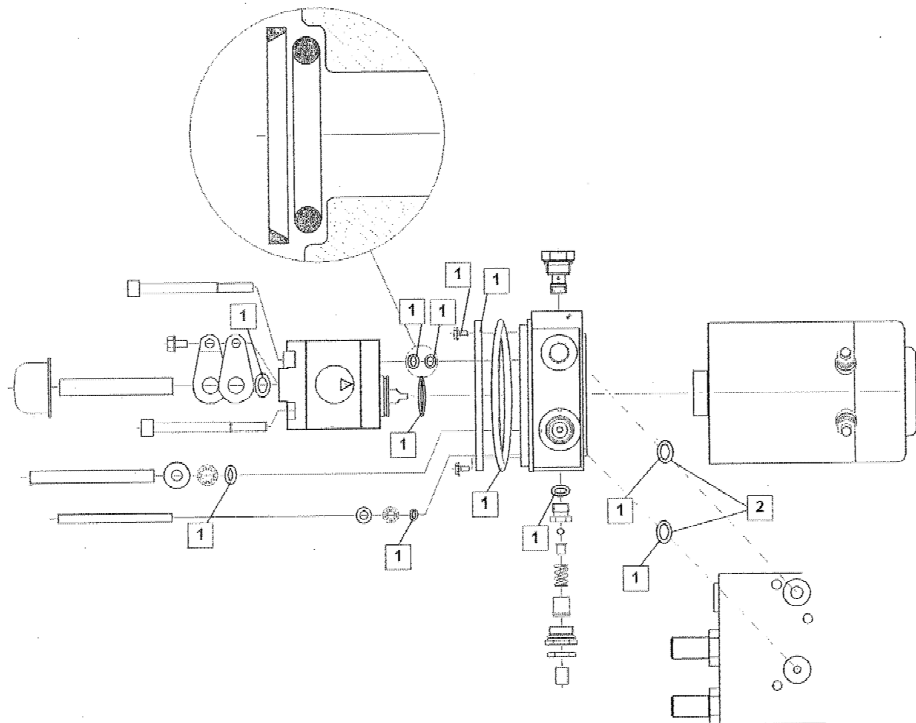
O-RING SEATS

WALTCO LIFT CORP.
BZ GENERATION 5+

ITEM	PART NUMBER	QTY	DESCRIPTION
	Z33651TL		Complete Valve Block (all shown) 12V
	Z33420		Complete Valve Block (all shown) 24V
1	Z33421	1	Valve Housing
2	Z53902	3	Adapter, 1/4" - 3/8"
3	75090037	1	Adjusting Screw w/ Washer
4	75098352	1	Overflow Valve, 50-170 Bar
5	Z20942	3	Washer, 1/4"
6	Z21877	1	O-Ring 15.3mm x 2.4mm
7	Z33036	1	Adapter, 3/8"
8	Z33142	2	O-Ring Set, Valve Z21621
9	Z22075TL	3	Magnet, 12V
	Z22076TL	3	Magnet, 24V
10	Z32372	3	O-Ring Set, Magnet
11	Z32961	1	O-Ring Set, Valve Z32040
12	Z32466	2	Nut
13	Z21621TL	2	Valve VE 166.22
14	Z32040	1	Reverse Valve, excluding Magnet
15	Z32356	1	Piston, constant flow
16	Z32971	1	Spring

WALTCO LIFT CORP.
BZ GENERATIO7 7

PM-970

BZ VALVE BLOCK
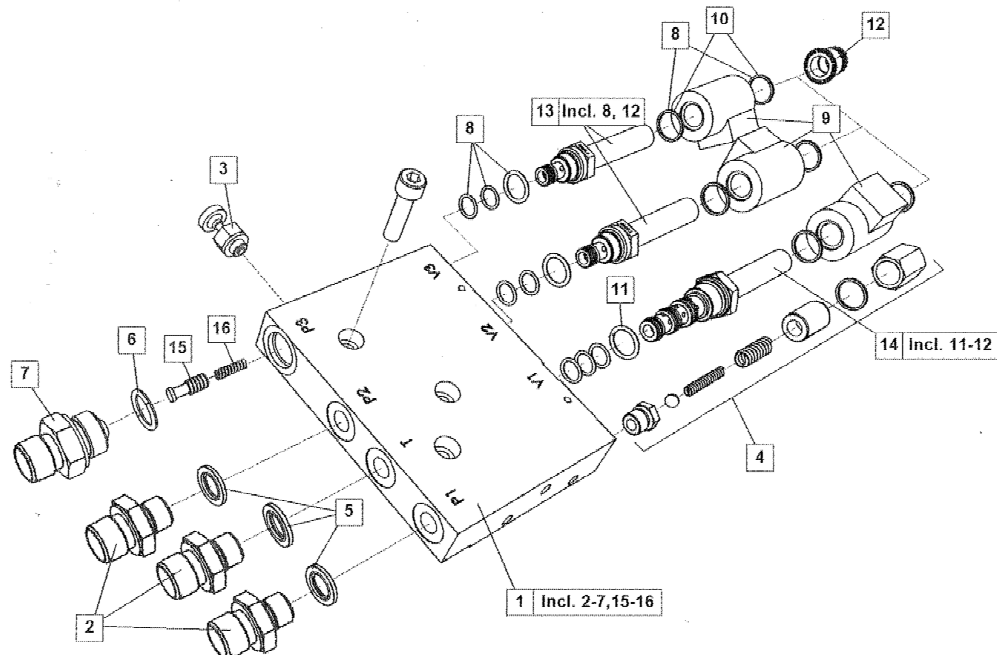
WALTCO LIFT CORP.
BZ Generation 7

PM-970

ITEM	PART NUMBER	QTY	DESCRIPTION
	Z58645TL	1	Elec safety valve, 12V
1 A	Z54937TL		Cable set L=2100, White/Blue
2	66752TL		Valve housing
3	63610TL		Swivel joint
4	21663TL		Magnet 12V
5	Z31521TL		O-ring set f. valve
6 A	31174TL		Swivel joint cpl D=1/4"
7	22199TL		Valve CE6
8	20516TL		Washer 3/8"
9 A	Z33797TL		Pressure guard 60B incl amp. L=2.1m
10 A	33820TL		Pressure guard 60B incl amp. L=2.95m

Note: Items marked A are not included in Z58645TL.
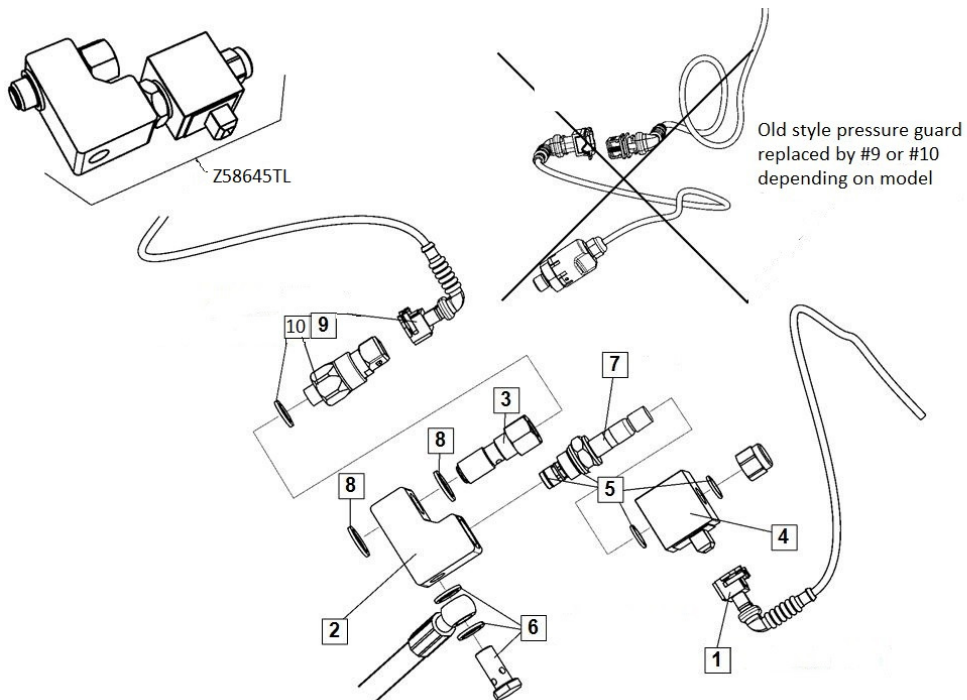
Z58645TL

Old style pressure guard replaced by #9 or #10 depending on model

ITEM	PART NUMBER	QTY	DESCRIPTION
0	Z54131TL	1	Elec safety valve complete 12V tilt
1 [A]	Z54135TL	1	Cable set L=1800 white/blue
2	Z66752TL	1	Valve housing
3	Z31845TL	1	Swivel joint complete
4	Z21663TL	1	Magnet 12v
5	Z31521TL	1	O-ring set
6 [A]	Z31174TL	1	Swivel joint complete ¼"
7	Z22199TL	1	Valve CE6

Note: Items marked A are not included in Z54131TL.

