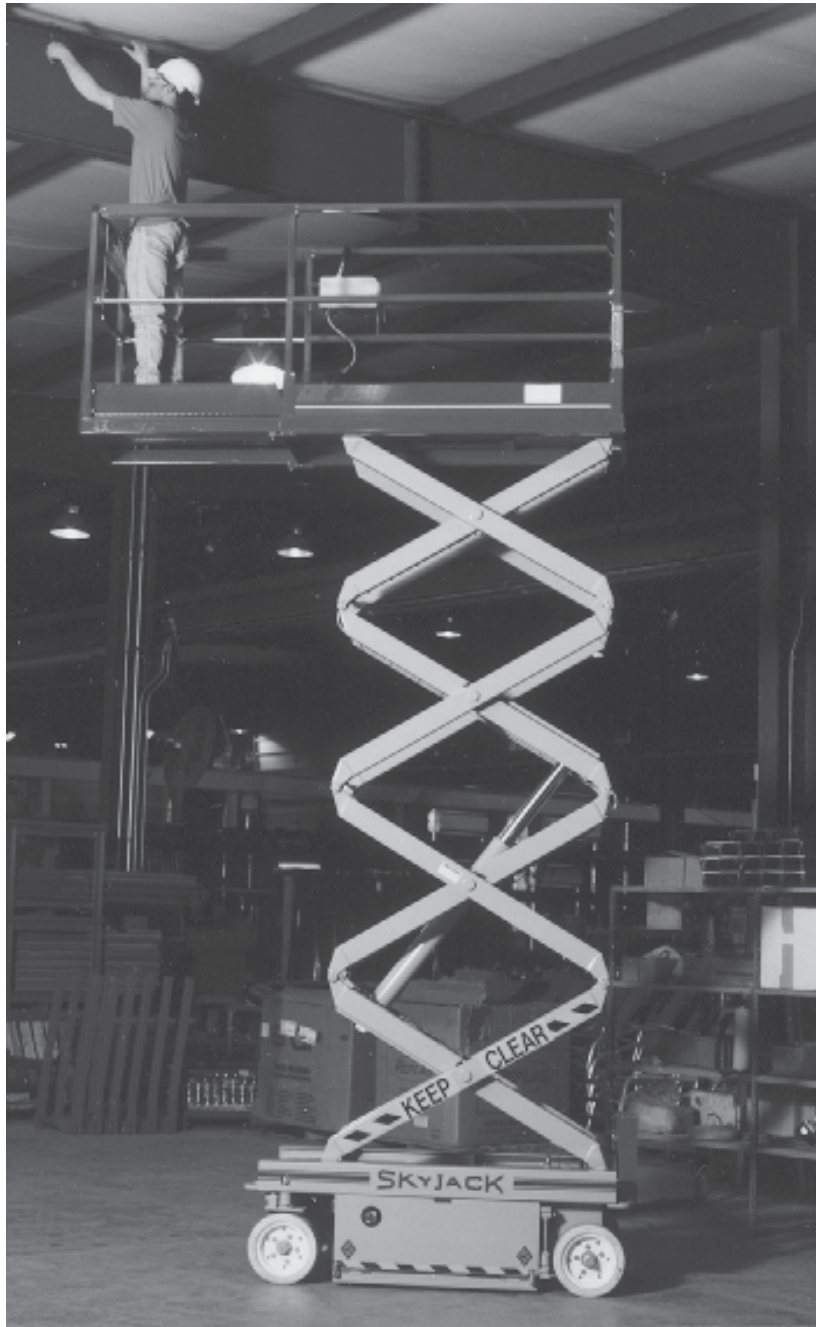


# SKYJACK™

## OPERATING MAINTENANCE & PARTS MANUAL



**SJ111 Series**

**The Compacts**  
Models 3015 And 3219

**For Service please call ..... 800 275-9522**  
Skyjack Inc. Service Center, 3451 Swenson Ave., St. Charles, IL. 60174 .... FAX 630 262-0006

**For Parts in North America and Asia please call ..... 800 965-4626**  
Skyjack Inc. Parts Center, 3451 Swenson Ave., St. Charles, IL. 60174 ..... FAX 888 782-4825

**For Parts & Service in Europe please call ..... 31 297 255 526**  
Skyjack Europe Communicatieweg 29, 3641 SG Mijdrecht Netherlands ..... FAX 31 297 256 948

Before using or operating this work platform, check to see if it is equipped with any special options or has been modified in any way (refer to [Table 2-5](#). for a list of Skyjack special options). Read all the applicable operating instructions and warnings. If this manual does not contain the required operating instructions for the special option(s), refer to [Table 2-5](#). and order the appropriate sheet(s).

**DO NOT OPERATE THIS EQUIPMENT WITHOUT PROPER AUTHORIZATION, TRAINING AND UNDERSTANDING OF THE OPERATION OF BOTH STANDARD AND OPTIONAL EQUIPMENT. DO NOT USE A WORK PLATFORM THAT HAS OPTIONS, ALTERATIONS OR MODIFICATIONS NOT APPROVED BY SKYJACK.**

USE THE SERIAL NUMBER OF YOUR MACHINE TO DETERMINE THE CORRECT Operating Manual TO USE			
<b>MANUAL PART #</b>		<a href="#">117129AH</a>	<a href="#">118941AF</a>
<b>Release Date</b>		<a href="#">August 2004</a>	<a href="#">June 2005</a>
<b>M O D E L S</b>	<b>3015</b>	151981 & Below	<b>Not Used</b>
	<b>3215</b>	<b>Not Used</b>	151982 & Above
	<b>3219</b>	236285 & Below	236286 & Above

[60167AC](#)

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 **WARNING**

**ANSI/SIA (United States)**

You are required by the current ANSI/SIA A92.6 standards to read and understand **YOUR RESPONSIBILITIES** in the Manual Of Responsibilities before you use or operate this work platform.

**CSA (Canada) and CE (Europe)**

You are required to conform to national health and safety regulations applicable to the operation of this elevating work platform.

**FAILURE TO COMPLY with your REQUIRED RESPONSIBILITIES in the use and operation of the work platform could result in DEATH OR SERIOUS INJURY!**

**OPERATOR SAFETY REMINDERS**

The National Safety Council reminds us that most accidents are caused by the failure of some individuals to follow simple and fundamental safety rules and precautions. Common sense dictates the use of protective clothing when working on or near machinery. Use appropriate safety devices to protect your eyes, ears, hands, feet and body.

You, as a careful operator, are the best insurance against an accident. Therefore, proper usage of this work platform is mandatory. The following pages of this manual should be read and understood completely before operating the work platform. Any modifications from the original design are strictly forbidden without written permission from SKYJACK, Inc.

 **DANGER**

**ELECTROCUTION HAZARD**

**THIS MACHINE IS NOT INSULATED. MAINTAIN SAFE CLEARANCES FROM ELECTRICAL POWER LINES AND APPARATUS. YOU MUST ALLOW FOR PLATFORM SWAY, ROCK OR SAG. THIS WORK PLATFORM DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.**

Minimum Safe Approach Distance

ANSI/SIA A92.6-1999 & CSA CAN3-B354.2&.3-M82 Requirements			CE Guidance Note
Voltage Range (Phase to Phase)	Minimum Safe Approach Distance		"Avoidance of danger from Overhead Lines"  These machines should not operate within 15M of overhead lines suspended from steel towers.  These machines should not operate within 9M of overhead lines suspended from wooden poles.
	Feet	Meters	
0 To 300V	Avoid Contact		
Over 300V to 50KV	10	3.05	
Over 50KV to 200KV	15	4.60	
Over 200KV to 350KV	20	6.10	
Over 350KV to 500KV	25	7.62	
Over 500KV to 750KV	35	10.67	
Over 750KV to 1000KV	45	13.72	

**FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY!**

**DO NOT OPERATE THIS EQUIPMENT WITHOUT PROPER AUTHORIZATION AND TRAINING. DEATH OR SERIOUS INJURY COULD RESULT FROM IMPROPER USE OF THIS EQUIPMENT!**

### **SERVICE POLICY AND WARRANTY**

SKYJACK, Inc. warrants each new SJIII Series work platform to be free of defective parts and workmanship for the first 12 months. Any defective part will be replaced or repaired by your local SKYJACK dealer at no charge for parts or labor. Refer to Warranty Statement for extensions or exclusions.

#### **NOTE**

SKYJACK, Inc. is continuously improving and expanding product features on its equipment: therefore, specifications and dimensions are subject to change without notice.



**This Safety Alert Symbol Means Attention!**

**Become Alert! Your Safety Is Involved.**

The Safety Alert Symbol identifies important safety messages on machines, safety signs, in manuals, or elsewhere. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

### **SCOPE OF THIS MANUAL**

This manual applies to the ANSI/SIA, CSA and CE versions of the SJIII Series work platform models listed on Table 1-1. Equipment identified with "ANSI" meets the ANSI/SIA-A92.6 -1990 or ANSI/SIA-A92.6 -1999 standards. Equipment identified with "CSA" meets the CAN3-B354.2&.3-M82 standards. Equipment identified with "CE" meets the requirements for the European countries, i.e. Machinery Directive 89/392/EEC and EMC Directive 89/336/EEC and the corresponding EN standards.

## WARRANTY STATEMENT

SKYJACK, Inc. warrants each new work platform to be free of defective parts and workmanship. During the first full year, labor and replacement parts will be provided by the local authorized Skyjack dealer without charge. For the following 48 months, structural components found to be defective will be replaced or repaired at no charge.

A warranty registration card is supplied with each work platform. The warranty is only effective when the warranty card has been completed and returned to Skyjack within 15 days from the time of billing. When work platforms are put into stock, the warranty period does not start until the work platform has been shipped to the dealers customer. If a unit is put into service and no warranty card has been mailed to Skyjack, Inc., the warranty period will commence 15 days from the date the dealer was invoiced for the work platform.

All warranty claims are subject to approval by Skyjack's Service Department. Skyjack, Inc. reserves the right to limit or adjust claims with regard to defective parts, labor or travel time based on usual and customary guidelines. Parts purchased from sources other than Skyjack will not be covered under this warranty. Misuse or improper operation, lack of normal maintenance and inspections as outlined in this Operating/Maintenance and Parts Manual, alterations to original design and/or components or accidents will void all warranty. **Batteries are not covered by this warranty.**

The above mentioned warranty statement is exclusive and no other warranty whether written, oral or implied shall apply. Skyjack excludes any implied warranty of merchantability and fitness and accepts no liability for consequential damages or for other negligence.

### WARRANTY PROCEDURES

The selling distributor or authorized dealer shall be responsible for the complete handling of customer claims under this warranty. Here's what to do:

1. When a customer files a claim under this warranty, contact Skyjack's Service Department to verify warranty coverage. **NOTE:** The complete serial number of the work platform is required to verify the claim.
2. When Skyjack's Service Department verifies warranty coverage, they will also issue an RA (Return Authorization) number for the return of any defective component(s). All items over \$25.00 in value must be returned to Skyjack, Inc.

3. Fill out a Warranty Claim Form from dealer's supply of claim forms. Then notify Skyjack's Service Department of the warranty claim number on the form used.
4. The distributor/dealer should then file a warranty claim with Skyjack, Inc. describing the nature of the defect, probable cause, work performed, travel hours, and labor hours listed separately. Warranty labor will be paid at a rate of \$42.00 per hour. The travel allowance will be paid at the same hourly rate within the dealers specified territory, limited to a maximum of four (4) hours. If a part has serviceable components, **PLEASE** replace the bad component. For instance, if you have a bad switch on a controller, please replace the switch. Hydraulic cylinders should be resealed, unless they are damaged beyond repair. Engine failures should be directed to your local engine distributor and covered by the manufacturers warranty. Skyjack will accommodate you and your labor. Labor rates and travel allowances are subject to change without notice.
5. Warranty claims must be received by Skyjack within 15 working days from the date of the repair. Warranty claims received with insufficient information will be returned for correction or completion.
6. Materials returned for warranty inspection must have the following procedures:
  - A. Carefully packaged to prevent additional damage during shipping.
  - B. Drained of all contents and all open ports capped or plugged.
  - C. Shipped in a container tagged or marked with the RA number.
  - D. Shipped **PREPAID**. Any item(s) returned for warranty by any other means may be refused and returned unless prior approval from Skyjack is obtained.
  - E. Items shipped to the dealer will be sent freight prepaid and added to the invoice.

Failure to comply with the above procedures may delay approval and processing of the warranty claim and could result in the denial of a warranty claim. Skyjack's dealer's accounts must be kept current in order to approve and issue warranty credits. Skyjack reserves the right to withhold issuance of warranty credits to a dealer if their account is not in good standing. This is subject to change without prior notice.



# SECTION 1

## INTRODUCTION

### Purpose Of Equipment

The SKYJACK SJIII Series Work Platform is designed to transport and raise personnel, tools and materials to overhead work areas.

### Use Of Equipment

The work platform (Figure 1-1.) is a highly maneuverable, mobile work station. Lifting and driving **MUST** be on a flat, level, compacted surface.

### Warnings

The operator **MUST** read and completely understand the safety panel label located on the platform and **ALL** other warnings in this manual and on the work platform. Compare the labels on the work platform with the labels found throughout this manual. If any labels are damaged or missing, replace them immediately.

### Description

The work platform consists of three major assemblies, the platform, lifting mechanism and the base. An operator's control box is mounted on the platform railing. Auxiliary and emergency controls are located at the base.

### Platform

The platform is constructed of a tubular support frame, a skid-resistant deck surface, and 41 inch to 43-1/2 inch (1042-1105mm) high railings (depending on model) with 6" (152mm) toe boards and mid-rails. The platform can be entered from the rear through an entry chain or optional spring-returned gate with latch. The platform is also equipped with an extension platform.

### Manual Storage Box

This weather resistant box is mounted at the front of the platform directly below the safety panel. It contains the Operating Manual, the Operating/Maintenance and Parts Manual and other important documentation. The Operating Manual for this make and model work platform **MUST** remain with the work platform and should be stored in this box.



### Operator's Control Box

A removable control box, mounted at the right front of the platform, contains controls for work platform motion and emergency stopping.

### Lifting Mechanism

The lifting mechanism is constructed from steel tubing making up a scissor-type assembly. The scissor-type assembly is raised and lowered by single-acting hydraulic lift cylinders. A pump, driven by a motor, provides hydraulic power to the lift cylinder. **A safety bar** located at the front of the lifting mechanism prevents (when properly positioned) the scissor-type assembly from being lowered while maintenance or repairs are being performed within the lifting mechanism.

### Base

The base is a rigid one-piece weldment which supports two swing-out trays. A mechanically actuated angle, located under the outside of the trays, rotates when lifting. This mechanism provides pothole protection for elevated driving. One tray contains the hydraulic and electrical components. The other tray contains the battery charger and four (4) 6 volt batteries. The front axle has two hydraulic motor-driven wheels, steerable by a hydraulic cylinder. The rear axle is fixed and has two spring-applied hydraulically-released parking brakes.

### Lowering Warning System (CE only)

Models 3015 and 3219 are equipped with a lowering warning system as standard equipment.

### Serial Number Nameplate

The serial number nameplate, located at the rear of the machine, lists the model number, serial number, machine weight, drive height, capacity and maximum no. of persons, maximum speed, maximum manual force, maximum incline, platform height, voltage, system pressure, lift pressure, ground pressure (tire contact pressure), and date manufactured. Use this information for proper operation and maintenance and when ordering service parts.

### Optional Accessories

The SKYJACK SJIII Series Work Platform is designed to accept a variety of optional accessories. These are listed in (Table 1-2.) Standard Features and Optional Equipment. Operating instructions for these options (if required) are located in Section 2 of this manual.

## Operator Warnings



### Warning

exert excessive side forces on platform while elevated.

- DO NOT** overload, the lift relief valve does not protect against overloading when the platform is elevated.
- DO NOT** alter or disable limit switches or other safety devices.
- DO NOT** exceed the rated capacity of your scissorlift and make sure the load is evenly distributed on the platform.
- DO NOT** raise your platform in windy or gusty conditions.



### Warning Jobsite Hazards

- DO NOT** operate on surfaces not capable of holding weight of the work platform including the rated load, e.g. covers, drains, and trenches.
- DO NOT** elevate the work platform if it is not on firm level surfaces. Avoid pot holes, loading docks, debris, drop offs and surfaces that may affect the stability of your work platform.
- DO NOT** climb or descend a grade steeper than 20%. Elevated driving must only be done on firm level surfaces. (Ref. Table 1-1)
- BE AWARE** of overhead obstacles, and poorly lit areas in case of overhead obstacles.
- ENSURE** that there is no person(s) in the path of travel.



### Warning

### Work Platform Conditions

#### An Operator Should Not Use Any Work Platform That:

- Has ladders, scaffolding or other devices mounted on it to increase its size or work height.
- Does not have a clean, uncluttered work area.
- Does not appear to be working properly.
- Has been damaged or appears to have worn or missing parts.
- Has alterations or modifications not approved by the manufacturer.
- Has safety devices which have been altered or disabled.



**Table 1-1. Specifications and Features - The Compacts**

<b>Model</b>	<b>3015</b>	<b>3219</b>
<b>Weight Ω</b>	2360 lbs. (1070 kg)	2790 lbs. (1266 kg)
<b>Width</b>	30.50" (0.77m)	32.50" (0.83m)
<b>Length</b>	66.50" (1.69m)	66.50" (1.69m)
<b>Elevated Working Height</b>	21.00' (6.4m)	25.00' (7.6m)
<b>Elevated Platform Height</b>	15.00' (4.6m)	19.00' (5.80m)
<b>Stowed Fixed Railing Height</b>	78.0" (1.98m)	79.0" (2.01m)
<b>Drive Height (ANSI)</b>	FULL	FULL
<b>Platform Size</b>	28" x 64" (0.71x1.63m)	28" x 64" (0.71x1.63m)
<b>High Travel Speed</b>	2 mph (3.2 km/h)	2 mph (3.2 km/h)
<b>Elevated Drive Speed</b>	.75 mph (1.2 km/h)	.75 mph (1.2 km/h)
<b>Lift Time (No Load)</b>	21 sec.	30 sec.
<b>Lower Time (No Load)</b>	29 sec.	40 sec.
<b>Gradability</b>	20%	20%

Ω Weight with standard 3' (0.9m) extension platform.

(Refer to nameplate for machines with 3' (0.9m) powered extension platform, CE models and other options.)

Φ Overall capacity - all extension platform capacities are 250lbs (113.4 kg).

**Table 1-2. Standard Features And Optional Equipment**

**Standard Features (ANSI & CE)**

- Descent Alarm
- Joystick Controller With Proportional Lift and Drive Functions (See NOTE)
- Swing Out Side Trays
- Dual Spring-Applied, Hydraulically-Released Parking Brakes
- Puncture-Proof Solid Rubber Non-Marking Tires
- Manual Lowering System With Electric Holding Valves On Lift Cylinders
- Pothole Protection
- Operator Horn
- 3 Foot Manual Extension Platform
- AC Outlet On Platform
- Lanyard Attachment Rings
- Lowering Warning System (CE only)
- Front Wheel Drive With Tight Turning Radius
- Spring-Loaded Half-Height Gate (CE only)
- Movement Alarm (ANSI only)

**Optional Equipment (ANSI & CE)**

- Spring-Loaded Half-Height Gate (ANSI only)
- Spring-Loaded Full-Height Gate
- Movement Alarm (CE only)
- Flashing Amber Light
- 800W AC Generator
- Hydraulically Powered Extension Platform
- EE-Rating
- Shop Air Hose To Platform
- Puncture-Proof Solid Rubber Black Tires
- Lowering warning system (ANSI only)

**Note:** Platform lowering and steering are not proportional.

## Work Platform Major Component Identification

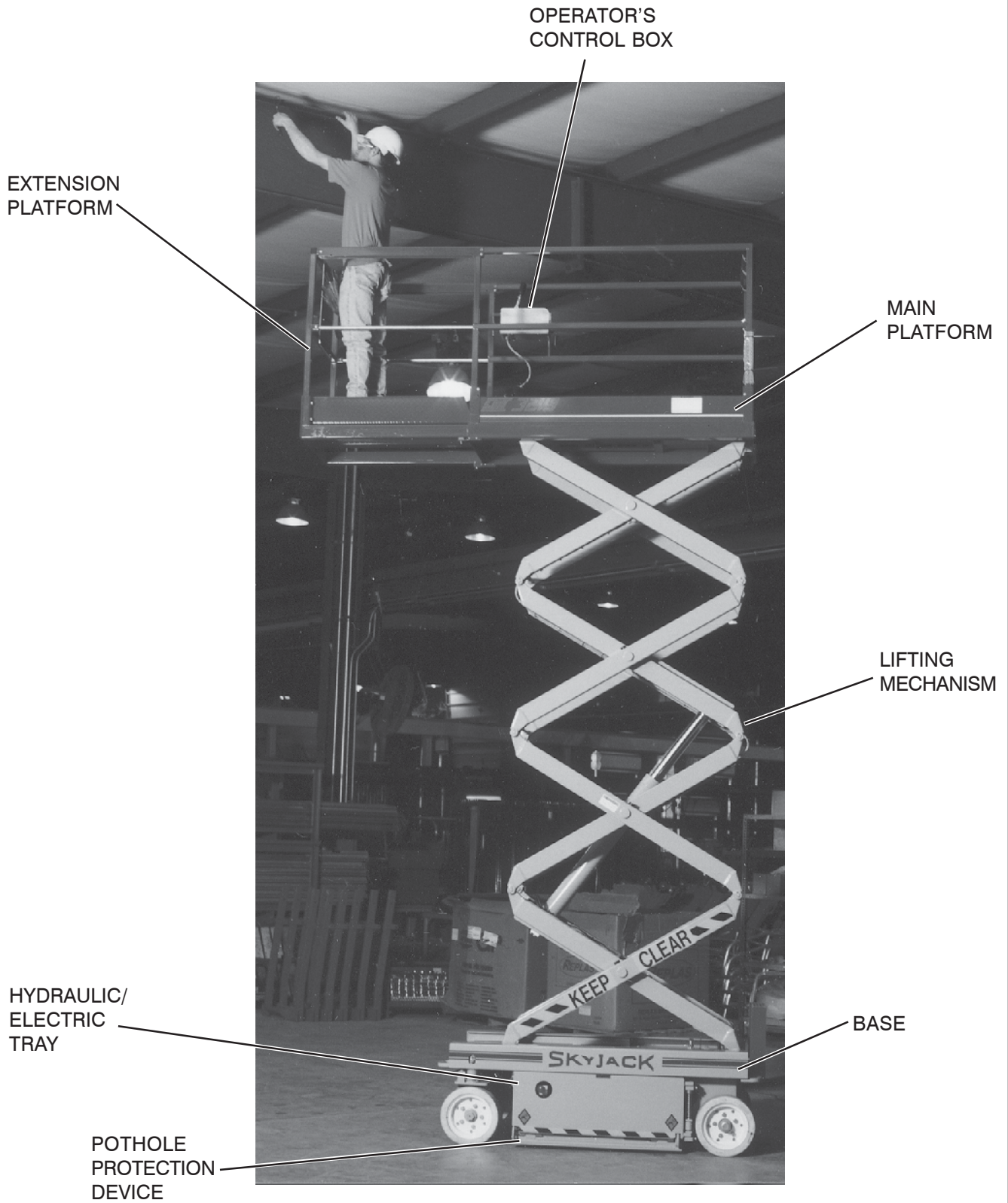


Figure 1-1. SKYJACK SJIII Series Work Platform  
(Model 3219 shown)

# SECTION 2 OPERATION

## Operating Controls Identification

The following descriptions are for identification, explanation and locating purposes only. A qualified operator **MUST** read and completely understand these descriptions before operating this work platform. Procedures for operating this work platform are detailed in the “**Operating Procedures**” section. Both standard and optional controls are identified in this section. Therefore, some controls may be included that are not furnished on your work platform.

## Base Controls

### Electrical Panel

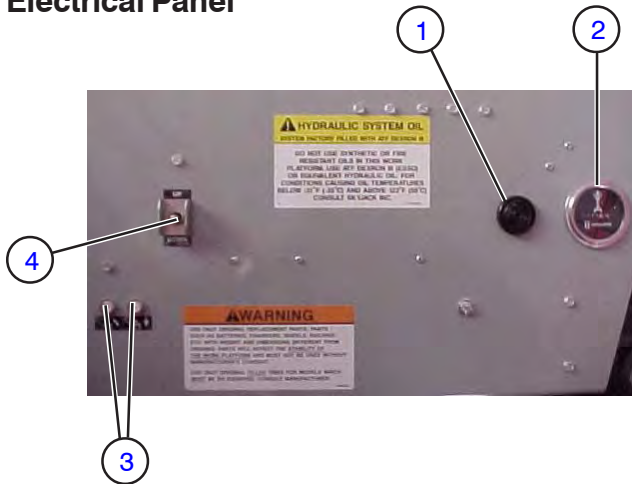


Figure 2-1. Electrical Panel

### Electrical Panel

This control station is located in the Hydraulic/Electric Tray. It contains the following controls:

- 1- Buzzer Alarm** - This audible pulse alarm sounds when platform is being electrically lowered. On machines with certain options, this alarm will sound when any control function is selected.
- 2- Hourmeter** - Activated when the pump/motor runs, this gauge records work platform operating time.
- 3- 15 Amp Circuit Breaker Resets** - In the event of a power overload or positive circuit grounding, circuit breaker will pop out. Make the necessary corrections, then depress the push-button to reset.
- 4- Up/Down Toggle Switch (ANSI and CSA)** This toggle type switch raises or lowers the platform to desired a height.

### Emergency Battery Disconnect Switch



Figure 2-2. Emergency Battery Disconnect Switch

- 1- Emergency Battery Disconnect Switch** - Located on the rear of the base, this switch, when in “OFF” position, disconnects power to all control and power circuits. Switch **MUST** be in “ON” position to operate any electric control circuit.

### Base Control Box (CE)



Figure 2-3. Base Control Box (CE)

### Base Control Box (CE)

This metal control station is mounted on the rear of the base. It contains the following controls:

- 1- Platform Up/Down Toggle Switch** - This toggle type switch raises or lowers the platform to a desired height.
- 2- Emergency Stop Button** - This red “mushroom-head” shaped button switch is designed to disengage power to the platform controls.

## Platform Controls

### Operator's Control Box

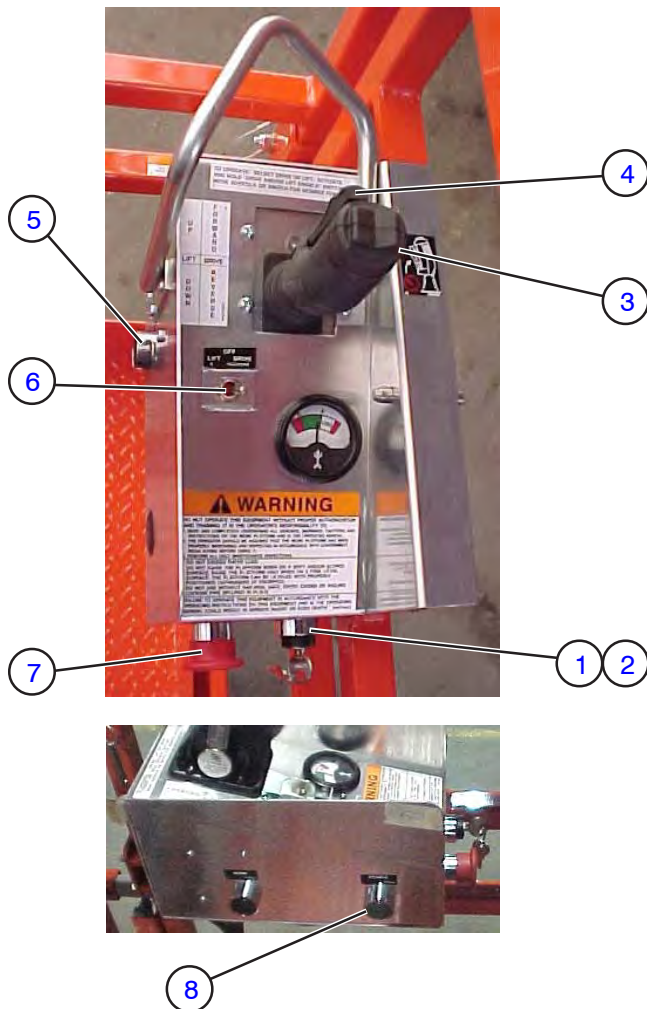


Figure 2-4. Operator's Control Box

#### Operator's Control Box

This metal control station is mounted at the right front of the platform. It contains the following controls:

- 1- Off/On Key Switch (ANSI and CSA)**- Disconnects or energizes the control circuit in the operator's control box.
- 2- Platform/Off/Base Select Key Switch (CE)** - This three-way selector switch allows the operator to turn off the power to the unit or to activate either the base or platform controls.
- 3- Proportional Controller** - A one-hand toggle-type lever to control proportional drive/lift motion. It is a "deadman" control which returns to neutral when released.

**4- Lift/Drive Enable Switch** - This momentary "Trigger" style switch (on later models) energizes the proportional controller. It must be held depressed continuously while engaging either the drive/lift or steer functions.

**5- Operator Horn Push-Button** - This momentary push-button switch activates an automotive-type horn.

**6- Lift/Off/Drive Select Toggle Switch** - If "Lift" is selected, the lift circuit is energized. "OFF" disconnects power from both the lift and drive circuits. If "DRIVE" is selected, the drive circuit is energized.

**7- Emergency Stop Button** - This red "mushroom-head" shaped button switch is designed to disengage power to the platform controls.

**8- Lift/Drive Enable Push-Button** - This momentary push-button switch (if equipped) energizes the lever controller. It must be held depressed while engaging either the lift or drive functions.

### Powered Extension Platform Control Box



Figure 2-5. Powered Extension Control Box

#### Powered Extension Platform Control Box

**1- Enable Switch** - This switch, when activated, brings power to the Platform Extend/Retract Selector Switch.

**2- Platform Extend/Retract Selector Switch** - This switch, when activated, extends or retracts the platform.



# Identification And Operation Of Safety Devices

## Safety Bar

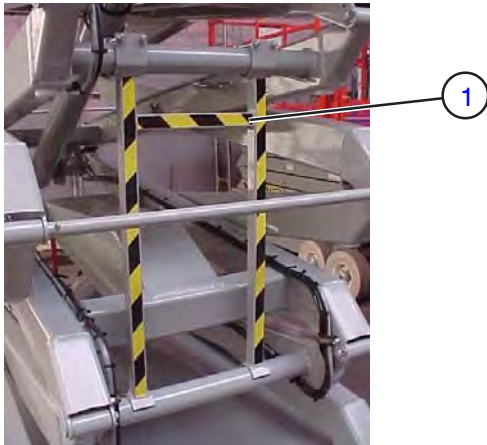


Figure 2-6. Safety Bar

**1- Safety Bar** - Designed to support the scissors assembly (when properly positioned), the safety bar **MUST** be used when inspecting or when performing maintenance or repairs within the scissor assembly with the platform raised. To use the safety bar, follow the procedure on the safety bar label on the base.

 **Warning**  
**Crushing Hazard**

**DO NOT** reach through the scissor assembly when the platform is raised without the safety bar properly positioned. Lower the platform until the scissor assembly is firmly supported by the safety bar. **Failure to avoid this hazard will result in death or serious injury!**

## Pothole Protection Device



Figure 2-7. Pothole Protection Device

**1- Pothole Protection Device** - This device consists of a mechanically actuated steel weldments, located under the hydraulic/electric tray and battery tray, these weldments will automatically rotate for reduced ground clearance when elevating the platform. If the pothole protection device has not fully lowered, the drive function will be disabled.

