

2008

Partent #6,464,447

Patents Pending

### Congratulations

We at The Braun Corporation wish to express our fullest appreciation on your new purchase. With you in mind, our skilled craftsmen have designed and assembled the finest lift available.

This manual provides service-related material. Refer to the FMVSS No. 403 Quick Reference Installation Sheet for installation instructions, operating instructions and maintenance procedures.

Braun Century Series<sup>™</sup> lifts are built for dependability and will provide years of pleasure and independence as long as the lift is installed and serviced as specified by a Braun certified technician, and the lift is operated by an instructed person.

Sincerely, THE BRAUN CORPORATION

brash W. Grown

Ralph W. Braun Chief Executive Officer

#### Warranty and Registration Instructions

Immediately upon receiving the lift, examine the unit for any damage. Notify the carrier at once with any claims.

Two warranty/registration cards (shown right) are located in the lift-mounted manual storage pouch. The sales representative must process one of the cards. The consumer must fill out the other card and mail it to The Braun Corporation. The warranty is provided on the back cover of this manual. The warranty cards must be processed to activate the warranty.

Series No. Pump Code	
Model No. Serial No. Cylinder C	Code
OWNER'S WARRANTY REGIST/AATION	
NCL917IB-05-00025-55-14CG	
PURCHASED FROM	
OWNER	
NAME	
ADDRESS	
CITY	
TELEPHONE STATE ZIP	
TO VALIDATE WARRANTY REGISTRATION CARDS MUST BE RETURNED TO THE BRAUN CORPORATION.	

Sample Warranty/Registration Card

Two Braun Serial No./Series No. identification tags (shown below) are posted on the lift. One I.D. tag is posted on the opposite pump side vertical arm. A second I.D. tag is located on the opposite pump side tower. Both I.D. tags provide the product identification information provided on the warranty/registration card. Record the information in the space provided (or document on a copy). **This information must be provided when filing a warranty claim or ordering parts**.

The Braun Corporation 1-800-THE LIFT™ BRAUNLIFT.COM™	Model No.
DOT Public Use Lift MODEL#  NCL917IB Max. Lifting Capacity - 800 lbs.	Series No.
SERIAL NUMBER 05-00025 PUMP CODE CYLINDER 55 14CG	Serial No.
MFG DATE 06/16/06	Pump Code
es*72/245*95/54*0110*00 PITINT PENING-5.2817/79-6.065.924-6.238.169-6.40 4.447-6.599.079-6.692.217-6.739.824	Cylinder Code
Sample Serial No./Series No. Ide	entification Tag Date of Manufacture

### Contents

#### **Troubleshooting and Maintenance**

2
3
4
5
6-7
7
8
9
0-11
12
3-15
16
17
18

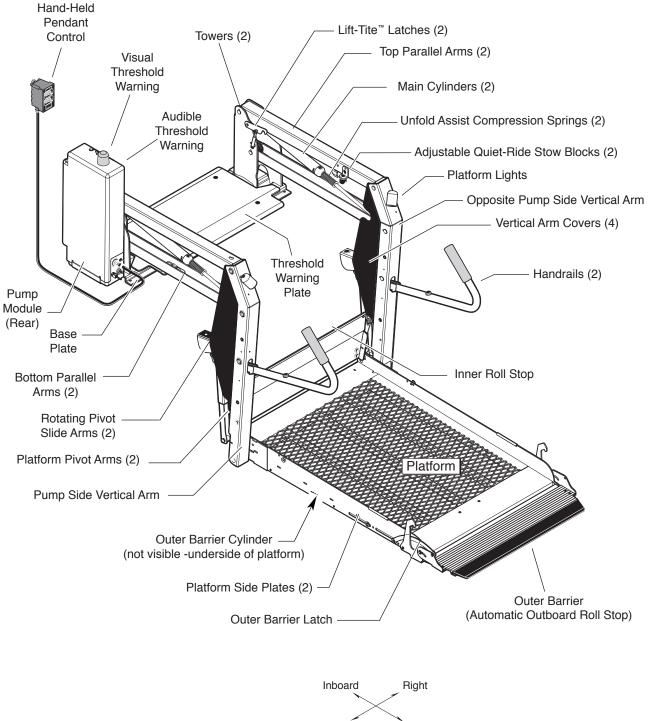
#### Hydraulics

Hydraulic Schematic	19
Hydraulics Parts List	
Hydraulics Diagram	21

#### **Repair Parts**

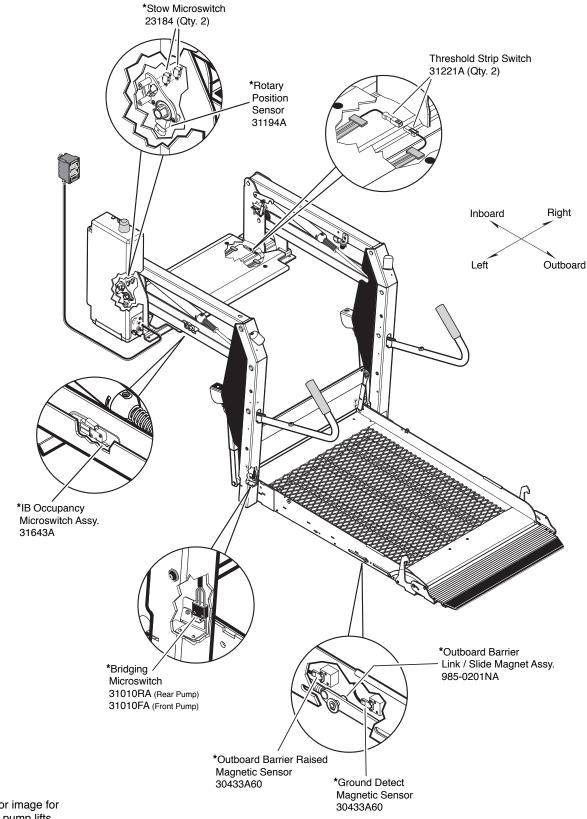
Pump Module	
Pump Module Parts List	22
Pump Module Diagram	
Lift Exploded View	
Repair Parts List	24
Exploded View	
Notes	

### Lift Terminology



Left Outboard

### **Switch and Sensor Locations**



\*Note: Mirror image for right (front) pump lifts.

### **Certification Checklist Diagnostic Procedures**

The following operations and conditions must be functionally verified in order for the lift to be FMVSS 403/404 compliant. If an operation does not function as described or a condition is not met, follow the referenced procedures to correct the problem or contact a Braun Corporation Product Support representative at 1-800-THE LIFT<sup>®</sup>.

- · Vehicle movement is prevented unless the platform is fully stowed.
  - 1. Verify lift stowed signal pin 7 on the pump module has a +12 volt signal OR pin 9 has a ground signal (depends on interlock used).
  - 2. Refer to the interlock installation instructions.

· Lift operation shall be inhibited unless the vehicle is stopped and vehicle movement is prevented.

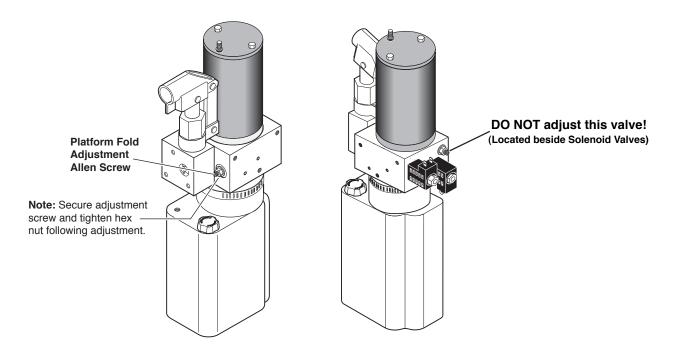
- 1. Verify vehicle secure signal (pin 6) has a +12 volt signal.
- 2. Refer to the interlock installation instructions.
- The platform will not fold/stow when occupied.
  - Refer to Platform Fold Pressure Adjustment procedures.
- The inner rollstop will not raise if occupied.
  - Call Product Support
- The outer barrier will not raise if occupied.
  - Call Product Support
- · Verify platform lighting when lift is deployed.
  - 1. Replace bulb(s) in the light housing.
  - 2. Check fuse (5 amp fuse on circuit board; F13)

• An audio warning (and visual warning for public lifts) will activate if the threshold area is occupied when the platform is a least 1" below floor level.

- 1. Remove the threshold warning plate
- 2. Verify the threshold strip switch connectors are connected (see illustration on Page 3)
- 3. Replace the threshold strip switch
- 4. Reinstall the threshold warning plate
- Platform movement is prohibited beyond the position where the inner rollstop is fully deployed.
  - Call Product Support.
- Lift platform movement shall be interrupted unless the outer barrier is deployed.
  - Call Product Support.

### **Platform Fold Pressure Adjustment**

- 1. Position the platform at the floor level loading position.
- 2. Loosen the hex nut on the adjustment screw (do not remove hex nut).
- 3. Turn the adjustment screw counter clockwise until the platform does not fold when the Fold button is pressed.
- Turn the adjustment screw clockwise in 1/4 turn increments and press the Fold button until the platform folds completely (Note: return the platform to floor level position after each attempt to fold the platform).
- 5. Turn the adjustment screw an additional 1/8 turn after the platform folds successfully.
- 6. Tighten the hex nut without moving the adjustment screw.
- 7. Verify the platform will not stow while occupied.



### **Platform Angle Adjustment**

Adjusting the platform angle based on the relationship of the platform at ground level directly affects the angle of the platform when positioned at floor level.