WALTCO **LIFT CORP.**
BZ GENERATION 7
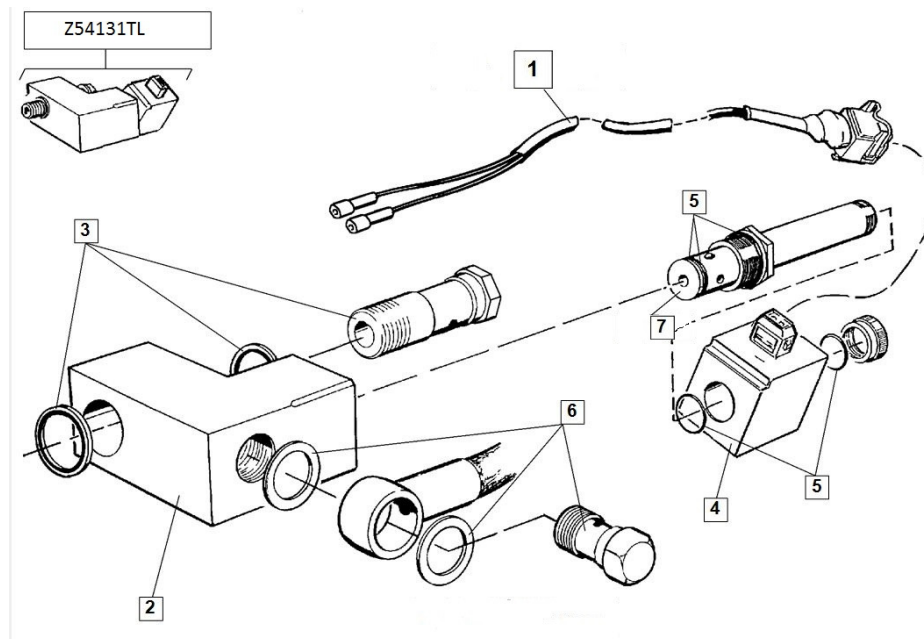
PM-973

WALTCO **LIFT CORP.**
BZ GENERATION 7

PM-973

ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z71187TL	1	Elec safety valve complete 12V
2	Z54114TL	1	Valve housing
3	Z31845TL	1	Swivel joint complete
4	Z22261TL	1	Valve CE6
5	Z31521TL	1	O-ring set
6	Z21663TL	1	Magnet 12v

WALTCO LIFT CORP.
BZ GENERATION 7

REVISED: 3-2018
E.O. 10338
REV. 01

PM-974

GR03032

WALTCO LIFT CORP.
BZ GENERATION 7

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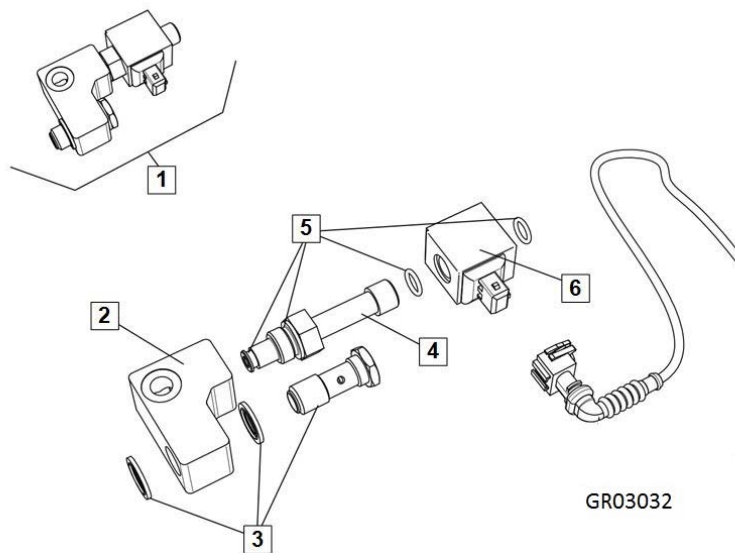
REVISED: 3-2018
E.O. 10338
REV. 01

PM-974

ITEM	PART NUMBER	QTY	DESCRIPTION
	Z54368TL	1	Connection Adapter, Tilt complete
1	Z34360TL	1	Connection Adapter
2	Z75688TL	1	Plug including washer
3	Z75677TL	1	Washer 3/8"
4	Z75661TL	1	Swivel Joint complete.

WALTCO LIFT CORP.
BZ GENERATION 7

REVISED: 3-2018
E.O. 10338
REV. 01
PM-976

GR03035

WALTCO LIFT CORP.
BZ GENERATION 7

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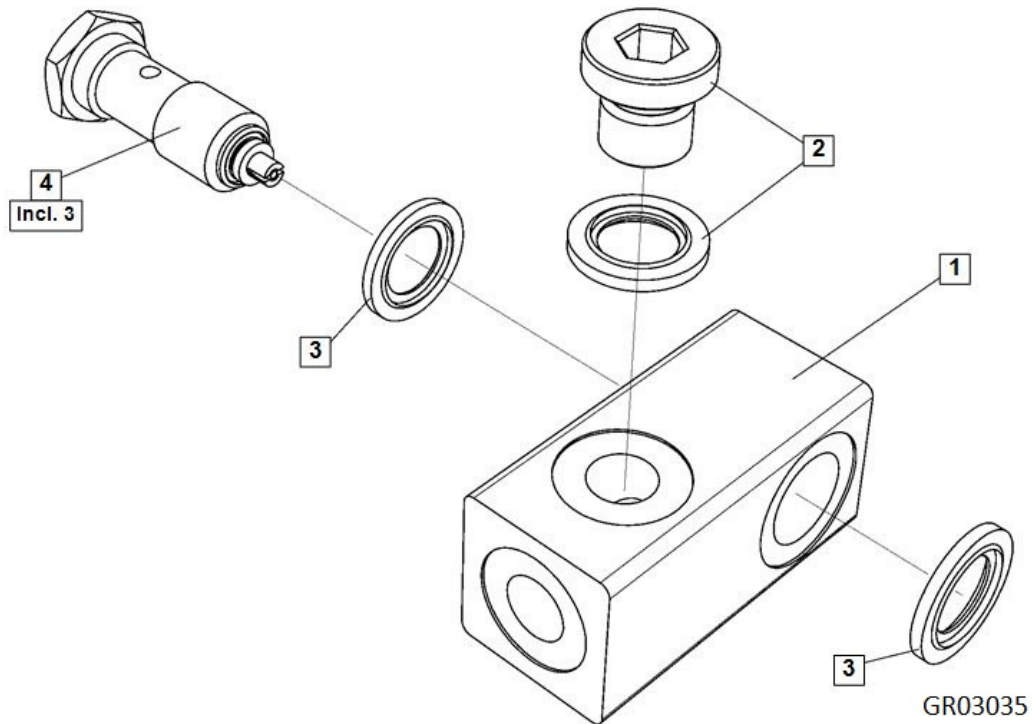
REVISED: 3-2018
E.O. 10338
REV. 01
PM-976

ITEM	PART NUMBER	QTY	DESCRIPTION
	Z575989TL	1	Connection Adapter, lift complete
1	Z52263TL	1	Connection Adapter
2	Z720515TL	1	Plug including washer
3	Z20516TL	1	Washer 3/8"
4	Z31845TL	1	Swivel Joint complete.