 **Warning**  
**Crushing Hazard**

Personnel on ground **MUST** stay clear of pothole protection bar.

 **Warning**

**DO NOT** drive elevated in areas where electrical cords or debris is in the path of travel.

**DO NOT** drive elevated into holes, depressions, trenches, shafts or soft or uneven ground.

**Maintenance of the Pothole Protection Device** - As with all safety devices, periodic inspection and maintenance is required to ensure the proper operation of the pothole protection device. This mechanism is designed to reduce ground clearance and assist in the stability of an elevated platform in the event the machine encounters a "Drop-off" or "Pothole". The nature of this safety feature relies on maintaining a consistent ground clearance, **therefore if the machine ever does come to rest on the Pothole device, the platform should be immediately lowered and "locked out" to prevent further use until a complete inspection of the mechanism is performed by a qualified technician.**



## Fold-Down Guardrail System

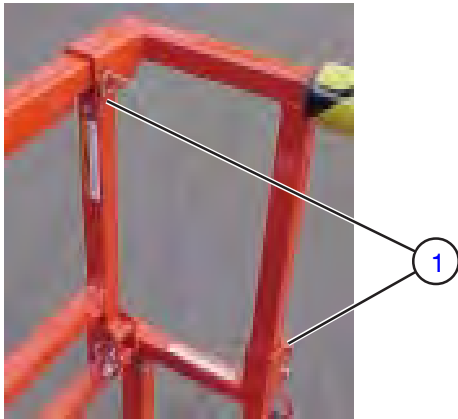


Figure 2-8. Fold-Down Guardrail System

### Fold-Down Guardrail System

This system when folded down, reduces the shut height of the work platform for travelling through standard doorways.

**1- Guardrail Locking Pin With Lanyard** - To fold the guardrail system down, remove the locking pin at each pivot point and lower each guardrail. To raise the guardrail system, swing up each guardrail and lock in place with the locking pins ensuring that the detent ball of each pin is clear of the side of the pivot brackets. (Figure 2-8.)

### **Warning**

The guardrail system **MUST** be upright and locked in place before resuming normal operation. **Check the guardrail system for loose or missing locking pins before operating this equipment!**

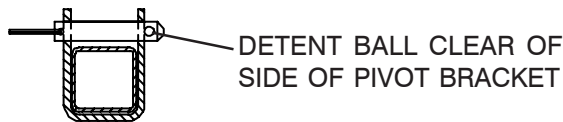


Figure 2-9. Correct Position of Locking Pin

## Operator Qualifications

Only trained and authorized persons should use this work platform. Safe use of this work platform requires the operator to understand the limitations and warnings, operating procedures and operator's responsibility for maintenance. Accordingly, the operator **MUST** understand and be familiar with this operating manual, its warnings and instructions and **ALL** warnings and instructions on the work platform. Operator also **MUST** be familiar with employer's work rules and related government regulations and be able to demonstrate his/her ability to understand and operate **THIS** make and model work platform in the presence of a qualified person.

# Operating Procedures

## Set-Up Procedure

1. Remove all packing materials and inspect for damage incurred during transport. This is normally required for equipment being put into service for the first time, after the equipment has been unloaded.

### Note

Report any damage to delivery carrier immediately.

2. Inspect work platform thoroughly and remove any foreign objects.
3. If equipped with a fold-down guardrail system, swing up and lock all guardrails in place with locking pins. (Refer to Figure 2-9.)
4. Unlock and swing out the battery tray and hydraulic/electric tray.



### **Warning** **Explosion Hazard**

Keep flames and sparks away. **DO NOT** smoke near batteries.

### First Aid

Immediately flush eyes with cold water if electrolytic acid is splattered into them. Seek medical attention if discomfort continues.

5. In the battery tray, check the electrolyte level in all four batteries. If plates are not covered, carefully add distilled or demineralized water. If needed, check the specific gravity in each battery, it should be 1.260 to 1.275. (This reading will not be correct if you just added water to the batteries.)

6. Connect the A.C. battery charger cord to the proper A.C. voltage source and charge the batteries. (Refer to “Battery Charging Procedures”).
7. When charger cycle is complete, disconnect the battery charger A.C. cord and swing the battery tray to locked closed position.
8. In the hydraulic/electric tray, check the hydraulic oil level (scissors **MUST** be fully lowered) in the tank. Level should be at or slightly above the top mark on the gauge. If required, add a quality grade hydraulic oil such as ATF Dextron III (ESSO). Refer to the “HYDRAULIC OIL” label located on the oil reservoir for specific applications.
9. Swing the hydraulic/electric tray to locked closed position.
- 10A. **On (CE) machines:**  
Raise the platform, by selecting “BASE” position, with the Platform/Off/Base Select Switch (Figure 2-4.), then push the base Up/Down Toggle Switch to the “↑” (up) position until there is an adequate clearance to swing down and position the safety bar.
- 10B. **On ANSI and CSA machines:**  
Raise the platform with Up/Down Toggle Switch from the hydraulic tray, until there is an adequate clearance to swing down and position the safety bar.
11. Lift the Safety Bar from the storage channel and swing down into position. (Refer to label on base for proper procedure.) Lower the platform until the scissor assembly is firmly supported by the safety bar.
12. Inspect all hoses, fittings, wires, cables, valves, etc. for leaks, hidden damage and foreign material.

**13A. On (CE) machines:**

Raise the platform, by selecting "BASE" position, with the Platform/Off/Base Select Switch (Figure 2-4.), then push the base Up/Down Toggle Switch to the "↑" (up) position until there is an adequate clearance to swing up the safety bar. Return the safety bar to storage channel.

**13B. On ANSI and CSA machines:**

Raise the platform with Up/Down Toggle Switch from the hydraulic tray, until there is an adequate clearance to swing up safety bar. Return the safety bar to storage channel.

14. Raise the platform to the maximum extension height.

**Note**

Refer to Table 1-1. General Specifications (Section 1) for raise and lowering times.

15. Fully lower the platform.

**Note**

A lowering warning system is standard on (CE) Models. This system automatically stops the lowering function before reaching the fully retracted position and sounds an alarm. After the operator has released the down controls and checked that no person is near the scissors, the lowering function can reactivate. These machines do not have scissor guards.

16. The SJIII Series Work Platform is now ready for use by an authorized, qualified operator who has read and completely understands ALL of Section 2, OPERATION in this manual.

**Prestart Checks**

1. Carefully read and completely understand ALL of Section 2, OPERATION in this manual and ALL warnings and instruction labels on the work platform.
2. Ensure that there are no obstacles around the work platform and in the path of travel such as holes, drop offs, ditches, soft fill or debris. Also ensure that there are no electrical cords and hoses with a diameter of more than 1/2" in the path of travel.

3. Check overhead clearances.
4. Make sure the batteries are fully charged. Disconnect the AC charger cord from the external power source.
5. Make sure that the Free-Wheeling Valve is fully closed.
6. Make sure all guardrails and lockpins are in place and locked in position
7. Make sure both side battery and hydraulic trays are closed and locked.
8. Make sure you do not climb or descend a grade steeper than 20%. Elevated driving must only be done on firm level surfaces.

**OPERATOR'S CHECKLIST**

**INSPECT AND/OR TEST THE FOLLOWING DAILY OR AT BEGINNING OF EACH SHIFT**

- 1 OPERATING AND EMERGENCY CONTROLS.
- 2 SAFETY DEVICES AND LIMIT SWITCHES.
- 3 PERSONAL PROTECTIVE DEVICES.
- 4 TIRES AND WHEELS.
- 5 OUTRIGGERS (IF EQUIPPED) AND OTHER STRUCTURES.
- 6 AIR, HYDRAULIC AND FUEL SYSTEM(S) FOR LEAKS.
- 7 LOOSE OR MISSING PARTS.
- 8 CABLES AND WIRING HARNESSSES.
- 9 PLACARDS, WARNINGS, CONTROL MARKINGS AND OPERATING MANUALS.
- 10 GUARDRAIL SYSTEM INCLUDING LOCKING PINS.
- 11 ENGINE OIL LEVEL (IF SO EQUIPPED).
- 12 BATTERY FLUID LEVEL.
- 13 HYDRAULIC RESERVOIR LEVEL.
- 14 COOLANT LEVEL (IF SO EQUIPPED).



**Warning**

**DO NOT OPERATE THIS EQUIPMENT WITHOUT PROPER AUTHORIZATION AND TRAINING. DEATH OR SERIOUS INJURY COULD RESULT FROM IMPROPER USE OF THIS EQUIPMENT!**

## Start and Operation

### Using the controls on the base:

1. Turn Emergency Power Disconnect Switch to "ON" position. (CE rated machines pull out Emergency Stop Button located on Base Control Box.)
2. Use the ladder at the rear of the work platform to access the work platform deck.
3. Latch the entry chain/gate.

### Using the controls on the platform:



### Warning

**TO PROTECT AGAINST UNINTENDED MOVEMENT OF THE WORK PLATFORM, PUSH IN THE EMERGENCY STOP BUTTON AFTER YOU HAVE ARRIVED AT YOUR DESIRED LOCATION OR ELEVATION.**

4. Pull out the Emergency Stop Button.
5. Turn key switch to "ON" position (ANSI and CSA) or "PLATFORM" position (CE).
6. **To Raise the Platform:**
  - 1- Ensure the emergency stop button is pulled out. Select "LIFT" position with the Lift/Off/Drive Toggle Switch.
  - 2- **Earlier models:** Depress and hold the Enable push-button (if equipped), then lift the controller lock ring.  
**Later models:** Activate and hold the Enable trigger switch (by squeezing it towards the joystick)
  - 3- Push the controller handle forward until desired height is reached.
  - 4- Return the joystick to the neutral center position to stop. Release the Enable switch (if equipped).

### Note

If the tilt alarm sounds and the platform does not, or only partially raises, immediately lower the platform and ensure that the machine is on a compacted **LEVEL** surface.

### Note

A lowering warning system is standard on (CE) Models. This system automatically stops the lowering function before reaching the fully lowered position and sounds an alarm. After the operator has checked that no person is near the scissors, the lowering function can be reactivated. These machines do not have scissor guards.

#### 7. To Lower the Platform:

- 1- Ensure the emergency stop button is pulled out. Select "LIFT" position with the Lift/Off/Drive Toggle Switch.
- 2- **Earlier models:** Depress and hold the Enable push-button (if equipped), then lift the controller lock ring.  
**Later models:** Activate and hold the Enable trigger switch (by squeezing it towards the joystick)
- 3- Pull the controller handle backward until desired height is reached.
- 4- Return the joystick to the neutral center position to stop. Release the Enable switch (if equipped).

**Note: Platform lowering is not proportional.**



### Warning

**IF THE MACHINE DOES NOT DRIVE WHEN ELEVATED, DISENGAGE THE DRIVE CONTROLLER. LOWER THE PLATFORM IMMEDIATELY. CHECK THAT THE POTHOLE PROTECTION DEVICE IS OPERATING PROPERLY, AND ENSURE THAT THERE ARE NO ELECTRICAL CORDS OR HOSES WITH A DIAMETER OF MORE THAN 1/2" (1.25CM) IN THE PATH OF TRAVEL, OR UNDER THE POT HOLE PROTECTION BAR. ALSO, ENSURE THE MACHINE IS BEING OPERATED ON A COMPACTED, FIRM LEVEL SURFACE OR THE TILT SENSOR WILL DISABLE SOME OR ALL FUNCTIONS.**

#### 8. To Drive Forward or Reverse:

- 1- Ensure the emergency stop button is pulled out. Select "DRIVE" position with the Lift/Off/Drive Toggle Switch.
- 2- **Earlier models:** Depress and hold the Enable push-button (if equipped), then lift the controller lock ring.  
**Later models:** Activate and hold the Enable trigger switch (by squeezing it towards the joystick)

- 3- Push or pull the controller handle forward or backward to the desired speed and direction of platform travel.
- 4- Return the joystick to the neutral center position to stop. Release the Enable switch (if equipped).

9. **To Steer:** Select “DRIVE” position with the Lift/Off/Drive Toggle Switch. If equipped, activate and hold the Enable switch (by squeezing the trigger towards the joystick or pressing the control box side mounted push button), then press the rocker on top of the controller handle in the direction you wish to steer.

**Note: Steering is not proportional.**

10. **To Sound the Horn:** Depress the horn push-button located on the side of the operator’s platform control box.

11. **To Extend/Retract the Manual Extension Platform:** Remove the locking pin(s) and push/pull the extension deck using the sliding handrails or push-bar (Models 68XX). Reinsert the locking pin(s) upon full retraction or extension to prevent accidental movement of the extension platform.

12. **To Extend/Retract the Powered Extension Platform:** To extend the platform, select “LIFT” position with Lift/Off/Drive Select Switch then push this selector switch to “↑” (extend) position until desired extension is reached. Release switch to stop. To retract the platform, select “LIFT” position with Lift/Off/Drive Select Switch then push the selector switch to “↓” (retract) position until desired retraction is reached. Release switch to stop. The “Enable” switch must be activated simultaneously with the extension/retraction switch in order for the platform to operate.

### Note

All models are drivable with any extension platform extended 3 feet or less. An interlock limit switch cuts out drive when the platform is extended beyond 3 feet.

## Emergency Lowering System

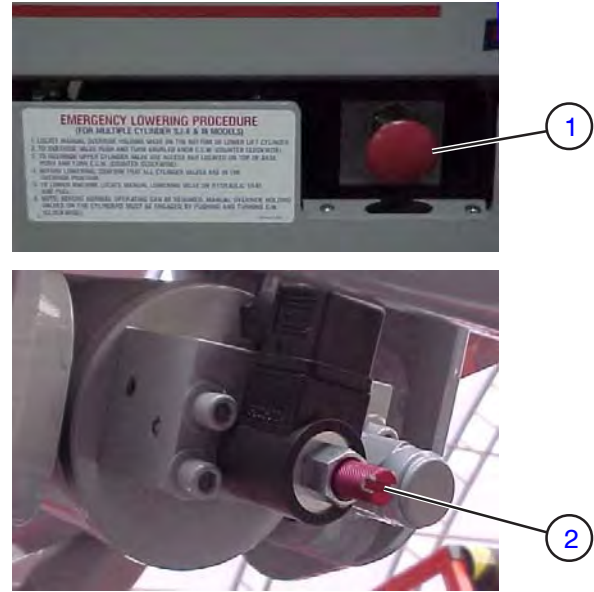


Figure 2-10. Emergency Lowering System

### Emergency Lowering Valve and Holding Valve Manual Override Knob

This system allows platform lowering in the event of an electrical system failure. Use the following procedure to lower the platform:

1. Depress and turn the red manual override knob (**Item 2**) (located at the base of the lift cylinder) counterclockwise.
2. Pull the Emergency Lowering Valve (**Item 1**) out to lower the platform.
3. Turn the red manual override knob (**Item 2**) clockwise to restore normal operation.



## Shutdown Procedure

1. Fully lower the platform.
2. Turn Key Switch to "OFF" position. Remove key.
3. Push in Emergency Stop Button.
4. Rotate Emergency Battery Disconnect Switch to "OFF" position. (On CE machines also push in Emergency Stop Button located on Base Control Box.)

## Winching and Towing Procedures



### Warning

When towing, **DO NOT** drive onto a downward slope or brake the towing vehicle rapidly.

## Preparation For Winching Or Towing

### a) Parking Brake



Figure 2-11. Parking Brake

**1- Parking Brake** - The parking brakes are devices that are always mechanically engaged until hydraulically or manually released. A pin retracted by a single-acting hydraulic cylinder disengages each brake disc when driving. A spring inside each cylinder returns the pin to engage the brake disc for parking, lifting, lowering and stationary steering. The brake pins **MUST** be manually disengaged for pushing, towing or winching. **DO NOT push or tow the work platform onto a downward slope or pull the platform down an incline towards the winch.** The special procedure for manually disengaging the parking brakes is as follows:



### Warning

**DO NOT** manually disengage the parking brakes if the work platform is on a slope.

Make sure that the work platform is on level ground. Chock or block the wheels to keep work platform from rolling.

- **For Left-Hand Brake:** Using a 3/4" wrench, rotate the lock-out block on the brake pin 90° clockwise. The brake pin should be clear of the brake disc.
- **For Right-Hand Brake:** Using a 3/4" wrench, rotate the lock-out block on the brake pin 90° counterclockwise. The brake pin should be clear of the brake disc.

### Note

The parking brakes will reset automatically when the work platform is driven.

### b) Free-Wheeling Valve



Figure 2-12. Free-Wheeling Valve

**1- Free-Wheeling Valve** - The free-wheeling valve is located at the front or rear of the machine. Turning the valve knob counterclockwise to a fully opened position allows fluid to flow through the wheel motors, thus providing "free-wheeling" so that the work platform can be pushed, towed or winched after the brakes are released (Figure 2-11) without damaging the wheel motors. **When pushing, towing or winching, DO NOT exceed 2 mph (3.2 km/h). DO NOT push or tow the platform onto a downward slope or pull the platform down an incline towards the winch.** The Free-wheeling valve **MUST** be closed tightly (clockwise) for normal operation.

### c) Preparation After Winching or Towing

After moving machine, complete the following procedures:

1. Position machine on a firm, level surface.
2. Chock or block the wheels to keep work platform from rolling, or engage the parking brake by momentarily activating the drive function.
3. Close free-wheeling valve.



- 3- Push or pull the controller handle forward or backward to the desired speed and direction of platform travel.
- 4- Return the joystick to the neutral center position to stop. Release the Enable switch (if equipped).

9. **To Steer:** Select “DRIVE” position with the Lift/Off/Drive Toggle Switch. If equipped, activate and hold the Enable switch (by squeezing the trigger towards the joystick or pressing the control box side mounted push button), then press the rocker on top of the controller handle in the direction you wish to steer.

**Note: Steering is not proportional.**

10. **To Sound the Horn:** Depress the horn push-button located on the side of the operator’s platform control box.

11. **To Extend/Retract the Manual Extension Platform:** Remove the locking pin(s) and push/pull the extension deck using the sliding handrails or push-bar (Models 68XX). Reinsert the locking pin(s) upon full retraction or extension to prevent accidental movement of the extension platform.

12. **To Extend/Retract the Powered Extension Platform:** To extend the platform, select “LIFT” position with Lift/Off/Drive Select Switch then push this selector switch to “↑” (extend) position until desired extension is reached. Release switch to stop. To retract the platform, select “LIFT” position with Lift/Off/Drive Select Switch then push the selector switch to “↓” (retract) position until desired retraction is reached. Release switch to stop. The “Enable” switch must be activated simultaneously with the extension/retraction switch in order for the platform to operate.

### Note

All models are drivable with any extension platform extended 3 feet or less. An interlock limit switch cuts out drive when the platform is extended beyond 3 feet.

## Emergency Lowering System

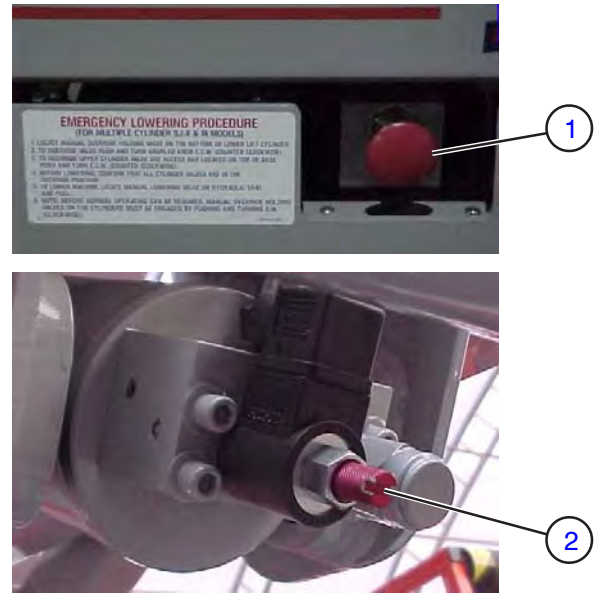


Figure 2-10. Emergency Lowering System

### Emergency Lowering Valve and Holding Valve Manual Override Knob

This system allows platform lowering in the event of an electrical system failure. Use the following procedure to lower the platform:

1. Depress and turn the red manual override knob (**Item 2**) (located at the base of the lift cylinder) counterclockwise.
2. Pull the Emergency Lowering Valve (**Item 1**) out to lower the platform.
3. Turn the red manual override knob (**Item 2**) clockwise to restore normal operation.

## Battery Charging Procedures (Continued) (Standard Machines)

 **Warning**  
**Explosion Hazard**

Charges can ignite flammable materials and vapors. **DO NOT** use near fuels, grain dust, solvents or other flammables.

 **Warning**  
**Shock Hazard**

To reduce the risk of electrical shock, the charger must only be connected to properly grounded single phase outlet. The AC circuit protection should not exceed 15 amperes. The extension cord used **must** be a three wire grounded cord of at least 14 AWG. **DO NOT** use an extension cord longer than 25 feet (7.6m). Inspect AC charger's receptacle for the presence of water from washing or storage. Dry thoroughly prior to use.

1. Check for a firm AC connection at the charger receptacle. Connect the charger cord to the AC wall plug to turn the charger on. Refer to charger nameplate for voltage requirements.
2. Charge batteries. **DO NOT** leave charger unattended for more than two consecutive days. Severe overcharging and battery damage will result if charger fails to turn off.
3. Disconnect charger from external power source.

## Battery Charger Operation Bycan Charger

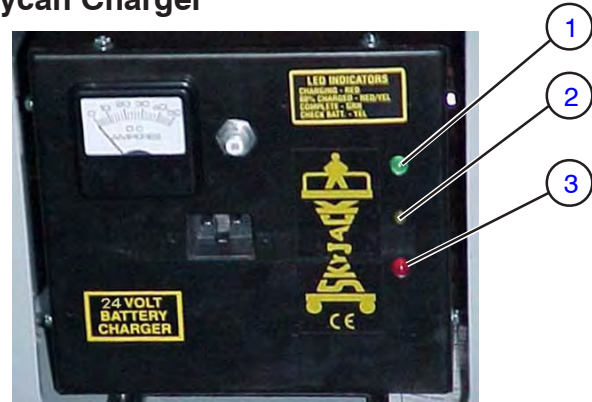


Figure 2-13. Bycan Battery Charger  
(SK2440E Shown)

- 1 Green LED
- 2 Yellow LED
- 3 Red LED

### Battery Status (SK 2440A/SK 2440E)

Green LED ..... Complete  
Yellow LED ..... Check Battery  
Red LED ..... In Progress

### Battery Status (SK 2440U)

Red LED . ..... Charging  
Red/Yellow LED ..... 80% Charged  
Green LED ..... Complete  
Yellow LED ..... Check Battery

Apply The AC power. The charger will start immediately (the transformer will hum and fan will come on). The red LED will come on. The ammeter will show charging current.

The current will be high for approximately 30 minutes then it will taper off. If the current does not taper off, disconnect the charger and check the batteries for a shorted cell.

When the battery bank voltage reaches approximately 30 volts DC, the yellow flashing LED will illuminate. This indicates that the charger has now entered a timed equalizing cycle. After completing the 3.5 hour cycle, the charger will shut off and the green LED will come on to indicate a complete charge.

If a shorted battery cell prevents the charger from raising the battery voltage to approximately 30 VDC to start the equalization timer, a second timer will shut down the charger after 16 hours of continuous charging. When this happens, the flashing yellow LED will come on to notify the user that the battery bank should be inspected for a shorted/damaged cell.

## MAC Charger

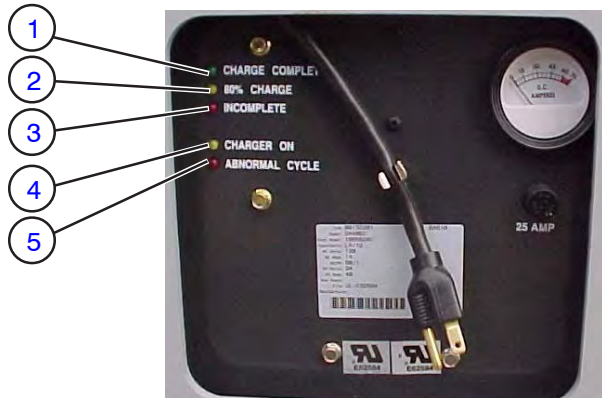


Figure 2-14. MAC Charger

### Battery Status

- 1 GREEN L.E.D. .... CHARGE COMPLETE
- 2 YELLOW L.E.D. .... 80% CHARGE
- 3 RED L.E.D. .... INCOMPLETE

### Charger Status

- 4 YELLOW L.E.D. .... CHARGER ON
- 5 RED L.E.D. .... ABNORMAL CYCLE

This charger is equipped with an electronic circuit that will completely recharge the batteries and automatically turn off after the charge cycle is complete.

The function of the L.E.D. indicators is as follows:

When the AC power is connected to the charger, the L.E.D.'s will flash several times then flash independently to check the light circuits. After the flashing sequence is complete the "INCOMPLETE" light will come on. Five seconds later, the "CHARGER ON" light will come on and at the same time, the ammeter will indicate how much current is going to the batteries.

As the charge cycle continues, which can last between 1 1/2 hours and 16 hours for a complete cycle, depending on the state of charge of the batteries, the "80%" light will come on and the "INCOMPLETE" light will go off. When voltage of the batteries reaches approximately 30 volts, the "80%" light will go off and the "CHARGE COMPLETE" light will come on. This light will remain on even after the charger is turned off by the electronic control. After the charger turns off, the "CHARGE COMPLETE" light will indicate to the operator that the batteries are fully charged.

If the "80% CHARGE" light continues to stay on after the charge cycle is complete, this indicates to the operator that the batteries are not capable of attaining a full charge.

If the "INCOMPLETE" light remains on after the charge cycle is complete, this indicates to the operator that the batteries are not capable of attaining even an 80% charge.

If either the "80% CHARGE" or "INCOMPLETE" light remain on after the charge cycle is complete, the batteries should be inspected for problems.

Refer to the "Battery Service" section for proper battery inspection and maintenance procedures.

**Table 2-1. Owner's Annual Inspection Record**

MODEL NUMBER _____				SERIAL NUMBER _____				
RECORDING DATE								
RECORDING YEAR #	1	2	3	4	5	6	7	8
OWNER'S NAME								
INSPECTED BY								

**Table 2-2. Maximum Platform Capacities (Evenly Distributed)**

MODEL	With 3' Extension Platform				With Powered Extension Platform			
	Main Platform		Extension Platform		Main Platform		Extension Platform	
<b>3015</b>	250 lbs. (113 kg)	1 Persons	250 lbs. (113 kg)	1 Person	250 lbs. (113 kg)	1 Persons	250 lbs. (113 kg)	1 Person
<b>3219</b>	250 lbs. (113 kg)	1 Persons	250 lbs. (113 kg)	1 Person	250 lbs. (113 kg)	1 Persons	250 lbs. (113 kg)	1 Person

\* Overall capacity is increased by 150lbs (68 kg.) on CSA and CE Models.

**NOTE:** Overall capacity - Occupants and materials not to exceed rated load.

**Table 2-3. Maintenance And Inspection Schedule**

	Daily	Weekly	Monthly	3 Months	6 Months	12 Months*
<b>Mechanical</b>						
Structural damage/welds	A					A
Parking brake	B					B
Tires/wheels & fasteners	A, B & C					A, B & C
Guides/ rollers & slider pads	A, B & I					A, B & I
Railings & railing lock pins	A & C					A & C
Entry chains or gates	B & C					B & C
Bolts and fasteners	C					C
Safety Bar	B					B
Rust			A			A
Wheel Bearings & King pins	A, B & E					A, B & E
Pothole Protection	A & B					A & B
Steering cylinder & tie rod				A, B & E		A, B & E
<b>Electrical</b>						
Battery fluid level	A					A
Control switches	A & B					A & B
Cords & wiring	A					A
Battery terminals	A & C					A & C
Terminals & plugs	C					C
Generator/receptacle	A & B					A & B
Limit switches	B					B
<b>Hydraulic</b>						
Hydraulic oil level	H					H
Hydraulic Hoses/Fittings	A & L	C				A, C & L
Lift/lowering time				G		G
Cylinders		A & B				A & B
Emergency lowering	B					B
Lift capacity			D			D
Hydraulic oil & oil filter					F	F
<b>Miscellaneous</b>						
Manual	A & K					A & K
Labels	A & J					A & J
<b>Notes</b>						
<p>A. Visually Inspect.</p> <p>B. Check operation.</p> <p>C. Check tightness.</p> <p>D. Check relief valve setting. Refer to serial number nameplate.</p> <p>E. Lubricate.</p> <p>F. Replace.</p> <p>G. Refer to table 1-1 specifications and features.</p> <p>H. Check oil level.</p> <p>I. Ensure there is no metal to metal contact with slider, slider side or running surface. Check for free movement of surface. Also check for free movement of the slider pin through the slider.</p> <p>J. Replace if missing or illegible.</p> <p>K. Proper manual must be in box.</p> <p>L. Check For Leaks.</p> <p>* Record inspection date and signature.</p>						

**Table 2-4. Floor Loading Pressure**

MODELS		3015		3219	
WEIGHT	lbs	2360 (min)	2860 (max)	2790 (min)	3290 (max)
	kg	1071 (min)	1297 (max)	1266 (min)	1492 (max)
LCP	psi	77	93	86	101
	kg/cm <sup>2</sup>	5.41	6.54	6.05	7.10
OUP	psf	178.39	216.19	197.71	233.15
	kN/m <sup>2</sup>	8.54	10.35	9.47	11.17

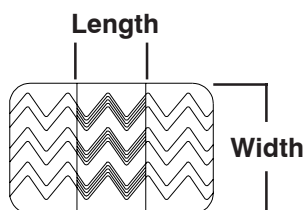
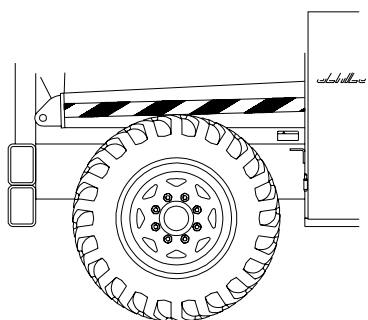
**Local Concentrated Pressure (LCP)**

Local Concentrated Pressure should be taken into account when the machine is used on surfaces which could be damaged.

**Local Concentrated Pressure (LCP):**

**Foot Print Area = Length x Width**

$$LCP = \frac{\text{Weight of Machine} + \text{Capacity (Lbs)}}{\text{Foot Print Area} \times 4 \text{ (Tires)}}$$



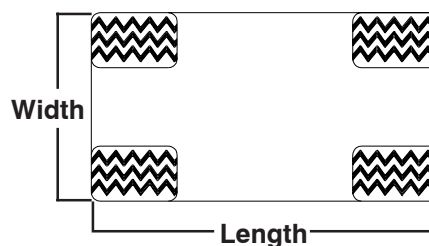
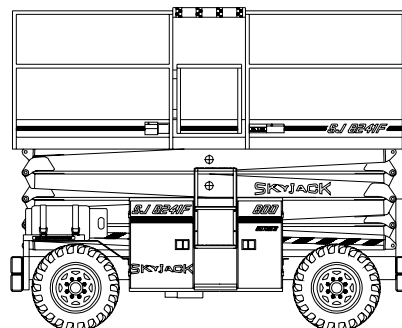
**Overall Uniform Pressure (OUP)**

Overall Uniform Pressure should be taken into account when the machine is used on surfaces that are beam supported. The allowable pressure must not be exceeded for reasons of safety.