Unfold the lift and visually examine the angle of the platform when positioned at floor level. Lower the platform fully and note the angle of the platform when it reaches ground level also. The **outboard end of the platform** (toe) **must contact the ground first** when the platform is lowered (all lift models).

Millennium "NL" Series:

The platform angle **should** be adjusted so there is a balance between the angle at both positions (**equal amount of angle**). **Angle A** should **equal angle B** as shown in Figure C.

Century "NCL" Series: Vista "NVL" Series:

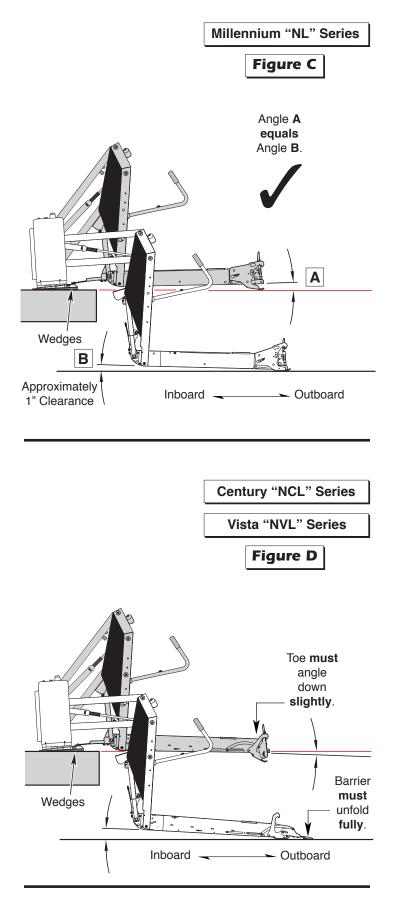
The platform angle **must** be adjusted so the outboard end of the platform (toe) is angled down slightly when positioned at floor level. See Figure D. The outboard end of the platform **must** contact the ground first to **ensure** the spring-loaded outer **barrier unfolds fully**.

**Adjustment Procedures:** Adjustment Allen screws are provided on each side of the lift platform for adjusting the platform angle. Details and photos are provided on the opposite page.

**Base Plate Wedges:** Installations where base plate wedges are used require more platform angle adjustment than normal.

Platform Stop Blocks: When adjusting platform angle, ensure both stop blocks are making full contact with the vertical arms (details on opposite page).

Floor Level Adjustment: Following platform angle adjustment, set floor level positioning as detailed in Platform Floor Level Adjustment (details on page 8).

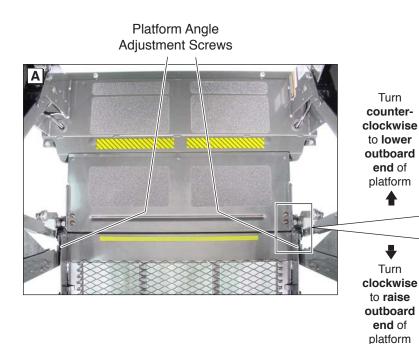


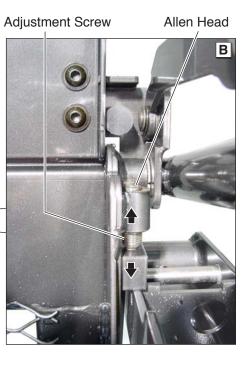
### **Platform Angle Adjustment**

Adjustment Allen screws are provided on each side of the lift platform for adjusting the platform angle. Adjust platform angle as specified on previous page. To **raise** the **outboard end** of platform - turn adjustment screw **clockwise**.

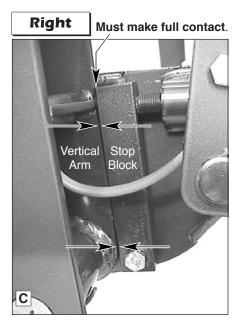
To **lower** the **outboard end** of platform - turn adjustment screw **counterclockwise**. Note: Both adjustment screws must be adjusted equally.

Apply Loctite<sup>®</sup> to adjustment screws following adjustment.





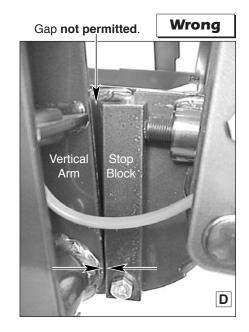
### **Platform Stop Blocks**



# Stop Block Guideline All Lift Models

Both stop blocks must make full contact with the edge of vertical arms.

When adjusting platform angle, setting floor level position or adjusting bridging microswitch ensure both stop blocks are making full contact with the vertical arms.



### **Platform Floor Level Adjustment**

Before setting floor level position:

- Adjust platform angle as detailed on page 6.
- Ensure both stop blocks are making full contact with vertical arms (details on page 7).

#### Floor Level Adjustment:

1. Position platform at desired floor level position (passenger loading/unloading height).

Position platform such that:

a. the inner roll stop is laying flat on the threshold plateb. platforrm has **not** begun to fold

**Note:** Use hand pump to position platform at proper posi-

tion if unable to stop platform when powering lift.

- 2. Turn Lift Power switch Off.
- 3. Press Floor Position Set button (located between pump housing and lift tower).
- 4. While pressing the Floor Position Set button, turn the Lift Power switch On.
- Continue pressing the Floor Position Set button until the lift sounds three "beeps."
- 6. Release the Floor Position Set button.
- Cycle lift to verify that platform stops at the set floor level position. Note: If platform does not stop at



Floor Level Set Button

the intended position - repeat adjustment procedures. If repeating procedures fails - refer to Diagnostics section below.

**Diagnostics:** Diagnostic codes have been established in event the lift platform floor position does not set (the lift does not sound three "beeps" - see Step 5 above). The control board located inside the pump housing is equipped with an LCD screen. Remove the pump cover to access the LCD screen. The following diagnostic codes will help resolve floor position setting problems:

Century/Vista Jumper



LCD Screen

- 91 The platform position is out of a predetermined acceptable range
- 92 The Bridging Microswitch is not activated (adjust switch or lower the platform)
- 93 The Inner Roll Stop Occupied switch is not activated (adjust switch)
- 94 The Outer Barrier Up switch is not activated (adjust switch)
- 95 The Outer Barrier Latched sensor is not activated (Century and Vista: Verify jumper is installed on the outboard barrier latch switch – see photo at right; Millennium: Check latch)



### **Bridging Microswitch Adjustment**

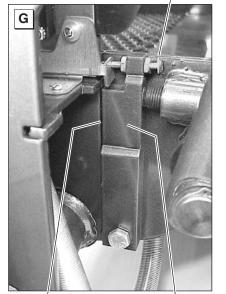
#### **Bridging Microswitch:**

The bridging microswitch is located at the bottom of the right (front) vertical arm. See Photos A and B. An adjustment screw is built into the platform stop block.

The bridging microswitch will be deactivated if the outboard end of the platform contacts the unloading surface before the inboard end while the DOWN switch is pressed.

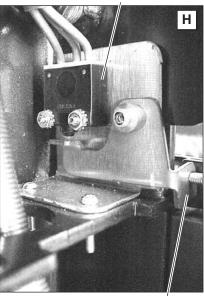
The deactivated bridging microswitch interrupts power to the DOWN switch circuit and stops the down travel of the platform (while allowing the outer barrier to deploy). Adjustment Screw

Bridging Microswitch



Inboard Vertical Edge of Vertical Arm

Platform Stop Block



Switch —/ Activation Lever

#### Adjustment Guidelines:

**Caution:** This adjustment is factory set and typically should not require adjustment.

**Before** adjusting the bridging microswitch:

- Adjust platform angle as detailed on page 6.
- Adjust floor level position as detailed on page 8.
- **Ensure** platform is in the fully unfolded position.
- **Ensure** both stop blocks are making full contact with vertical arms (details on page 7).

Failure to follow these guidelines will result in an overtight adjustment that will bend the adjustment screw, break the bridging switch and/or result in lift operation failure.

#### **Bridging Microswitch Adjustment**

- Position the platform at floor level (or slightly below). Ensure the platform is not partially folded. From the stowed position, press the UNFOLD switch until the pump stops running and the platform comes to a full stop. From below floor level, press the UP switch until the pump stops running and the platform comes to a full stop.
- Check both platform stop blocks to ensure there is no gap between the stop blocks and the vertical arms. See Photos B, C and D on page
   A gap may indicate that the platform is not fully unfolded or the platform angle adjustment bolts are not adjusted equally on both sides.
- Loosen the two jam nuts on the bridging switch activation screw (see Photo G). Tighten the screw until the activation lever is fully depressed. Verify that there is no play in the activation lever and tighten the jam nuts.
- 4. Test lift for proper operation.

### **LCD Lift Codes**

To better understand the Braun LCD Trouble shooting display you must first understand the numbers that appear on the screen. There are Flashing Codes, Solid Error Codes, and Solid Normal Operational Codes.

**Flashing Codes #65-89:** About 10 seconds after an operation has stopped there are a set of scrolling flashing numbers that indicate whenever a particular sensor or switch has been activated. These numbers will start at number 65 and scroll up to number 89, then start the sequence over. Remember they are not error codes. Keep in mind that the lift will display codes for different positions and certain flashing codes must be present for that position, you will not always get an error code.

**Solid Error Codes #50-64:** These are the numbers that will come on the screen when the audible and visual alarm goes off, and will direct you to where the problem exists. These numbers will only stay on the screen for about 10 seconds and then the flashing codes will scroll indicating what sensors are active. This sequence of codes will keep repeating. It is important to be looking at the screen when trying to get the lift to fail.