WALTCO LIFT CORP.
BZ GENERATION 7

REVISED: 3-2018
E.O. 10338
REV. 01
PM-978

GR03036

WALTCO LIFT CORP.
BZ GENERATION 7

Page 23
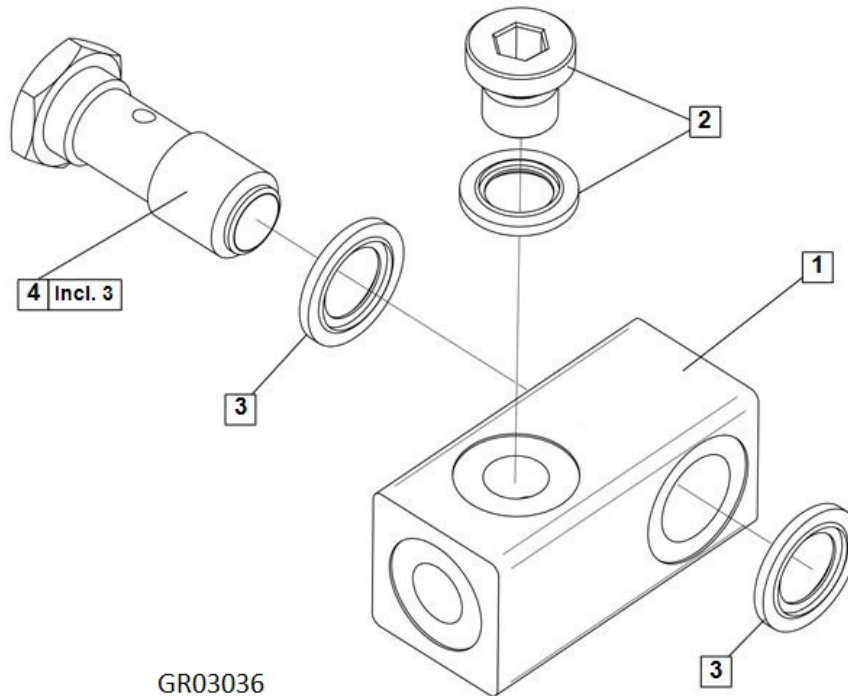
REVISED: 3-2018
E.O. 10338
REV. 01
PM-978

ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z75818TL	1	Constant flow valve, complete 6l/min
2	Z22558TL	1	Constant flow valve, 6l/min

WALTCO LIFT CORP.
BZ GENERATION 7
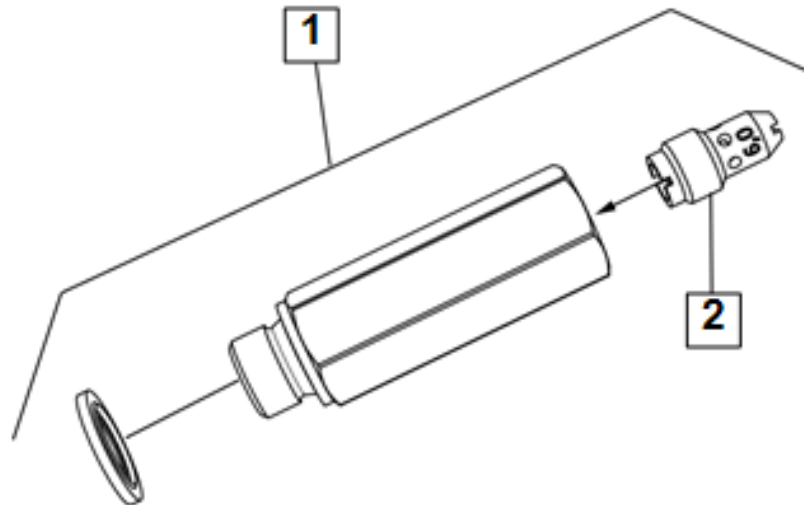
PM-979

WALTCO LIFT CORP.
BZ GENERATION 7

PM-979

ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z21606TL	1	Cable seal PG 16
2	Z55461TL	1	Battery Cable 3.75m
3	Z32978TL	1	Connector cpl. Red pin for 35^2mm cable
4	55462TL	1	Ground Cable 3.75m
5	Z32977TL	1	Connector cpl blue pin for 35^2mm cable
6	Z75863TL	1	Cable unit-support frame
7	Z55178TL	1	Cable cpl L=10m $35mm^2$ red connector
8	Z32626TL	1	Connector cpl. Red for 35^2mm cable
9	Z55179TL	1	Cable cpl L=10m $35mm^2$ blue connector
10	Z32625TL	1	Connector cpl. blue for 35^2mm cable
11	Z33146TL	1	Connector 8-pol-cable 12V with 10A fuse, no pin

WALTCO LIFT CORP.
BZ GENERATION 7

PM-975

GR03033
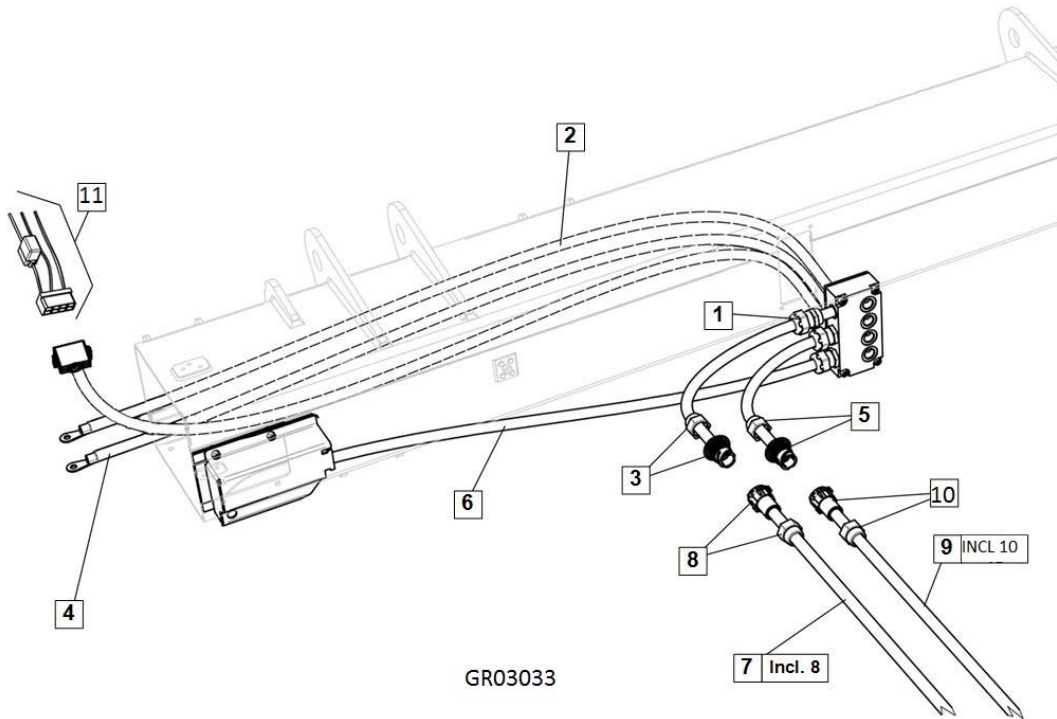
WALTCO LIFT CORP.
BZ GENERATION 7

PM-975

ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z75816TL	1	MPG cpl
2	Z34360TL	1	Screw set for MPG
3	Z75688TL	1	Seal MPG
4	Z75677TL	1	MPG cable entry
5	Z75661TL	1	MPG cover

1 incl. 2

2

3

4

2

5

2

GR03034

ITEM	PART NUMBER	QTY	DESCRIPTION
	75089948		Switch Assembly Complete
1	75089919	1	Case
2	75098328	3	Switch
3	75098330	1	Metal Connector
4	75089924	1	Heating Element, 12V
5	75089923	1	Cable Seal
6	Z20310TL	1	Cable Seal
7	75098331	1	Seal
8	75098332	1	Cover
9	Z51933	1	Drain Pipe
10	75089926	1	Bracket
11	75089922	3	Rubber Button
12	75098329	3	Push Button