**Overall Uniform Pressure (OUP):**

**Base Area = Length x Width**

$$OUP = \frac{\text{Weight of Machine} + \text{Capacity}}{\text{Base Area}}$$





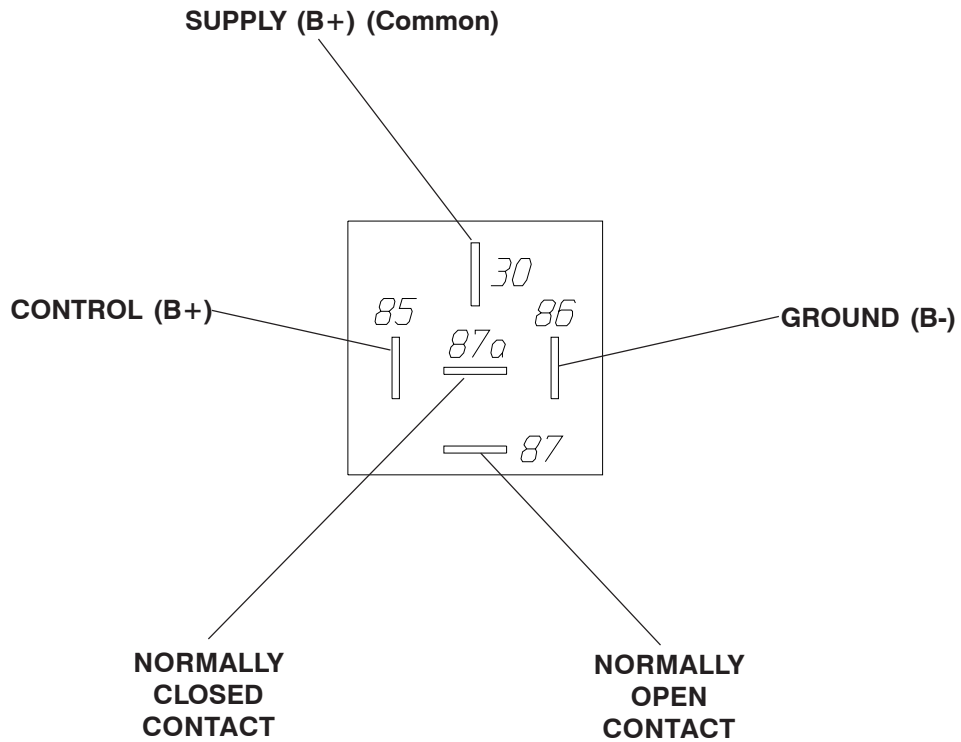
# SECTION 3 SYSTEM COMPONENT IDENTIFICATION AND SCHEMATICS

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
























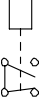
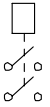
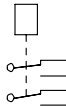
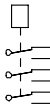




**FIGURE 3-1. RELAY FUNCTION CHART**











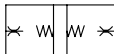







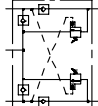







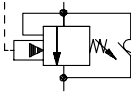

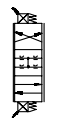



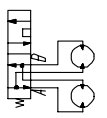


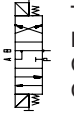


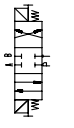



RELAY NO.	RELAY FUNCTION
13BCR	LWS TIME DELAY CUTOUT RELAY (CE)
17CR1	BRAKE RELAY
17CR2	STEER RELAY
17CCR	CUSHION RELAY
21CR	PROPORTIONAL RELAY
28CR	TILT SWITCH RELAY (option)
39CR	LWS LIMIT SWITCH RELAY (CE)
42CR	LWS LATCHING RELAY (CE)

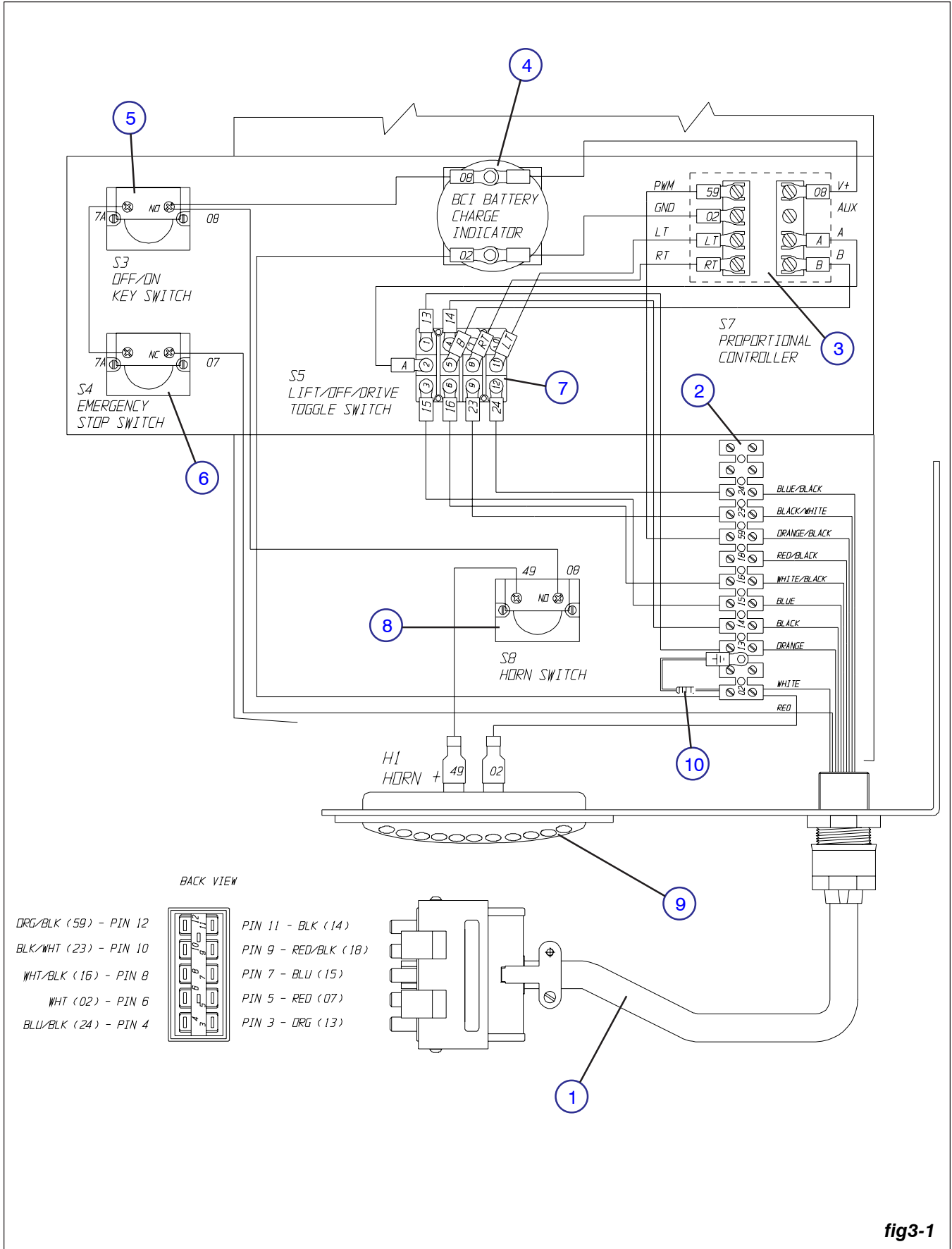
**FIGURE 3-2. ELECTRICAL SYMBOL CHART**

 WIRE CROSSING	 HOURMETER	 KEY SWITCH
 WIRES JOINED	 LIGHT	 FOOT SWITCH
 BATTERY	 HYDRAULIC VALVE COIL	 TOGGLE SWITCH
 GROUND	 PROPORTIONAL HYDRAULIC VALVE COIL	 PUSH BUTTON
 FUSE	 ELECTRIC MOTOR	 ROTARY SWITCH
 CIRCUIT BREAKER	 HORN	 LIMIT SWITCH
 BATTERY CHARGE INDICATOR	 EMERGENCY STOP BUTTON	 CAM OPERATED LIMIT SWITCH
 CAPACITOR	 RESISTOR	 TILT SWITCH
 POTENTIOMETER	 LEVEL SENSOR	 SINGLE POLE SINGLE THROW RELAY
 SINGLE POLE DOUBLE THROW RELAY	 DOUBLE POLE SINGLE THROW RELAY	 DOUBLE POLE DOUBLE THROW RELAY
 TRIPLE POLE DOUBLE THROW RELAY	 DIODE	 TRANSISTOR

**FIGURE 3-3. HYDRAULIC SYMBOL CHART**

	LINE CROSSING		VARIABLE DISPLACEMENT PUMP		SHUTTLE VALVE		VELOCITY FUSE
	LINE JOINED		HAND PUMP		ACCUMULATOR, GAS CHARGED		SINGLE ACTING CYLINDER
	HYDRAULIC TANK		RELIEF VALVE		CUSHION CYLINDER		DOUBLE ACTING CYLINDER
	HYDRAULIC FILTER WITH BYPASS		PRESSURE REDUCING VALVE		PRESSURE SWITCH		DOUBLE ACTING DOUBLE RODDED
	ELECTRIC MOTOR		FIXED ORIFICE		MOTION CONTROL VALVE		SPRING APPLIED HYDRAULIC RELEASED BRAKE
	ENGINE		ADJUSTABLE FLOW CONTROL		FLOW DIVIDER COMBINER		BRAKE CYLINDER
	FIXED DISPLACEMENT PUMP		CHECK VALVE		COUNTER BALANCE VALVE		ROTARY ACTUATOR
	THREE POSITION FOUR WAY PROPORTIONAL		OIL COOLER		VALVE COIL		BI DIRECTIONAL HYDRAULIC MOTOR
	SERIES PARALLEL HYDRAULIC MOTOR		TWO POSITION TWO WAY NORMALLY CLOSED		TWO POSITION THREE WAY		THREE POSITION FOUR WAY CLOSED CENTER OPEN PORT
	TWO POSITION TWO WAY NORMALLY OPEN		TWO POSITION THREE WAY		THREE POSITION FOUR WAY CLOSED CENTER CLOSED PORT		THREE POSITION FOUR WAY PROPORTIONAL

**FIGURE 3-4A. CONTROL BOX DIAGRAM - With Horn (ANSI/SIA and CSA)  
(Machines With Serial #150611 (3015) or #227367 (3219) and below)**



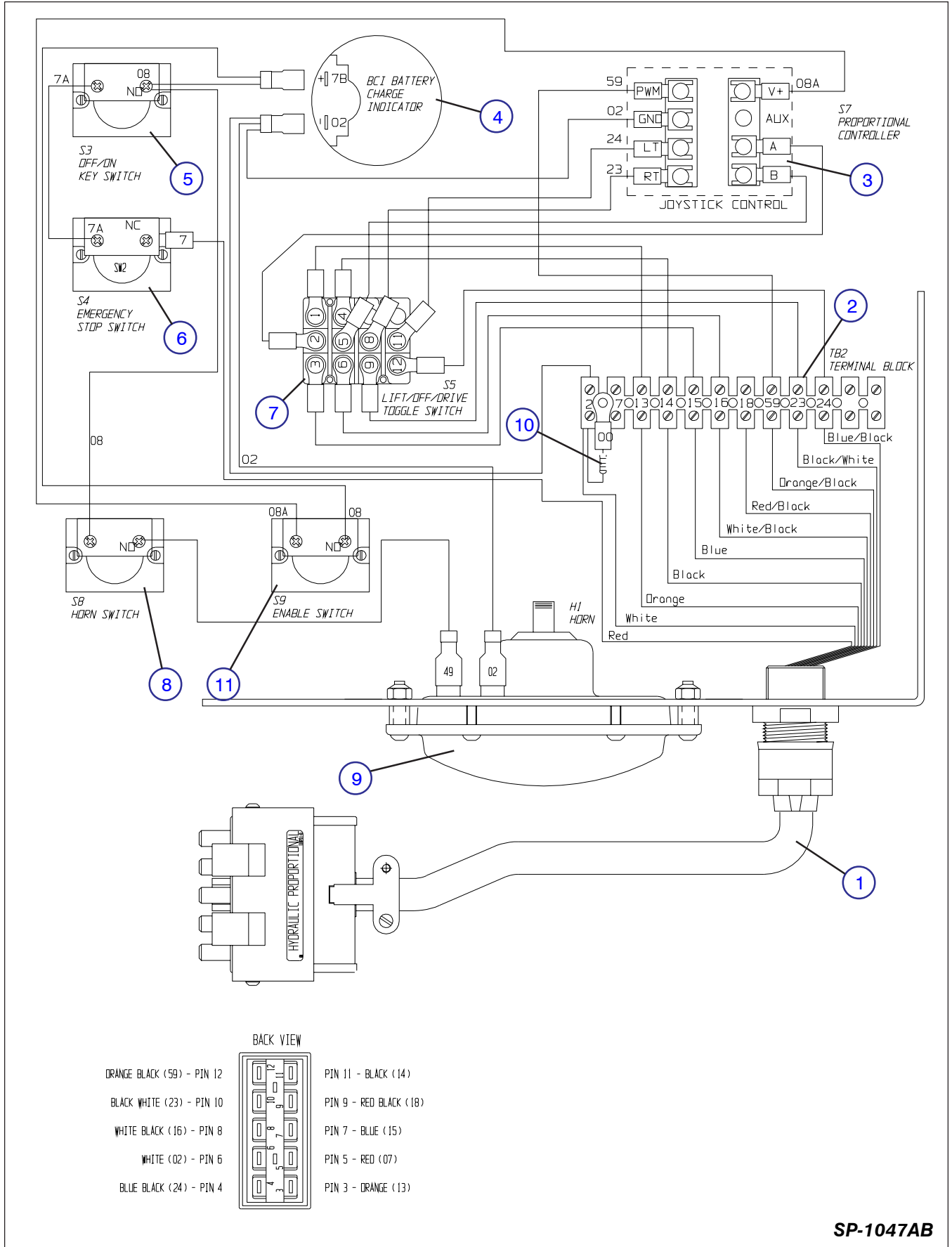
**fig3-1**

**FIGURE 3-4A. CONTROL BOX PARTS LIST - With Horn (ANSI/SIA and CSA)  
(Machines With Serial #150611 (3015) or #227367 (3219) and below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional (For Components, Refer to Section 6)	1 -
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key off/on (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	(Ref.)	SWITCH ASSEMBLY, Horn push-button (option) (For Components, Refer to Section 6)	1 -
9	102860	HORN, 24 Volt (option)	1
10	119629	RESISTOR, 2.7K	1



**FIGURE 3-4B. CONTROL BOX DIAGRAM - With Horn (ANSI/SIA and CSA)**  
**(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**

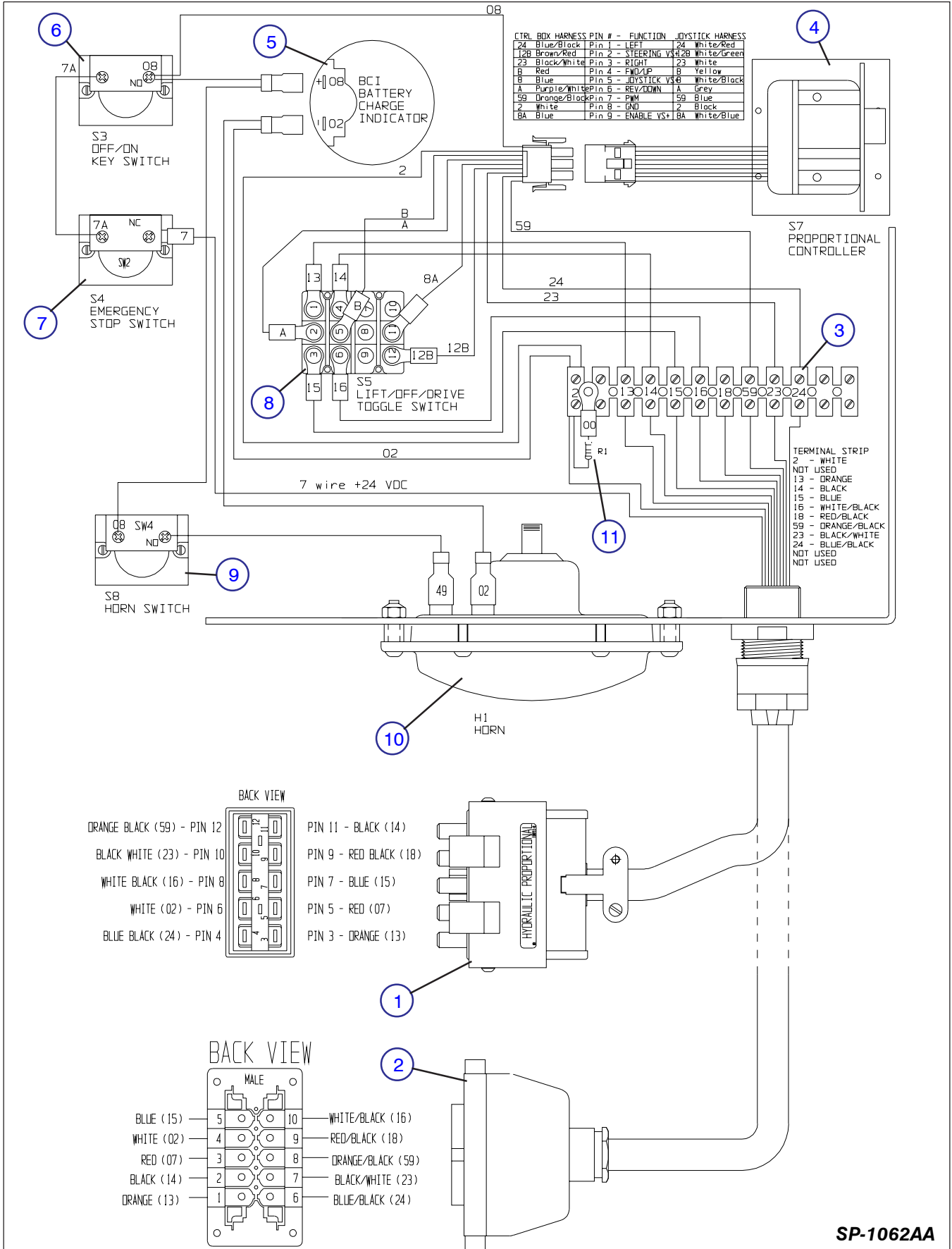


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**FIGURE 3-4B. CONTROL BOX PARTS LIST - With Horn (ANSI/SIA and CSA)**  
**(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	119642	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional (For Components, Refer to Section 6)	1 -
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key off/on (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	(Ref.)	SWITCH ASSEMBLY, Horn push-button (option) (For Components, Refer to Section 6)	1 -
9	121058	HORN, 24 Volt	1
10	119629	RESISTOR, 2.7K	1
11	(Ref.)	SWITCH ASSEMBLY, Enable push-button (For Components, Refer to Section 6)	1 -

**FIGURE 3-4C. CONTROL BOX DIAGRAM - With Horn (ANSI/SIA and CSA)  
(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

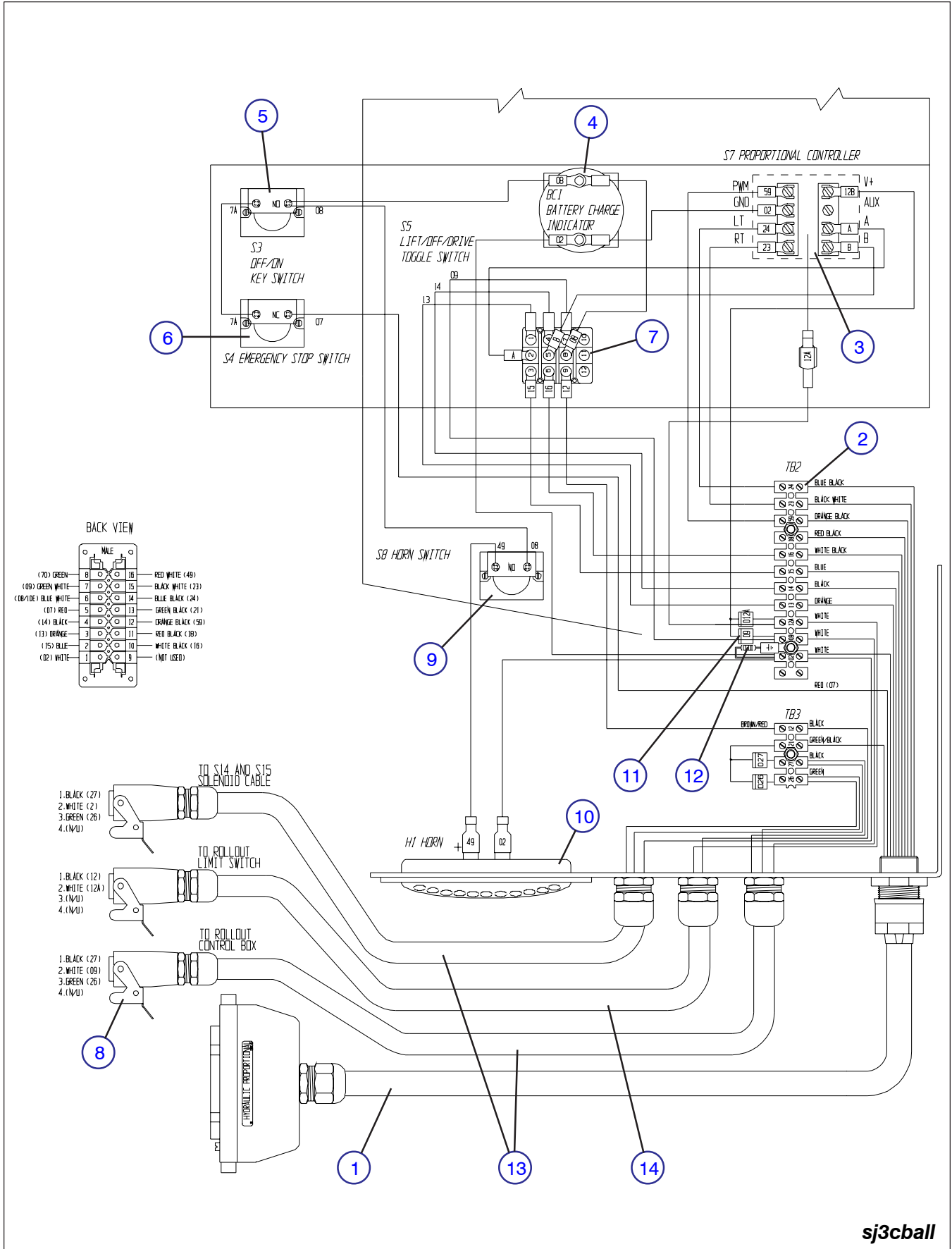


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**FIGURE 3-4C. CONTROL BOX PARTS LIST - With Horn (ANSI/SIA and CSA)  
(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	119642	CABLE ASSEMBLY, Control box	1
2	119737	CABLE ASSEMBLY, Control box (10 Pin EE) (For Components, Refer to Section 6)	1 -
3	103012	BLOCK, 12 Pole terminal	1
4	123994	CONTROLLER ASSEMBLY, Proportional (For Components, Refer to Section 6)	1 -
5	122093	BATTERY CHARGE INDICATOR	1
6	(Ref.)	SWITCH ASSEMBLY, Key off/on (For Components, Refer to Section 6)	1 -
7	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
8	116382	SWITCH, Lift/off/drive toggle	1
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (option) (For Components, Refer to Section 6)	1 -
10	121058	HORN, 24 Volt	1
11	119629	RESISTOR, 2.7K	1

**FIGURE 3-5A. CONTROL BOX DIAGRAM - With All Options (ANSI/SIA and CSA)  
(Machines With Serial #150611 (3015) or #227367 (3219) and below)**



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**FIGURE 3-5A. CONTROL BOX PARTS LIST - With All Options (ANSI/SIA and CSA)  
(Machines With Serial #150611 (3015) or #227367 (3219) and below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	119731	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional (For Components, Refer to Section 6)	1 -
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key off/on (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	107711	CONNECTOR, Female 5 pins	3
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
10	102860	HORN, 24Volt	1
11	102921	DIODE	2
12	119629	RESISTOR, 2.7K	1
13	103257	CABLE, 18/3	2
14	103256	CABLE, 18/2	1

**FIGURE 3-5B. CONTROL BOX DIAGRAM - With All Options (ANSI/SIA and CSA)  
(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**

Illustration  
Not Available  
At Time Of Printing

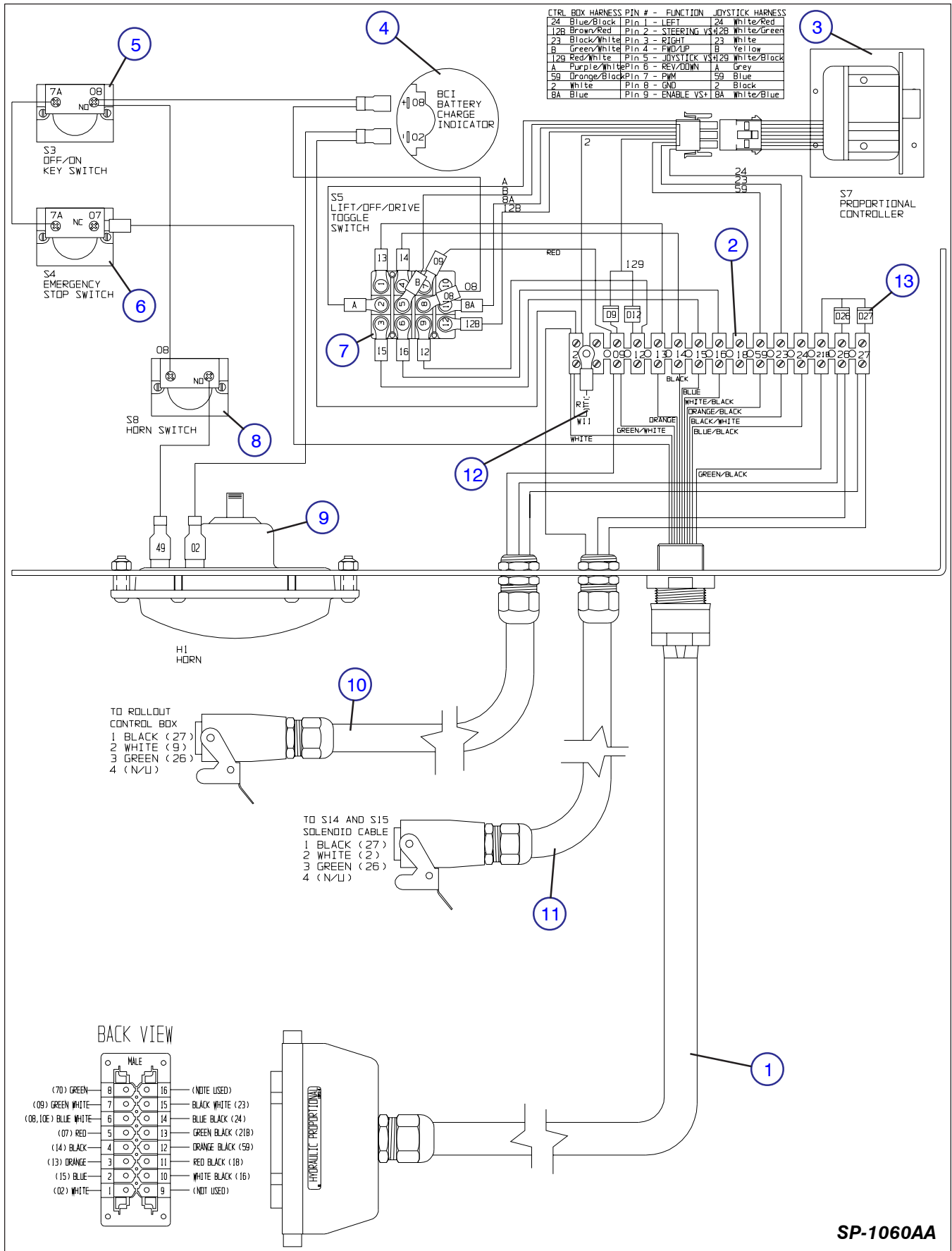
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**FIGURE 3-5B. CONTROL BOX PARTS LIST - With All Options (ANSI/SIA)**  
**(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	119731	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional (For Components, Refer to Section 6)	1 -
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key off/on (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	107711	CONNECTOR, Female 5 pins	3
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
10	121058	HORN, 24Volt	1
11	102921	DIODE	2
12	119629	RESISTOR, 2.7K	1
13	103257	CABLE, 18/3	2
14	103256	CABLE, 18/2	1
15	(Ref.)	SWITCH ASSEMBLY, Enable push-button (For Components, Refer to Section 6)	1 -

**FIGURE 3-5C. CONTROL BOX DIAGRAM - With All Options (ANSI/SIA and CSA)  
(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

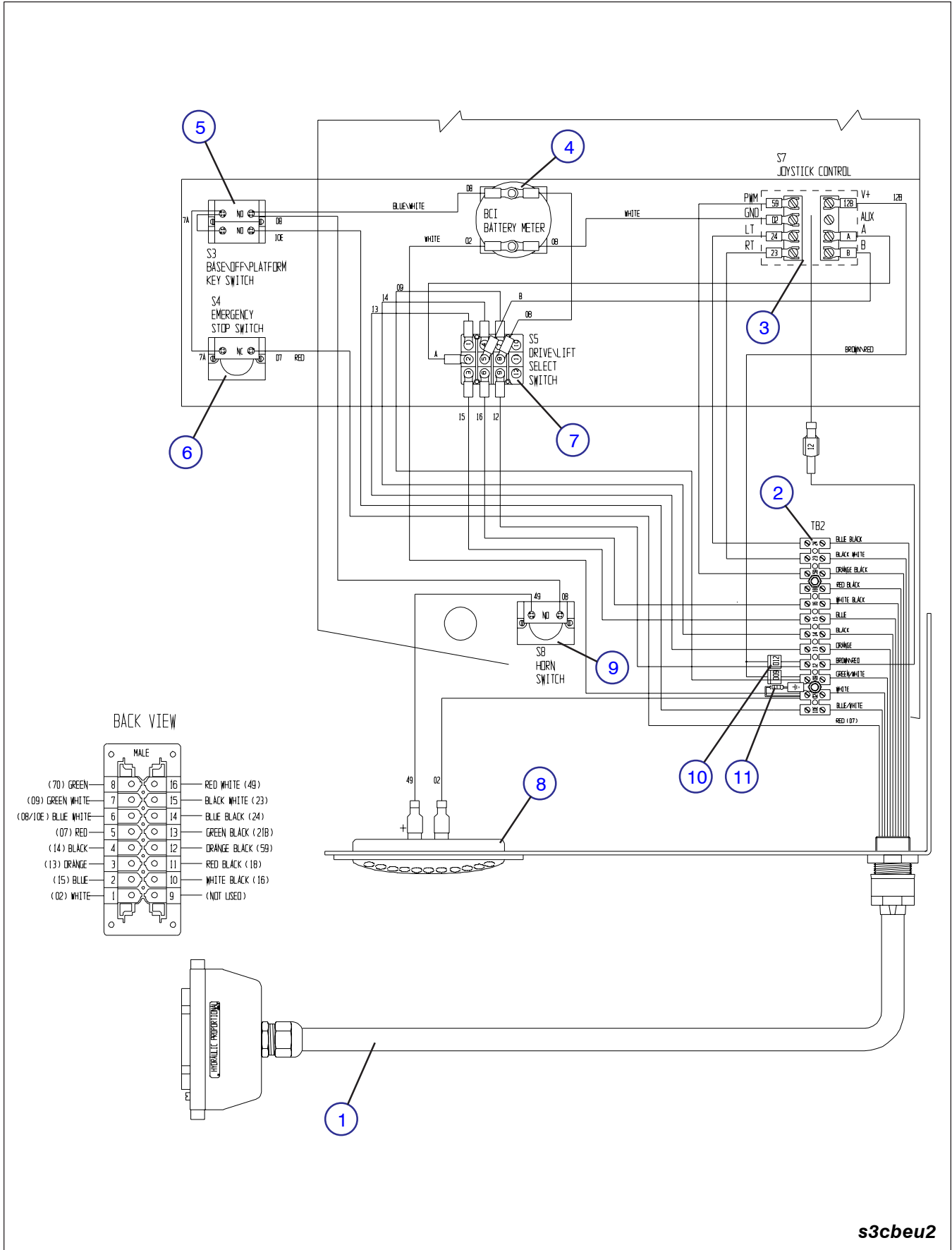


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**FIGURE 3-5C. CONTROL BOX PARTS LIST - With All Options (ANSI/SIA)  
(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	310325	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	123994	CONTROLLER ASSEMBLY, Proportional (For Components, Refer to Section 6)	1 -
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key off/on (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
9	121058	HORN, 24Volt	1
10	310626	CABLE ASSEMBLY, Powered Extension Control Box (For Components, Refer to Section 6)	1 -
11	310627	CABLE ASSEMBLY, Powered Extension Solenoid (For Components, Refer to Section 6)	1 -
12	119629	RESISTOR, 2.7K	1
13	102921	DIODE	AR