**Solid Normal Operational Codes:** There are also solid numbers that will appear while and after the lift is moving that indicate the lift operation and platform position.

#### **Troubleshooting Procedures**

1. While **looking** at the LCD screen, operate the lift until the failure occurs. Read the number that comes on the display the moment the alarm goes off and the light starts to flash. This code will only stay on the screen for 10 seconds.

2. Look up the number on the correct error code sheet and determine what part on the lift is causing the failure. Go to the part on the lift that is suspected of causing the failure and look for anything obvious like magnets missing, broken wires etc. If nothing is found, the next step is to determine if that sensor is sending a signal to the board.

3. Bring the platform to the level that the sensor should be activated using the backup pump if needed. At this point, look up the flashing code that corresponds to that sensor in the error code sheet, look at the LCD screen and wait for the flashing scrolling numbers to appear. If the number is not included in the scrolling numbers, you know that sensor is the problem. You should then check the harness or try another magnet with the south side of the magnet facing the sensor and see if the number will come up on the display.

4. If the problem is still not found or the harness is suspected, the voltages should to be checked to and from the sensor to find the exact location of the problem. First determine the 3 wire colors for this sensor at the board and understand the 3 voltage readings needed to operate the sensor, the 12V power, 8V power, and the 8V input signal to the PC board when activated by a magnet. First check for a 8V input signal coming from the sensor to the wire going into the PC board, if there is 11V on this wire, the sensor is not being activated by the magnet. Next check the 12V and 8V wires at the PC board plug leading to the sensor. Once verified at the plug on the PC board, the voltages should then be checked at the next plug down on the harness going to the sensor until the location of the problem is found.

Anytime you see the code for that specific switch you will have 8 volts on that colored wire on the 8 or 18 pin connector from that switch. IE: Outboard Barrier is closed "72" will appear on the screen and also 8V will be present on the signal wire from that switch, if no code is present the voltage will be 11V.

### **LCD Lift Codes**

Listed below are codes that the lift controller outputs during lift operation. The codes will be displayed on an LCD screen located on the lift control board inside the pump module. See the Manual Operating Instructions in the operator's manual for pump cover removal instructions.

#### Non-Flashing Numbers

- 01 Platform stowed
- 02 Platform unfolding
- 03 Platform unfolding paused
- 04 Platform at floor level
- 05 Platform beginning to lower
- 06 Platform lowering (threshold cannot be occupied from this point down)
- 07 Outer barrier moving to horizontal position
- 08 Platform at ground level
- 09 Outer barrier moving to vertical position
- 10 Platform raising
- 11 Platform raising paused at floor
- 12 Platform folding (limited pressure)
- 13 Platform folding (full pressure)
- 14 Timed fold (cinching lift tite) or (anti-rattle state)
- 15 Platform folding stopped
- 16 Paused fold
- 17 Platform between ground and 3" above ground
- 18 Platform above 3"
- 19 Outer barrier moving to horizontal postion
- 23 Outer barrier going back down after occupant detected
- 28 Illegal function/not defined
- 29 Interlock fault not recognized (or has been cleared but a motion button is still pressed)
- 30 Platform location unknown
- 31 Platform location transition state; attempting to locate position
- 35 Two or more motion buttons are being pressed
- 36 The retention belt cannot be buckled while trying to fold or unfold
- 37 Motion button being pressed is not a valid motion
- 50 Outer barrier is not up above inboard barrier locked position
- 51 Threshold is occupied when platform is 1" or more below floor level
- 52 Inner rollstop is not up and locked below inner rollstop locked position
- 53 Inner rollstop occupied sensor is not activated between floor and inner rollstop up position
- 54 Outer barrier is occupied before it is up
- 55 Outer barrier is not latched when above the inner rollstop locked position (Millennium only)
- 56 Outer barrier is not up and latched and bridge switch did not deactivate

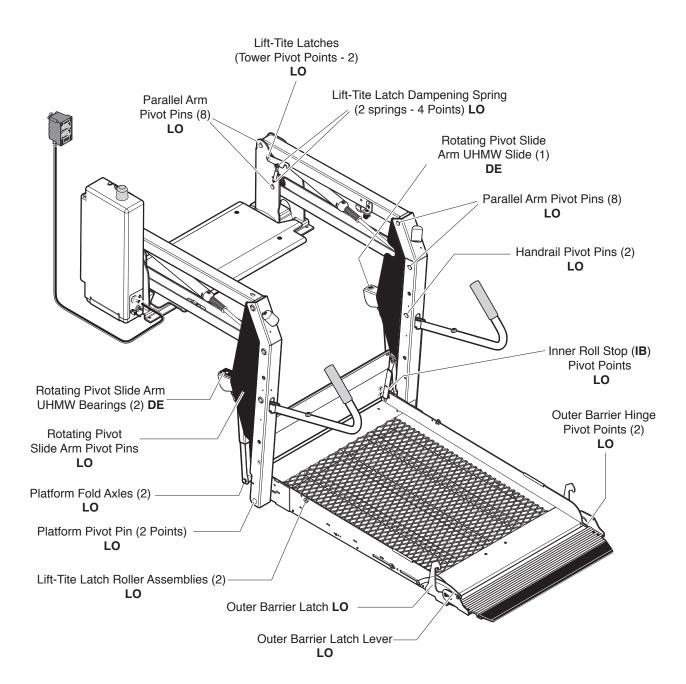
- 57 Outer barrier is not up and latched and ground detect switch did not deactivate (Century and Vista only)
- 58 Outer barrier is not up and latched and the platform is 3" above the ground
- 59 Outer barrier is not up after pausing platform travel
- 60 The kickout gas springs are worn, replace before using
- 75 Low voltage detected; must turn off power switch to reset LCD
- 77 Vehicle secure interlock has not been activated
- 90 Position will be set if you keep holding the button until it beeps
- 91 Position is out of a predetermined acceptable range of floor position
- 92 Bridge switch is not made, needs adjusting
- 93 Inner rollstop occupied switch is not made, position needs to be moved or switch should be adjusted
- 94 Outer barrier is not made, fix and try again
- 95 Outer barrier latch is not made (check for jumper on Century and Vista lifts, check latch on Millennium lifts)
- 99 Controller program is not valid; replace controller

#### Flashing Numbers

- Flashing 65 Unfold button is pressed
- Flashing 66 Fold button is pressed
- Flashing 67 Down button is pressed
- Flashing 68 Up button is pressed
- Flashing 69 Bridge switch is activated
- Flashing 70 Outer barrier latch switch is activated
- Flashing 71 Ground detect switch is activated
- Flashing 72 Outer barrier up switch is activated
- Flashing 73 Inner rollstop up switch is activated
- Flashing 74 Inner rollstop occupied switch is activated
- Flashing 76 Outboard barrier occupied switch is activated
- Flashing 78 Threshold tape switch "A" is activated
- Flashing 79 Threshold tape switch "B" is activated
- Flashing 80 Position set button is pressed

#### **Maintenance and Lubrication**

#### **Lubrication Diagram**



See the Maintenance/Lubrication Schedule for recommended applications per number of cycles.

Lubricant	Sr Туре	pecified (recommended) Lubricant	Available Amount	Braun Part No.
	Light Penetrating Oil	LPS2, General Purpose	11 oz.	15807
LO - Light Oil	(30 weight or equivalen	t) Penetrating Oil	Aerosol Can	10007
DE - Door-Ease	Stainless Stick	Door-Ease	1.68 oz.	15806
DE - Door-Ease	Style (tube)	Stick (tube)		10000
	Light Grease	Lubriplate	14 oz.	15805
LG - Light Grease	(Multipurpose)		Can	10000

### **Maintenance and Lubrication Schedule**

Proper maintenance is necessary to ensure safe, troublefree operation. Inspecting the lift for any wear, damage or other abnormal conditions should be a part of all transit agencies's daily service program. Simple inspections can detect potential problems.

The maintenance and lubrication procedures specified in this schedule **must** be performed by a Braun authorized service representative at the scheduled intervals according to the number of cycles.

Braun dual parallel arm lifts are equipped with hardened pins and self-lubricating bushings to decrease wear, provide smooth operation and extend the service life of the lift.

When servicing the lift at the recommended intervals, inspection and lubrication procedures specified in the previous sections should be repeated. **Clean** the components and the surrounding area **before apply-ing lubricants**. LPS2 General Purpose Penetrating Oil is recommended where Light Oil is called out. Use of improper lubricants can attract dirt or other contaminants which could result in wear or damage to the components. Platform components exposed to contaminants when lowered to the ground may require extra attention.

Lift components requiring grease are lubricated during assembly procedures. When these components are replaced, grease must be applied during installation procedures. Specified lubricants are available from The Braun Corporation (part numbers provided above).

**All** listed inspection, lubrication and maintenance procedures should be repeated at "750 cycle" intervals

following the scheduled "4500 Cycles" maintenance. These intervals are a general guideline for scheduling maintenance procedures and will vary according to lift use and conditions. Lifts exposed to severe conditions (weather, environment, contamination, heavy usage, etc.) may require inspection and maintenance procedures to be performed more often than specified.

### 

Maintenance and lubrication procedures must be performed as specified by an authorized service technician. Failure to do so may result in <u>serious bodily injury</u> and/or property damage.

**Maintenance Indicator:** The Lift Ready green LED mounted on top of the pump cover will begin to blink after every 750 cycles. The blinking LED will not affect the functions of the lift, but is a reminder to complete necessary maintenance and lubrication.

Once the lift has been serviced, fully stow the lift. Once stowed, press the UP button on the hand pendant and the Floor Level Set button on the back side of the pump cover until the Lift Ready green LED stops blinking.