WALTCO LIFT CORP.
BZ GENERATION 4+

CONTROLS

3 Button hand held switch w/magnet is part no. Z22417, not shown.

1 Incl. 5-9

WALTCO LIFT CORP.
BZ GENERATION 4+

ITEM	PART NUMBER	QTY	DESCRIPTION
00	Z22417		Complete Switch Assembly
01	Note Available	1	Case
02	Note Available	1	Circuit Card
03	Note Available	1	Spiral Cable w/Front Case
04	Note Available	1	Magnet
05	Note Available	1	Fixing Plate
06	Z33181	1	Decal
07	Z20453	1	Spiral Cable
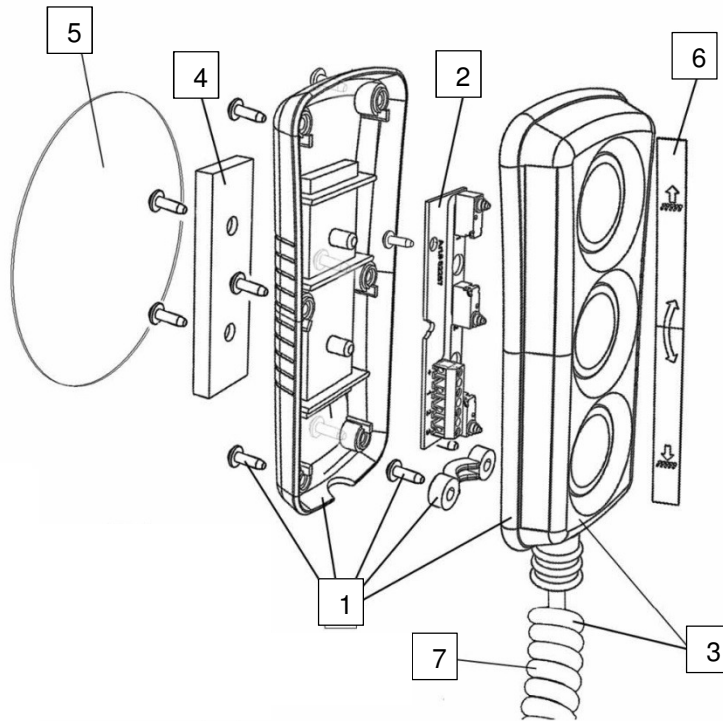
3 BUTTON REMOTE SWITCH

WALTCO LIFT CORP.
BZ Generation 4+

REVISED: 03-2015
E.O.   7662
REV   01

PM-902

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ITEM	PART NUMBER	QTY	DESCRIPTION
0	Z33650TL	1	Hydraulic Unit With Tray (Includes #1 12V, #3 and 2 x #4)
1	Z59323TL	1	Hydraulic Unit 7050, 12V, 200B 2.5cc
	Z59325TL		Hydraulic Unit 7050, 24V, 200B 2.5cc
2	Z75816TL	1	MPG Complete
3	Z75778TL	1	Mounting Plate
4	Z22161TL	2	Screw M10x12
5	Z75796TL	1	Control Card Holder, Complete
6	Z22895TL	3	Screw M4x6
7	Z22881TL	3	Wing Nut M8
8	Z21024TL	2	Screw M8x25
9	Z34314TL	1	Circuit Card Config 14

WALTCO LIFT CORP.
BZ GENERATION 7
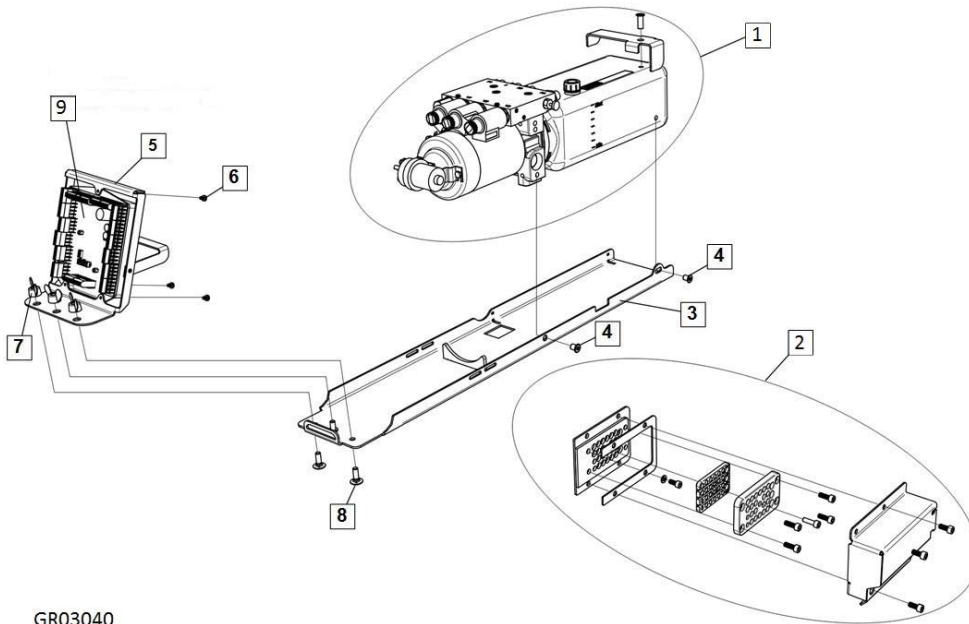
REVISED: 09-2019
E.O. 10610
REV. 02
PM-981

GR03040

WALTCO LIFT CORP.
BZ GENERATION 7

REVISED: 09-2019
E.O. 10610
REV. 02
PM-981

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ITEM	PART NUMBER	QTY	DESCRIPTION
1	Z22374	1	Switch
2	Z54133	1	Cable
3	Z20332	8	Rubber Clip (Clamp)

WALTCO LIFT CORP.
BZ GENERATION 4+

BZ CAB SHUT-OFF SWITCH

WALTCO LIFT CORP.
BZ GENERATION 4 & 5

ITEM	PART NUMBER	QTY	DESCRIPTION
	Z69136		**Lock Indicator Kit**
1	Z33797TL	1	Pressure Guard
2	Z67580	1	Cable
3	Z22313	1	Fuse Holder
4	Z22315	1	5 Amp Fuse
5	Z20683TL	1	Control Light
6	Z21842	1	Adapter
7	75090167	1	Washer, 3/8"