**FIGURE 3-6A. CONTROL BOX DIAGRAM - With Horn (CE)  
(Machines With Serial #150611 (3015) or #227367 (3219) and below)**

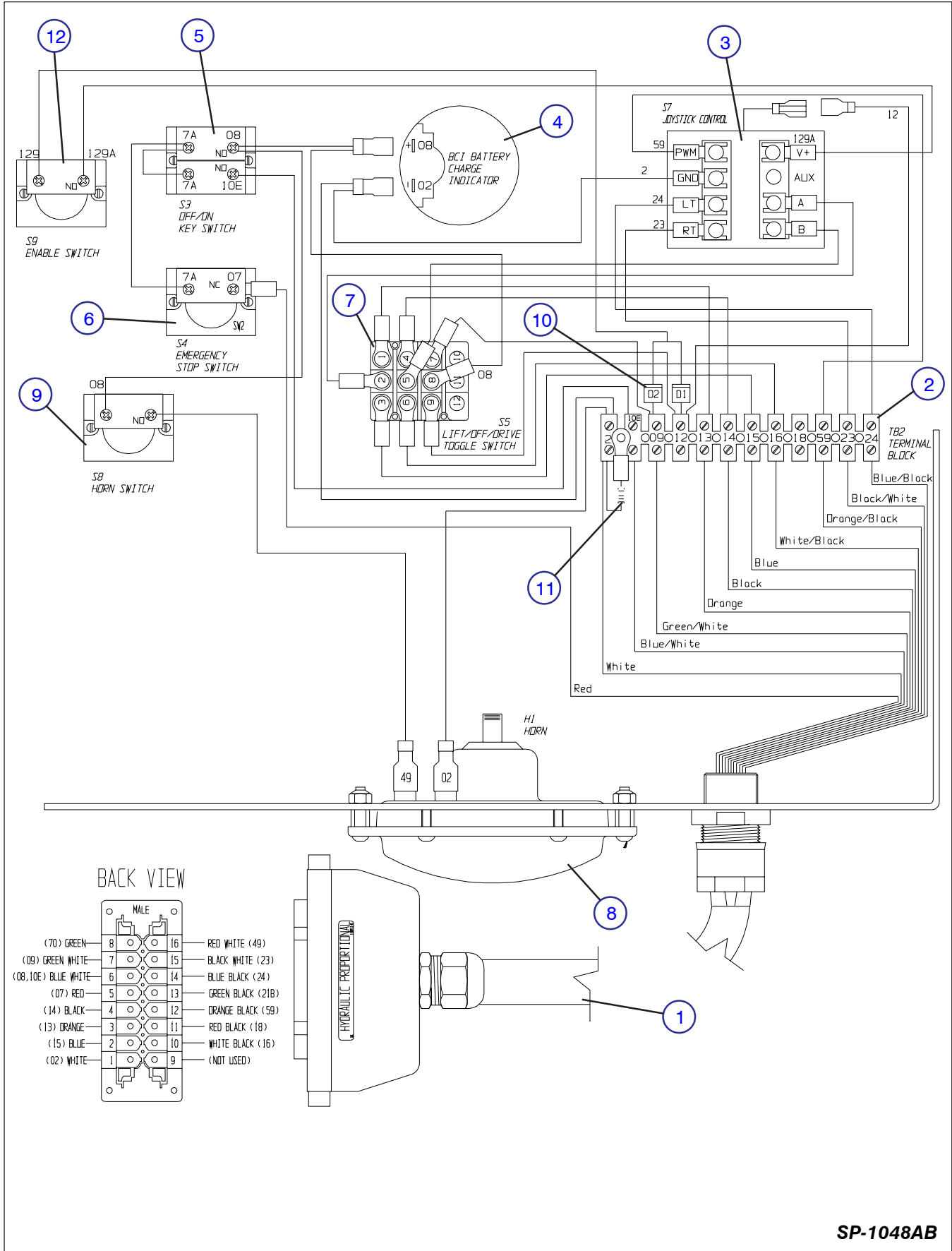


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**FIGURE 3-6A. CONTROL BOX PARTS LIST - With Horn (CE)**  
**(Machines With Serial #150611 (3015) or #227367 (3219) and below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional	1
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	102860	HORN, 24Volt	1
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
10	102921	DIODE	2
11	119629	RESISTOR, 2.7K	1

**FIGURE 3-6B. CONTROL BOX DIAGRAM - With Horn (CE)**  
**(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**



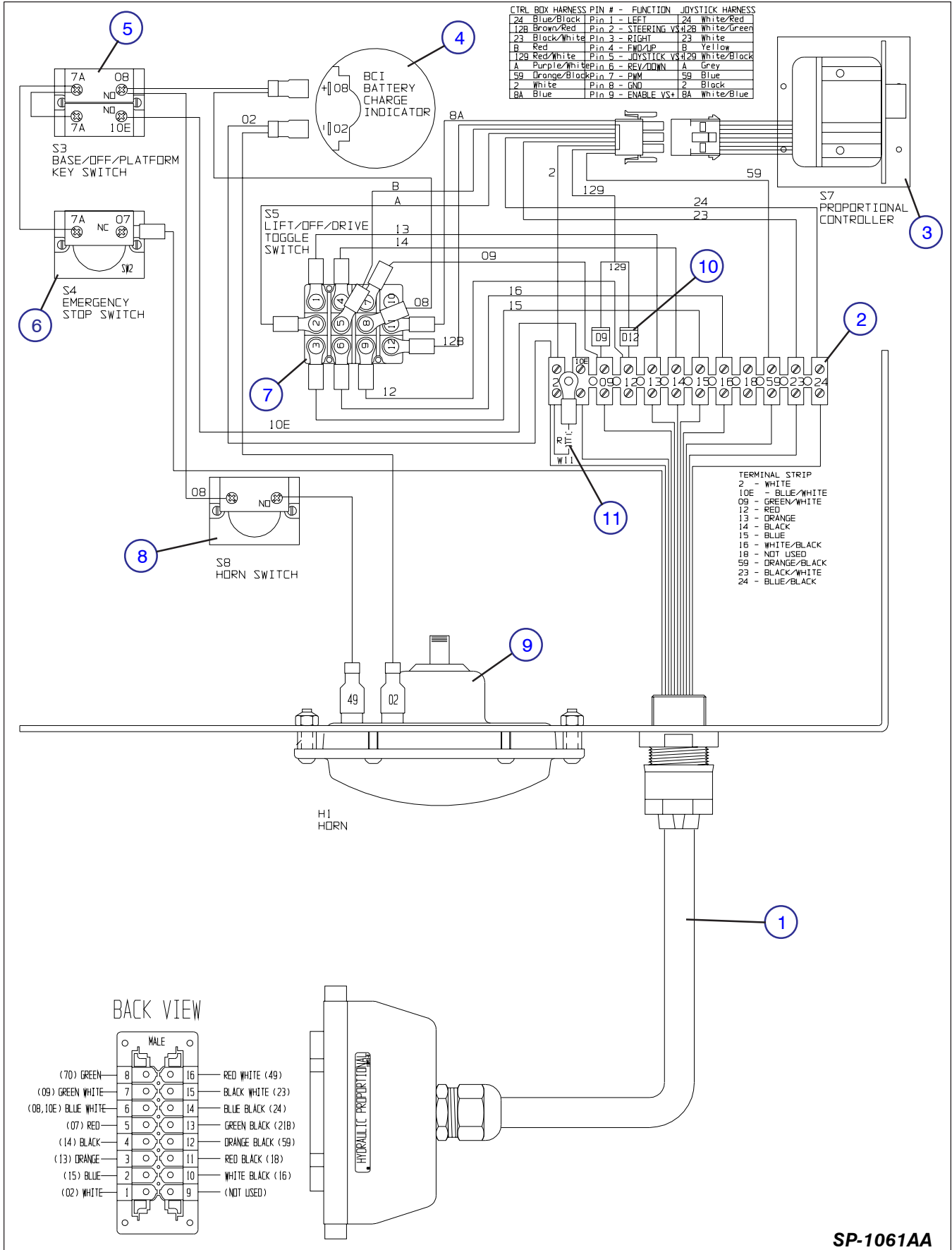
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**FIGURE 3-6B. CONTROL BOX PARTS LIST - With Horn (CE)**  
**(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	119731	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional	1
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	121058	HORN, 24Volt	1
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
10	102921	DIODE	2
11	119629	RESISTOR, 2.7K	1
12	(Ref.)	SWITCH ASSEMBLY, Enable push-button (For Components, Refer to Section 6)	1 -



**FIGURE 3-6C. CONTROL BOX DIAGRAM - With Horn (CE)**  
**(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

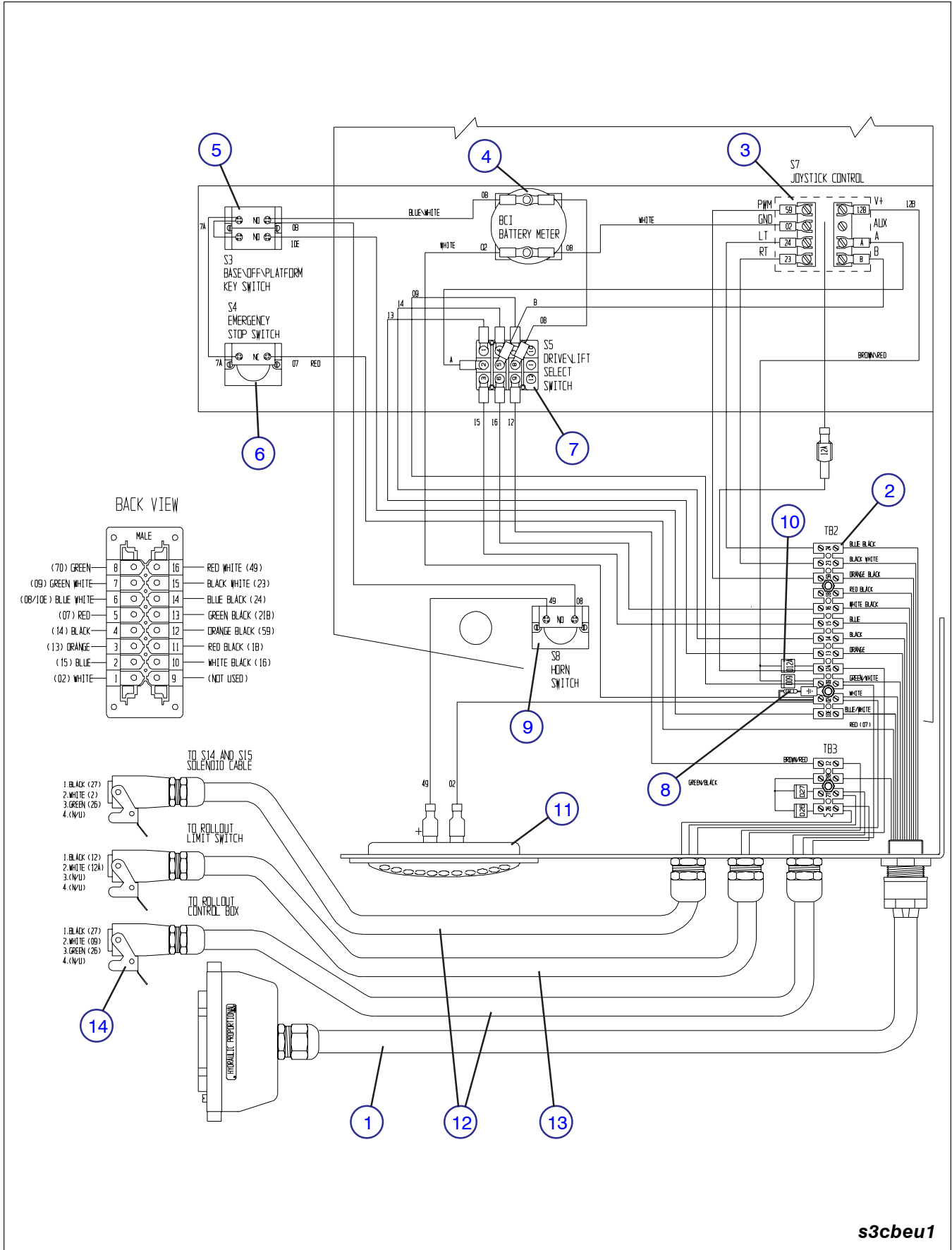


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**FIGURE 3-6C. CONTROL BOX PARTS LIST - With Horn (CE)**  
**(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	310325	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	123994	CONTROLLER ASSEMBLY, Proportional	1
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
9	121058	HORN, 24Volt	1
10	102921	DIODE	2
11	119629	RESISTOR, 2.7K	1

**FIGURE 3-7A. CONTROL BOX DIAGRAM - With All Options (CE)  
(Machines With Serial #150611 (3015) or #227367 (3219) and below)**



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**FIGURE 3-7A. CONTROL BOX PARTS LIST - CE With All Options (CE)  
(Machines With Serial #150611 (3015) or #227367 (3219) and below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional	1
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	119629	RESISTOR, 2.7K	1
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
10	102921	DIODE	2
11	102860	HORN, 24Volt	1
12	103257	CABLE, 18/3	2
13	103256	CABLE, 18/2	1
14	107711	CONNECTOR, Female 5 pins	3

**FIGURE 3-7B. CONTROL BOX DIAGRAM - With All Options (CE)**  
**(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**

Illustration  
Not Available  
At Time Of Printing

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**FIGURE 3-7B. CONTROL BOX PARTS LIST - CE With All Options (CE)**  
**(Machines With Serial Numbers From #150612 to 150931(3015) or #227368 to 229632 (3219))**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	119731	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	115311	CONTROLLER ASSEMBLY, Proportional	1
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	119629	RESISTOR, 2.7K	1
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
10	102921	DIODE	2
11	121058	HORN, 24Volt	1
12	103257	CABLE, 18/3	2
13	103256	CABLE, 18/2	1
14	107711	CONNECTOR, Female 5 pins	3
15	(Ref.)	SWITCH ASSEMBLY, Enable push-button (For Components, Refer to Section 6)	1 -

**FIGURE 3-7C. CONTROL BOX DIAGRAM - With All Options (CE)  
(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

Illustration  
Not Available  
At Time Of Printing

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**FIGURE 3-7C. CONTROL BOX PARTS LIST - CE With All Options (CE)**  
**(Machines With Serial Numbers From #150932(3015) or #229633 (3219) And Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	119731	CABLE ASSEMBLY, Control box (For Components, Refer to Section 6)	1 -
2	103012	BLOCK, 12 Pole terminal	1
3	123994	CONTROLLER ASSEMBLY, Proportional	1
4	122093	BATTERY CHARGE INDICATOR	1
5	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform (For Components, Refer to Section 6)	1 -
6	(Ref.)	SWITCH ASSEMBLY, Emergency stop (For Components, Refer to Section 6)	1 -
7	116382	SWITCH, Lift/off/drive toggle	1
8	119629	RESISTOR, 2.7K	1
9	(Ref.)	SWITCH ASSEMBLY, Horn push-button (For Components, Refer to Section 6)	1 -
10	102921	DIODE	2
11	121058	HORN, 24Volt	1
12	103257	CABLE, 18/3	2
13	103256	CABLE, 18/2	1
14	107711	CONNECTOR, Female 5 pins	3

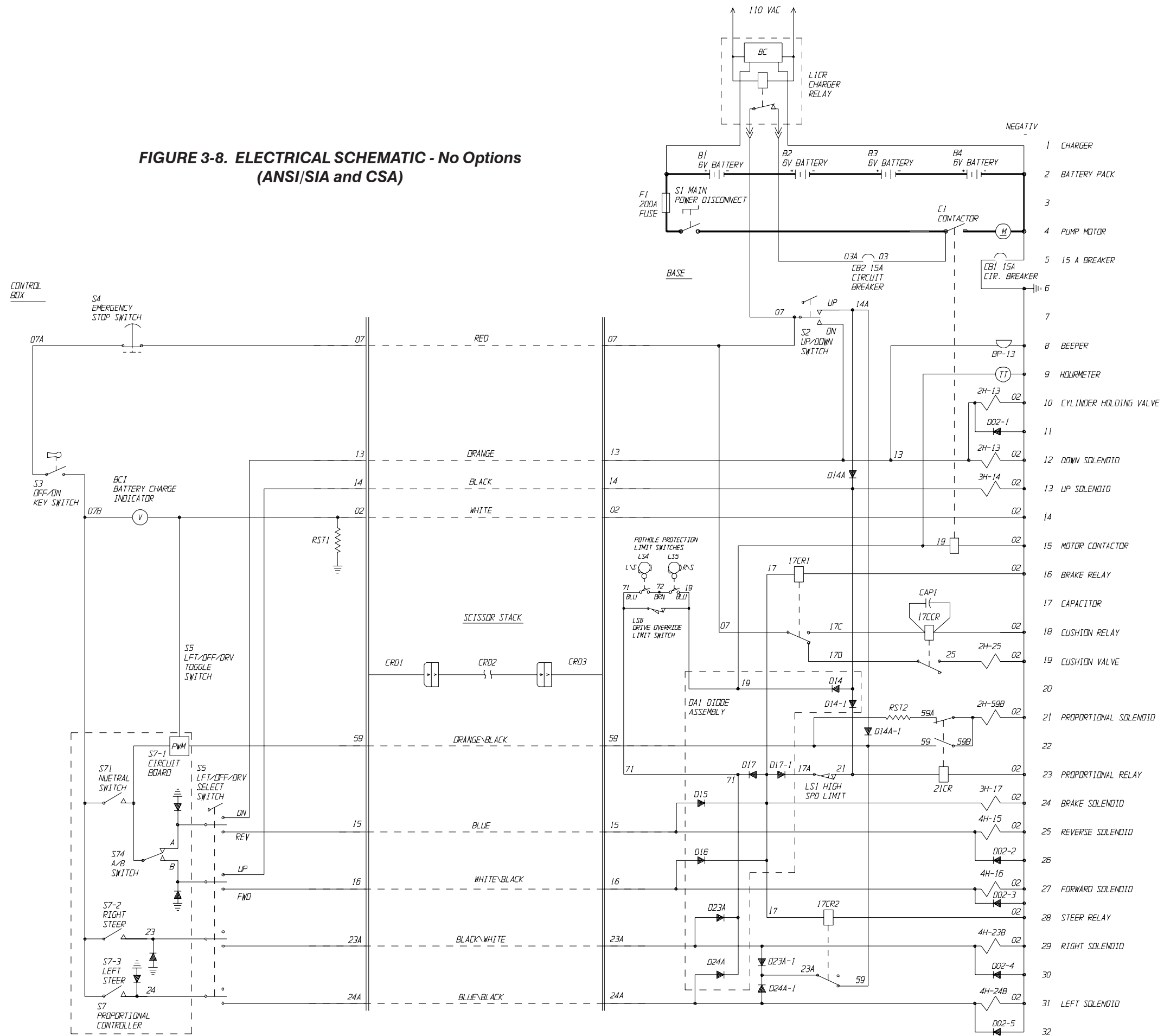
**FIGURE 3-8. ELECTRICAL SCHEMATIC PARTS LIST - No Options (ANSI/SIA and CSA)**

Index No.	Skyjack Part No.	Description	Units per Assy.
B1-B4	\$	BATTERY, 6 Volt, 220 AH (Interstate #U2200)	4
BC	(Ref.)	BATTERY CHARGER, (Refer to Section 6 for all chargers)	1
BCI	122093	BATTERY CHARGE INDICATOR	1
BP-13	103057	BEEPER, 24 Volt	1
C1	103101	CONTACTOR, 24 Volt motor	1
CAP1	103319	CAPACITOR, 35 Volt	1
CB1	117325	CIRCUIT BREAKER, 15 Amp	1
CB2	117325	CIRCUIT BREAKER, 15 Amp	1
17CR1	108589	RELAY, 24 Volt (brake)	1
17CR2	108589	RELAY, 24 Volt (steer)	1
17CCR	108589	RELAY, 24 Volt (cushion)	1
21CR	108589	RELAY, 24 Volt (proportional)	1
28CR	108589	RELAY, 24 Volt (tilt switch)	1
CRD1	(Ref.)	CABLE ASSEMBLY, Control box (Refer to Section 6)	1
CRD2	(Ref.)	CABLE ASSEMBLY, Scissor control (Refer to Section 6)	1
CRD3	(Ref.)	CABLE ASSEMBLY, Electrical panel (Refer to Section 6)	1
DXX	102921	DIODE	AR
D02-X	700166	DIODE	AR
DA1	108000	DIODE ASSEMBLY	1
DCM1	(Ref.)	MOTOR, 24 Volt (Refer to Section 6)	1
F1	310517	FUSE, 300 Amp	1
F2	114866	FUSE, 1 Amp (tilt switch)	1
H1	121058	HORN, 24 Volt	1
2H-13	103605	COIL, 24 Volt (lowering valve)	1
2H-13A	103605	COIL, 24 Volt (lowering valve)	1
2H-13A-1	104493	COIL, 24 Volt 3-prong (holding valve)	1
2H-13-1	104493	COIL, 24 Volt 3-prong (holding valve)	1
2H-25	103605	COIL, 24 Volt (cushion valve)	1
2H-59B	115370	COIL, 24 Volt (proportional valve)	1
3H-14	105610	COIL, 24 Volt (lift)	1
3H-17	103605	COIL, 24 Volt (brake)	1
4H-15	107439	COIL, 24 Volt (reverse drive spool valve)	1
4H-16	107439	COIL, 24 Volt (forward drive spool valve)	1
4H-23B	107439	COIL, 24 Volt (right steer spool valve)	1
4H-24B	107439	COIL, 24 Volt (left steer spool valve)	1
4H-26	107439	COIL, 24 Volt (powered extension platform extend spool valve) (option)	1
4H-27	107439	COIL, 24 Volt (powered extension platform retract spool valve) (option)	1
<b>Parts list continued on the following page.</b>			

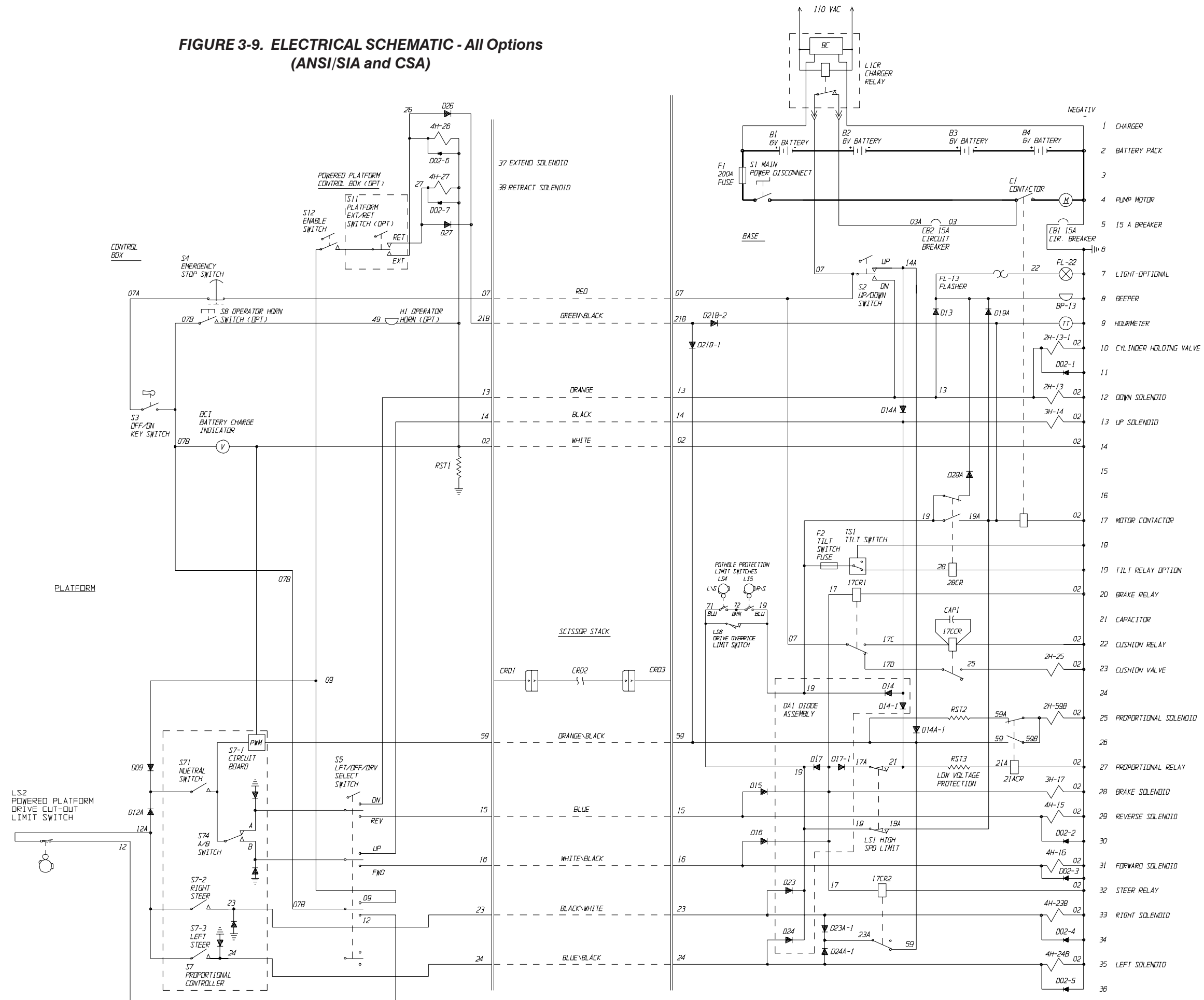
**FIGURE 3-8. ELECTRICAL SCHEMATIC PARTS LIST - No Options (ANSI/SIA and CSA)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>Parts list continued from the previous page.</b>			
LS1	102848	LIMIT SWITCH, High speed	1
LS2	102668	LIMIT SWITCH, Powered extension platform (option)	1
LS3	102668	LIMIT SWITCH, End of stroke (option)	1
LS4	119348	LIMIT SWITCH, Pothole protection (battery tray)	1
LS5	119348	LIMIT SWITCH, Pothole protection (hydraulic/electric tray)	1
LS6	102848	LIMIT SWITCH, Drive override	1
RST1	119629	RESISTOR, 2.7K Ohm	1
RST2	115312	RESISTOR, 25 Watt, 40 Ohm	1
	300827	RESISTOR, 25 Watt, 33 Ohm	1
S1	102600	SWITCH, Main power disconnect	1
S2	102853	SWITCH, Up/down toggle	1
S3	103141	N.O. CONTACT BLOCK, Off/on key switch	1
S4	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
S5	116382	SWITCH, Lift/off/drive toggle select	1
S7X -	(Ref.)	CONTROLLER ASSEMBLY, Proportional	-
S7-X		(Refer to Section 6 for all components)	-
S8	103141	N.O. CONTACT BLOCK, Operator horn	1
S9	103141	N.O. CONTACT BLOCK, Enable	1
S11	102853	SWITCH, Platform extend/retract toggle (option)	1
S12	102853	SWITCH, Enable (option)	1
S28	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
TS1	310585	TILT SWITCH ASSEMBLY	1
<b>Use Part Number 117880 for Machines with Serial Numbers</b>			
<b>150913 (3015), 229438 (3219) and Below.</b>			
TT	103336	HOURMETER	1
		\$ - Purchase locally.	