**Discontinue lift use immediately** if maintenance and lubrication procedures are not properly performed, or if there is any sign of wear, damage or improper operation. Contact your sales representative or call The Braun Corporation at 1-800-THE LIFT<sup>®</sup>. One of our national Product Support representatives will direct you to an authorized service technician who will inspect your lift.

	Outer barrier hinge pivot points (2)	Apply Light Oil - See Lubrication Diagram
	Outer barrier latch (pivot/slide points)	Apply Light Oil - See Lubrication Diagram
	Outer barrier latch lever pivot points	Apply Light Oil - See Lubrication Diagram
	Lift-Tite <sup>™</sup> latches (tower pivot points - 2)	Apply Light Oil - See Lubrication Diagram
750	Lift-Tite <sup>™</sup> latch gas (dampening) spring pivot points (2 springs - 4 points)	Apply Light Oil - See Lubrication Diagram
Cycles	Inspect Lift-Tite <sup>™</sup> latches and gas springs for wear or damage (bent, deformed or misaligned), posi- tive securement (external snap rings) and proper operation	Resecure, replace defective parts or otherwise correct as needed. <b>Note:</b> Apply Light Grease to Lift-Tite <sup>™</sup> latch tower pivot point if replacing latch.
	Inspect outer barrier for proper operation	Correct or replace defective parts.
	Inspect outer barrier latch for proper operation, positive securement, and detached or missing spring	Correct or replace defective parts and/or relubri- cate. See Lubrication Diagram

### Maintenance and Lubrication Schedule

750	Inspect lift for wear, damage or any abnormal condition	Correct as needed.
Cycles	Inspect lift for rattles	Correct as needed.
	Perform all procedures listed in previous section also	
	Platform pivot pin bearings (2)	Apply Light Oil - See Lubrication Diagram
	Platform fold axles (2)	Apply Light Oil - See Lubrication Diagram
	Inner roll stop (IB) lever bearings (2)	Apply Light Oil - See Lubrication Diagram
	Inner roll stop (IB) lever slot (2)	Apply Light Oil - See Lubrication Diagram
	Rotating pivot slide arm pivot pins (2)	Apply Light Oil - See Lubrication Diagram
	Parallel arm pivot bearings (16)	Apply Light Oil - See Lubrication Diagram
	Handrail pivot pin bearings (4)	Apply Light Oil - See Lubrication Diagram
	Hydraulic cylinder bushings (8)	Apply Light Oil - See Lubrication Diagram
	Inspect Lift-Tite <sup>™</sup> latch rollers for wear or damage, positive securement and proper operation (2)	Correct, replace defective parts and/or relubricate.
1500 Cycles	<ul> <li>Inspect inner roll stop (IB) for:</li> <li>Wear or damage</li> <li>Proper operation. Rollstop should just rest on top surface of the base plate.</li> <li>Positive securement (both ends)</li> </ul>	Resecure, replace or correct as needed. See Platform Angle Instructions and Microswitch Ad- justment Instructions.
	Inspect handrail components for wear or damage, and for proper operation	Replace defective parts.
	Inspect microswitches for securement and proper adjustment.	Resecure, replace or adjust as needed. See Microswitch Adjustment Instructions.
	Make sure lift operates smoothly	Realign towers and vertical arms. Lubricate or correct as needed.
	<ul> <li>Inspect external snap rings:</li> <li>Handrail pivot pins (2 per pin)</li> <li>Platform slide/rotate pivot pins (2 per pin)</li> <li>Platform fold axles (1 per axle)</li> <li>Inner roll stop (IB) lever bracket pins (1 per pin)</li> <li>Lift-Tite<sup>™</sup> latch gas (dampening) spring (2 per spring)</li> </ul>	Resecure or replace if needed.
	Inspect platform fold axles and bearings for wear or damage and positive securement	Replace defective parts and resecure as needed. Apply Light Oil.

### Maintenance and Lubrication Schedule

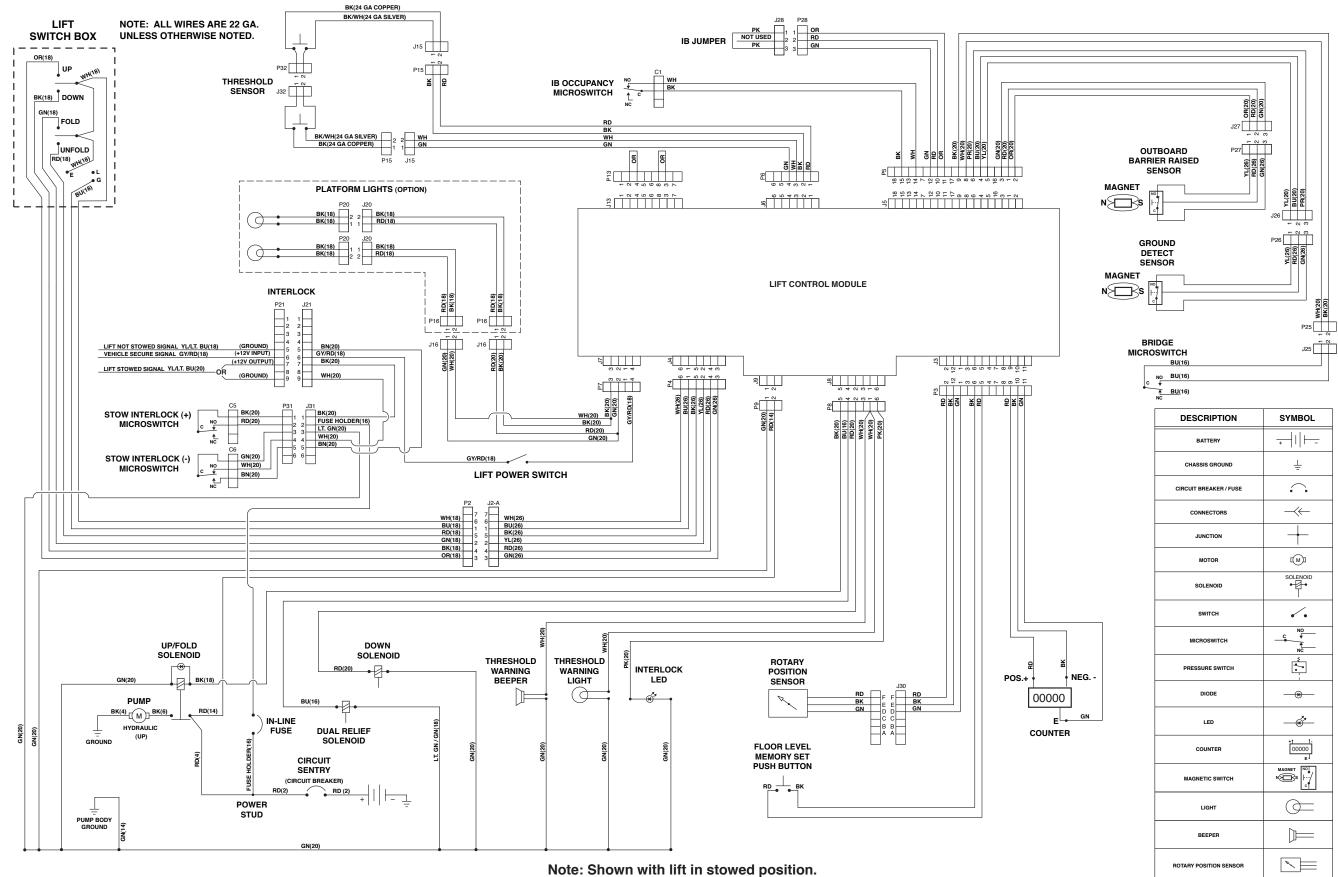
1 500 Cycles	<ul> <li>Remove pump module cover and inspect:</li> <li>Hydraulic hoses, fittings and connections for wear or leaks</li> <li>Harness cables, wires, terminals and connections for securement or damage</li> <li>Control board, circuit breaker, power switch and lights for securement or damage</li> </ul>	Resecure, replace or correct as needed.
-----------------	---	---