WALTCO LIFT CORP.
BZ GENERATION 4+

PM-851

BZ LOCK INDICATOR

WALTCO LIFT CORP.
BZ Generation 4+

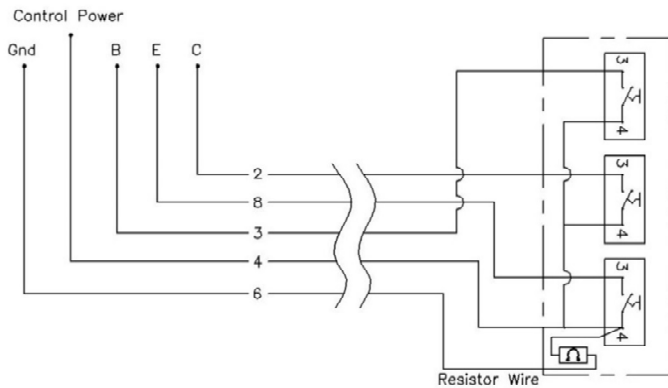**PM-851**

Electric and Hydraulic Diagram

Electrical Information

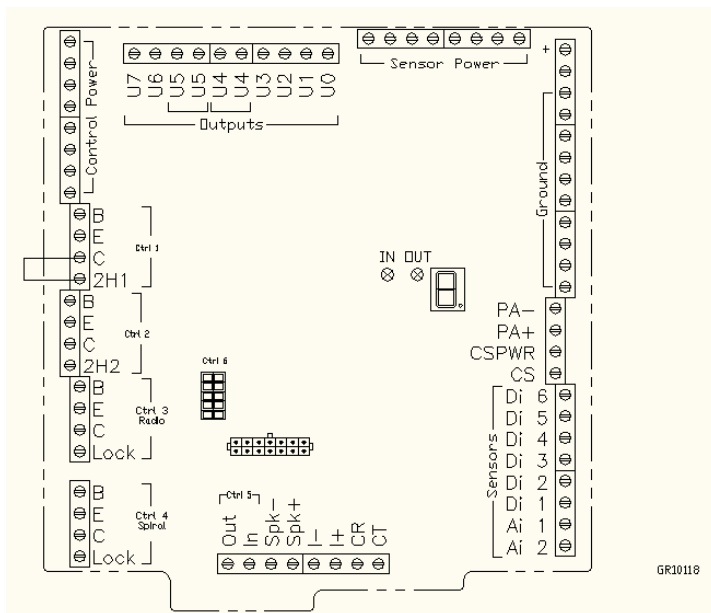**Electric and Hydraulic Diagram (with Auto-tilt)**
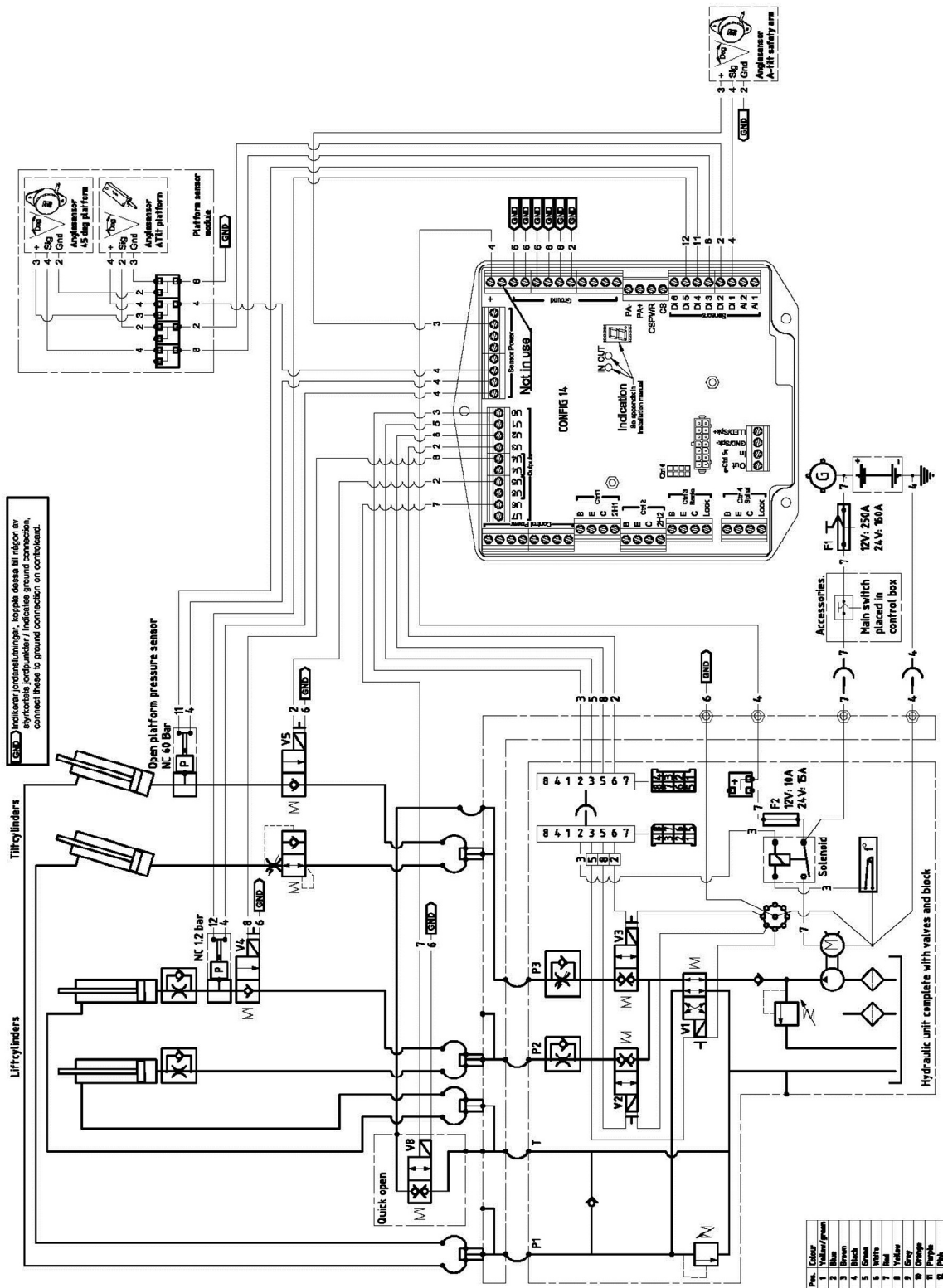
Electrical Information

3-Button Control Unit (Permanent)

Note: The permanent switch control box comes with a resistor heater wire. It is recommended that this wire be removed and not used.

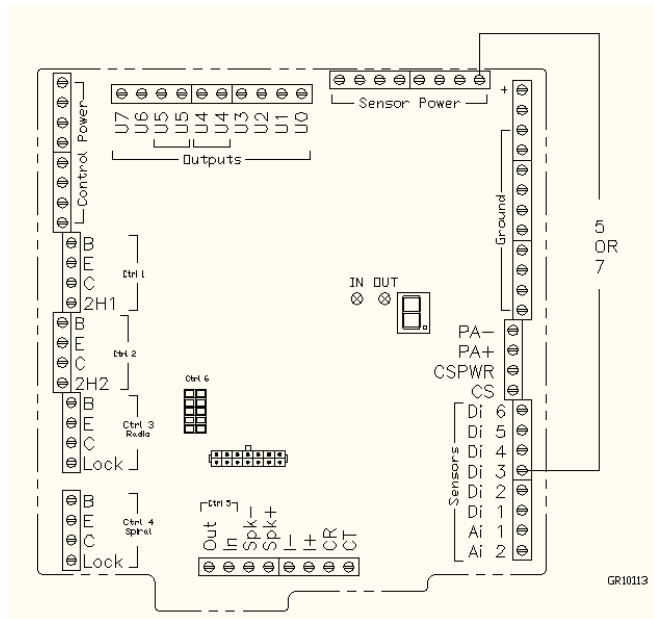

Install the main gate control in control bank 1.

NOTE: For units without a 2 hand switch, connect a jumper between C and 2H1 in control bank 1.
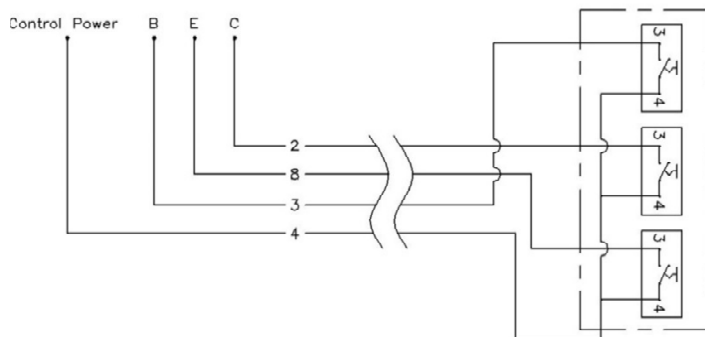
3-Button Remote Switch (Spiral Cord)

Install the main gate control in control bank 4.

Electrical Information

For units without an inside of deck mounted angle sensor, verify there is a Green or Red jumper wire installed between "Sensor Power" and Di 3 terminals on circuit board.

Cable lead-through

In order to be able to install/remove/adjust the cables in the cable grommet, its protective cover must be removed and the five screws loosened.

Remove the protective cover fastened with three screws on the cable grommet.

Loosen the five screws on the cable grommet. Cables can now be installed/removed/adjusted in the grommet.

On installation, the cable must be installed together with existing cabling with cable ties. Ensure the length of the cable is sufficient for moving the control card. The outer sheathing on cable connected to the control card must be stripped 10 inches.

Once all the cables are in their appropriate places in the grommet, retighten the five screws.