**FIGURE 3-8. ELECTRICAL SCHEMATIC - No Options  
(ANSI/SIA and CSA)**



**FIGURE 3-9. ELECTRICAL SCHEMATIC - All Options  
(ANSI/SIA and CSA)**



**FIGURE 3-9. ELECTRICAL SCHEMATIC PARTS LIST - All Options (ANSI/SIA and CSA)**

Index No.	Skyjack Part No.	Description	Units per Assy.
B1-B4	\$	BATTERY, 6 Volt, 220 AH (Interstate #U2200)	4
BC	(Ref.)	BATTERY CHARGER, (Refer to Section 6 for all chargers)	1
BCI	122093	BATTERY CHARGE INDICATOR	1
BP-13	103057	BEEPER, 24 Volt	1
C1	103101	CONTACTOR, 24 Volt motor	1
CAP1	103319	CAPACITOR, 35 Volt	1
CB1	117325	CIRCUIT BREAKER, 15 Amp	1
CB2	117325	CIRCUIT BREAKER, 15 Amp	1
17CR1	108589	RELAY, 24 Volt (brake)	1
17CR2	108589	RELAY, 24 Volt (steer)	1
17CCR	108589	RELAY, 24 Volt (cushion)	1
21CR	108589	RELAY, 24 Volt (proportional)	1
28CR	108589	RELAY, 24 Volt (tilt switch option)	1
CRD1	(Ref.)	CABLE ASSEMBLY, Control box (Refer to Section 6.)	1
CRD2	(Ref.)	CABLE ASSEMBLY, Scissor control (Refer to Section 6.)	1
CRD3	(Ref.)	CABLE ASSEMBLY, Electrical panel (Refer to Section 6.)	1
DXX	102921	DIODE	AR
D02-X	700166	DIODE	AR
DA1	108000	DIODE ASSEMBLY	1
DCM1	(Ref.)	MOTOR, 24 Volt (Refer to Section 6.)	1
F1	310517	FUSE, 300 Amp	1
F2	114866	FUSE, 1 Amp (tilt switch option)	1
FL-13	103743	FLASHER, 12 Volt (option)	1
FL-22	121477	FLASHING LIGHT (option)	1
H1	121058	HORN, Operator 24 Volt (option)	1
2H-13	103605	COIL, 24 Volt (lowering valve)	1
2H-13-1	104493	COIL, 24 Volt 3-prong (holding valve)	1
2H-25	103605	COIL, 24 Volt (cushion valve)	1
2H-59B	115370	COIL, 24 Volt (proportional valve)	1
3H-14	105610	COIL, 24 Volt (lift)	1
3H-17	103605	COIL, 24 Volt (brake)	1
4H-15	107439	COIL, 24 Volt (reverse drive spool valve)	1
4H-16	107439	COIL, 24 Volt (forward drive spool valve)	1
4H-23B	107439	COIL, 24 Volt (right steer spool valve)	1
4H-24B	107439	COIL, 24 Volt (left steer spool valve)	1
4H-26	107439	COIL, 24 Volt (powered extension platform extend spool valve) (option)	1
4H-27	107439	COIL, 24 Volt (powered extension platform retract spool valve) (option)	1
LS1	102848	LIMIT SWITCH, High speed	1
LS2	102668	LIMIT SWITCH, Powered extension platform (option)	1
LS4	119348	LIMIT SWITCH, Pothole protection (battery tray)	1
LS5	119348	LIMIT SWITCH, Pothole protection (hydraulic/electric tray)	1
LS6	102848	LIMIT SWITCH, Drive override	1
<b>Parts list continued on the following page.</b>			



**FIGURE 3-9. ELECTRICAL SCHEMATIC PARTS LIST - All Options (ANSI/SIA and CSA) (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>Parts list continued from the previous page.</b>			
RST1	119629	RESISTOR, 2.7 Ohm	1
RST2	115312	RESISTOR, 25 Watt, 40 Ohm	1
	300827	RESISTOR, 25 Watt, 33 Ohm	1
RST3	110998	RESISTOR, Low voltage battery protection (option)	1
S1	102600	SWITCH, Main power disconnect	1
S2	102853	SWITCH, Up/down toggle (electrical panel)	1
S3	103141	N.O. CONTACT BLOCK, Off/on key switch	1
S4	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
S5	116382	SWITCH, Lift/off/drive toggle select	1
S7X -	(Ref.)	CONTROLLER ASSEMBLY, Proportional	-
S7-X		(Refer to Section 6 for all components)	-
S8	103141	N.O. CONTACT BLOCK, Operator horn (option)	1
S9	103141	N.O. CONTACT BLOCK, Enable	1
S11	102853	SWITCH, Platform extend/retract toggle (option)	1
S12	102853	SWITCH, Enable (option)	1
S28	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
TS1	310585	TILT SWITCH ASSEMBLY	1
<b>Use Part Number 117880 for Machines with Serial Numbers</b>			
<b>150913 (3015), 229438 (3219) and Below.</b>			
TT	103336	HOURMETER \$ - Purchase locally.	1

**FIGURE 3-10. ELECTRICAL SCHEMATIC PARTS LIST - No Options (CE)**

Index No.	Skyjack Part No.	Description	Units per Assy.
B1-B4	\$	BATTERY, 6 Volt, 220 AH (Interstate #U2200)	4
BC	(Ref.)	BATTERY CHARGER, (Refer to Section 6 for all chargers)	1
BCI	122093	BATTERY CHARGE INDICATOR	1
BP-29	103057	BEEPER, 24 Volt	1
BP-29A	117967	BEEPER, 9-26 Volt (lowering warning system)	1
C1	103101	CONTACTOR, 24 Volt motor	1
CAP1	103319	CAPACITOR, 35 Volt	1
CAP2	110669	CAPACITOR, 50 Volt, 35uF	1
CB1	117325	CIRCUIT BREAKER, 15 Amp	1
CB2	117325	CIRCUIT BREAKER, 15 Amp	1
13BCR	108589	RELAY, 24 Volt (lowering warning system time delay cutout)	1
17CR1	108589	RELAY, 24 Volt (brake)	1
17CR2	108589	RELAY, 24 Volt (steer)	1
17CCR	108589	RELAY, 24 Volt (cushion)	1
21CR	108589	RELAY, 24 Volt (proportional)	1
28CR	108589	RELAY, 24 Volt (tilt switch)	1
39CR	108589	RELAY, 24 Volt (lowering warning system limit switch)	1
41CR	117625	RELAY, 24 Volt (lowering warning system time delay)	1
42CR	108589	RELAY, 24 Volt (lowering warning system latching)	1
CRD1	(Ref.)	CABLE ASSEMBLY, Control box (Refer to Section 6.)	1
CRD2	(Ref.)	CABLE ASSEMBLY, Scissor control (Refer to Section 6.)	1
CRD3	(Ref.)	CABLE ASSEMBLY, Electrical panel (Refer to Section 6.)	1
DXX	102921	DIODE	AR
D02-X	700166	DIODE	AR
DA1	108000	DIODE ASSEMBLY	1
DCM1	(Ref.)	MOTOR, 24 Volt (Refer to Section 6.)	1
F1	310517	FUSE, 300 Amp	1
F2	114866	FUSE, 1 Amp (tilt switch)	1
FL-22	103267	FLASHER, 24 Volt	1
FL-22A	121477	FLASHING LIGHT, 24 Volt	1
H1	121058	HORN, 24 Volt	1
2H-13A	103605	COIL, 24 Volt (lowering valve)	1
2H-13A-1	104493	COIL, 24 Volt 3-prong (holding valve)	1
2H-25	103605	COIL, 24 Volt (cushion valve)	1
2H-59B	115370	COIL, 24 Volt (proportional valve)	1
3H-14	105610	COIL, 24 Volt (lift)	1
3H-17	103605	COIL, 24 Volt (brake)	1
4H-15	107439	COIL, 24 Volt (reverse drive spool valve)	1
4H-16	107439	COIL, 24 Volt (forward drive spool valve)	1
4H-23B	107439	COIL, 24 Volt (right steer spool valve)	1
4H-24B	107439	COIL, 24 Volt (left steer spool valve)	1
LS1	102848	LIMIT SWITCH, High speed	1
LS4	119348	LIMIT SWITCH, Pothole protection (battery tray)	1
LS5	119348	LIMIT SWITCH, Pothole protection (hydraulic/electric tray)	1
LS6	102848	LIMIT SWITCH, Drive override	1
<b>Parts list continued on the following page.</b>			

**FIGURE 3-10. ELECTRICAL SCHEMATIC PARTS LIST - No Options (CE) (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>Parts list continued from the previous page.</b>			
LWS1	300667	LOWERING WARNING SYSTEM	1
RST1	119629	RESISTOR, 2.7 Ohm	1
RST2	115312	RESISTOR, 25 Watt, 40 Ohm	1
	300827	RESISTOR, 25 Watt, 33 Ohm	1
S1	102600	SWITCH, Main power disconnect	1
S2	102853	SWITCH, Up/down toggle (electrical panel)	1
S3	103141	N.O. CONTACT BLOCK, Off/on key switch	1
S4	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
S5	116382	SWITCH, Lift/off/drive toggle select	1
S7X -	(Ref.)	CONTROLLER ASSEMBLY, Proportional	-
S7-X		(Refer to Section 6 for all components)	-
S8	103141	N.O. CONTACT BLOCK, Operator horn	1
S9	103141	N.O. CONTACT BLOCK, Enable	1
S28	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
TS1	310585	TILT SWITCH ASSEMBLY	1
<b>Use Part Number 117880 for Machines with Serial Numbers 150913 (3015), 229438 (3219) and Below.</b>			
TT	103336	HOURMETER \$ - Purchase locally.	1

FIGURE 3-10. ELECTRICAL SCHEMATIC - No Options (CE)

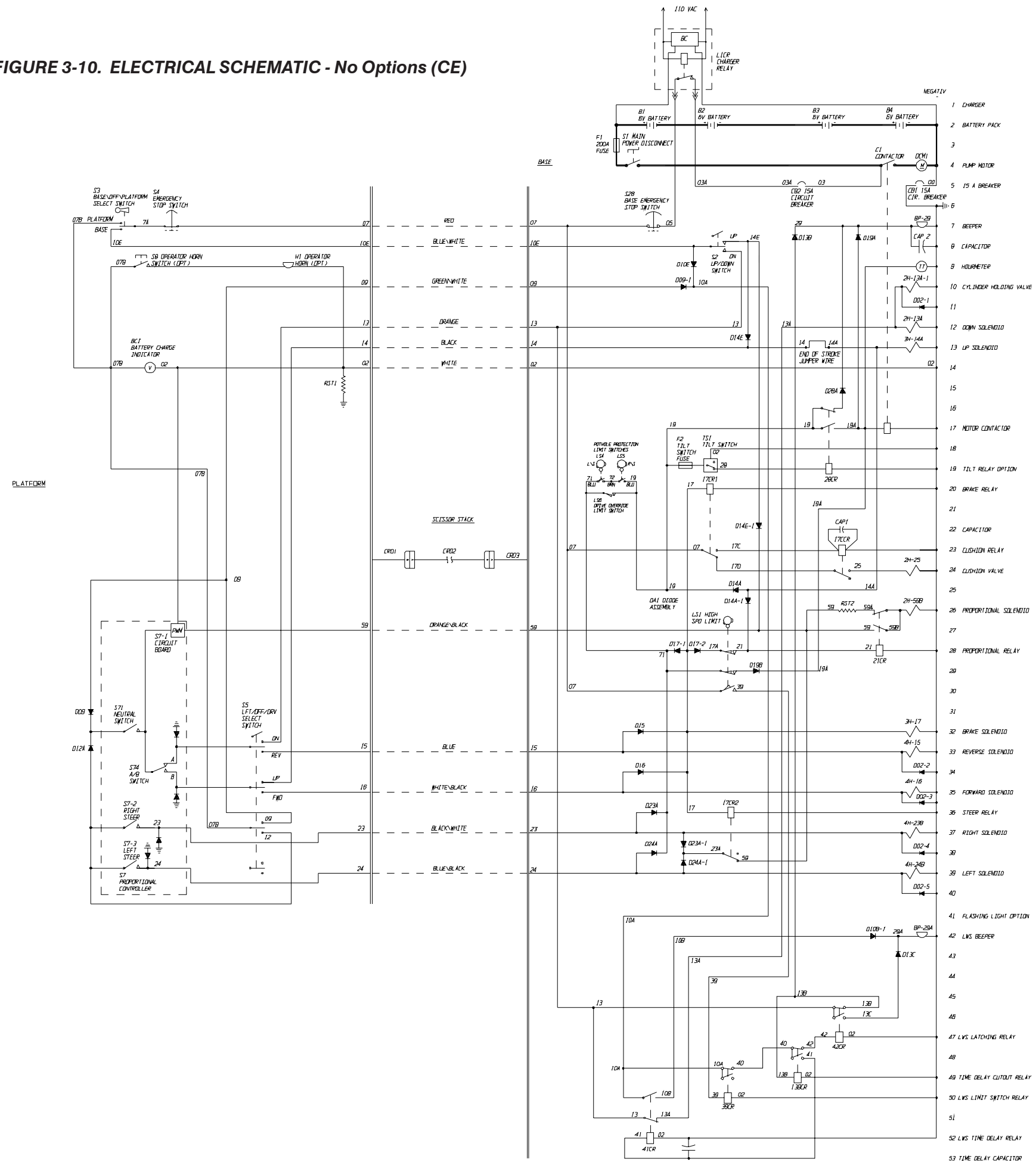
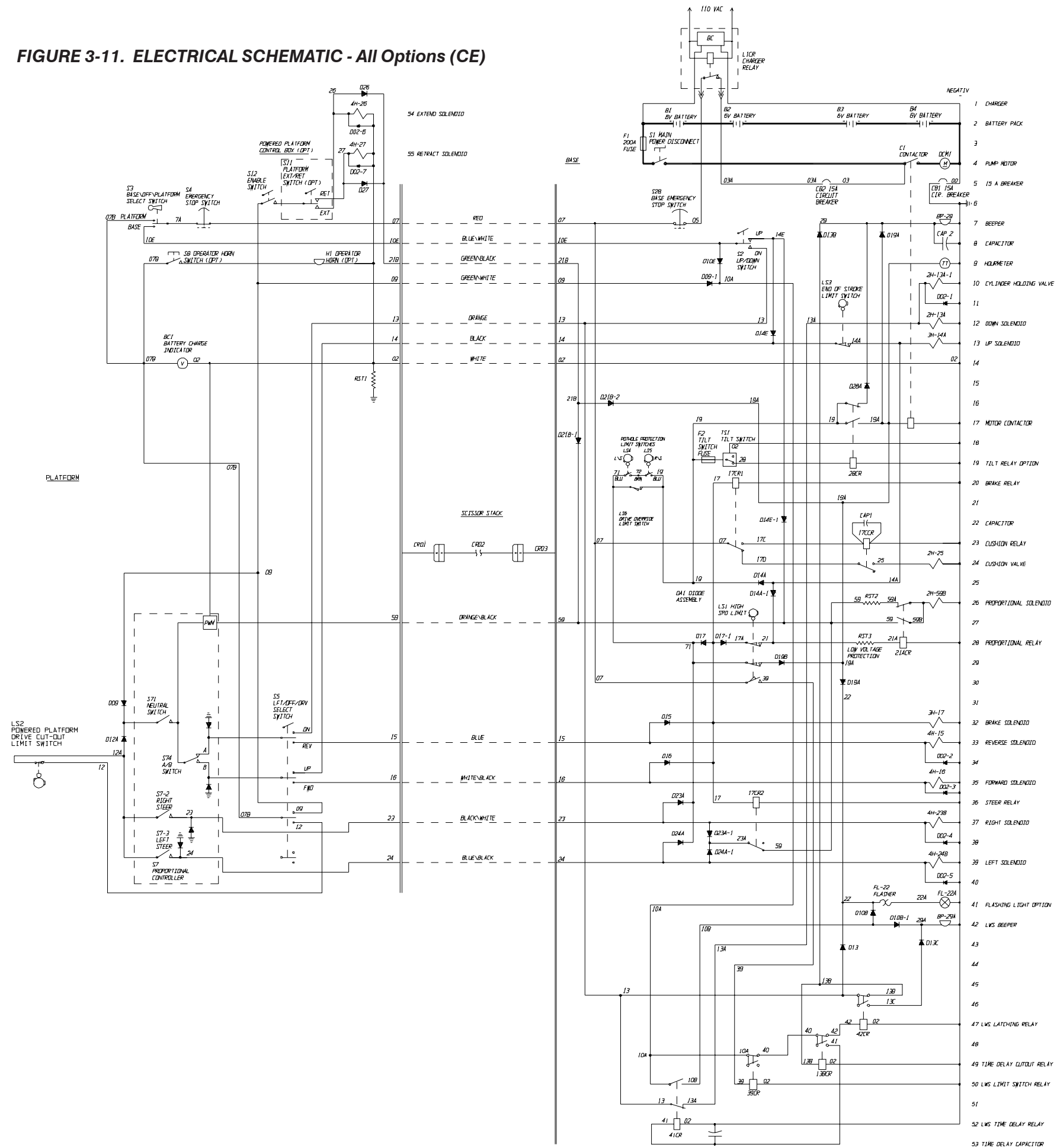


FIGURE 3-11. ELECTRICAL SCHEMATIC - All Options (CE)



**FIGURE 3-11. ELECTRICAL SCHEMATIC PARTS LIST - All Options (CE)**

Index No.	Skyjack Part No.	Description	Units per Assy.
B1-B4	\$	BATTERY, 6 Volt, 220 AH (Interstate #U2200)	4
BC	(Ref.)	BATTERY CHARGER, (Refer to Section 6 for all chargers)	1
BCI	122093	BATTERY CHARGE INDICATOR	1
BP-29	103057	BEEPER, 24 Volt	1
BP-29A	117967	BEEPER, 9-26 Volt (lowering warning system)	1
C1	103101	CONTACTOR, 24 Volt motor	1
CAP1	103319	CAPACITOR, 35 Volt	1
CAP2	110669	CAPACITOR, 50 Volt, 35uF	1
CB1	117325	CIRCUIT BREAKER, 15 Amp	1
CB2	117325	CIRCUIT BREAKER, 15 Amp	1
13BCR	108589	RELAY, 24 Volt (lowering warning system time delay cutout)	1
17CR1	108589	RELAY, 24 Volt (brake)	1
17CR2	108589	RELAY, 24 Volt (steer)	1
17CCR	108589	RELAY, 24 Volt (cushion)	1
21CR	108589	RELAY, 24 Volt (proportional)	1
28CR	108589	RELAY, 24 Volt (tilt switch)	1
39CR	108589	RELAY, 24 Volt (lowering warning system limit switch)	1
41CR	117625	RELAY, 24 Volt (lowering warning system time delay)	1
42CR	108589	RELAY, 24 Volt (lowering warning system latching)	1
CRD1	(Ref.)	CABLE ASSEMBLY, Control box (Refer to Section 6.)	1
CRD2	(Ref.)	CABLE ASSEMBLY, Scissor control (Refer to Section 6.)	1
CRD3	(Ref.)	CABLE ASSEMBLY, Electrical panel (Refer to Section 6.)	1
DXX	102921	DIODE	AR
D02-X	700166	DIODE	AR
DA1	108000	DIODE ASSEMBLY	1
DCM1	(Ref.)	MOTOR, 24 Volt (Refer to Section 6.)	1
F1	310517	FUSE, 300 Amp	1
F2	114866	FUSE, 1 Amp (tilt switch)	1
FL-22	103267	FLASHER, 24 Volt	1
FL-22A	121477	FLASHING LIGHT (option)	1
H1	121058	HORN, 24 Volt	1
2H-13A	103605	COIL, 24 Volt (lowering valve)	1
2H-13A-1	104493	COIL, 24 Volt 3-prong (holding valve)	1
2H-25	103605	COIL, 24 Volt (cushion valve)	1
2H-59B	115370	COIL, 24 Volt (proportional valve)	1
3H-14	105610	COIL, 24 Volt (lift)	1
3H-17	103605	COIL, 24 Volt (brake)	1
4H-15	107439	COIL, 24 Volt (reverse drive spool valve)	1
4H-16	107439	COIL, 24 Volt (forward drive spool valve)	1
4H-23B	107439	COIL, 24 Volt (right steer spool valve)	1
4H-24B	107439	COIL, 24 Volt (left steer spool valve)	1
4H-26	107439	COIL, 24 Volt (powered extension platform extend spool valve) (option)	1
4H-27	107439	COIL, 24 Volt (powered extension platform retract spool valve) (option)	1
<b>Parts list continued on the following page.</b>			

**FIGURE 3-11. ELECTRICAL SCHEMATIC PARTS LIST - All Options (CE) (Continued)**

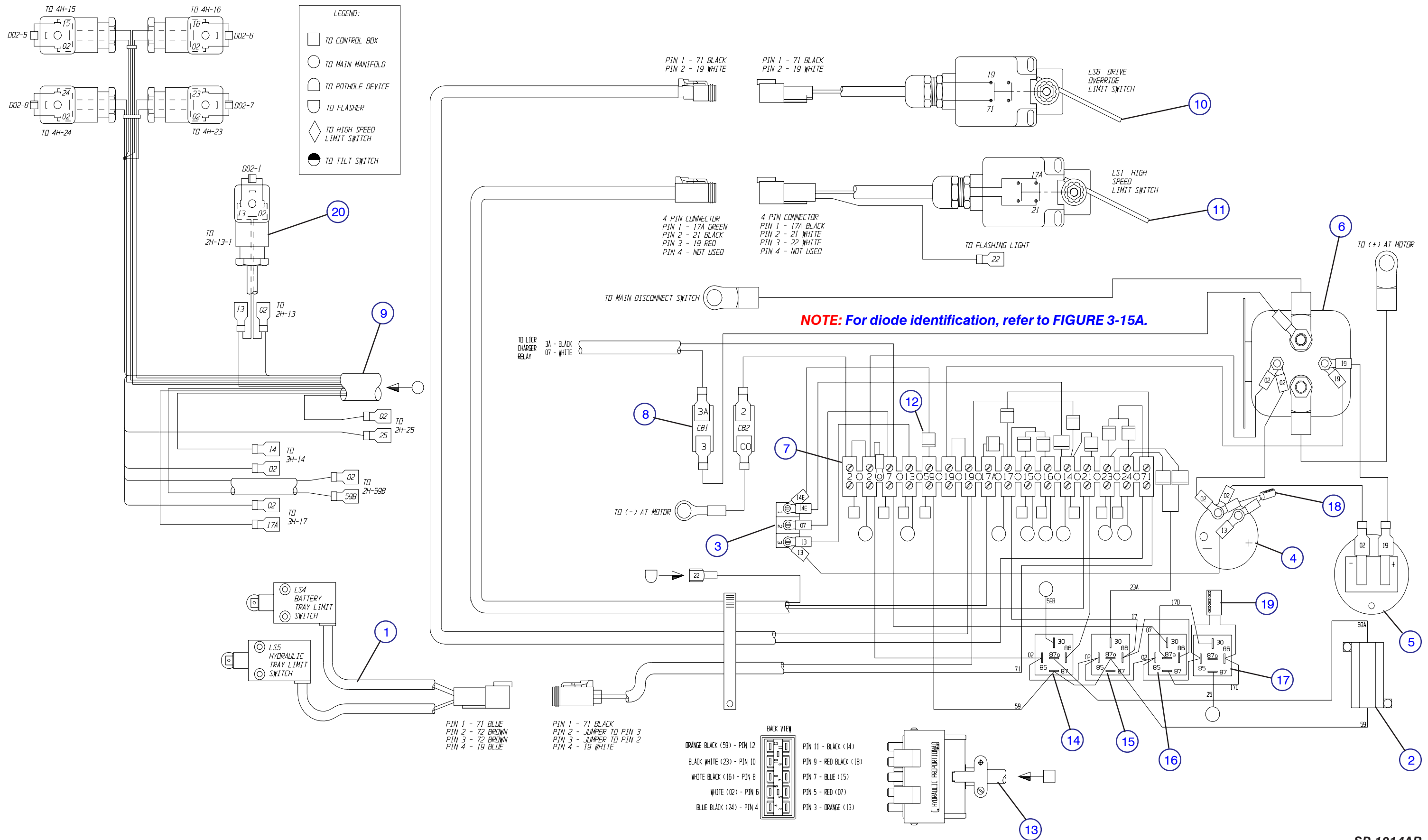
Index No.	Skyjack Part No.	Description	Units per Assy.
<b>Parts list continued from the previous page.</b>			
LS1	102848	LIMIT SWITCH, High speed	1
LS3	102668	LIMIT SWITCH, End of stroke (option)	1
LS4	119348	LIMIT SWITCH, Pothole protection (battery tray)	1
LS5	119348	LIMIT SWITCH, Pothole protection (hydraulic/electric tray)	1
LS6	102848	LIMIT SWITCH, Drive override	1
LWS1	118717	LOWERING WARNING SYSTEM MODULE	1
RST1	119629	RESISTOR, 2.7 Ohm	1
RST2	115312	RESISTOR, 25 Watt, 40 Ohm	1
	300827	RESISTOR, 25 Watt, 33 Ohm	1
RST3	110998	RESISTOR, Low voltage protection (option)	1
S1	102600	SWITCH, Main power disconnect	1
S2	102853	SWITCH, Up/down toggle (electrical panel)	1
S3	103141	N.O. CONTACT BLOCK, Off/on key switch	1
S4	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
S5	116382	SWITCH, Lift/off/drive toggle select	1
S7X -	(Ref.)	CONTROLLER ASSEMBLY, Proportional	-
S7-X		(Refer to Section 6 for all components)	-
S8	103141	N.O. CONTACT BLOCK, Operator horn	1
S9	103141	N.O. CONTACT BLOCK, Enable	1
S11	102853	SWITCH, Platform extend/retract toggle (option)	1
S12	102853	SWITCH, Enable (option)	1
S28	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
TS1	310585	TILT SWITCH ASSEMBLY	1
<b>Use Part Number 117880 for Machines with Serial Numbers 150913 (3015), 229438 (3219) and Below.</b>			
TT	103336	HOURMETER	1
		\$ - Purchase locally.	

**FIGURE 3-12. ELECTRICAL PANEL DIAGRAM PARTS LIST - No Options (ANSI/SIA and CSA)**

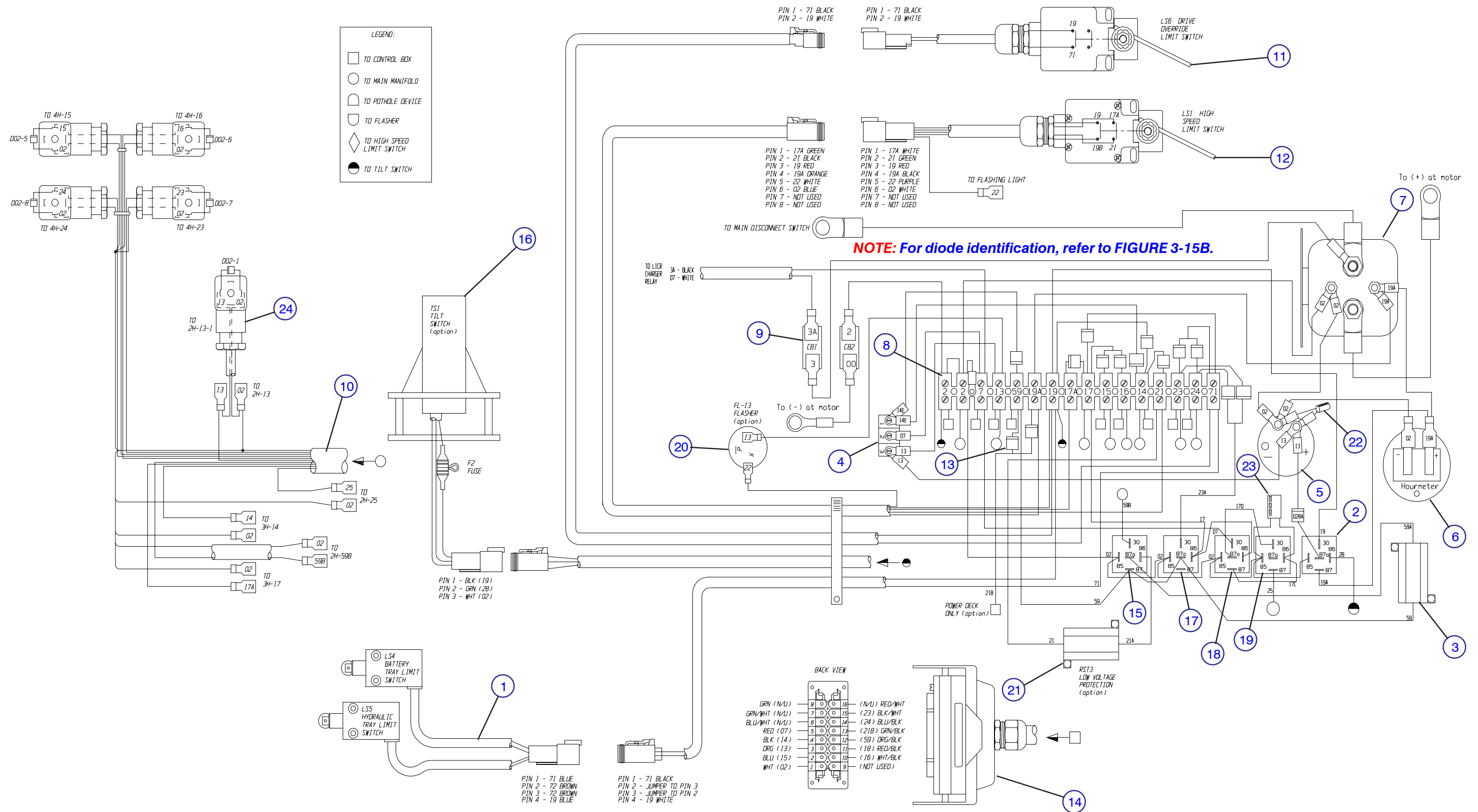
Index No.	Skyjack Part No.	Description	Units per Assy.
1	310192	LIMIT SWITCH ASSEMBLY, Pothole protection	1
	119348	• LIMIT SWITCH, Sealed	2
2	115312	RESISTOR, 25W-40 ohm	1
	300827	RESISTOR, 25 Watt, 33 Ohm	1
3	102853	SWITCH, Up/down toggle	1
4	103057	BEEPER, 24 Volt	1
5	103336	HOURMETER	1
6	103101	CONTACTOR	1
7	103011	STRIP, Terminal	1
8	117325	BREAKER, 15 Amp circuit	2
9	310244	HARNESS, Manifold lift cylinder	1
	117518	• CONNECTOR, Clear	4
10	310193	SWITCH ASSEMBLY, Drive override limit	1
11	310194	SWITCH ASSEMBLY, High speed limit	1
12	102921	DIODE	12
13	(Ref.)	CABLE ASSEMBLY, Electrical panel (Refer to Section 6.)	1
14	108589	RELAY, 24 Volt (proportional)	1
15	108589	RELAY, 24 Volt (steer)	1
16	108589	RELAY, 24 Volt (brake)	1
17	108589	RELAY, 24 Volt (cushion)	1
18	110669	CAPACITOR, .47uF 50 volt	1
19	103319	CAPACITOR, 35 Volt	1
20	310526	CABLE ASSEMBLY, Lift cylinder holding valve (3015)	1
	310527	CABLE ASSEMBLY, Lift cylinder holding valve (3219)	1



**FIGURE 3-12. ELECTRICAL PANEL DIAGRAM - No Options (ANSI/SIA and CSA)**



**FIGURE 3-13. ELECTRICAL PANEL DIAGRAM - All Options (ANSI/SIA and CSA)**



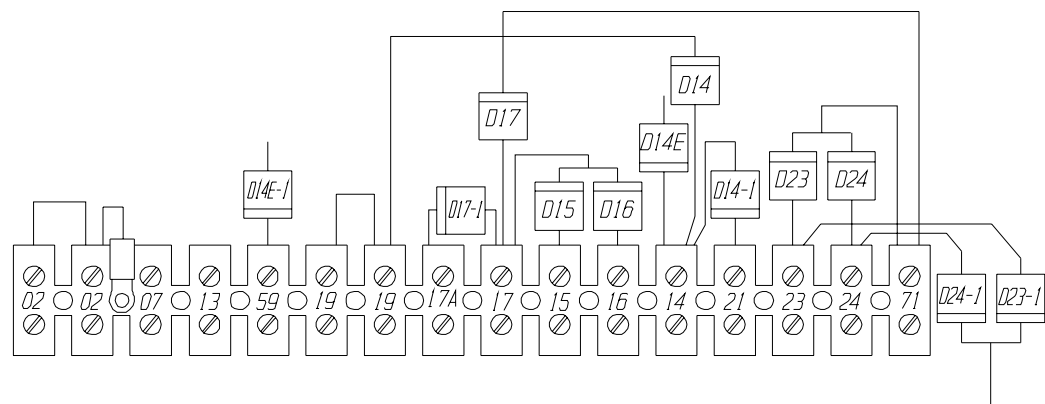
**FIGURE 3-13. ELECTRICAL PANEL DIAGRAM PARTS LIST - All Options (ANSI/SIA and CSA)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	310192	LIMIT SWITCH ASSEMBLY, Pothole protection	1
	119348	• LIMIT SWITCH, Sealed	2
2	108589	RELAY, 24 Volt (tilt switch)	1
3	115312	RESISTOR, 25W, 40 ohm	1
	300827	RESISTOR, 25 Watt, 33 Ohm	1
4	102853	SWITCH, Up/down toggle	1
5	103057	BEEPER, 24 Volt	1
6	103336	HOURMETER	1
7	103101	CONTACTOR	1
8	103011	STRIP, Terminal	1
9	117325	BREAKER, 15 Amp circuit	2
10	310244	HARNESS, Manifold lift cylinder	1
	117518	• CONNECTOR, Clear	4
11	310193	SWITCH ASSEMBLY, Drive override limit	1
12	310194	SWITCH ASSEMBLY, High speed limit (4 Pole Connector)	1
	310497	SWITCH ASSEMBLY, High speed limit (8 Pole Connector)	1
13	102921	DIODE	12
14	(Ref.)	CABLE ASSEMBLY, 16 Pole electrical panel (Refer to Section 6.)	1
15	108589	RELAY, 24 Volt (proportional)	1
16	310585	TILT SWITCH ASSEMBLY (option)	1
		<b>Use Part Number 117880 for Machines with Serial Numbers 150913 (3015), 229438 (3219) and Below.</b>	
17	108589	RELAY, 24 Volt (steer)	1
18	108589	RELAY, 24 Volt (brake)	1
19	108589	RELAY, 24 Volt (cushion)	1
20	103267	FLASHER, 24 Volt (option)	1
21	110998	RESISTOR, Low voltage protection	1
22	110669	CAPACITOR, .47uF 50 volt	1
23	103319	CAPACITOR, 35 Volt	1
24	310526	CABLE ASSEMBLY, Lift cylinder holding valve (3015)	1
	310527	CABLE ASSEMBLY, Lift cylinder holding valve (3219)	1