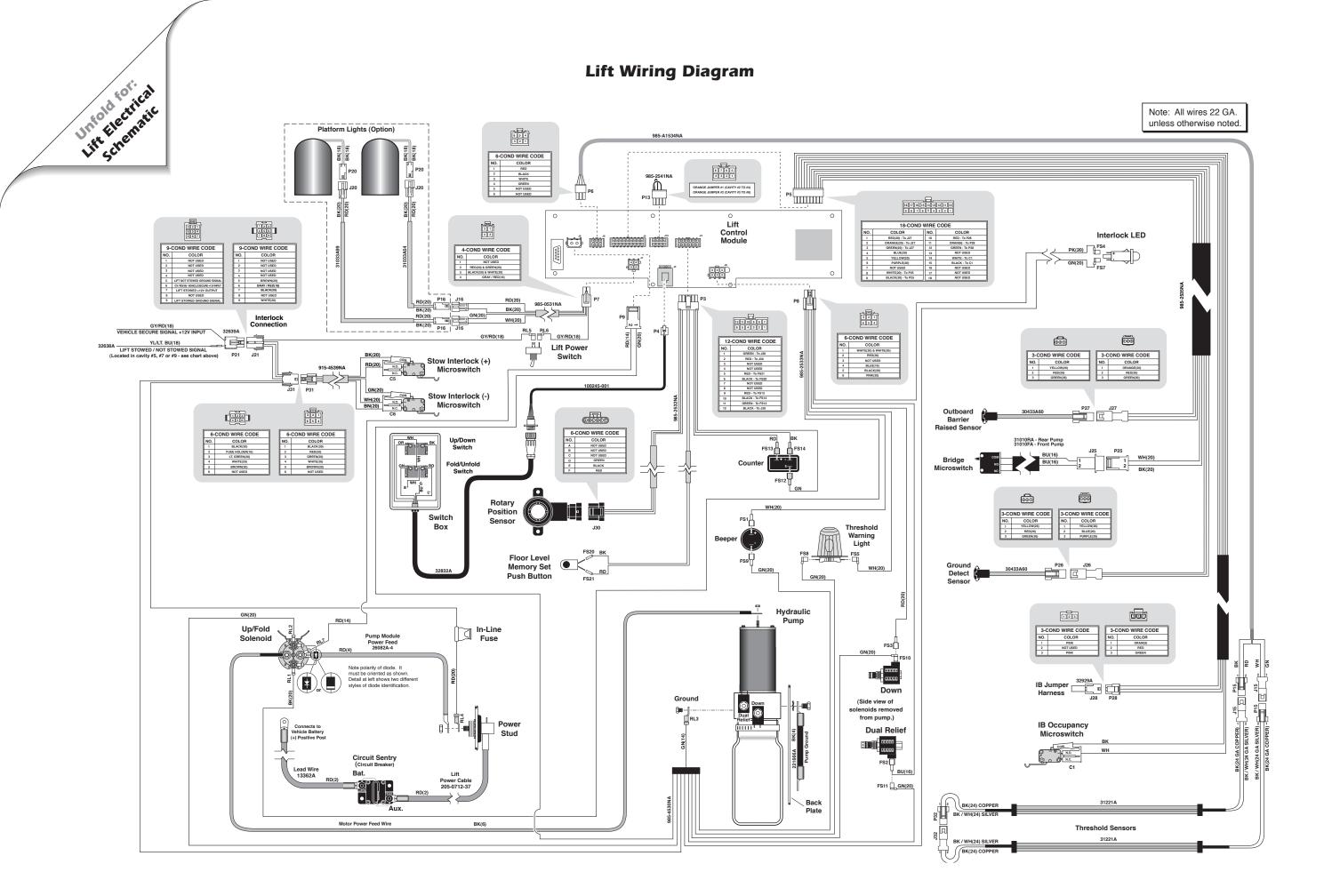
	Perform all procedures listed in previous section also		
	Inspect cotter pins on platform pivot pin (2)	Resecure, replace or correct as needed	
	Hydraulic Fluid (Pump) - Check level. <b>Note:</b> Fluid should be changed if there is visible contamination. Inspect the hydraulic system (cylinder, hoses, fit- tings, seals, etc.) for leaks if fluid level is low.	Use Braun 32840-QT (Exxon <sup>®</sup> Univis HVI 26) hydraulic fluid ( <b>do not mix</b> with Dextron III or other hydraulic fluids). Check fluid level with <b>platform</b> <b>lowered fully</b> and <b>roll stop unfolded fully</b> . Fill to within 1/2" of the bottom of the 1-1/2" fill tube (neck).	
	Inspect cylinders, fittings and hydraulic connections for wear, damage or leaks	Tighten, repair or replace if needed.	
	Inspect parallel arms, bushings and pivot pins for visible wear or damage	Replace if needed.	
	Inspect parallel arm pivot pin mounting bolts (8)	Tighten or replace if needed.	
4500	Inspect platform pivot pin, bushings and vertical arms for wear, damage and positive securement	Replace defective parts and resecure as needed. Apply Light Grease during reassembly procedures.	
Cycles	Inspect upper/lower fold arms, rotating pivot slide arms, slide support arms and associated pivot pins, bushings, and bearings for visible wear or damage	Replace if needed.	
	Inspect gas springs (cylinders) for wear or damage, proper operation and positive securement ( <b>IB</b> )	Tighten, replace or correct as needed	
	Inspect rotating pivot slide arm UHMW slide bear- ings (buttons - 2) and UHMW slide (1)	Apply Door-Ease or replace if needed. See Lubri- cation Diagram.	
	Inspect vertical arm plastic covers	Resecure or replace if needed.	
	Inspect power cable	Resecure, repair or replace if needed.	
	Mounting	Check to see that the lift is securely anchored to the vehicle and there are no loose bolts, broken welds, or stress fractures.	
	Decals and Antiskid	Replace decals if worn, missing or illegible. Replace antiskid if worn or missing.	
Consecutive 750 Cycle Intervals	<b>Repeat all</b> previously listed inspection, lubrica- tion and maintenance procedures at 750 cycle intervals.		

### NOTES

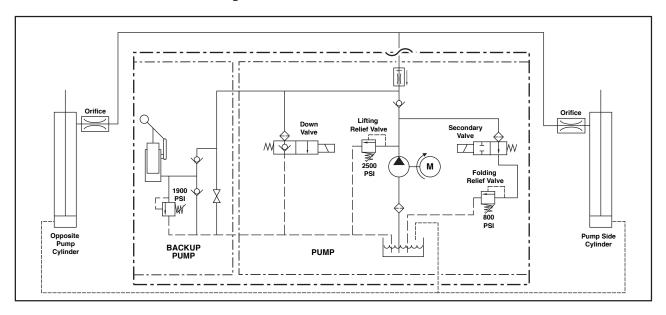
This page intentionally left blank to provide a place for notes and references.

#### Lift Electrical Schematic





### Hydraulic Schematic



Description	Symbol	Description	Symbol
Fixed Displacement Pump	$\diamondsuit$	Hydraulic Port	5
Pump Motor	-(M)	2 Way 2 Position Solenoid Valve	r <b>∠]⊺j</b> §w
Backup Pump		Pressure Compensated Flow Control	ŢŢ,
Single Acting Cylinder		Relief Valve	
Check Valve	Ý	Filter Screen	¢
Unfold Orifice	×	Vented Reservoir	h
Manual Shutoff Valve	¥		

### **Hydraulics Parts List**

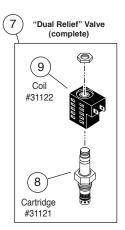
Item	Qty.	Description	Part #
1	1	Pump Assembly (M-268-0112) 120G / 12V / Dual Relief	30915-12V
2	1	Lead Wire Assembly, #6 Guage	29049
3	1	Clamp, Hose (M258)	29663
4	1	Diode Assembly, Up Solenoid	73906A
5	1	Solenoid, 4-Post - Prestolite	28308
6	1	Motor, Pump - 12 Volt - Low RPM	29690
7	1	Valve Assembly, "Dual Relief" (complete)	31120K
8	1	Cartridge (only), "Dual Relief" Valve - (shown below)	31121
9	2	Coil (only) - (shown below)	31122
10	1	Valve Assembly, "Down" (complete)	31348K
11	1	Cartridge (only), "Down" Valve - (shown below)	26078
12	3	Screw, 1/4-20 x 2-1/4", Allen Head	26080
13	1	Hand Pump (Backup) with O-Rings (Item 14)	26074
14	4	O-Ring (only), Hand Pump Mounting	17351
15	1	Clamp, Reservoir - H-48 (M259)	17069
16	1	Reservoir, Hydraulic Fluid	30160
17	1	Cap, Reservoir Filler - Screw On	30167
18	1	Fitting, 90° - 1/8" NPT x 1/8" Barb - Plastic	87563
19	1	Connector, Plastic "Y", 1/8" O.D.	18877
20	1	Hose, Thermal Plastic - Black, 1/8" I.D.	23742R* (6")
21	1	Handle with Grip	17206A
22	1	Fitting, Male 7-16-20 SAE O-Ring to Male 7/16-20 JIC 37°	24504
23	1	Elbow, 7/16-20 JIC 37 Female Swivel (1) - 7/16-20 JIC 37° Male (2)	26579
24	1	Hose Assembly, 1/8" (Opposite-Pump-Side)	16004A-086
25	1	Hose Assembly, 1/8" (Pump-Side)	16004A-046
26	2	Elbow, 90°, 7/16-20 SAE O-Ring Male - 7/16-20 JIC 37° Male, Orifice	26667
27	2	Cylinder 🗸	C1514.3-9408
28	2	Elbow, 90°, 1/4 NPT Male to 1/4" Barbed	15150
29	1	Hose, Thermal Plastic - Black, 1/8" I.D.	23742R* (68")
30	1	Hose, Thermal Plastic - Black, 1/8" I.D.	23742R* (30")

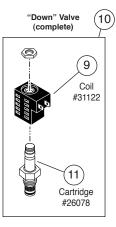
✓ Seal Kits: If repairing a cylinder, order Seal Kit #1500-0500P.

\* Raw material items ordered and priced per inch (order specified length).