Install the protective cover on the cable grommet with the three corresponding screws.
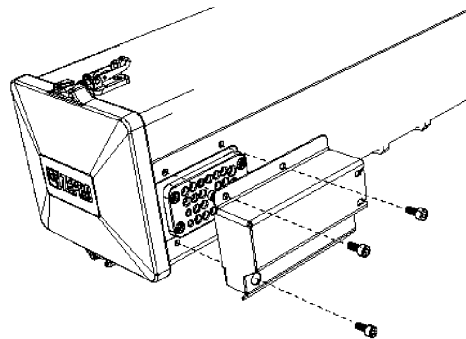
GR03025
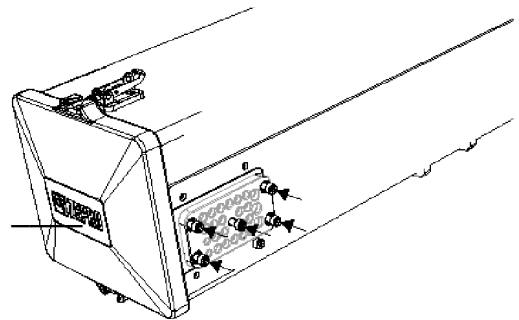
Electrical Information

Hydraulic unit and control card

The lift's hydraulic unit and its control card are installed inside the lift's frame. For access during installation, service and repair, for example, the protective cap needs to be dismantled and the hydraulic unit pulled a little way out of the frame.

To access the control card, follow steps 1 to 3; refitting is performed in reverse order. To access the hydraulic unit and oil tank, follow steps 1 to 6; refitting is performed in reverse order.

1. Remove the protective cap, which is secured with two quick-release locks.
2. Disconnect the hydraulic unit, which is secured with two bolts.
3. Pull out the hydraulic unit approx. 6 Inches to access the control card.
4. Remove the control card, which is secured with one wing nut.
5. Carefully place the control card to one side. Ensure that no cables are damaged.
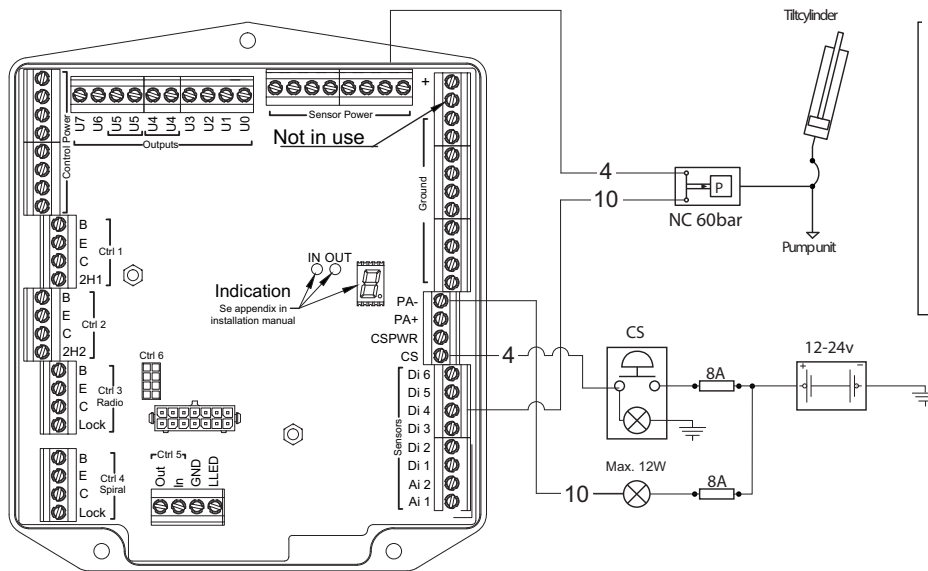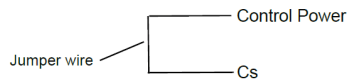6. Pull the hydraulic unit further out until the tank cap is accessible,

GR03025

GR03015

## Connecting cabin switch and open platform alarm

NOTE.

Cab Shut-Off Switch

Bronze tab connects to ground

Center Tab connects to card

Outside "silver" tab connects to power.

If Cabin switch is not used, add jumper wire
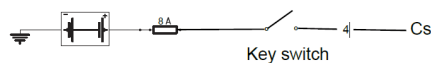

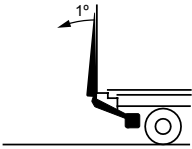| No. / No.	Färg / Colour / Farbe
1.	Gul / Grön, Yellow / Green, Gelb / Grün
2.	Blå / Blue / Blau
3.	Brun / Brown / Braun
4.	Svart / Black / Schwarz
5.	Grön / Green / Grün
6.	Vit / White / Weiß
7.	Röd / Red / Rot
8.	Gul / Yellow / Gelb
9.	Grå / Grey / Grau
10.	Orange / Orange / Orange

Alarm for open platform (trailer)
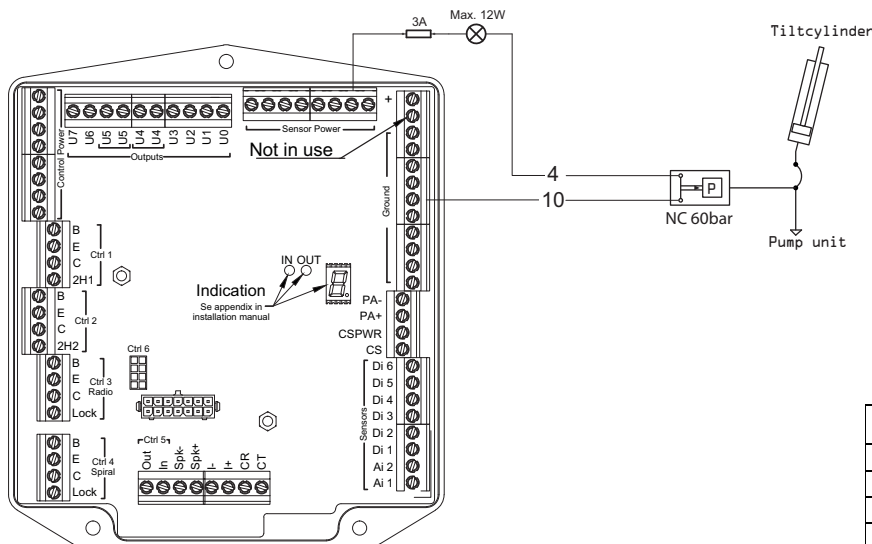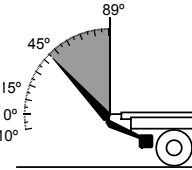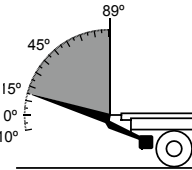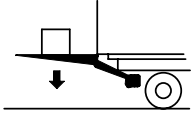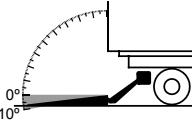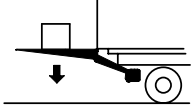
Shut-Off Switch for trailers

No. / No.	Färg / Colour / Farbe
1.	Gul / Grön, Yellow / Green, Gelb / Grün
2.	Blå / Blue / Blau
3.	Brun / Brown / Braun
4.	Svart / Black / Schwarz
5.	Grön / Green / Grün
6.	Vit / White / Weiß
7.	Röd / Red / Rot
8.	Gul / Yellow / Gelb
9.	Grå / Grey / Grau
10.	Orange / Orange / Orange

Functional schematic drawing
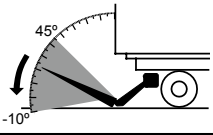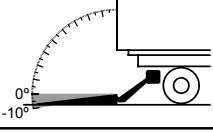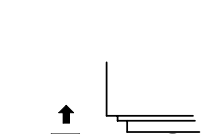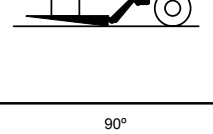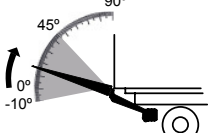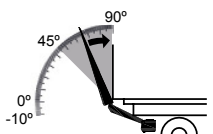
BZ Gen 7 (config 14)

Function		Input signal high	Input signal low (0V)	Output signal	Comment	Control device	Illustration
Open	1	C+E+2H	Di2+Di3+Di4	U1+U3+U5	Safety, the platform is completely raised and does not move.	Ctrl 1 Ctrl 2	
	2	C+E+2H+Di4*	Di2+Di3*	U0+U1+U3+U5+U6**	Open from 89° down to approx. 45°. Quick opening is activated.	Ctrl 1 Ctrl 2	
	3	C+E	Di3	U0+U1+U3+U5	Opens the body from inside.	Ctrl 4	
Lower	1	E	Di5+Di6	U1+U2+U4		Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	
	2	Di1+Di3+Di5*	Di6	U1+U2+U3+U4+U5	Autotilt down.	Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	
	3	E+Di6		U1+U2+U4	Manual down, replaces lower 1 and 2 at jumpered Di6.	Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	

* Only required at start of motion; after change of sensor, it is ignored until a re-run takes place.