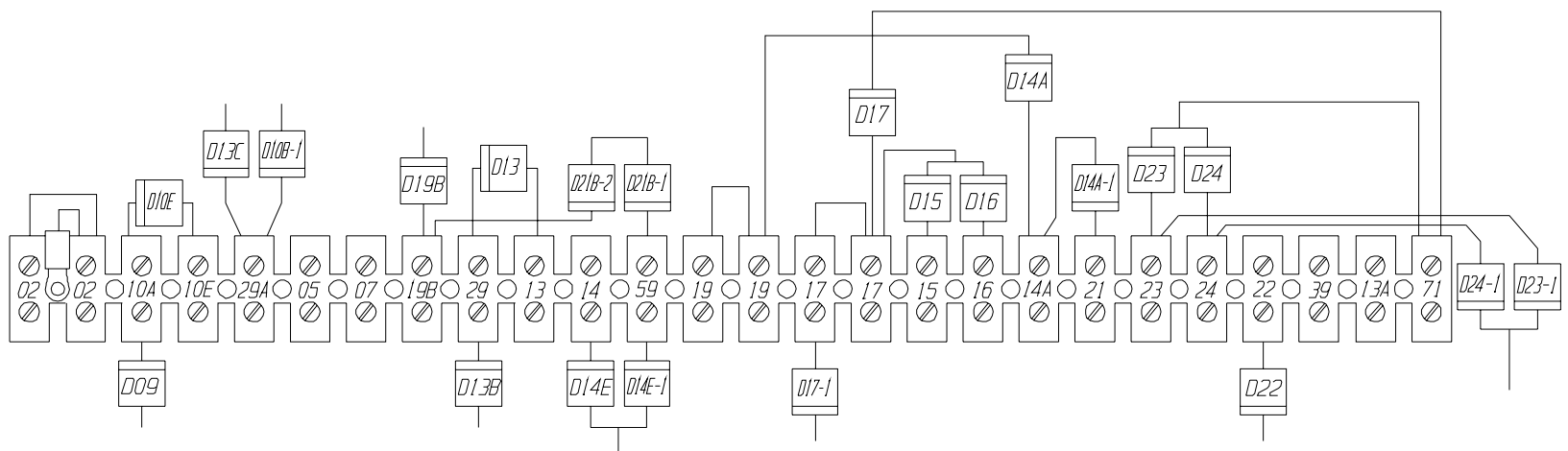
**FIGURE 3-14. ELECTRICAL PANEL DIAGRAM PARTS LIST - All Options (CE)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	310192	LIMIT SWITCH ASSEMBLY, Pothole protection	1
	119348	• LIMIT SWITCH, Sealed	2
2	108589	RELAY, 24 Volt (tilt switch)	1
3	115312	RESISTOR, 25W, 40 ohm	1
	300827	RESISTOR, 25 Watt, 33 Ohm	1
4	103057	BEEPER, 24 Volt	1
5	103336	HOURMETER	1
6	103101	CONTACTOR	1
7	103011	STRIP, Terminal	1
8	117325	BREAKER, 15 Amp circuit	2
9	310494	HARNESS, Manifold	1
	117518	• CONNECTOR, Clear	4
10	310256	SWITCH ASSEMBLY, Drive override limit	1
11	310224	SWITCH ASSEMBLY, High speed limit	1
12	102921	DIODE	12
13	(Ref.)	CABLE ASSEMBLY, 16 Pole electrical panel (Refer to Section 6.)	1
14	108589	RELAY, 24 Volt (proportional)	1
15	310585	TILT SWITCH ASSEMBLY (option)	1
<b>Use Part Number 117880 for Machines with Serial Numbers 150913 (3015), 229438 (3219) and Below.</b>			
16	108589	RELAY, 24 Volt (steer)	1
17	108589	RELAY, 24 Volt (brake)	1
18	108589	RELAY, 24 Volt (cushion)	1
19	118717	MODULE, Lowering warning system	1
	108589	• RELAY, 24 Volt (latching, time delay cutout, limit switch)	3
	117625	• RELAY, 24 Volt (time delay)	1
	103267	• FLASHER, 24 Volt	1
20	117967	BEEPER, 9-28 Volt (lowering warning system)	1
21	310215	SWITCH ASSEMBLY, End of stroke limit (option)	1
22	(Ref.)	BASE CONTROL BOX ASSEMBLY (Refer to Section 6.)	1
23	310343	CABLE ASSEMBLY, Lowering warning system	1
24	110998	RESISTOR, Low voltage protection (option)	1
25	110669	CAPACITOR, .47uF 50 volt	1
26	103319	CAPACITOR, 35 Volt	1
27	310526	CABLE ASSEMBLY, Lift cylinder holding valve (3015)	1
	310527	CABLE ASSEMBLY, Lift cylinder holding valve (3219)	1

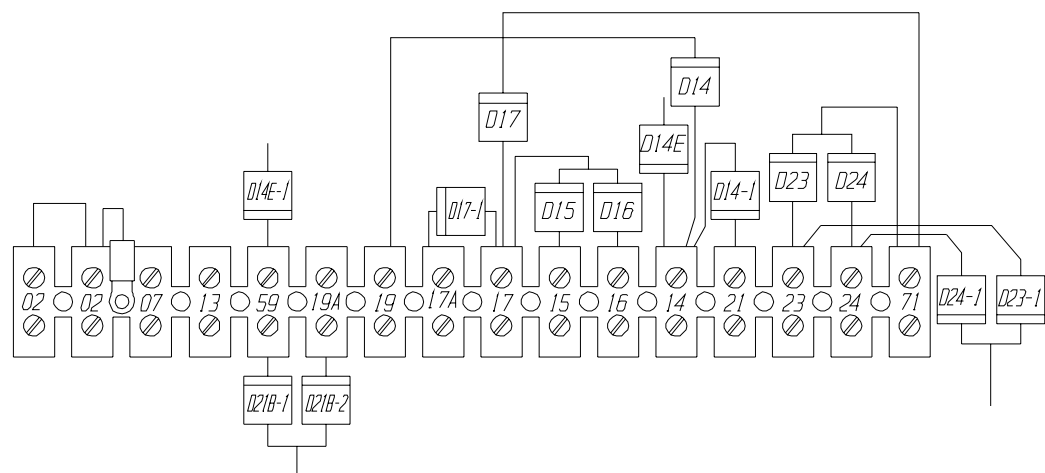




**FIGURE 3-15A. TERMINAL STRIP DIAGRAM AND DIODE IDENTIFICATION**  
**No Options (ANSI/SIA and CSA)**  
**NOTE: For Panel Diagram, refer to FIGURE 3-12.**

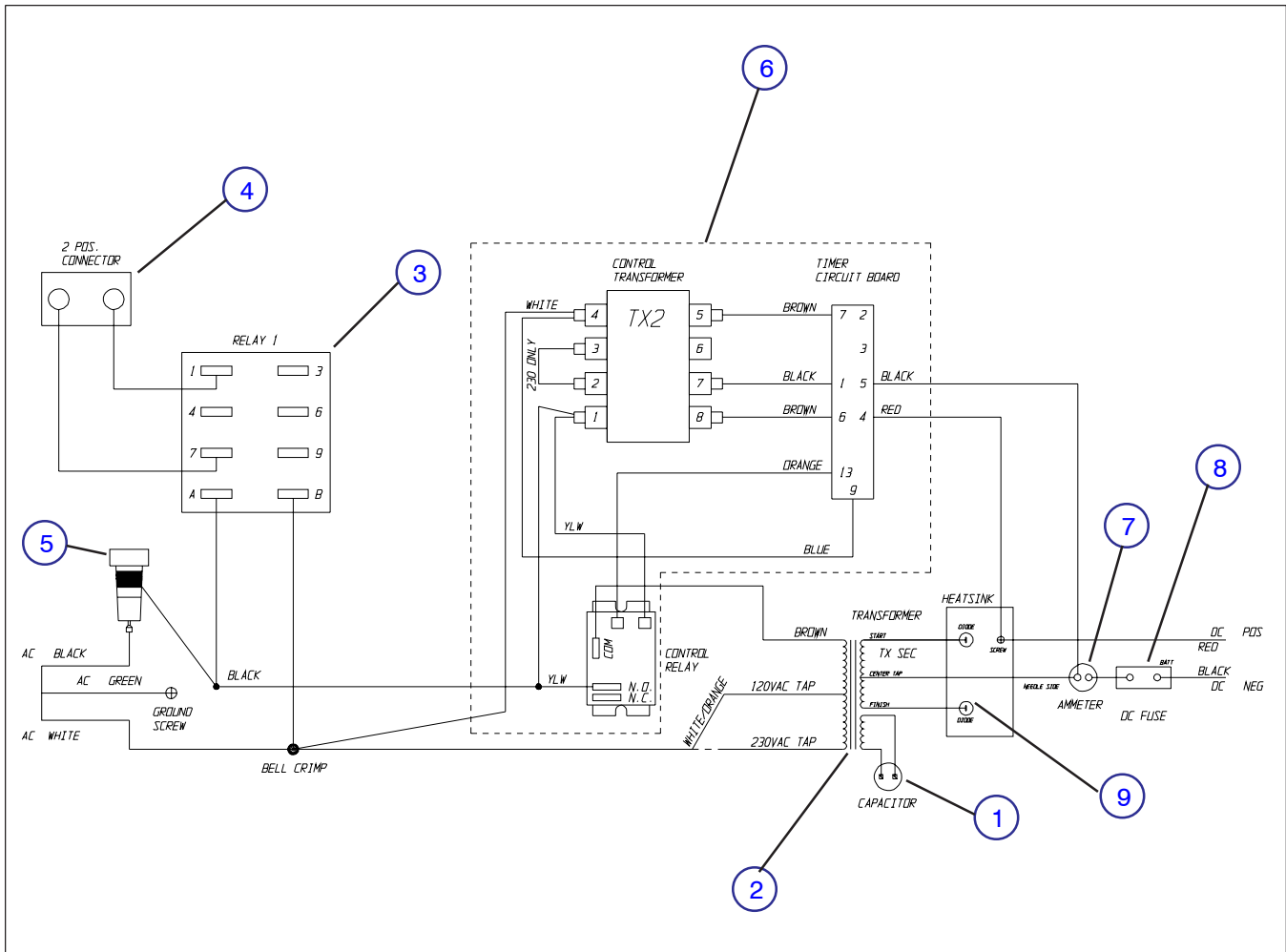


**FIGURE 3-15C. TERMINAL STRIP DIAGRAM AND DIODE IDENTIFICATION**  
**All Options (CE)**  
**NOTE: For Panel Diagram, refer to FIGURE 3-14.**



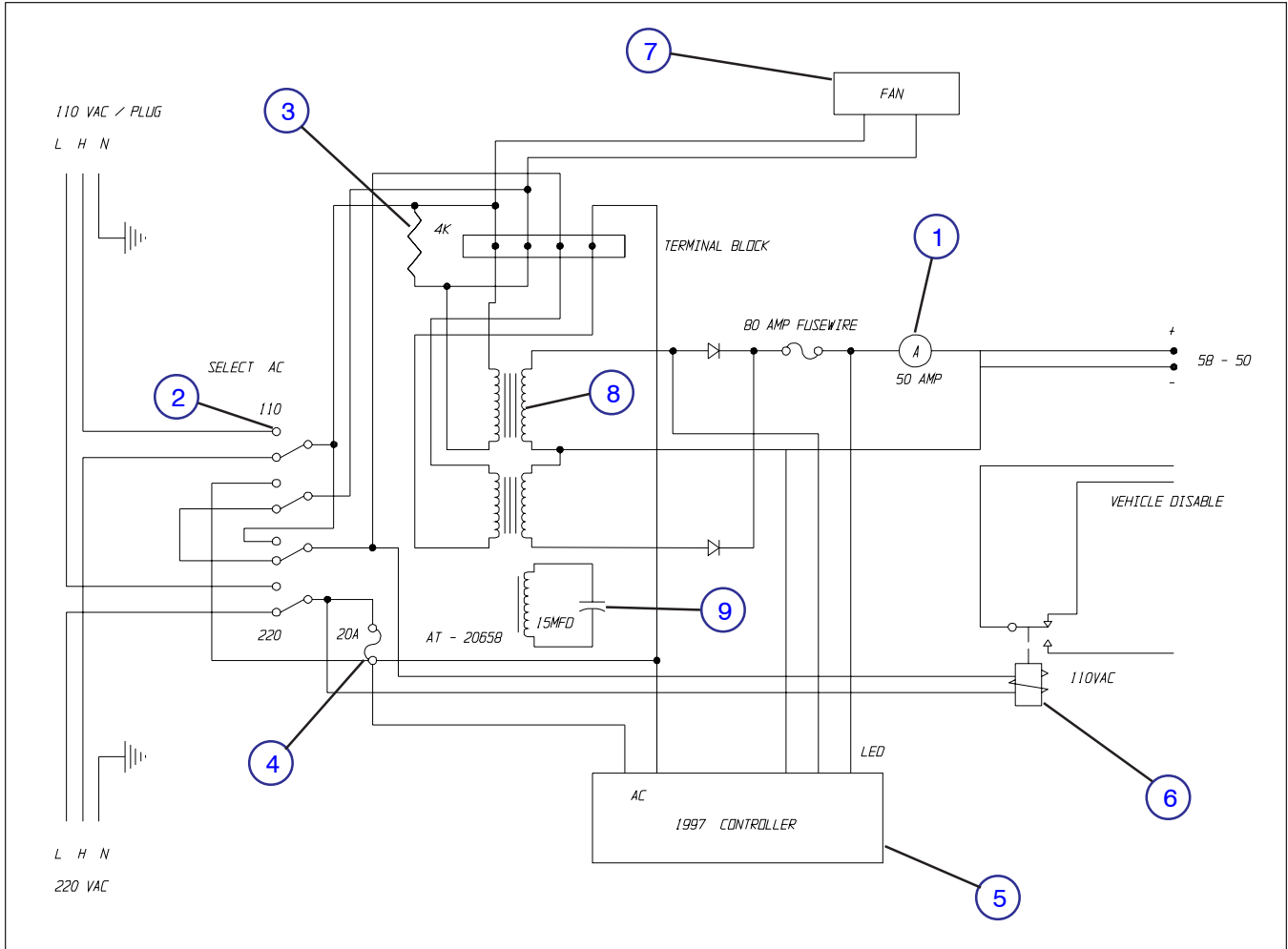
**FIGURE 3-15B. TERMINAL STRIP DIAGRAM AND DIODE IDENTIFICATION**  
**All Options (ANSI/SIA and CSA)**  
**NOTE: For Panel Diagram, refer to FIGURE 3-13.**

**FIGURE 3-16. BATTERY CHARGER SCHEMATIC - Motor Appliance #BA611**



Index No.	Skyjack Part No.	Description	Units per Assy.
-	112258	BATTERY CHARGER ASSEMBLY (Motor Appliance #BA611)	-
1	108555	CAPACITOR	1
2	108557	TRANSFORMER	1
3	115315	RELAY, Charger cutout 120 VAC	1
4	115391	PLUG, Charger cutout	1
	115392	• CORD ASSEMBLY, Charger cutout	2
5	108558	FUSE HOLDER, AC	1
	102773	• FUSE, AGC 15	1
6	108565	BOARD, Timer control circuit	1
	108564	• TRANSFORMER, Timer control	1
	115315	• RELAY, Timer control	1
7	108554	AMMETER, 0-30	1
8	111905	FUSE, 45 Amp NON	1
9	108556	DIODE	2

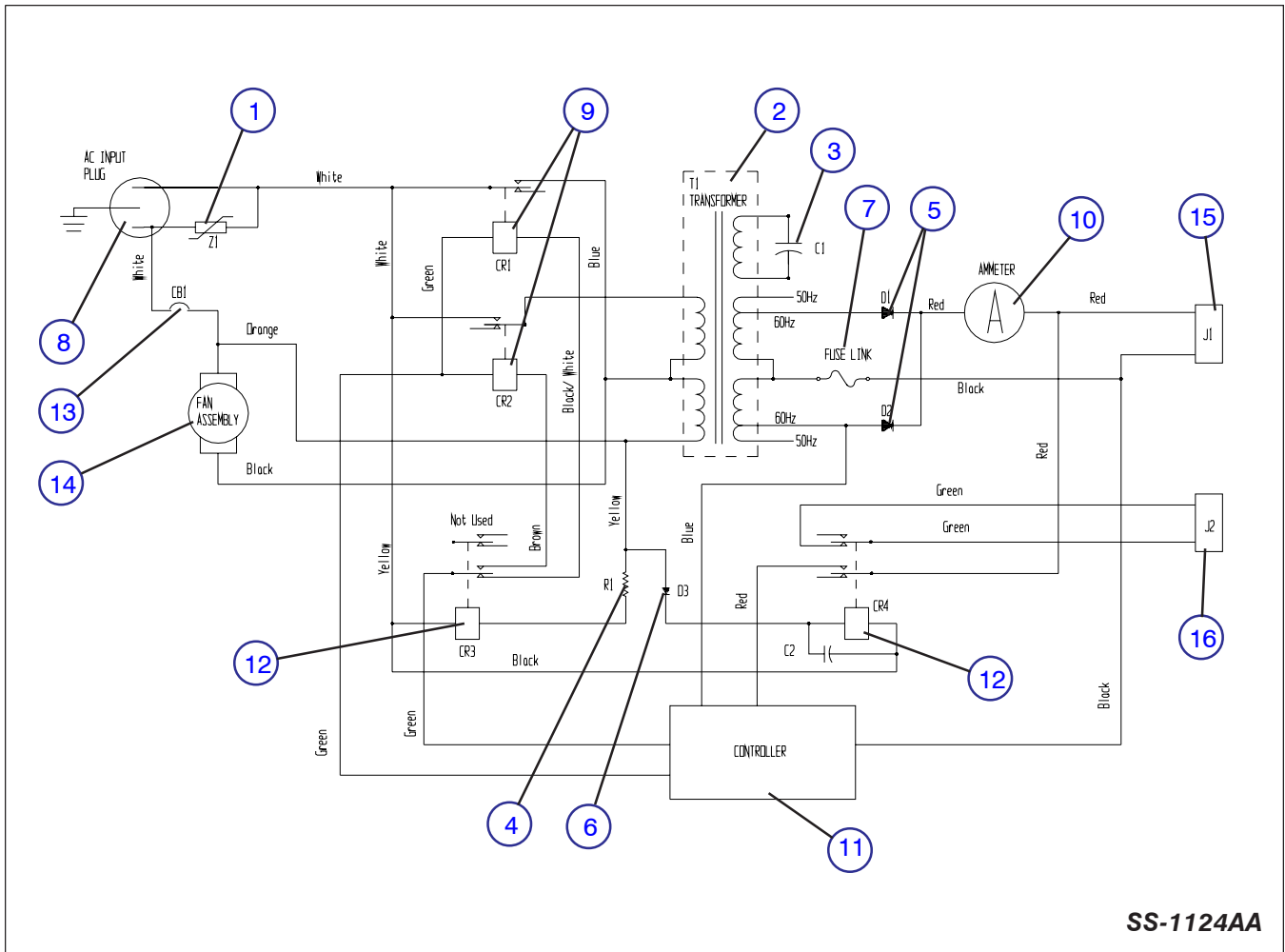
**FIGURE 3-17. BATTERY CHARGER SCHEMATIC - Bycan Chargers 2440A and 2440E**



Index No.	Skyjack Part No.	Description	Units per Assy.
1	117162	AMMETER, 50 Amp	1
2	117163	SWITCH, Toggle 4PDT	1
3	117164	RECTIFIER, 70 Amp	2
4	117165	FUSE AND HOLDER, AC	1
5	117166	CONTROLLER	1
6	117167	RELAY, Vehicle disable	1
7	117168	FAN, Cooling	1
8	117169	TRANSFORMER, (60 Hz Model)	1
	117170	TRANSFORMER, (50-60 Hz Model)	1
9	117171	CAPACITOR, (60 Hz Model)	1
	117172	CAPACITOR, (50-60 Hz Model)	1



**FIGURE 3-18. BATTERY CHARGER SCHEMATIC - Bycan #2440U**



SS-1124AA

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	121485	CHARGER ASSEMBLY, Battery (2440U, 50/60 Hz)	-
1	121570	VARISTOR	1
2	121535	TRANSFORMER	1
3	121536	CAPACITOR	1
4	121569	RESISTOR 10K OHM, 3W	1
5	121538	RECTIFIER	2
6	115817	DIODE	1
7	121540	FUSE, LINK	1
8	121541	SOCKET, AC Cord	1
9	121542	RELAY, 24V DC	2
10	121543	AMMETER, 50A DC	1
11	121544	CONTROLLER ASSEMBLY	1
12	121545	RELAY, 240 V	2
13	121546	CIRCUIT BREAKER, AC	1
14	121547	FAN, Cooling	1
15	121562	CORD, DC Battery	1
16	115391	PLUG, Charger cutout	1

**FIGURE 3-19. HYDRAULIC SCHEMATIC PARTS LIST (All Options)**

Ref. No.	Skyjack Part No.	Description	Units per Assy
C2	106581	CYLINDER ASSEMBLY, Lift (Model 3015)	1
	113873	• KIT, Seal repair	AR
	110681	CYLINDER ASSEMBLY, Lift (Model 3219)	1
C3	105888	• KIT, Seal repair	AR
	121087	CYLINDER ASSEMBLY, Steer	1
	121090	• KIT, Seal repair	AR
<b>Use Part # 107932 for Machines with Serial numbers 150611 (3015) or 227712 (3219) and below. (Use Seal kit #108099 for these Cylinders)</b>			
C4	120220	CYLINDER ASSEMBLY, Brake	AR
	105816	• KIT, Seal repair	AR
<b>Use Part # 103817 for Machines with Serial numbers 150685 (3015) or 228400 (3219) and below. (Use Seal kit #105816 for these Cylinders)</b>			
C5	120259	CYLINDER ASSEMBLY, Powered extension platform (option)	1
	107396	• KIT, Seal repair	AR
<b>Use Part # 113425 for Machines with Serial numbers 150905 (3015) or 229360 (3219) and below. (Use Seal kit #107396 for these Cylinders)</b>			
CB1	104133	VALVE, Counterbalance	1
F1	109568	FILTER ASSEMBLY, Return	1
	104254	• ELEMENT, Return filter	1
FD1	103354	VALVE, Flow divider/combiner	1
2H-13	103655	VALVE, Lowering	1
2H-13-1	107269	VALVE, Holding	1
2H-25	104132	VALVE, Cushion	1
2H-59B	115350	VALVE, Proportional	1
3H-14B	106273	VALVE, Lift	1
3H-17	103623	VALVE, Brake	1
4H-15	103614	VALVE, Reverse drive (includes 4H-16)	1
4H-16	103614	VALVE, Forward drive (includes 4H-15)	1
4H-23	103614	VALVE, Right steer (includes 4H-24)	1
4H-24	103614	VALVE, Left steer (includes 4H-23)	1
4H-26	103614	VALVE, Powered platform extend (includes 4H-27) (option)	1
4H-27	103614	VALVE, Powered platform retract (includes 4H-26) (option)	1
M1	310545	MOTOR, Hydraulic drive LH	1
	310568	• KIT, Seal	AR
<b>Use Part # 110701 for Machines with Serial numbers 150611 (3015) or 227665 (3219) and below. (Use Seal kit #110702 for these motors)</b>			
M2	310545	MOTOR, Hydraulic drive RH	1
	310568	• KIT, Seal	AR
<b>Use Part # 110701 for Machines with Serial numbers 150611 (3015) or 227665 (3219) and below. (Use Seal kit #110702 for these motors)</b>			
<b>Parts list continued on the following page.</b>			

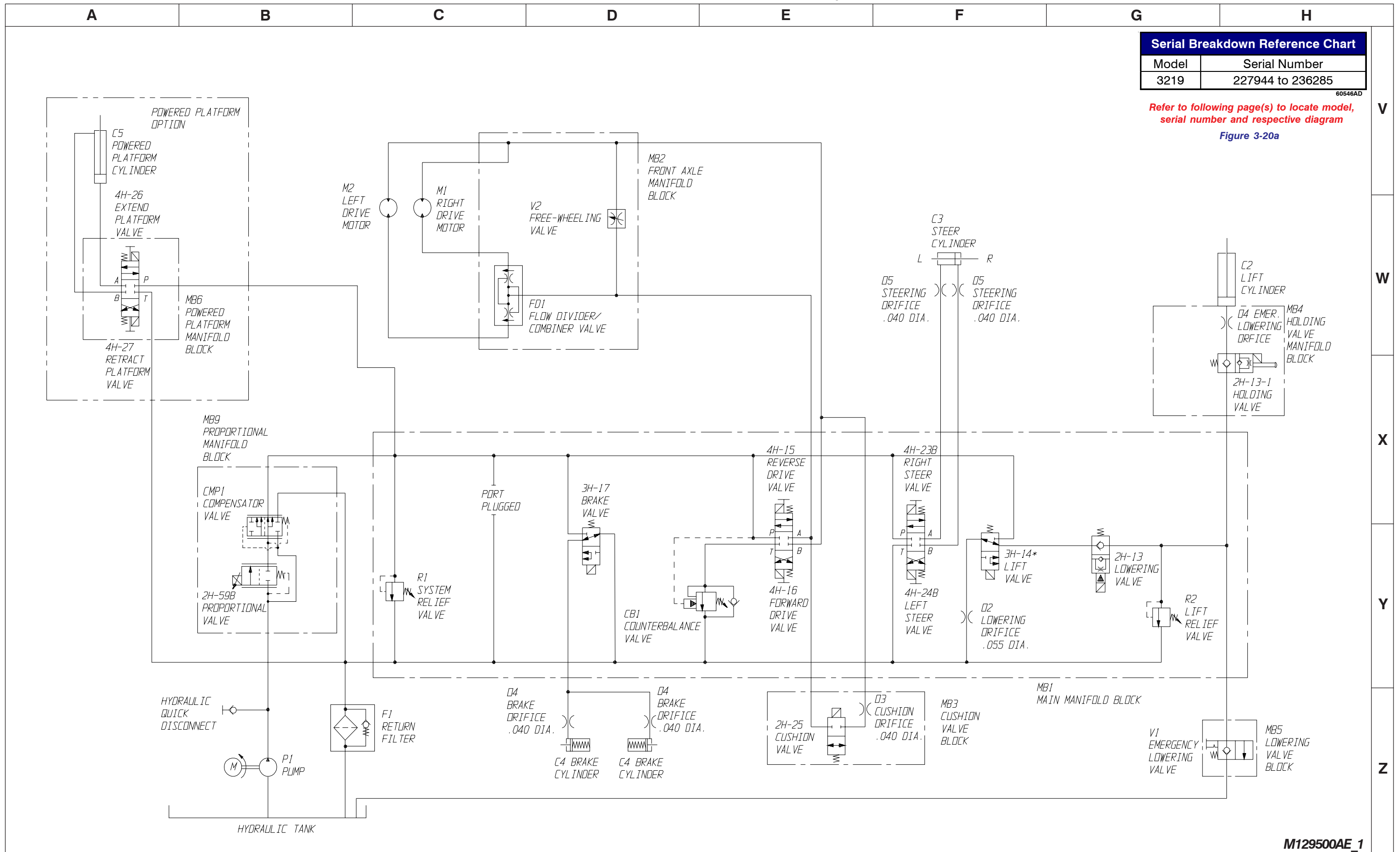
**FIGURE 3-19. HYDRAULIC SCHEMATIC PARTS LIST (All Options) (Continued)**

Ref. No.	Skyjack Part No.	Description	Units per Assy
<b>Parts list continued from the previous page.</b>			
MB1	107354	MANIFOLD BLOCK, Main	1
MB2	107369	MANIFOLD BLOCK, Front axle	1
MB3	103615	MANIFOLD BLOCK, Cushion valve	1
MB4	106689	MANIFOLD BLOCK, Holding valve	1
MB5	107493	MANIFOLD BLOCK, Manual lowering valve	1
MB6	107382	MANIFOLD BLOCK, Powered extension platform (option)	1
O2	108053	ORIFICE, Lowering .055 diameter	1
O3	108002	ORIFICE, Cushion .040 diameter	1
O4	105811	ORIFICE, Brake .040 diameter	1
O5	108002	ORIFICE, Steering .040 diameter	2
P1	310567	PUMP, Hydraulic	1
<b>Use Part # 117140 (Standard models) or Part # 109216 (EE rated models) with Serial numbers 150611 (3015) or 227665 (3219) and below.</b>			
R1	104534	VALVE, System relief	1
R2	104534	VALVE, Lift relief	1
R3	106557	VALVE, Relief	1
V1	107271	VALVE, Manual lowering	1
V2	103136	VALVE, Free-wheeling	1

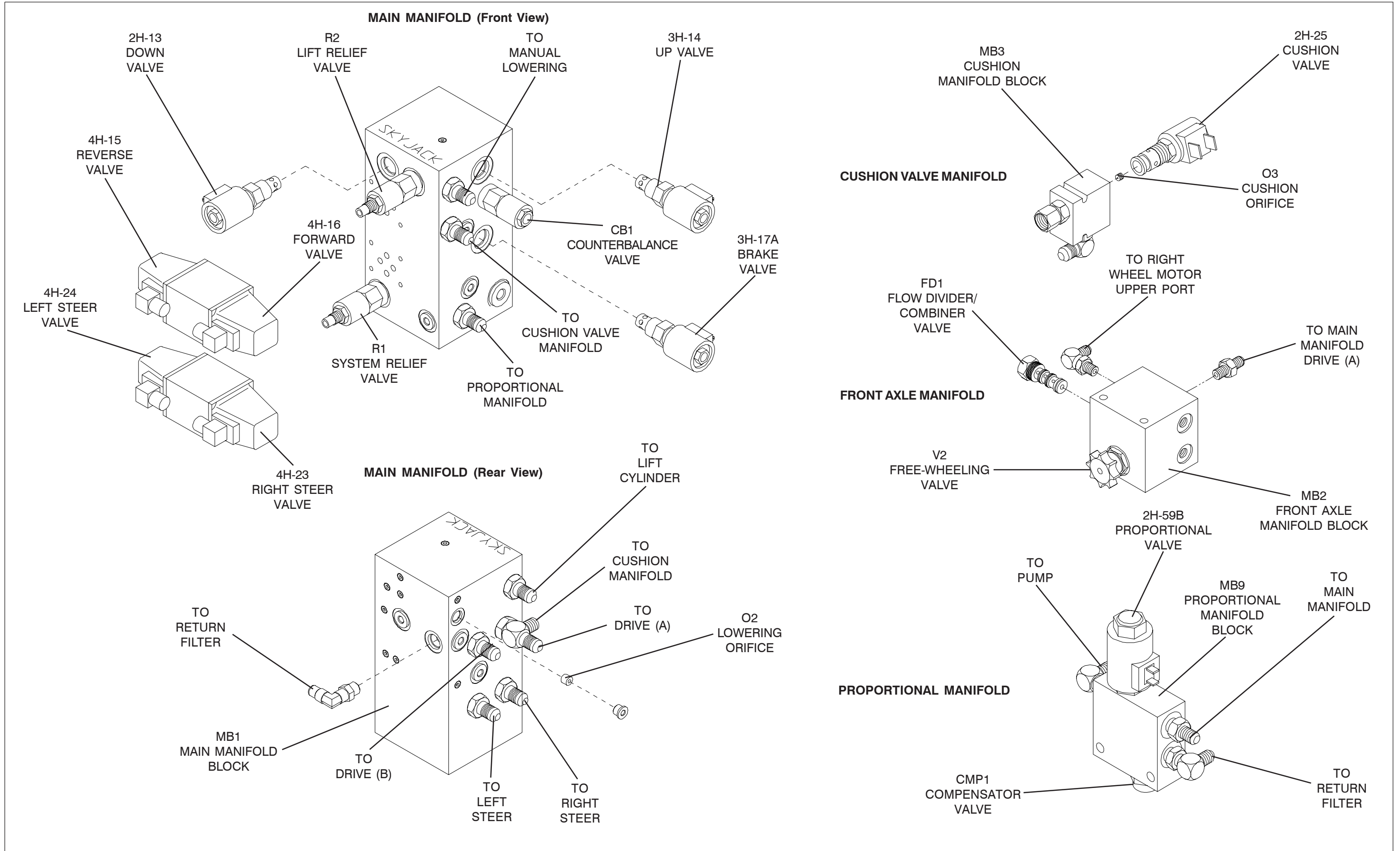


FIGURE 3-20b. HYDRAULIC SCHEMATIC - All Options

AH



**FIGURE 3-21. HYDRAULIC MANIFOLD COMPONENT AND PORT IDENTIFICATION**



# SECTION 4

## TROUBLESHOOTING INFORMATION

The following pages contain a Table of Troubleshooting information for locating and correcting most service trouble which can develop. Careful inspection and accurate analysis of the systems listed in the Table of Troubleshooting Information will localize the trouble more quickly than any other method. This manual cannot cover all possible troubles and deficiencies that may occur. If a specific trouble is not listed, isolate the major component in which the trouble occurs, isolate whether the problem is electrical or hydraulic, and then isolate and correct the specific problem.