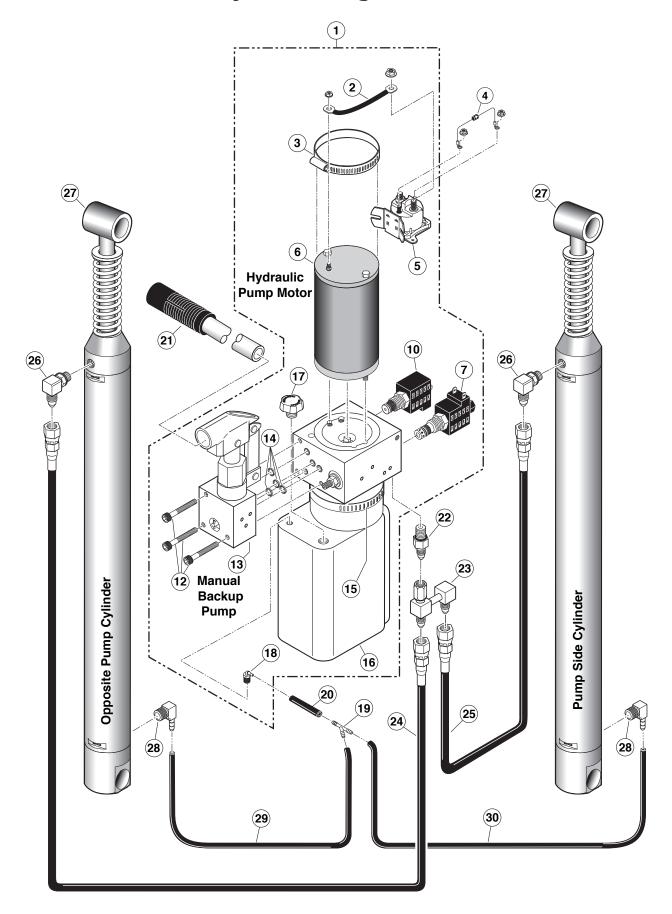
#### Hydraulic Fluid

When adding or changing hydraulic fluid, use Braun 32840-QT (Exxon® Univis HVI 26) hydraulic fluid (**do not mix** with Dextron III or other hydraulic fluids).





### **Hydraulics Diagram**



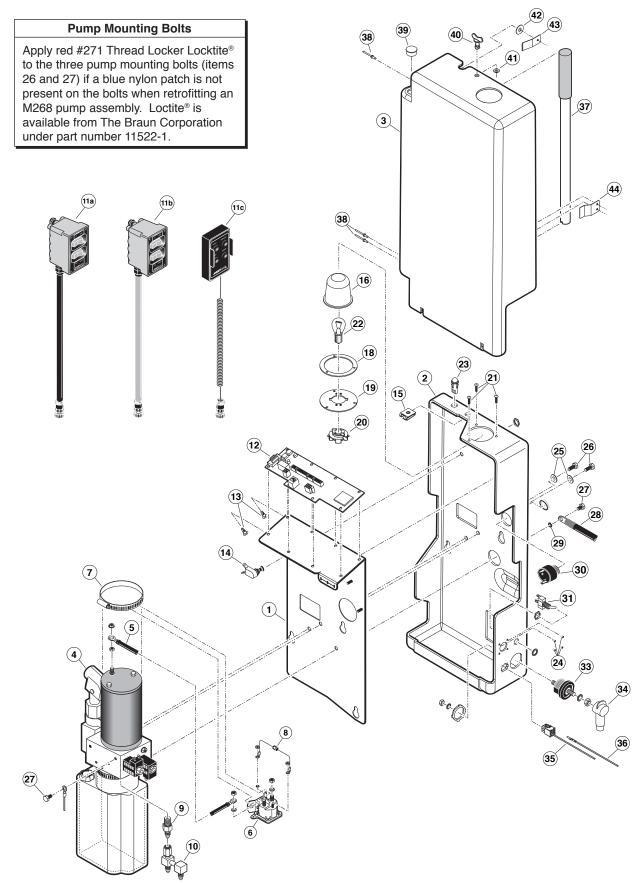
### **Pump Module Parts List**

		Part Numbers of Items Dedicated per Lift Model	NCL917IB	NCL917FIB				
tem	Qty.	Description	NCL919IB	NCL919FIB				
	1	Pump Module (complete), 12 Volt, Rear	985-5516RNA	985-5516FN				
1	1	Plate, Backing / Mounting - Rear	985-2501RN	985-2501FN 915-0513FNP				
2	1	Cover, Pump, 2-Piece - Back / Bottom (915-0513RNAPT or 915-0513FNAPT Includes Items 2 and 15 - 21) 915-0513RNPT						
3	1	Cover, Pump - 2-Piece - Top / Front (985-0519RNAPT or 985-0519FNAPT Includes Items 3 and 38 - 50) Part Numbers of Items Identical on all Lift Models	915-0519RNPT	915-0519FNP				
em	Qty.	Description		Part No.				
4	1 1	Pump Assembly (M268-0112) 12V-120G - Dual Relief / ARS (Includes Items 5 & 6)		30915-12V				
5	1	Power Cable, Up Solenoid to Motor		29049				
6	1	Solenoid, Up - 4-Post - Prestolite		28308				
7	1	Clamp, Hose - Solenoid Mounting Diode Assembly, Up Solenoid						
8	1							
9	1	Fitting, Male 7/16-20 O-Ring to Male 7/16-20 JIC 37°						
10	1	Elbow, Female Swivel 7/16-20 JIC 37° to (2) Male 7/16-20 JIC 37°						
11	1	······································						
1a	-	Control, Hand Pendant Assembly - Non-Shielded Cable - Straight ♦See note below						
1b	-	Control, Hand Pendant Assembly - Shielded Cable - Straight ♦See note below						
1c	-	Control, Hand Pendant Assembly - Shielded Cable - Coiled See note below						
2	1	Control Board Assembly						
3	8	Standoff, Snap-In						
4	1	Switch, Push Button		31753				
5	1	Recepticle, Clip On		28803				
6 7	1	Lens, Threshold Warning - Red		30704 22249				
7 8	1	Decal, Warning / Pressure Relief Valve (Not shown) Spacer, Lens - NHTSA						
8 9	1	Metal Ring Base - Lamp		31386 30971				
20	1	Socket, Lamp		30703				
21	3	Screw, #8-32 x 1/2" Pan Head Phillips - Thread Cut		30974				
2	1	Bulb, Light		19841				
3	1	Diode, Green LED, Panel Mount		29545				
4	4	Rivet, Snap124" Hole x .197"/.236" Thick		29874				
25	2	Washer, 5/16" Flat		10063				
26	2	Bolt, 5/16-18 x 3/4", Nylock, Hex * See note below		29608				
27	2	Bolt, 5/16-18 x 1/2", Nylock, Hex * See note below		10012				
28	1	Cable, Ground		22166A				
29	1	Washer, 5/16" External Tooth		16368				
80	1	Beeper, Continuous		30487				
31	1	Switch, Toggle		31787				
32	1	Decal, Lift Power - On/Off (Not shown)		21494				
33 34	1	Stud, Power Feed		26084 82046				
84 85	1	Rubber Boot, Red ♦See note below Harness, Lift Interlock Connection		32639A				
36	1	Wire Assembly, Lift Stowed Connection ♦See note below		32639A 32638A				
50 57	1	Pump Handle with Grip		17206A				
8	3	Rivet, Pop, SD43BS - 1/8"13"/.19"		12954				
9	1	Plug, Window - Clear		30443				
0	1	Stud, Wing Head - 1/4 Turn		28804				
1	1	Retainer, Push On		28805				
.2	1	Washer, Nylon, 1/4" I.D. x 11/16" O.D. x .030"		12690				
3	1	Clip, Pump Handle - Top		915-5517				
4	1	Clip, Pump Handle - Bottom		915-5518				
5	1	Decal, Manual Instructions - Public (Not shown)		31412				
6	1	Decal, Removal / Installaton - Pump Cover (Not shown)		29051				
7	1	Decal, Warning - Control Board Damage - ESD (Not shown)		30787				
8	1	Decal, Removal / Installation Pump Handle (Not shown)		29052				
.9	1	Decal, Dual Relief Adjustment (Not shown)		32201				
0	1	Decal, LCD Lift Codes (Not shown)		32410 26082A-4				
1	1	Cable, Pump Module Power Hookup (Not shown)						
2 3	1	Harness, Power - Stow Interlock (Not shown - see Wiring Diagram) Harness, Interlock / Lighting (Not shown - see Wiring Diagram)		985-4530N/ 985-0531N/				
4	1	Harness, Up / Down Solenoid (Not shown - see Wiring Diagram)		985-0531N/ 985-2533N/				
5 5	1	Harness, Threshold Switch Extension (Not shown - see Wiring Diagram)		985-A1534N				
55 56	1	Harness, Stow Interlock (Not shown - see Wiring Diagram) ♦ See note below		915-1538N/				
57	1	Harness, Hand Control - Pump Housing to Circuit Board (Not shown - see Wiring Diagram)		100245-001				
58	1	Harness, Jumper (Not Shown - see Wiring Diagram)		985-2541N				

\* Apply red #271 Thread Locker Loctite<sup>®</sup> to the four hex bolts (items 26 and 27) if a blue nylon patch is not present on the bolts when retrofitting an M268-0113 pump assembly. Loctite<sup>®</sup> is available from The Braun Corporation under part number 11522-1.

Indicates items available for replacement part purposes only. These items are not included with replacement pump modules.