** 0.2 second delay at output signal.

Function		Input signal high	Input signal low (0V)	Output signal	Comment	Control device	Illustration
Tilt down	1	C+E+Di3*		U0+U1+U3+U5		Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	
Raise	1	B+Di2	Di6	U0+U3	Autotilt up	Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	
	2	B	Di2*+Di6	U0+U2		Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	
	3	B+Di6		U0+U2	Manual up, replaces raise 1 and 2 at jumpered Di6.	Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	
Tilt up		B+C+Di3		U0+U3	Tilting up to approximately 45°.	Ctrl 1 Ctrl 2 Ctrl 3 Ctrl 4 Ctrl 6	
Close		B+C+2H		U0+U3	Close against vehicle body.	Ctrl 1 Ctrl 2	

 *   Only required at start of motion; after change of sensor, it is ignored until a re-run takes place.

 ** 0.2 second delay at output signal.

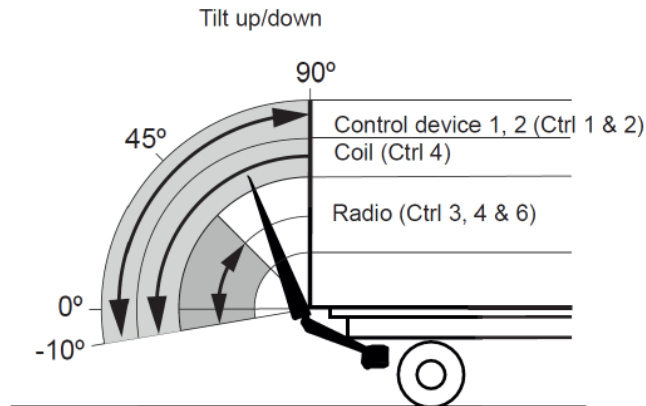# Electrical Information

Restriction of use of control device

Image 1. Use of radio control device limited by the platform angle.

Sensor

Name	Position (standard)	Function	Description
Di1	Lift arm	Angle sensor	For autotilt, safety function.
Di2	Platform Module	Angle sensor	For autotilt, platform angle. There is some trimming allowance for the bracket in the platform in order to facilitate adjustment of the platform's autotilt angle.
Di3	Platform Module	Angle sensor	Non-actuated Di3 disables Tilt up with the secondary control device so that the operator must use the two-hand button - 2H along with the primary control device in order to continue to maintain the tilt up function.
Di4	Tilt cylinder	Open platform alarm	Pressure sensor for falling pressure connected to +side of tilt cylinder. In the actuated state, returns the connection signal (+) to Di4 and results in output signal (-) at Pa-. Also phase (+) signal out at Pa+. 60 Bar.
Di5	Lift cylinder	Pressure sensor	For autotilt. 1.2 Bar.
Di6	Control card	Jumper	Jumper for deactivation of Autotilt functions in event of up and down movement.
Cs	Cabin	Activation	No signal in at Cs results in blocked control device terminals. Signal to Cs usually comes from the cabin switch. In individual cases where the cabin switch is not used, the (+) signal comes in to Cs jumpered from (CS PWR) on nearby terminal.
2H	Control devices	Two-hand button	Activated in connection with opening and closing of vehicle body. Used for Quick opening.

Connection unit

Power save mode

If the control card is not used for approx. 5 minutes, it goes into power save mode. Press any control button for approx. 0.5 seconds to "wake up" the control card again.

Operating information

All the lift's functions are controlled and monitored through the control card, which is equipped with an alphanumerical display with a flashing light and 2 red LEDS. These display current operating information. In the event of any operational disturbances, fault codes are displayed to facilitate troubleshooting.

The display indicates:
- Active control device
- Fault display
- Program configuration
- Sensors' current status

The flashing light indicates:
- Supply voltage
- Off: No supply voltage
- On: Supply voltage available but CS (cabin switch) is not active.
- Flashing: CS (cabin switch) is active, the system is awaiting input signal.

LED 1 indicates:
- Active input, button(s) on control device pressed.

LED 2 indicates:
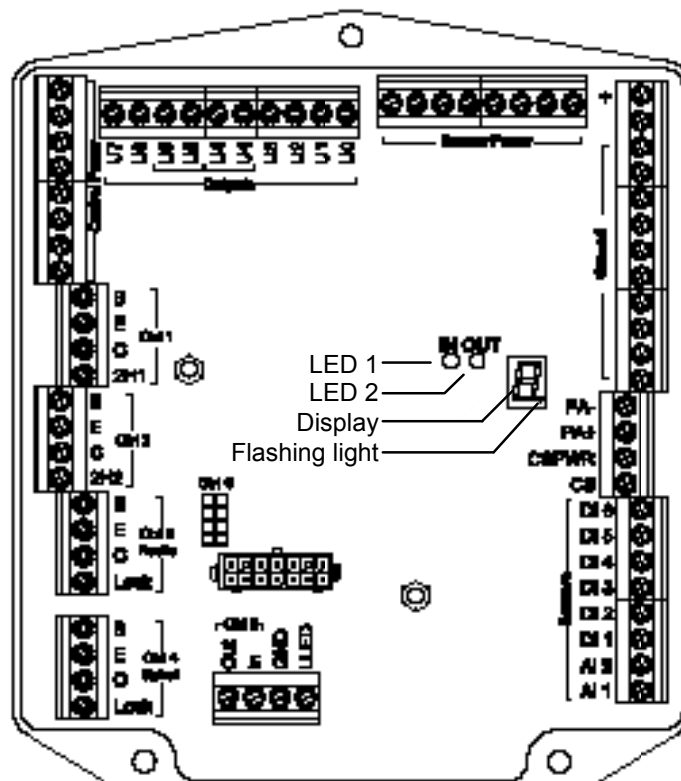- Active output (approved input signal from control device and sensors), the lift is operated.

Image 2. The control card is equipped with an alphanumerical display with a flashing light and 2 red LEDS

Information codes

Codes are shown on the display in a sequence. First a letter for identification of information, followed by figures or segments for further information and then ending with a pause:

When the CS (cabin switch) is switched on, the current program configuration (P) is displayed first, followed by configuration number. The number of volts detected is then displayed and, after this, the current software version (J), followed by version number.

As long as no control device is used, a scrolling sequence is then displayed, with sensor indication (C), followed by 0-6 segments showing which sensors have a signal.

When a control device is used, the control device being used (1-7) is displayed, followed by which button has been pressed, segments B, C, E or X (X symbolises the 4th button on the respective control device (2h1 for fixed control device 1, 2h2 for fixed control device 2, lock knob for radio control device and coil control device)).

The control devices are symbolised by the figures 1-7.

1. Fixed control device 1, including two-hand button 2h1
2. Fixed control device 2, including two-hand button 2h2
3. Radio control device, External
4. Coil control device
5. Truck slider control device
6. Radio control device, internal module
7. CS (cabin switch)

Once a button has been released, the control system for the current control device is locked for a while to ensure that no other person operates the lift from another control device. During the period the control system is locked for the current control device, its number (1-7) will flash on the display. This primarily applies to radio and coil control devices, as other control devices have such a short locking period that there is hardly time to see the indication.

Coil control devices can be equipped with a locking function. Once the control device has been used, the control system is locked for the current control device until it is unlocked manually from the respective control device's deactivation button. With some configurations, however, the coil control device can, for safety reasons, always tilt the platform down in the event of the operator getting shut inside.
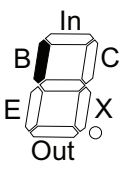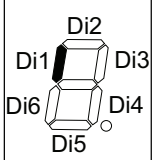
The radio control device is also equipped with a locking function. The control system can then be locked/unlocked by pressing and holding button 5. The lock's status is indicated by the locking function LED, which comes on when the lock is activated. In the event of a fault in the remote control, unlocking can be performed by turning the control power (CS) Off/On.

If the remote control is in the locked position and the lift has been unlocked by turning the control power (CS) Off/On, the lift will be locked again as soon as any button on the remote control is pressed.

NOTE.