### TROUBLESHOOTING INFORMATION

#### ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
ALL CONTROLS INOPERATIVE	<ol style="list-style-type: none"> <li>1. Battery Charger plugged into external power source.</li> <li>2. Batteries disconnected.</li> <li>3. Dirty or loose battery terminals.</li> <li>4. Battery charge low.</li>   <li>5. Main battery cables open or defective.</li> <li>6. Fuse (F1) defective.</li> <li>7. Main Battery Disconnect Switch (S1) open or defective.</li> <li>8. Loose or broken wire #3 from Motor Contactor (C1) to Circuit Breaker (CB2).</li> <li>9. Defective Battery Charger Relay (L1CR).</li> <li>10. Loose or broken wire #03A from Battery Charger Relay (L1CR) to Circuit Breaker (CB2).</li> <li>11. Defective or tripped Circuit Breaker (CB2).</li> <li>12. Loose or broken wire #7 from Charger Relay (L1CR) to Base Terminal Block (TB-1).</li> <li>13. Loose or broken wire #00 from Pump Motor (DCM1) to Circuit Breaker (CB1).</li> <li>14. Defective or tripped Circuit Breaker (CB1).</li> <li>15. Loose or broken wire #2 from Circuit Breaker (CB1) to Base Terminal Block (TB-1).</li> <li>16. Loose or broken wire #19 from Base Terminal Block (TB-1) to Contactor (C1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Disconnect charger cord.</li> <li>2. Connect batteries.</li> <li>3. Clean and tighten connections.</li> <li>4. Check each cell with hydrometer. Reading should be 1.275 (fully charged). Recharge if low reading. Replace if reading difference between cells is 0.050.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Replace fuse.</li> <li>7. Close switch. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective</li> <li>9. Check relay. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Reset circuit breaker. Replace if defective.</li> <li>12. Check continuity. Replace if defective.</li> <li>13. Check continuity. Replace if defective.</li> <li>14. Reset circuit breaker. Replace if defective.</li> <li>15. Check continuity. Replace if defective.</li> <li>16. Check continuity. Replace if defective.</li> </ol>



# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>ALL CONTROLS INOPERATIVE (Cont.)</b>	17. Loose or broken wire #2 from Contactor (C1) to Base Terminal Block (TB-1). 18. Contactor (C1) defective.  19. Defective Pump Motor (DCM1). 20. Loose or broken wire #59B from Relay (21CR) to Proportional Valve Coil (2H-59B). 21. Loose or broken wire #02 from Proportional Valve Coil (2H-59B) to Base Terminal Block (TB-1). 22. Defective Proportional Valve Coil (2H-59B).	17. Check continuity. Replace if defective.  18. Check contactor. Replace if defective. 19. Check motor. Replace if defective. 20. Check continuity. Replace if defective.  21. Check continuity. Replace if defective.  22. Check continuity through coil. Reading should be 19ohms. Replace if defective.
<b>ALL CONTROLS INOPERATIVE FROM PLATFORM (Machines without Power Deck)</b>	1. Loose or broken wire #07 from Base Terminal Block (TB-1) to Platform Emergency Stop Switch (S4). 2. Open or defective Platform Emergency stop switch (S4). 3. Loose or broken wire #7A from Platform Emergency Stop Switch (S4) to Key Switch (S3). 4. Open or defective Key Switch (S3). 5. Loose or broken wire #7B from Keyswitch (S3) to Battery charge Indicator (BCI). 6. Loose or broken wire #7B from Battery Charge Indicator BCI to Joystick (S7).	1. Check continuity. Replace if defective.  2. Close switch. Replace if defective.  3. Check continuity. Replace if defective.  4. Close switch. Replace if defective. 5. Check continuity. Replace if defective.  6. Check continuity. Replace if defective.
<b>ALL CONTROLS INOPERATIVE FROM PLATFORM (Machines with Power Deck)</b>	1. Loose or broken wire #07 from Base Terminal Block (TB-1) to Platform Emergency Stop Switch (S4). 2. Open or defective Emergency Stop Switch (S4). 3. Loose or broken wire #7A from Platform Emergency Stop Switch (S4) to Key Switch (S3). 4. Open or Defective Key Switch (S3). 5. Loose or broken wire #7B from Key Switch (S3) to Lift/Drive Select Switch (S5). 6. Defective Lift/Drive Select Switch (S5).	1. Check continuity. Replace if defective.  2. Close switch. Replace if defective.  3. Check continuity. Replace if defective.  4. Close switch. Replace if defective. 5. Check continuity. Replace if defective.  6. Check switch. Replace if defective.



# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>LIFT AND DRIVE INOPERATIVE FROM PLATFORM CONTROLS</b>	<ol style="list-style-type: none"> <li>1. Defective Neutral Switch (S7-1) in Joystick Controller (S7).</li> <li>2. Defective A/B switch (S74) in Joystick Controller (S7).</li> <li>3. Circuit Board (S7-1) defective.</li> <li>4. Loose or broken wire #59 from Joystick Controller (S7) to Platform Terminal Block (TB-2).</li> <li>5. Loose or broken wire #59 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check switch. Replace if defective.</li> <li>3. Refer to Section 5, P.Q. Controller Test Procedure.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> </ol>
<b>NO DOWN OR REVERSE ONLY FUNCTION FROM PLATFORM CONTROLS</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire "A" from Proportional Controller (S7) to Lift/Drive Switch (S5).</li> <li>2. Lift/Drive Switch (S5) defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check Switch. Replace if defective.</li> </ol>
<b>NO UP OR FORWARD ONLY FUNCTION FROM PLATFORM CONTROLS</b>	<ol style="list-style-type: none"> <li>1. A/B Switch (S74) in Proportional Controller open or defective.</li> <li>2. Loose or broken wire "B" from Proportional Controller (S7) to Lift/Drive Select Switch (S5).</li> <li>3. Lift Drive Select Switch (S5) defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> </ol>
<b>NO UP FUNCTION FROM PLATFORM OR BASE CONTROLS (for units not equipped w/ Tilt Cut-out option)</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #14 from Base Terminal Block (TB-1) to Up Valve Coil (3H-14).</li> <li>2. Defective Up Valve Coil (3H-14).</li> <li>3. Open Diode (D14A).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity through coil. Replace if defective.</li> <li>3. Check diode. Replace if defective.</li> </ol>
<b>NO UP FUNCTION FROM PLATFORM OR BASE CONTROLS (for machines equipped with Tilt Cut-out options)</b>	<ol style="list-style-type: none"> <li>1. Machines not level.</li> <li>2. Loose or broken wire 19 from Base Terminal Block (TB-1) to Tilt Switch Fuse (F2).</li> <li>3. Blown or defective Tilt Switch Fuse (F2).</li> <li>4. Defective Tilt Switch (TS1).</li> <li>5. Loose or broken wire #28 from Tilt Switch (TS1) to Tilt Relay (28CR).</li> <li>6. Loose or broken wire #02 from Tilt Switch (TS1) to Terminal Strip (TB-1).</li> <li>7. Defective Tilt Relay (28CR).</li> <li>8. Loose or broken wire #19A from Tilt Relay (28CR) to Pump Motor Contactor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use on level surface.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Test Tilt switch. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check relay. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<p><b>NO DOWN FUNCTION FROM PLATFORM CONTROLS</b></p> <p><b>NOTE: Down function is NOT Proportionally Controlled.</b></p>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #13 from Lift/ Drive Select Switch (S5) to base terminal Block (TB-1).</li> <li>2. Loose or broken wire #13 from Base Terminal Block (TB-1) to Down Valve (2H-13).</li> <li>3. Down valve coil (2H-13) defective.</li> <li>4. Loose or broken wire #2 from Down Valve Coil (2H-13) to Base Terminal Block (TB-1).</li> <li>5. Loose or broken wire #13 from Down Valve Coil (2H-13) to Lift Cylinder Holding Valve(s) (2H-13-1).</li> <li>6. Defective Lift Cylinder Holding Valve Coil(s) (2H-13-1).</li> <li>7. Loose or broken wire #02 from Lift Cylinder Holding Valve Coil(s) (2H-13-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity through coil. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity through coil. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> </ol>
<p><b>NO DOWN FUNCTION FROM PLATFORM CONTROLS (CE Machines Only)</b></p>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #13 from Base Terminal Block (TB-1) to Lowering Warning System Module (LWS1).</li> <li>2. Defective LWS Time Delay Relay (41CR).</li> <li>3. Loose or broken wire #13A from Lowering Warning System Module (LWS1) to Base Terminal Block (TB-1).</li> <li>4. Loose or broken wire #13A from base Terminal Block (TB-1) to Down Valve Coil (2H-13A).</li> <li>5. Defective Down Valve Coil (2H-13A).</li> <li>6. Loose or broken wire #13A from Down Valve Coil (2H-13A) to Base Terminal Block (TB-1).</li> <li>7. Loose or broken wire # 13A from Down Valve Coil (2H-13A) to Lift Cylinder Holding Valve (2H-13A-1).</li> <li>8. Defective Lift Cylinder Holding Valve (2H-13A-1).</li> <li>9. Loose or broken wire #02 from Lift Cylinder Holding Valve to Down Valve Coil (2H-13A).</li> <li>10. Loose or broken wire #07 from Base Terminal Block (TB-1) to High Speed Limit Switch (LS1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check relay. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity through coil. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity through coil. Replace if defective.</li> <li>9. Check continuity. Replace if defective.</li> <li>10. Check Continuity. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>NO DOWN FUNCTION FROM PLATFORM CONTROLS (CE Machines Only) (Continued)</b>	<ol style="list-style-type: none"> <li>11. Defective High Speed Limit Switch (LS1).</li> <li>12. Loose or broken wire #39 from High Speed Limit Switch (LS1). to Base Terminal Block (TB-1).</li> <li>13. Loose or broken wire #39 from Base Terminal Block (TB-1) to Lowering Warning System Module (LWS1).</li> <li>14. Defective LWS Limit Switch Relay (39CR).</li> </ol>	<ol style="list-style-type: none"> <li>11. Check switch. Replace if defective.</li> <li>12. Check switch. Replace if defective.</li> <li>13. Check switch. Replace if defective.</li> <li>14. Check relay. Replace if defective.</li> </ol>
<b>LOWERING WARNING SYSTEM INOPERATIVE (CE Machines Only)</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #10A from Base Terminal Block (TB-1) to Lowering Warning System Module (LWS1).</li> <li>2. Loose or broken wire #02 from Base Terminal Block (TB-1) to Lowering Warning System Module (LWS1)</li> <li>3. Defective LWS Limit Switch Relay (39CR).</li> <li>4. Defective Time Delay Cut-out Relay (13BCR).</li> <li>5. Defective Time Delay Relay (41CR).</li> <li>6. Defective Latching Relay (42CR).</li> <li>7. Defective High Speed Limit Switch (LS1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check relay. Replace if defective.</li> <li>4. Check relay. Replace if defective.</li> <li>5. Check relay. Replace if defective.</li> <li>6. Check relay. Replace if defective.</li> <li>7. Check switch. Replace if defective.</li> </ol>
<b>PLATFORM LIFTS SLOW FROM PLATFORM CONTROLS AND BASE CONTROLS</b>	<ol style="list-style-type: none"> <li>1. Open Diode D14A-1.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check diode. Replace if defective.</li> </ol>
<b>STEER ONLY INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Defective Relay (17CR2)</li> <li>2. Loose or broken wire #59 from Relay (CR2) to Relay (21ACR).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check relay. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> </ol>
<b>DRIVE ONLY INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Open Diode (D17).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check diode. Replace e if defective.</li> </ol>
<b>NO DRIVE OR STEER WHEN PLATFORM FULLY LOWERED (All machines)</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #71 from Base Terminal Block (TB-1) to Drive Override Limit Switch (LS6).</li> <li>2. Defective Drive Override Switch (LS6).</li> <li>3. Loose or broken wire #19 from Drive Override Limit Switch (LS6) to Base Terminal Block (TB-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check switch. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>NO DRIVE OR STEER WHEN PLATFORM ELEVATED (All machines)</b>	<ol style="list-style-type: none"> <li>1. Pot Hole Protection Bars not fully lowered.</li> <li>2. Loose or broken wire #71 from Base Terminal Block (TB-1) to Pot Hole Protection Limit Switch (LS4).</li> <li>3. Defective Pot Hole Protection Limit Switch (LS4).</li> <li>4. Loose or broken wire #72 from Pothole Protection Limit Switch (LS4) to Pothole Protection Limit Switch (LS5).</li> <li>5. Defective Pothole Protection Limit Switch (LS5).</li> <li>6. Loose or broken wire #19 from Pothole Protection Limit Switch to Base Terminal Block (TB-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Clear obstructions. Repair as needed.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check switch. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> </ol>
<b>NO DRIVE OR STEER FROM PLATFORM (Machines with Powered Platform Only)</b>	<ol style="list-style-type: none"> <li>1. Defective Lift/Drive Select Switch (S5).</li> <li>2. Loose or broken wire #12 from Lift/Drive Select Switch (S5) to Platform Terminal Block (TB-2).</li> <li>3. Loose or broken wire #12 from Platform Terminal Block (TB-2) to Powered Platform Limit Switch (LS2).</li> <li>4. Open or defective Powered Platform Limit Switch (LS2).</li> <li>5. Loose or broken wire #12A from Powered Platform Limit Switch (LS2).</li> <li>6. Loose or broken wire #12A from Powered Platform Limit Switch (LS2) to Platform Terminal Block (TB-2).</li> <li>7. Open Diode (D12A).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check switch. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check diode. Replace if defective.</li> </ol>
<b>RIGHT STEER INOPERATIVE (Machines without Powered Platform)</b>	<ol style="list-style-type: none"> <li>1. Defective Steer Right Switch (S72).</li> <li>2. Loose or broken wire #23 from Steer Right Switch (S72) to Lift/Drive Select Switch (S5).</li> <li>3. Defective Lift/Drive Select Switch (S5).</li> <li>4. Loose or broken wire #23A from Lift/Drive Select Switch (S5) to Platform Terminal Block (TB-2).</li> <li>5. Loose or broken wire #23A from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).</li> <li>6. Loose or broken wire #23A from Base Terminal Block (TB-1) to Steer Right Valve Coil (4H-23A).</li> <li>7. Defective Steer Right Valve Coil (4H-23A).</li> <li>8. Loose or broken wire #02 from Steer Right Valve Coil (4H-23A) to Base Terminal Block (TB-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity through coil. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>RIGHT STEER INOPERATIVE (Machines without Powered Platform) (Cont.)</b>	<ol style="list-style-type: none"> <li>9. Open Diode (D23A).</li> <li>10. Open Diode (D23A-1)</li> </ol>	<ol style="list-style-type: none"> <li>9. Check diode. Replace if defective.</li> <li>10. Check diode. Replace if defective.</li> </ol>
<b>LEFT STEER INOPERATIVE (Machines without Powered Platform)</b>	<ol style="list-style-type: none"> <li>1. Defective Steer Left Switch (S73).</li> <li>2. Loose or broken wire #24 from Steer Left Switch (S73) to Lift/Drive Select Switch (S5).</li> <li>3. Defective Lift/Drive Select Switch (S5).</li> <li>4. Loose or broken wire #24A from Lift/Drive Select Switch (S5) to Platform Terminal Block (TB-2).</li> <li>5. Loose or broken wire #24A from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).</li> <li>6. Loose or broken wire #24A from Base Terminal Block (TB-1) to Steer Left Valve Coil (4H-24A).</li> <li>7. Defective Steer Left Valve Coil (4H-24A)</li> <li>8. Loose or broken wire #02 from Steer Left Valve (4H-24A) to Base Terminal Block (TB-1)</li> <li>9. Open Diode (D24A).</li> <li>10. Open Diode (D23A-1)</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check diode. Replace if defective.</li> <li>10. Check diode. Replace if defective.</li> </ol>
<b>RIGHT STEER INOPERATIVE (Machines with a Powered Platform)</b>	<ol style="list-style-type: none"> <li>1. Defective Right Steer Switch (S72).</li> <li>2. Loose or broken wire #23 from Right Steer Switch (S72) to Platform Terminal Block (TB-2).</li> <li>3. Loose or broken wire #23 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).</li> <li>4. Loose or broken wire #23 from Base Terminal Block (TB-2) to Steer Right Valve Coil (4H-23).</li> <li>5. Defective Steer Right Valve Coil (4H-23).</li> <li>6. Loose or broken wire #02 from Steer Right Valve Coil (4H-23) to Base Terminal Block (TB-1).</li> <li>7. Open Diode (D23).</li> <li>8. Open Diode (D23-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity through coil. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check diode. Replace if defective.</li> <li>8. Check diode. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>LEFT STEER INOPERATIVE (Machines with a Powered Platform)</b>	<ol style="list-style-type: none"> <li>1. Defective Left Steer Switch (S73).</li> <li>2. Loose or broken wire #24 from Left Steer Switch (S73) to Platform Terminal Block (TB-2).</li> <li>3. Loose or broken wire #24 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).</li> <li>4. Loose or broken wire #24 from Base Terminal Block (TB-1) to Steer Left Valve Coil (4H-24).</li> <li>5. Defective Steer Left Valve Coil (4H-24).</li> <li>6. Loose or broken wire #02 from Steer Left Valve Coil (4H-24) to Base Terminal Block (TB-1).</li> <li>7. Open Diode (D24).</li> <li>8. Open Diode (D24-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity through coil. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check diode. Replace if defective.</li> <li>8. Check diode. Replace if defective.</li> </ol>
<b>NO ELEVATED DRIVE FUNCTION</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #59 from Proportional Relay (21CR) to Resistor (RST2).</li> <li>2. Resistor (RST2) open.</li> <li>3. Loose or broken wire #59 from Resistor (RST2) to Proportional Relay (21CR).</li> <li>4. Proportional Relay (21CR) defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. OHM Check Resistor, it should be 30 ohms. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check relay, replace if defective.</li> </ol>
<b>WORK PLATFORM DRIVES IN SLOW SPEED ONLY</b>	<ol style="list-style-type: none"> <li>1. Open Diode (D17-1).</li> <li>2. Loose or broken wire #17A from Base Terminal Block (TB-1) to High Speed Limit Switch (LS1).</li> <li>3. Open or defective High Speed Limit Switch (LS1).</li> <li>4. Loose or broken wire #21 from High Speed Limit Switch to Base Terminal Block (TB-1).</li> <li>5. Defective Cushion Relay (17CR).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check Diode. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check Switch. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check Relay. Replace if defective.</li> </ol>
<b>FORWARD DRIVE FUNCTION INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #16 from Lift/ Drive Select Switch (S5) to Base Terminal Block (TB-1).</li> <li>2. Loose or broken wire #16 from Base Terminal Block (TB-1) to Forward Drive Valve Coil (4H-16).</li> <li>3. Forward Drive Valve Coil (4H-16) defective.</li> <li>4. Loose or broken wire #02 from Forward Drive Valve Coil (4H-16) to Base Terminal Block (TB-1).</li> <li>5. Open Diode (D16).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity through coil. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check diode. Replace if defective.</li> </ol>



# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>REVERSE DRIVE FUNCTION INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #15 from Lift/Drive Select Switch (S5) to Base Terminal Block (TB-1).</li> <li>2. Loose or broken wire #15 from Base Terminal Block (TB-1) to Reverse Drive Valve Coil (4H-15).</li> <li>3. Reverse Drive Valve Coil (4H-15) defective.</li> <li>4. Loose or broken wire #02 from Reverse Drive Valve Coil (4H-15) to Base Terminal Block (TB-1).</li> <li>5. Open Diode (D15).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity through coil. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check diode. Replace if defective.</li> </ol>
<b>BRAKE WILL NOT RELEASE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #17 from Base Terminal Block (TB-1) to Brake Valve Coil (3H-17).</li> <li>2. Brake Valve Coil (3H-17A) defective.</li> <li>3. Loose or broken wire #02 from Brake Valve Coil (3H-17A) to Base Terminal Block (TB-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity through coil. Replace if defective.</li> <li>3. Check continuity through coil. Replace if defective.</li> </ol>
<b>LIFT INOPERATIVE FROM BASE CONTROLS (CE Machines Only)</b>	<ol style="list-style-type: none"> <li>1. Defective Base/Off/Platform Select Switch (S3).</li> <li>2. Loose or broken wire #10E from Base/Off/Platform Select Switch (S3) to Platform Terminal Block (TB-2).</li> <li>3. Loose or broken wire #10E from Base Terminal Block (TB-1).</li> <li>4. Loose or broken wire #10E from Base Terminal Block (TB-1) to Lift Up/Down Switch (S2) in Base Control Box.</li> <li>5. Open Diode (D10E)</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check Diode. Replace if defective.</li> </ol>
<b>LIFT UP INOPERATIVE FROM BASE CONTROLS</b>	<ol style="list-style-type: none"> <li>1. Defective Up/Down Switch (S2).</li> <li>2. Loose or broken wire #14E from Up/Down Switch (S2) to Base Terminal Block (TB-1).</li> <li>3. Open Diode (D14E).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check Diode. Replace if defective.</li> </ol>
<b>LIFT DOWN INOPERATIVE FROM BASE CONTROLS</b>	<ol style="list-style-type: none"> <li>1. Defective Up/Down Switch (S2).</li> <li>2. Loose or broken wire #13 from Up/Down Switch (S2) to Base Terminal Block (TB-1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>TWO OR MORE FUNCTIONS AT ONE TIME</b>	1. Shorted Diode.	1. Check continuity of all Diodes. Replace if defective.
<b>POWERED PLATFORM EXTENSION WILL NOT EXTEND OR RETRACT</b>	<ol style="list-style-type: none"> <li>1. Lift/Drive Select Switch (S5) not in lift position.</li> <li>2. Loose or broken wire #09 from Platform Terminal Block TB-2 to Powered Platform Enable Switch (S12).</li> <li>3. Powered Platform Enable Switch (S12) defective.</li> <li>4. Loose or broken wire #09A from Powered Platform Enable Switch (S12) to Platform Extend/Retract Switch (S11).</li> <li>5. Loose or broken wire #19 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).</li> <li>6. Loose or broken wire #02 from Extend/Valve Coil (4H-26) to Retract Valve Coil (4H-27) to Platform Terminal Block (TB-2).</li> </ol>	<ol style="list-style-type: none"> <li>1. Move switch to lift position.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> </ol>
<b>POWERED EXTENSION PLATFORM WILL NOT EXTEND</b>	<ol style="list-style-type: none"> <li>1. Powered Platform Extend/Retract Switch (S11) defective.</li> <li>2. Loose or broken wire #26 from Powered Platform Extend/Retract Switch (S11) to extend Valve Coil (4H-26).</li> <li>3. Extend Valve Coil (4H-26) defective.</li> <li>4. Open Diode (D26).</li> <li>5. Loose or broken wire #02 from Extend Valve Coil (4H-26).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity through coil, replace if defective.</li> <li>4. Check diode. Replace if defective.</li> <li>5. Check continuity through coil. Replace if defective.</li> </ol>
<b>POWERED EXTENSION PLATFORM WILL NOT RETRACT</b>	<ol style="list-style-type: none"> <li>1. Powered Platform Extend/Retract Switch (S11) defective.</li> <li>2. Loose or broken wire #27 from Powered Platform Extend/Retract Switch (S11) to Retract Valve Coil (4H-27).</li> <li>3. Retract Valve Coil (4H-27) defective.</li> <li>4. Open Diode (D27).</li> <li>5. Loose or broken wire #02 from Retract Valve Coil (4H-27).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity through coil, replace if defective.</li> <li>4. Check diode. Replace if defective.</li> <li>5. Check continuity, replace if defective.</li> </ol>



# TROUBLESHOOTING INFORMATION

## HYDRAULIC SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>ALL FUNCTIONS INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Proportional Valve (2H-59B) defective or is sticking.</li> <li>2. Compensator Valve (CMP1) defective or is sticking.</li> <li>3. Pump (P1) defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Replace if defective.</li> <li>2. Check valve. Replace if defective.</li> <li>3. Check pump. Replace if defective.</li> </ol>
<b>PLATFORM DRIFTS DOWN</b>	<ol style="list-style-type: none"> <li>1. Defective Lift Cylinder Seals.</li> <li>2. Combination of: Defective Holding Valves (2H-13-1) and either defective Lowering Valve (2H-13) or Relief Valve (R2) or Manual Lowering Valve (V1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Rebuild cylinder. Replace if damaged.</li> <li>2. Check valves. Replace if defective.</li> </ol>
<b>PLATFORM LIFTS SLOWLY</b>	<ol style="list-style-type: none"> <li>1. Open or leaking Manual Lowering Valve (V1).</li> <li>2. Lift Relief Valve (R2) defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close valve. Replace if defective.</li> <li>2. Check valve. Replace if defective.</li> </ol>
<b>PLATFORM DOES NOT LIFT</b>	<ol style="list-style-type: none"> <li>1. Open Manual Lowering Valve (V1).</li> <li>2. Hydraulic oil level too low.</li> <li>3. Platform weight excessive.</li> <li>4. Up Valve (3H-14) defective or is sticking.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close valve. Replace if defective.</li> <li>2. Fully lower the platform. Fill hydraulic tank until fluid is at or slightly above the top mark on the sight glass.</li> <li>3. Reduce platform load to maximum capacity.</li> <li>4. Check valve. Replace if defective.</li> </ol>
<b>PLATFORM WILL NOT LOWER</b>  <b>NOTE: Down function is NOT Proportionally controlled</b>	<ol style="list-style-type: none"> <li>1. Lowering Valve (2H-13) defective or is sticking.</li> <li>2. Defective Holding Valve (2H-13-1) through (2H-13-4).</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean valve. Replace if defective.</li> <li>2. Check valve. Replace if defective.</li> </ol>
<b>PLATFORM DRIVES SLOW</b>	<ol style="list-style-type: none"> <li>1. Free-Wheeling Valve (V2) open or defective.</li> <li>2. Flow Divider/Combiner (FD1) defective or is plugged.</li> <li>3. Drive Motor (M1) or (M2) defective.</li> <li>4. Cushion Valve (2H-25) stuck or defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close valve. Replace if defective.</li> <li>2. Check valve. Replace if defective.</li> <li>3. Check motors. Replace if defective.</li> <li>4. Check valve. Replace if defective.</li> </ol>
<b>PLATFORM WILL NOT DRIVE IN FORWARD OR REVERSE</b>	<ol style="list-style-type: none"> <li>1. Open Free-Wheeling Valve (V2).</li> <li>2. Forward Drive Valve (4H-16) or Reverse Drive Valve (4H-15) defective or is sticking.</li> <li>3. Flow/Divider/Combiner Valve (FD1) defective or is plugged.</li> <li>4. Counterbalance Valve (CB1) defective or is plugged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close Valve. Replace if defective.</li> <li>2. Clean Valve. Replace if defective.</li> <li>3. Clean Valve. Replace if defective.</li> <li>4. Clean Valve. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## HYDRAULIC SYSTEM (Continued)

TROUBLE	PROBABLE CAUSE	REMEDY
<b>BRAKE(S) WILL NOT RELEASE</b>	<ol style="list-style-type: none"> <li>1. Brake Valve (3H-17) defective or is sticking.</li> <li>2. Brake Orifice(s) (O4) plugged.</li> <li>3. Brake Cylinder(s) (C4) defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean valve. Replace if defective.</li> <li>2. Remove orifice(s). Clean and reinstall.</li> <li>3. Rebuild cylinder(s). Replace if damaged.</li> </ol>
<b>PLATFORM DOES NOT STEER</b>	<ol style="list-style-type: none"> <li>1. Right Steer Valve (4H-23A) or Left Steer Valve (4H-24A) defective or sticking.</li> <li>2. Steer Cylinder (C3) seals leaking.</li> <li>3. Mechanical binding in King Pins.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean valve. Replace if defective.</li> <li>2. Rebuild cylinder(s). Replace if damaged.</li> <li>3. Check for binding. Repair as needed.</li> </ol>
<b>ALL SYSTEMS SLUGGISH</b>	<ol style="list-style-type: none"> <li>1. System Relief Valve defective or not adjusted properly.</li> <li>2. Hydraulic pump (P1) worn.</li> <li>3. Compensator Valve (CMP1) defective.</li> <li>4. Proportional Valve (2H-59B) contaminated or defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust valve. Replace if defective.</li> <li>2. Check pump. Replace if defective.</li> <li>3. Clean. Replace if defective.</li> <li>4. Clean, replace if defective.</li> </ol>
<b>POWER EXTENSION PLATFORM WILL NOT EXTEND OR RETRACT</b>	<ol style="list-style-type: none"> <li>1. Platform Extend Valve (4H-26) or Platform Retract Valve (4H-27) defective or is sticking.</li> <li>2. Powered Platform Cylinder (C5) seals defective.</li> <li>3. Mechanical binding in powered platform mechanism.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean valve. Replace if defective.</li> <li>2. Rebuild cylinder. Replace if damaged.</li> <li>3. Check for binding. Repair as needed.</li> </ol>

# SECTION 5 MAINTENANCE AND SERVICE

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## Operator's Responsibility For Maintenance

Death or injury can result if the work platform is not kept in good working order. Inspection and maintenance should be performed by competent personnel who are familiar with mechanical procedures.