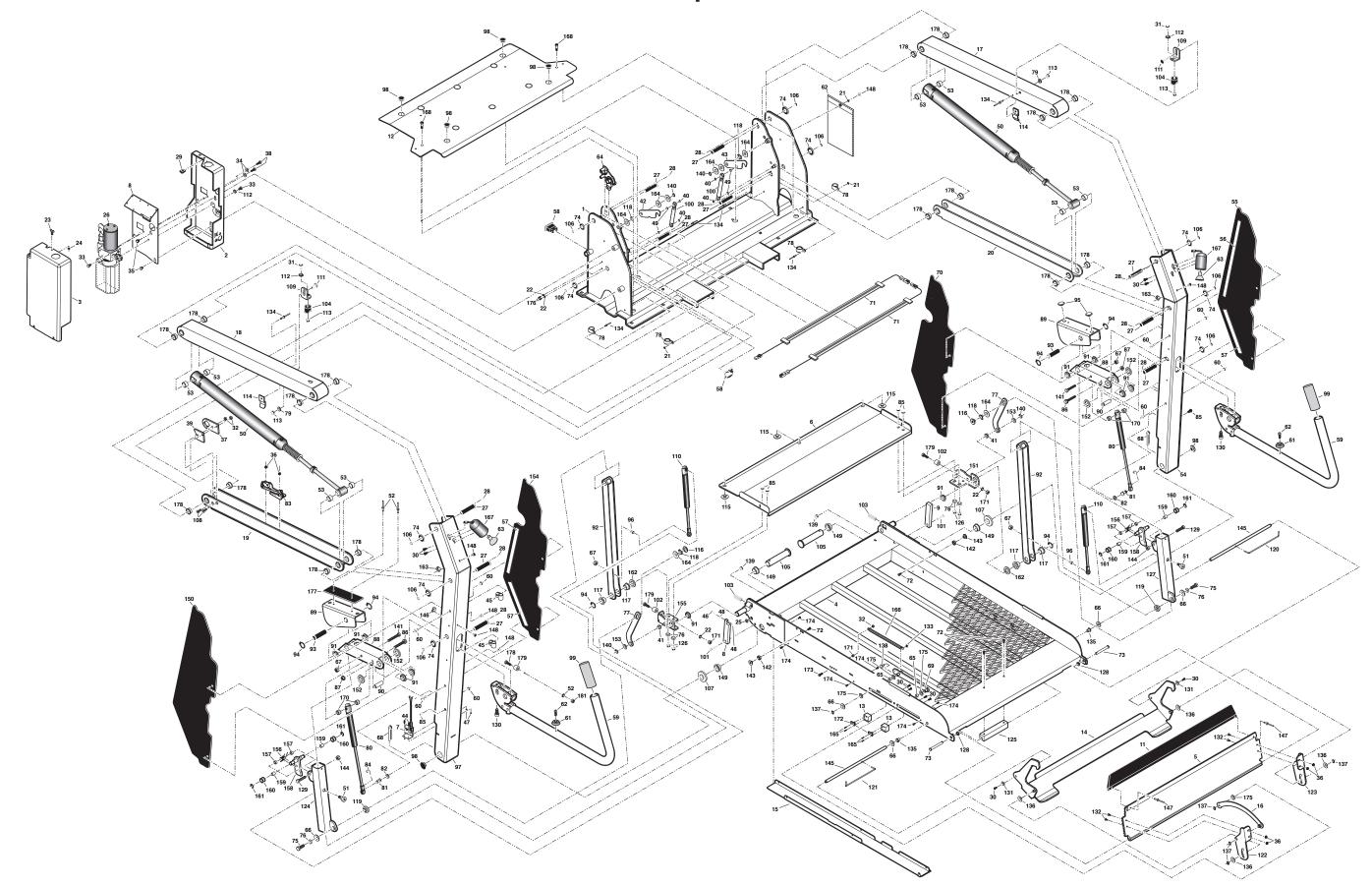
### Pump Module Diagram

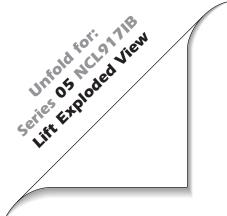


### **Repair Parts**

		Part Num	bers of Items I	Dedicat	od n	er Lift Mod	ما	
ltem	Qty.	Description	NCL917IB	3	N	CL917FIB	NCL919IB	NCL919FIB
1	1	Base Weldment	985R5148NW			F5148NW33	985R5148NW34	985F5148NW34
2	1	Cover, Pump, 2-Piece, Back-Bottom Cover, Pump, 2-Piece, Top-Front	915-0513RNF 915-0519RNF			5-0513FNPT 5-0519FNPT	915-0513RNPT 915-0519RNPT	915-0513FNPT 915-0519FNPT
4	1	Platform Weldment	985-33350NV			5-33350NW	985-33450NW	985-33450NW
5	1	Outer Barrier	985-2312NY	(	9	85-2312NY	985-2312N34Y	985-2312N34Y
6	1	Inner Rollstop	915-0147NW	Y		5-0147NWY	915-0147NW34Y	915-0147NW34Y
7 8	1	Bridge Switch Assembly Block, Platform Stop - Bridging	31010RA 25778			31010FA 900-0311	31010RA 25778	31010FA 900-0311
9	1	Block, Platform Stop	900-0311			25778	900-0311	25778
10	1	Plate, Backing/Mounting	985-2501RN	1		85-2501FN	985-2501RN	985-2501FN
11	1	Rubber Nose	24603-33			24603-33	24603-34	24603-34
12 13	1 2	Base Cover Assembly (Traction Tape Not Shown) Block, Switch Mounting, Adjust	975-5148CNA3 985-0220RN			5148CNA33Y 85-0220FN	975-5148CNA34Y 985-0220RN	975-5148CNA34Y 985-0220FN
14	1	Outer Barrier Actuation Foot	985-2204N-3			5-2204N-33	985-0220HN 985-2204N-34	985-2204N-34
15	1	Cover, Slide, Angle	985-0218RN		9	85-0218FN	985-0218RN	985-0218FN
16	1	Weldment, Link Arm, Outer Barrier	985-0210RN			5-0210FNW	985-0210RNW	985-0210FNW
17	1	Parallel Arm Assy., Top-Front w/Bearings	915-0437FA			85-5437FNA	915-0437FA	985-5437FNA
18 19	1	Parallel Arm Assy., Top-Rear w/Bearings Parallel Arm Assy., Bottom w/Bearings and Sensors - Rear	985-5437RN			75-2437FNA 75-0458NA	985-5437RNA 975-0458NA	975-2437RA 975-0458NA
20	1	Parallel Arm Assy., Bottom w/Bearings-Front	917-0457NA			17-0457NA	917-0457NA	917-0457NA
		Part Numb	ers of Items Id	lentical	on A	II Lift Mod	els	
Item	Qty.	Description	Part No.	Item			cription	Part No.
21 22	3	Washer, #10, Flat, Auto BK Washer, External Tooth	11541 83588	101	2	Bolt, 5/16-18 x 1 Bumper, 1" x 5/8	1/4" Low Socket Hd., Cap, Bk.	26327 33603
22	4	Stud, Wing Head	28804	102	2	Screw. 1/2-20 x	1 1/2" Set Lock, Black	18663
24	1	Retainer, Push-On	28805	104	2	Block, Guide-Pla		28593
25	1	Grommet, ID .312", FR .250", GD .813" T500"	27726	105	2	Pin, Platform		975-2325
26 27	1 10	Pump Assembly, (M268 with Backup Pump) Pin, Pivot, Parallel Arm	30915-12V 917-0403	106 107	10	Screw, 5/16-18 > Spacer UHMW	: 3/4", SHFS Vertical Channel	25527 995-0320
28	10	Screw Drive #8 x 3/16" Long Black	31086BK	107	2		3/4", Flat Head Countersink	28986
29	1	Receptacle, Clip-On	28803	109	2	Bracket, Mountir	ig, Quiet Ride	915-0392
30	10	Screw, #10-32 x 1/2" BHSCS, Auto, Black	30375	110	2		"Extended/8.3" Compressed	30550A
31 32	2	Bolt, 5/16-18 x 3/4",BHSC, Auto, Black Nut, 1/4-20 Hex Lock	24440 10775	111 112	2	Bolt, 5/16-18 x 3 Washer, 5/16", E	/4", Carriage, Black	15858BK 16368
33	2	Bolt, 5/16-18 x 1/2" Nylock, Hex	10775	112	4	Nut, 5/16-18 Hex		10058
34	2	Washer, 5/16" Flat	10063	114	2	Bracket, Inner S	de Panel Guide	915-0703
35	2	Bolt, 3/8-16 x 1/2" Nylock, Hex	29729	115	3		Flat, Thin, Black	916-5406
36 37	6	Nut, #10-32 w/Lockwasher Position Sensor Collet	18349 31093	116 117	2	Bearing, Flange	te Lever, Upper, Inside - 3/4" x 1/2"	916-5433 24027
38	2	Bolt, 5/16-18 x 3/4" Nylock, Hex	29608	118	4	Washer, Finger,	Disc Spring	27276
39	1	Position Sensor Spacer	31092	119	2	Pivot, Inner Roll		916-5434
40 41	4	Snap-Ring 5/16"	24570 24442	120	1		on, Spring Bar, Front	28132F
41	2	Bearing, Flange, 1/2" x 1/4" Weldment, Latch, Lift/Tite, Rear	27013RW	121 122	1	Roll Stop, Arm, F	on, Spring Bar, Rear	28132R 985-0202RN
43	1	Weldment, Latch, Lift/Tite, Front	27013FW	123	1	Roll Stop, Arm, F	Front	985-0202FN
44	2	Screw, #4-40 x 5/8", Round Head	14810	124	1	Weldment, Tube	-IB Fold Arm-Rear	985-0625RNW
45	2	Clip, Cable, 5/16", Plastic	26948	125	1	Block, Foot, Lato		985-0215N
46 47	1	Screw, #8-32 x 1", Mach. Truss Head Nut, #4-40 w/Lockwasher	19912BK 19537	126 127	4	Nut, 3/8-16, Hex	IB Fold Arm-Front	10059BK 985-0625FNW
48	2	Nut, #8-32, Hex	10777	128	2		Flange, 3/8 I.D. x 1/4"	24028
49	4	O-Ring, 5/16" I.D. x 1/16" O.D.	26614	129	2	Bolt, 5/16-18 x 1	1/2" Hex Head, Cap	10014
50	2	Cylinder, 14.625"/29.146" Retracted	C1514.3-9408 25929	130	2		", SHCS, w/Nylock Patch	28474 10062
51 52	2	Screw, Socket Head, 3/8-16 x 1/2" with 1/2" Shoulder Rivet, Pop, 3/16"13/.25" - SD64BS	11513	131 132	4	Washer, 1/4" Fla Screw #10-32 x	1/2, Flat Head-Hex w/Patch	17192P
53	8	Bushing, 3/4" I.D. x 1/2"	900-0456	133	1	Ring, 1/4" Extern	al Snap	13710
54	1	Vertical Channel Weldment, Front, 48"	955-0448FNW	134	6		25"/.38", Black	14993
55 56	1 2	Cover, Plastic, Parallel Arm, O/S Front-w/Tape Tape, 1" Wide S-Face Foam, x 14" (1 Shown)	915-0704NA 82015R014	135 136	2	Bearing, Flange, Washer, .390 Ny	10MM x 12MM, FMB1012DU	28128
57	6	Tape, 1" Wide S-Face Foam, x 10" (3 Shown)	82015R010	137	5	Ring, 3/8" Retan		13889
58	1	Cycle Counter-LCD Without Reset	30547	138	1	Pin, Spring, Slide	e, NCL	985-2326N
59	2	Handrail Weldment	985-4618NW	139	2	Nut, 5/16-18, To	Lock, Black	28324BK
60 61	8	Rivet, Push In - 8MM Bumper, Rubber, 31/32" O.D.	30063 10950	140	2	Snap-Ring 1/2" Bolt, 3/8-16 x 2",	Hey Head Can	13273
62	1	Bag, Vinyl - 7" x 10"	31174	142	2	Roller Assembly	Hox Hoad, Bap	1000-2395A
63	2	Bulb, Light 20-W, Halogen Reflector	31060	143	2	Roller Retainer		915-5353
64 65	1	Assembly, Rotary Position Sensor Bearing, Platform Slide	31094A 985-2336N	144	2	Nut, 5/16-18 Hex Torsion Rod	K, LOCK	11387BK
65	5	Washer, 3/8" Flat, Black	985-2336N 10064	145	2	Clamp, 1/4" I.D	Nvlon Loop	31432PC 84396
67	4	Nut, 3/8-16, Hex Lock	13617	147	2	Rivet, Pop, 3/16	' x .06"/.13"	11512
68	2	Cotter Pin, 1/4" x 2", Black	15886BK	148	8	Rivet, Snap, .20	1" x .256"/.295"	26362