The lift remains locked if it loses power and is then started up again, and the number 6 flashes on the control card's display. Unlocking is performed as described above.

Electrical Information

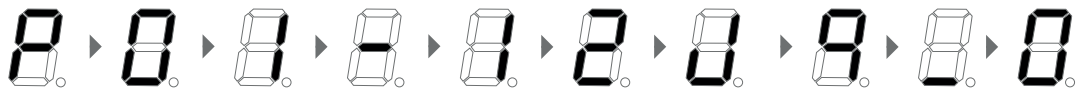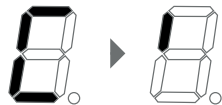| Information codes					
Identification	**Code 1**	**Code 2**	**Code 3**	**Information**	**Other**
P (Program configuration)	00–99			Cancelled configuration	
		-		Dividers	
			12/24	Number of volts detected	
J Software version	01–99	–	1-9	Version number	
1-6 (Fixed light) Active control device while operating	1-6			Fixed light (1-6) displays active control device during operation.	In B C E X Out
		Segment B, C, E or X.		Segments B, C, E or X are illuminated depending on which button is pressed	
1-7 (Flashing) The control device for which the control system is locked for a while after completed operation.	1-7			Control device for which the control system is locked. This primarily applies to radio and coil control devices, as other control devices have such a short locking period that there is no time to see the indication. The number will stop flashing when one of the current control device's buttons are pressed. If the control card has been without voltage and receives the voltage again when the CS (cabin switch) is switched on, "7" will flash on the display and the control card is locked until the Off/On on the CS is operated. 1-6 = Ctrl 1-6 7 = CS	
C Sensor indication		Segment		1-6 segments indicate sensors. On - signal in. Off - no signal in. 0V. (See electrical and hydraulics diagrams for information about the location of the sensors).	Di2 Di1 Di3 Di6 Di4 Di5

Example of sequence of information codes:
Program configuration: 01, Voltage detected: 12V, Software version: 09

Example of sequence with sensor indication:
Sensor indication: C, Detected sensor: Di1

Example of sequence with control device indication:
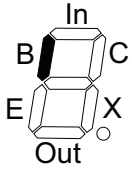Control device: 2, Detected button: B

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Fault codes

If a fault arises, the fault code is shown in the display in the form of a letter for identifying the fault, followed by numbers and/or number segments for further information, followed by sensor indication (C) in accordance with the previous page.

In fault codes E, F and U, the numbers (1-9) show which control device/output the fault code refers to.

1. Fixed control device 1, including two-hand button 2h1
2. Fixed control device 2, including two-hand button 2h2
3. Radio control device, External
4. Coil control device
5. Truck slider control device
6. Radio control device, internal module
7. CS (cabin switch)
8. Control Power
9. Sensor Power

If the system discovers several faults, only the fault code for the fault with the highest priority will be shown automatically. The display is prioritised in the order in the table below, L/H, E, F and A.

When the CS is switched off, the system will browse through a list containing the five most recent faults detected before the display goes off after approx. 5 minutes, the control card then goes into power save mode.

Fault codes					
Identification	**Code 1**	**Code 2**	**Code 3**	**Information**	**Other**
L Low battery voltage	07-35			Voltage measured	
H High battery voltage	07-35			Voltage measured	
E Control device locked	1			Fixed control device 1 (incl. two-hand button 2h1 if they are monitored)	
	2			Fixed control device 2 (incl. two-hand button 2h2 if they are monitored)	
	3			Radio control device, external	
	4			Coil control device	
	5			Truck slider control device	
	6			Radio control device, internal module	
	7			CS (cabin switch)	
		Segment		Segments B, C, E or X are illuminated depending on which button signal has locked the control device.	

Fault codes					
Identification	Code 1	Code 2	Code 3	Information	Other
F Output short-circuit-ed/high current	0-9			Which output has short-circuited/ has high current. Fault code is reset automatically if the function in question is running (function verified).	1-7 U0-U7, displayed only after the respective output/ function has been active. 8 Control power 9 Sensor power
Output not connected/cable breakdown	0-7			Which output is not connected/ has cable breakdown. Fault code is reset automatically if the function in question is running (function verified).	Displayed only after the respective output U0-U7 has been active.
A Internal fault	0-				Contact support if the lift does not function.

All fault codes can be reset manually by switching Off/On the CS (cabin switch). Fault codes F0-F7 and U0-U7 are reset automatically if the function in question is running (function verified). Fault codes L and H are reset automatically if the battery voltage becomes correct. Fault code E is reset automatically if the control system has not received any signal from the relevant control device for 6 minutes.

Example of sequence of fault codes:

Output No. 3 short-circuited.
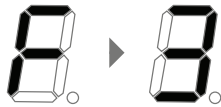
Control devices

If a control device button is held down for too long, the control device is blocked and cannot be used for a number of minutes. Fault code E flashes on the display. The fault is also indicated on a non-active coil control device with a lock button, if this is connected to Ctrl 4. The LED on the coil control device then flashes the same number of times as the number on the control device in question, see the list in section "11.2.2 Fault codes" on page 8.

Example: Control device 2 is blocked, the LED on the coil control device then flashes twice, goes out for a moment, flashes twice again, etc.

| Coil control device's LED	
Fixed light	The coil control device is active
Extinguished (weak glimmer)	The coil control device is not active
Flashing	One of the other control devices is blocked

Electrical Information

Supply voltage

The illustrations below show the desired supply voltage for 12V and 24V systems. Specified voltage refers to voltage when the lift is operated. See also section "16.2 Maximum power consumption - Minimum recommended conductor cross sectional area" on page 12.

✘   The lift is not working.

❙   The lift is working but is issuing a warning. This voltage range is only recommended for emergency operation.

✔   The lift is working, but the voltage range outside the 'heart-marked' area is only recommended for operation for short periods.

♡   The lift is working within the voltage range for optimum function and service life.
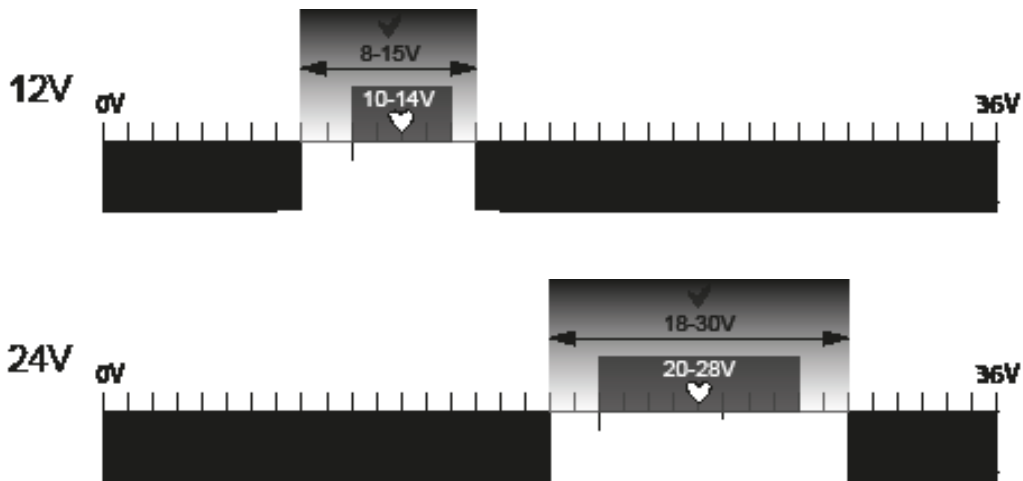
⚠ Every vehicle that has a WALTCO Liftgate must have legible WARNING AND OPERATION DECALS clearly posted on the vehicle and an OWNER'S MANUAL in the vehicle at all times as a guide for proper operation and maintenance.

Additional WARNING DECALS, OPERATION DECALS and OWNER'S MANUALS can be obtained from WALTCO LIFT CORP.

_____
NOTE:

**When ordering, give model
and serial number of the liftgate.**
_____

IMPORTANT

KEEP THIS OWNER'S MANUAL IN THE VEHICLE

⚠**WARNING**

Improper operation and maintenance of this liftgate could result in severe personal injury or death.

Read and understand the contents of this manual and all warning and operation decals before operating and/or performing maintenance on this liftgate.

For SAFETY information on this liftgate see Chapter 1 of this manual

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