69 70	1	Assembly, Link, Slide, Outer Barrier w/Magnet Cover, Plastic, Parallel Arm, I/S Front-w/Tape	985-0201NA 975-0701NA	149 150	4	Cover Plastic D	1" x 1/2-16FDU08 arallel Arm, O/S Rear-w/Tape	28031 915-0702NA
70	2	Threshold Strip Switch	31221A	150	1		eplate Bracket, Front	985-0431FNW
72	4	Bolt, 1/4-20 x 1/2" Button Head Socket	15733	152	4	Spacer, Handrai	, .375" Thk. UHMW	995-0301
73	2	Pin, Clevis 3/8 x 3" EFF, LEN. w/o Hole, Black	24932BK	153	2		D. x .75" O.D. x .250", Black	25336
74 75	10	Washer, 1/2" Flat Black Zinc Bolt, 3/8-16 x 1", Hex	25346 10025	154 155	1		arallel Arm, I/S Rear-w/Tape eplate Bracket, Rear	975-0703NA 985-0431RNW
76	6	Washer, 3/8", Lock, Black	10069BK	156	2	Spring, Torsion -	.366 I.D. x .05"	30386
77	2	Lever, Inboard Barrier	985-0404N	157	4	Spacer, IB Lock		30394
78 79	4	Clamp, Insulate, 1 3/8" I.D. Washer, 5/16" Lock, Black	29765 10068	158	2	Weldment, IB Lo Bearing, 3/8" I.D		985-0630NW
80	2	Gas Spring, Fold Arm	29186	159 160	4	Roller, .65" O.D.		30405 985-0631N
81	2	Ball Stud, Gas Spring, 13MM x 3/8-16 F. Thread	29185	161	4	E-Clip, 3/8" Shat	t	84383
82	2	Washer, 3/8", Lock	10069	162	2		, .230" Thk. UHMW	911-5301
83 84	1	Assembly, IB Occupied Clip, Safety, 3/8-16 x 3/4", Flange	31643A 12608	163 164	2	Clamp, 1/2" I.D. Washer 516" LI	- Nylon Loop D. x 1" O.D. x .0269". Auto BK	10092
85	6	Bolt, 3/8-16 X 3/4", Flange Button Head, Socket Cap	25171	165	4	Screw, #4-40 x 1	/2" RD., HD.	11482
86	2	Bolt, 5/16-18 x 2", Flange, Hex	25130	166	1	Spring, Extensio	n 1/2" x 8", 2.08	31794
87	2	Nut, 5/16-18, Serrated Flange	25131	167	2	Light Assy, Vertic		31062A
88 89	2	Arm, Slide Support (Replace in Pairs) Slide, Platform, Rotate, Weldment	985-6612N 985-0606N	168 169	2		/16" x 5/8" - 1/4-20 ck, .201" Hole x .177"/.217" Thick	31816 30408
90	2	Spacer, .5" O.D. x .334" I.D. x 1.515" LG	25132	170	4		75" O.D. x .39" I.D. x .25"	30227
91	10	Bearing, Flange, 3/4" x 1/4"	24012	171	3	Nut, 1/4-20 Hex		10057
92	2	Weldment, Platform Pivot Arm - 48"	985-0640NW-BKN 900-0413N	172	2		, Magnetic w/Plug - 60"	30433A60
93 94	2	Pin, Pivot, Lower Arm Ring, Snap, 3/4", External	900-0413N 18657	173 174	1 6		I" BHCS, Nylock, BKZN /2" PH, PN, SD, Auto, Black	25371 13583
95	2	Bearing, UHMW, Flat, 1.226"	205-1760	175	4	Washer, Thrust,	.875 O. D., .50 I.D., .0585T	29371
96	2	Ball Stud, 10MM	21301	176	2	Screw, 1/4-20 x	3/4" BHSCS 18-8 SS	81068-000
97	1	Vertical Channel Weldment, Rear Plastic End Cap, 1" I.D. x 1 1/4" O.D.	955-0448RNW	177	1	Slide, UHMW, P		31677
98	6	Plastic End Cap, 1" I.D. x 1 1/4" O.D. Grip, Handle, Yellow	20474 19074	178 179	16 2	Bearing, Flange, Bolt, 1/4-20 x 1",		24011 10001
99	2							

### 48" Floor-to-Ground Lift Exploded View





NOTES

This page intentionally left blank to provide a place for notes and references.

# "Providing Access to the World"



## Over 300 Braun Dealers Worldwide



International Corporate Hdqrs: P.O. Box 310 Winamac, IN 46996 USA 1-800-THE LIFT® (574) 946-6153 FAX: (574) 946-4670



#### Series 05

### Public Use Wheelchair Lifts

#### Braun<sup>™</sup>Five-Year Limited Warranty

The Braun Corporation of Winamac, Indiana, warrants that it will repair (or replace at Braun's sole option) any defect in material or workmanship in its wheelchair lift for five years\*, providing the lift is installed, operated and maintained properly. This warranty is limited to the original purchaser and does not cover defects in the motor vehicle on which it is installed, or defects in the lift caused by a defect in any part of the motor vehicle.

This warranty commences on the date the lift is put in service, providing the warranty registration card is completed and received by The Braun Corporation within 20 days of purchase. If no warranty card is received, the warranty will expire three years from the date of manufacture as identified on the lift serial number tag.

This warranty also covers the cost of labor for the repair (or replacement at Braun's sole option) of parts for three years when performed by an authorized Braun representative. (A labor schedule determines cost allowance for repairs and is available upon request).

This warranty does not cover normal maintenance, service, or periodic adjustments necessitated by use or wear. The Braun Corporation will not, under any circumstances, pay for loss of use, incidental, or consequential damages related to the lift or vehicle in which it is installed.

This warranty will become null and void if the lift has been damaged through accident, misuse, or neglect, or if the lift has been altered in any respect.

\* The five-year portion of this warranty covers the following lift's power train parts:

Cable • Cylinder • Flow Control • Gear Box • Motor • Pump • Hydraulic Hose & Fittings
 Solid State Controller

All remaining lift components are covered by a three-year warranty.

#### **Return Authorization Procedure**

When processing any warranty claims (parts, repairs, etc.), all requests must be processed through The Braun Corporation Product Support Department. Call 1-800-THE LIFT<sup>®</sup> during normal working hours. Product Support will issue a Return Material Authorization (RMA) number and detail the procedures required for processing returns and/or authorizing credit.

The lift identification information is provided on the Braun Serial No./Series No. identification tag and the two warranty cards (shown on inside front cover). The lift identification information must be provided when filing a warranty claim or ordering parts.



All illustrations, descriptions and specifications in this manual are based on the latest product information available at the time of publication. The Braun Corporation reserves the right to make changes at any time without notice.

Patent #5,261,779 Patent #6,065,924 Patent #6,238,169

33176 Rev. A

February 2008

**Braun NCL Series** 

Patent #6,464,447 Patent #6,599,079 Patent #6,692,217 Paient #6,739,824 Paients Pending © The Braun Corporation