The operator should be assured that the work platform has been properly maintained and inspected before using it.

Even if the operator is not directly responsible for the maintenance of this work platform, the operator should perform ALL the daily inspections in the Maintenance and Inspection Schedule (Table 2-3.) found in Section 2 of this manual.

### Note

Replace all worn, damaged or missing parts or labels discovered during this inspection.

### **Danger** **Crushing Hazard**

**DO NOT** reach through scissors assembly without the safety bar properly positioned. **Failure to avoid this hazard will result in death or serious injury!**

## Maintenance And Inspection Schedule

The actual operating environment of the work platform governs the use of the maintenance schedule. The inspection points covered in the Maintenance and Inspection Schedule (Section 2, Table 2-3.) indicates the areas of the work platform to be maintained or inspected and at what intervals the maintenance and inspections are to be performed.

## Owner's Annual Inspection Record

It is the responsibility of the owner to arrange daily, weekly, monthly and annual inspections of the work platform. The Owner's Annual Inspection Record (Table 2-1. in Section 2) is to be used for recording the date of inspection, owner's name and the person responsible for the inspection of this work platform.

## General Maintenance Hints

- Properly position safety bar if the scissors assembly is raised.
- Before attempting any repair work, disconnect the battery ground (-) lead.
- Preventive maintenance is the easiest and least expensive type of maintenance.

## Hydraulic System And Component Maintenance And Repair

The following points should be kept in mind when working on the hydraulic system or any component:

1. Any structure has limits of strength and durability. To prevent failure of structural parts of hydraulic components, relief valves which limit pressure to safe operating values are included in the hydraulic circuits.
2. Tolerance of working parts in the hydraulic system are very close. Even small amounts of dirt or foreign material in the system can cause wear or damage to components, as well as general faulty operation of the hydraulic system. Every precaution must be taken to assure absolute cleanliness of the hydraulic oil.
3. Samples of hydraulic oil should be drawn from the reservoir every six months. These samples should be about two quarts and should be taken while the oil is warmed through normal operation of the system. If possible, the sample should be analyzed by a qualified lubrication specialist to determine whether it is suitable for further use. The intervals between oil changes depend on operating conditions and on the care used in keeping the oil clean.
4. Whenever there is a hydraulic system failure which gives reason to believe that there are metal particles or foreign materials in the system, drain and flush the entire system and replace the filter cartridges. A complete change of oil must be made under these circumstances.
5. Whenever the hydraulic system is drained, check the magnets in the hydraulic reservoir for metal particles. If metal particles are present, flush the entire system and add a new change of oil. The presence of metal particles also may indicate the possibility of imminent component failure. A very small amount of fine particles is normal.
6. **DO NOT** use synthetic or fire resistant oils in this work platform. Use ATF Dexron III (ESSO) or equivalent hydraulic oil. For conditions causing oil temperatures below -31°F (-35°C) and above 122°F (50°C) consult Skyjack, Inc.
7. All containers and funnels used in handling hydraulic oil must be absolutely clean. Use a funnel when necessary for filling the hydraulic oil reservoir, and fill the reservoir only through the filler opening. The use of cloth to strain the oil should be avoided to prevent lint from getting into the system.
8. When removing any hydraulic component, be sure to cap and tag all hydraulic lines involved. Also, plug the ports of the removed components.
9. All hydraulic components must be disassembled in spotlessly clean surroundings. During disassembly, pay particular attention to the identification of parts to assure proper reassembly. Clean all metal parts in a clean mineral oil solvent. Be sure to thoroughly clean all internal passages. After the parts have been dried thoroughly, lay them on a clean, lint-free surface for inspection.
10. Replace all o-rings and seals when overhauling any component. Lubricate all parts with clean hydraulic oil before reassembly. Use small amounts of petroleum jelly to hold o-rings in place during assembly.
11. Be sure to replace any lost hydraulic oil when completing the installation of the repaired component, and bleed any air from the system when required.
12. All hydraulic connections must be kept tight. A loose connection in a pressure line will permit the oil to leak out or air to be drawn into the system. Air in the system can cause damage to the components and noisy or erratic system operation.

**MAINTENANCE.** Three simple maintenance procedures have the greatest effect on hydraulic system performance, efficiency and life. Yet, the very simplicity of them may be reasons they are so often overlooked. What are they? Simply these:

1. Change filters regularly.
2. Maintain a sufficient quantity of clean hydraulic oil of the proper type and viscosity in the hydraulic reservoir.
3. Keep all connections tight.



Table 5-2. Torque Specifications

Directional valve mounting bolts	28-32 lbf.in		2.16 – 3.61 Nm					
Wheel mounting bolts	90 lbf.ft		122.02 Nm					
Wheel motor castle nut	200 lbf.ft		271.20 Nm					
Parking brake cylinder rod nut	35 lbf.ft		47.46 Nm					
Cartridge								
	Size							
Torque	08	38	58	10	12	16		
Lbf.ft (max)	20	20	20	25	35	50		
Lbf.in (max)	240	240	240	300	420	600		
Nm (max)	27.12	27.12	27.12	33.90	47.46	67.80		
Coils								
	Size							
Torque	All coils							
Lbf.ft (max)	4 to 5							
Lbf.in (max)	48 to 60							
Nm (max)	5.42 to 6.78							
SAE Plugs								
	Size							
Torque	2	4	5	6	8	10	12	16
Lbf.ft (max)	3	10	15	15	25	25	30	35
Lbf.in (max)	36	120	180	180	300	300	360	420
Nm (max)	4.07	13.56	20.34	20.34	33.90	33.90	40.68	47.46
Newton-meter = Nm		Pound-force foot = lbf.ft			Pound-force inch = lbf.in			

# System And Lift Pressure Adjustments

All adjustments **must** be made with a Calibrated Gauge.

Refer to the Serial Number Plate located on the rear of the machine for System and Lift Pressure values.

## System Relief Pressure Adjustment

1. Locate the System Pressure Quick Disconnect Port on the Main Manifold.  
[Refer to the Main Manifold Assembly in section 6 for location.](#)
2. Install a Calibrated 3000 PSI Gauge to the System Pressure Quick Disconnect Port.
3. Remove the Platform Control Box from the Guardrail and disconnect from the Main Control Cable.
4. Locate the Main Control Cable Plug at the rear of the machine.
5. Disconnect the Main Cable and connect the Platform Control Box into the Plug.
6. At the Main Manifold, loosen the Locknut on the System Relief Valve R1.  
[Refer to the Main Manifold Assembly in Section 6 for location.](#)
7. Select Drive with the Lift/Drive Select Switch on the Platform Control Box.
8. Engaged Steer Right and hold.
9. Observe reading on Gauge. Adjust the R1 System Relief Value listed on the Serial Number Plate. Turning the stem on the Relief Valve clockwise increases pressure. Turning the stem counterclockwise decreases pressure.
10. Release Steer Switch and tighten the Locknut.
11. Remove the gauge from the System Pressure Test Port.

## Lift Pressure Adjustment

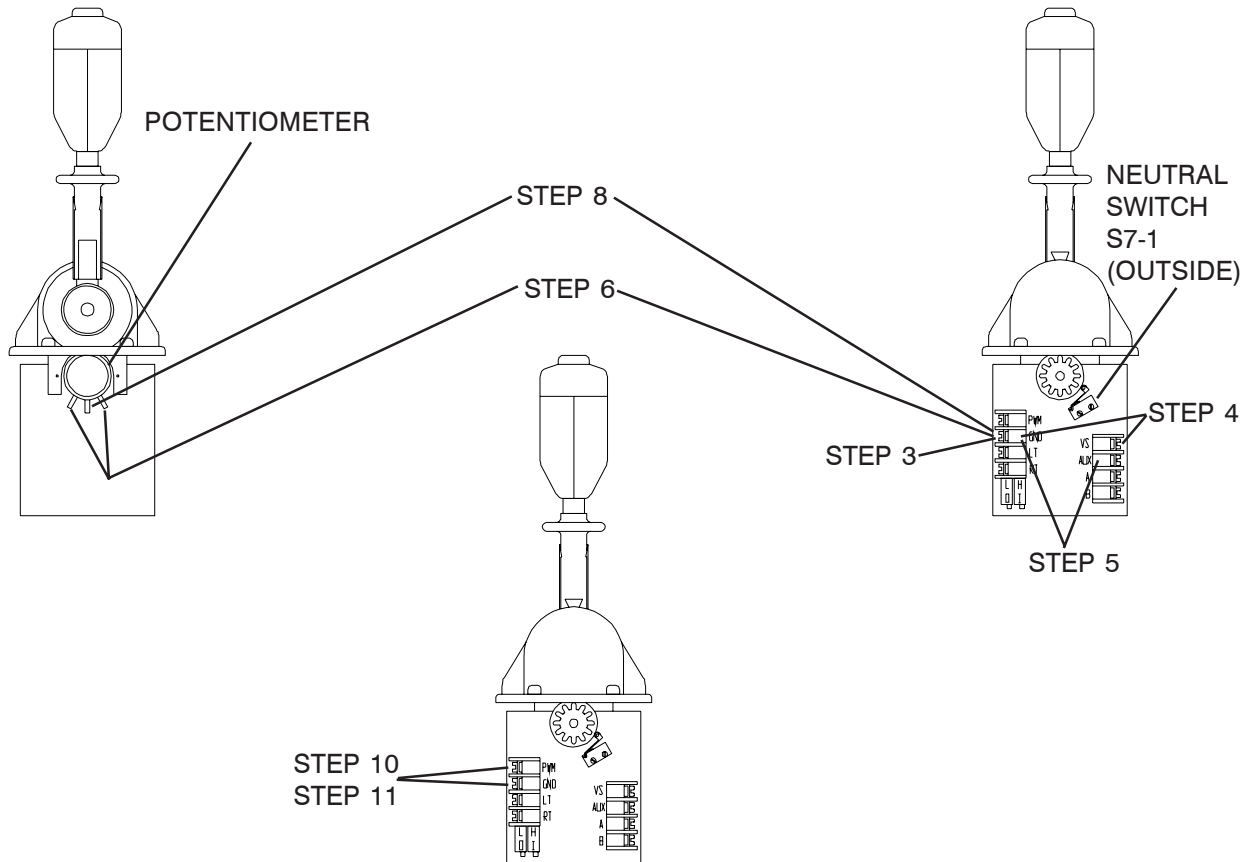
**Note:** Adequate area to raise the Platform to full height is required for the following steps.

1. Locate the Lift Pressure Test Port on the Main Manifold. [Refer to Section 6 \(Main Manifold Assembly\) for location.](#)
2. Install a Calibrated 3000 PSI Gauge to the Lift Pressure Quick Disconnect Port.
3. At the Main Manifold, loosen the Locknut on the Lift Relief Valve R2.
4. Close the Manual Lowering Valve. Using the Lift Switch at the Base Controls, raise the platform to full height and hold the Lift Up Switch on.
5. Observe the reading on the gauge. Adjust the R2 Relief Valve to the value listed on the Serial Number Plate. Turning the stem of the Relief Valve increases pressure. Turning the stem counterclockwise decreases pressure.
6. Remove the gauge from the Lift Pressure Test Port.

**Note:** Pressure setting may vary as machine components wear. The lift pressure should be set for rated load only.



## Controller Troubleshooting Procedure



**Figure 5-1. Proportional Controller**

1. Remove the bottom cover from the platform control box.
2. Select "DRIVE" with Lift\Drive Select Switch (S5).
3. Locate the "GND" terminal on Controller Circuit Board and attach Negative meter lead. Refer to Figure 5-1. for location.
4. Locate the "VS" terminal on Controller Circuit Board and measure voltage. Refer to Figure 5-1 For location. Reading should be 24 volts + or - 3 volts. If no voltage is present, refer to "No Drive or Steer From Platform" in Electrical Troubleshooting. If voltage present, go to Step 5.
5. Locate "AUX" terminal on Controller Circuit Board. Refer to Figure 5-1. for location. Lift lock ring on controller handle and move in either direction. Measure voltage at "AUX" terminal. Reading should be 24 volts + or - 3 volts. If no reading present, replace Neutral Switch S7-1. If voltage present, go to Step 6.
6. Locate the potentiometer on Controller Circuit Board. Refer to Figure 5-1. for location. While holding controller handle as in Step 5, measure voltage at outside terminals of potentiometer. Reading should be 20 - 21 volts. If no voltage present on one or both terminals, replace board. If voltage present, go to Step 7.
7. Release controller handle. Locate and attach meter lead to "AUX" terminal. Lift handle locking ring and slowly move handle, in either direction, until voltage on "AUX" terminal just turns on. Hold handle in this position.
8. Measure voltage on the center terminal of the potentiometer. Reading should be 20 - 21 volts. If no voltage present, replace board. If voltage is present, move controller handle **SLOWLY** to full stroke, while observing meter. Reading should drop smoothly to 18 volts. If voltage does not drop or drops erratically, replace board. If voltage drops smoothly, go to Step 9.
9. Hold controller handle in the "just on" position as in Step 7.
10. Locate "PWM" terminal on the controller board. Refer to Figure 5-1. for location. While holding handle as in Step 9, measure voltage on "PWM" terminal. Reading should be 4 - 5 volts at the just on position (threshold). If no voltage present, replace board. If reading too high or too low, refer to "Joystick Adjustment Procedure". Refer to [SECTION 5, Page 8](#). If correct voltage present, go to Step 11.
11. Move controller handle to the full stroke position. Reading should increase smoothly to 17 - 18 volts. If no voltage present or increases erratically, replace board. If correct voltage present and increases smoothly, refer to "All Controls Inoperative" in Electrical Troubleshooting"

## Controller Adjustment Procedure

**NOTE:** Described are two accepted methods to adjust the proportional controller. Method #1 requires a Volt\Ohm meter capable of reading milliamperes. If a meter is not available, use Method #2.

### Method #1

#### Note

Jack up drive axle until drive tires clear the ground. Chock other tires to prevent machine from moving.

1. Remove the bottom cover from the platform control box.
2. Locate and remove wire #59 from the "PWM" terminal of the controller board. Refer to Figure 5-2. for location.
3. Attach positive meter lead to the "PWM" terminal where wire #59 was removed.
4. Attach negative meter lead to wire #59.
5. Select "Amps" position on meter.
6. Select "DRIVE" with the Lift/Drive Select Switch (S5).
7. Lift the controller handle lockring and move handle in either direction until the pump motor just comes on. Hold handle in this position.
8. Locate the "LO" potentiometer on the controller board. Adjust the "LO" potentiometer until the meter reads 210 mA (.21 amps). Refer to Figure 5-2. for location.
9. Move controller handle to full stroke position and hold.
10. Locate "HI" potentiometer on controller board. Adjust the "HI" potentiometer until the meter reads 680 mA (.68 amps).

#### Note

Adjusting "LO" potentiometer will affect the "HI" potentiometer and vice versa. Repeat steps 7 through 10 until meter readings stabilize.

11. **Paint potentiometer screws with nail polish or RTV silicone, to prevent vibration from changing settings.**

### Method #2

#### Note

Adequate area to drive the work platform **MUST** be provided to use this method.

1. Remove the bottom cover from the platform control box.
2. Locate the "LO" and "HI" potentiometers on the controller board and turn both potentiometers 6 turns counterclockwise (CCW) each. Refer to Figure 5-3. for location.
3. Select "DRIVE" with the Lift/Drive Select Switch.
4. Lift the controller handle lock ring and move handle in either direction until pump motor just comes on. Hold this position.
5. Locate the "LO" potentiometer on the controller board. Turn the "LO" potentiometer clockwise (CW) until machines just starts to move.
6. Move controller handle to full stroke position. Turn the "HI" potentiometer clockwise (CW) until no increase in travel speed can be felt.

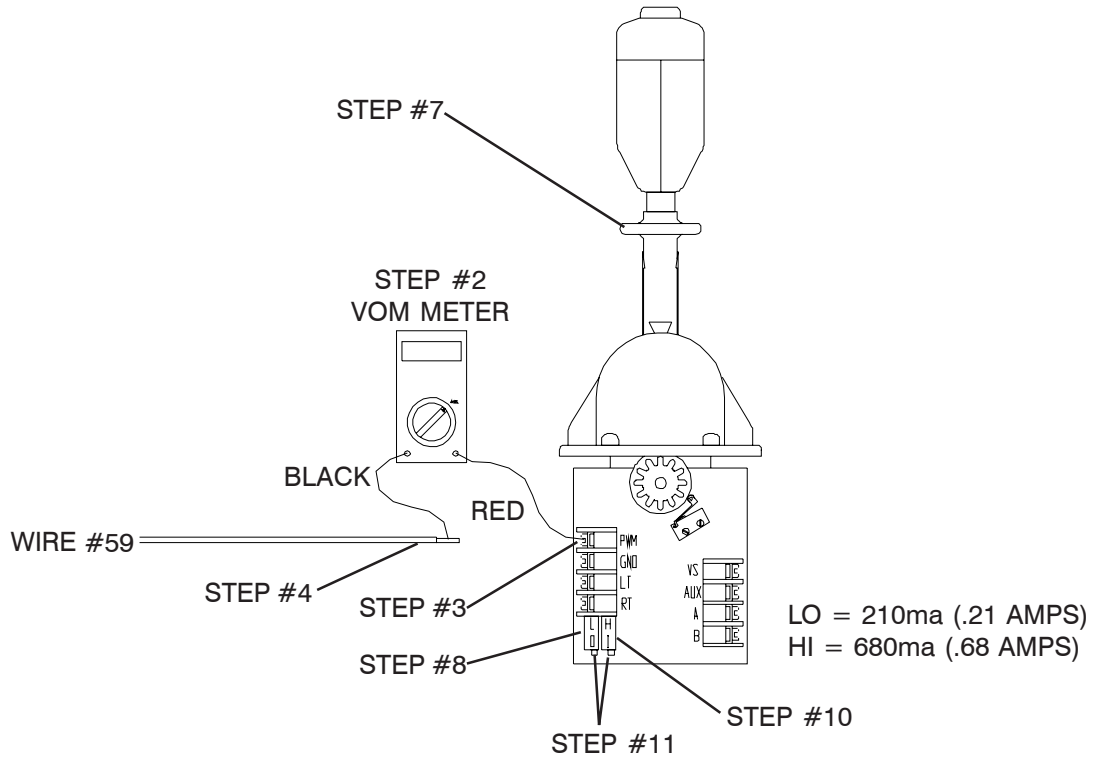
#### Note

Adjusting "LO" potentiometer will affect the "HI" potentiometer and vice versa. Repeat steps 4 through 6 until drive speeds stabilize.

7. **Paint potentiometer screws with nail polish or RTV silicone to prevent vibration from changing settings.**

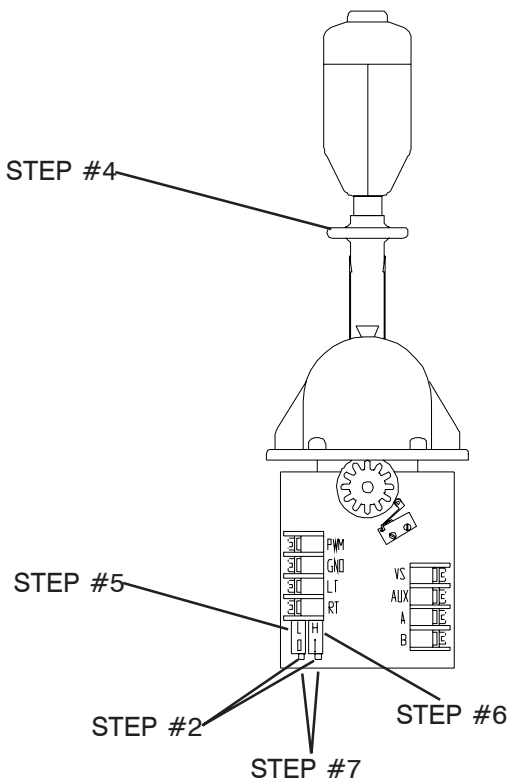
## Controller Adjustment Procedure

### Method #1



**Figure 5-2. Proportional Controller Adjustment**

### Method #2



**Figure 5-3. Proportional Controller Adjustment**

# SECTION 6 PARTS LISTS

## GENERAL

The information contained in this section is designed to aid the user in locating and identifying replacement parts. Component parts of various assemblies and sub-assemblies comprising the work platform are illustrated and accompanied by a descriptive parts list. Exploded drawings are used to show relative location of component parts in disassembly order. If a part cannot be found in this section, order by work platform model number and serial number, giving a complete description of the part.

## PARTS ORDERING INFORMATION

When ordering replacement parts, the complete part number and description should be used to ensure proper identification and delivery of the desired item. This complete identification should also be used when requesting equipment information.

## METHOD OF LISTING

Parts are listed in order according to the reference number shown in the illustration, followed by a full description based upon the "NOUN FIRST" method. That is, the noun name of the part is listed first, then the modifying description information which serves to specifically identify the item. For example: PIN, Clevis. Assemblies or groups are shown at the beginning of a parts list and are identified with the letter references A, B, C, etc. Individual parts in these lists have corresponding letters after their description to identify which assembly or group it is used in. Individual parts without identifying letters are used in all the assemblies

or group shown at the beginning of the parts list. Descriptions preceded with an (•) indicates a serviceable component or attaching hardware for the higher level assembly.

## QUANTITIES (Units per Assy.)

The quantities of each part that are required to complete the assembly. If quantity is (AR), it is understood that the quantity may vary when machine is equipped with certain options. Order quantity as needed.

## HARDWARE

Standard screws, washers, nuts, etc. are not identified by a reference number. These parts are known as COMMON HARDWARE items and appear indented under the major items with which they are used. They should be ordered separately as listed, since they are not component parts of the pieces they attach to.

## HOW TO ORDER REPAIR PARTS

1. Address all orders to your local SKYJACK dealer.
2. Specify model and serial number of the work platform (found on the serial number plate).
3. List the quantity needed.
4. List the length needed (if bulk item).
5. List the part number and description as shown in this manual for each item.
6. Show billing and shipping address and name of individual if possible.
7. Suggest best routing.

CUSTOMER \_\_\_\_\_

DEALER \_\_\_\_\_

MODEL NUMBER \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

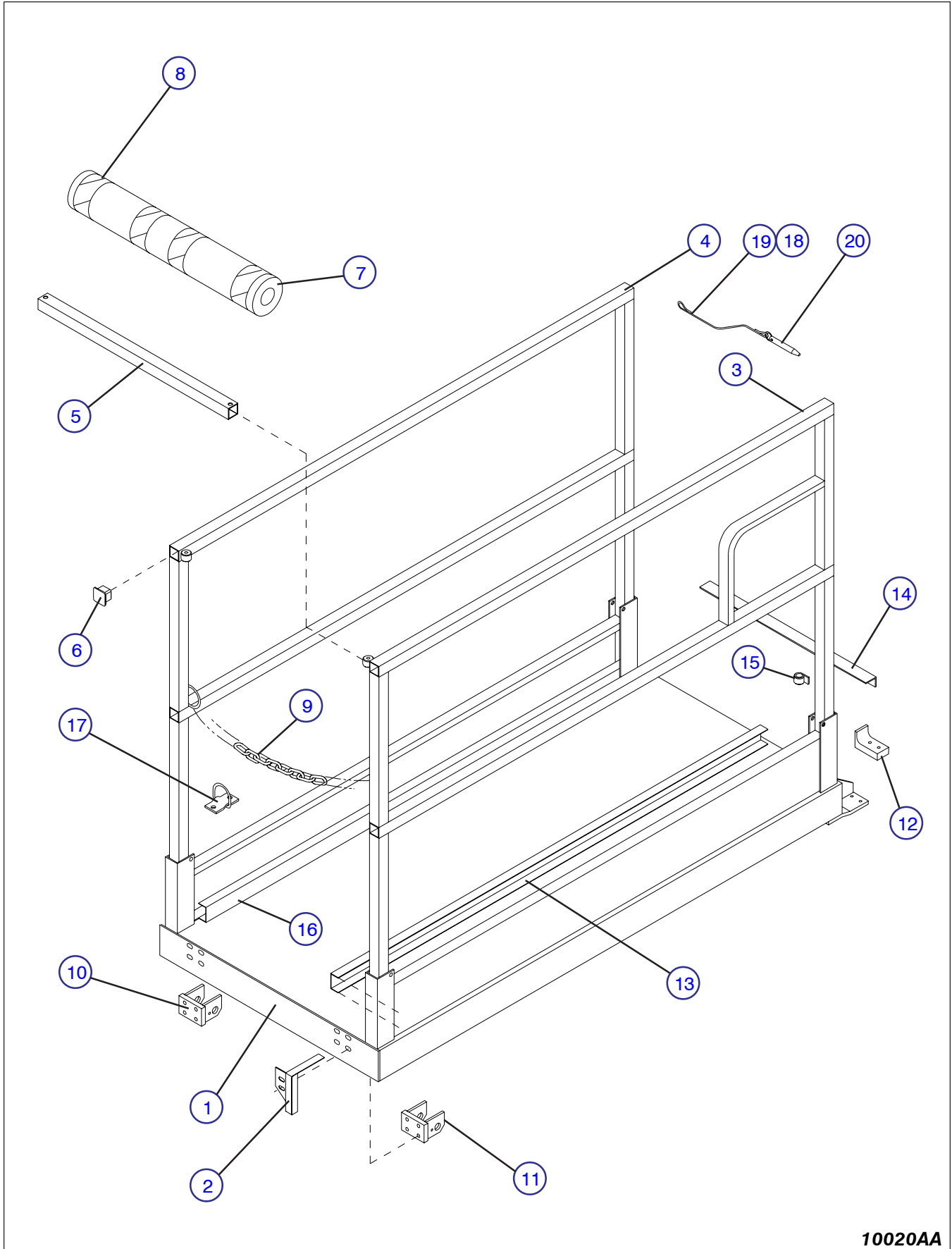
DATE PURCHASED \_\_\_\_\_

**Use Only Skyjack Authorized Replacement Parts!**

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**FIGURE 6-1. MAIN PLATFORM AND RIGID RAILINGS**

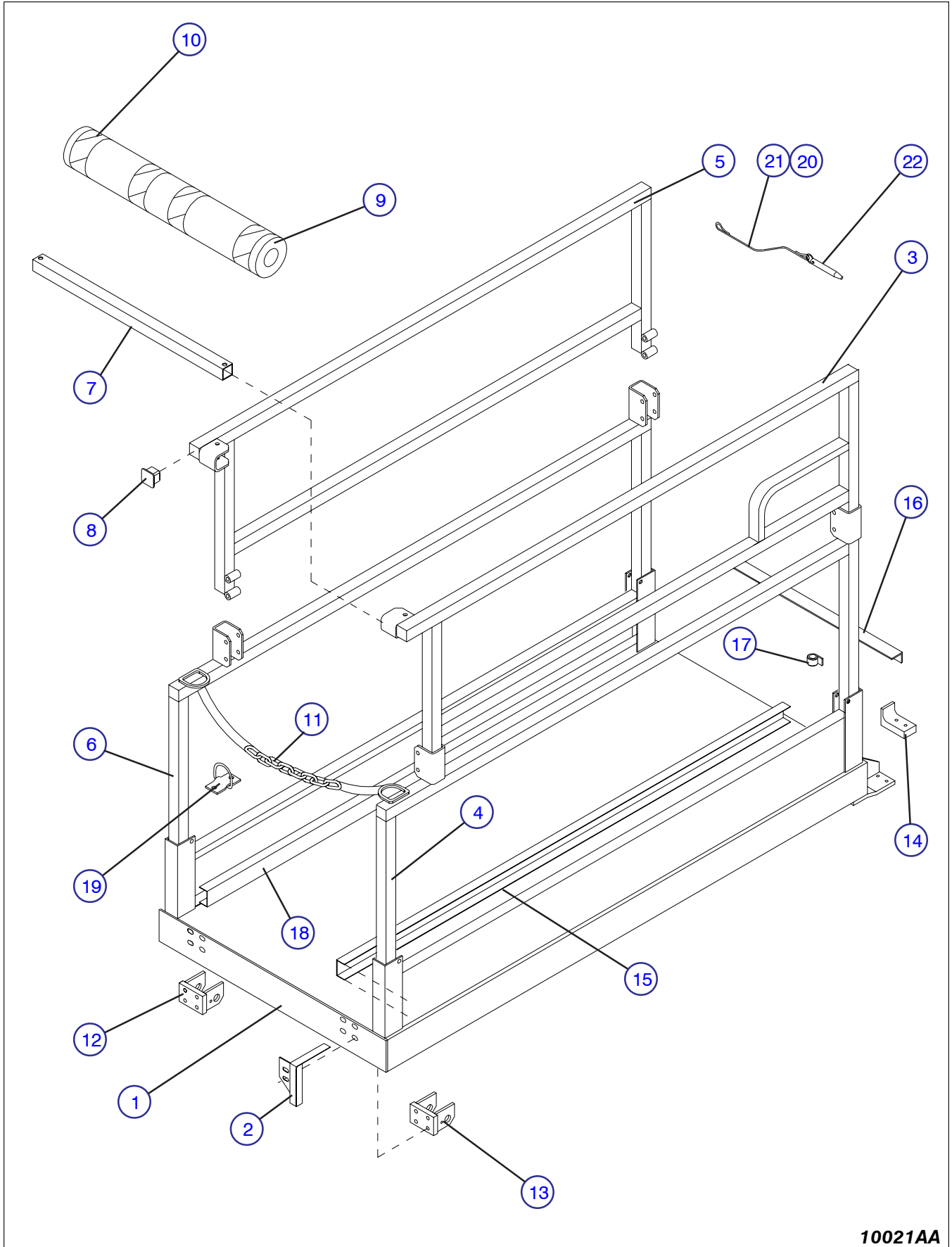


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**FIGURE 6-1. MAIN PLATFORM AND RIGID RAILINGS**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	(Ref.)	MAIN PLATFORM AND RIGID RAILINGS - Model 3015	-
<b>B</b>	(Ref.)	MAIN PLATFORM AND RIGID RAILINGS - Model 3219	-
1	107861	• WELDMENT, Main platform, <b>A</b> (Machines with manual ext. platform)	1
	109687	• WELDMENT, Main platform, <b>A</b> (Machines with powered ext. platform)	1
	109530	• WELDMENT, Main platform, <b>B</b> (Machines with manual ext. platform)	1
	111888	• WELDMENT, Main platform, <b>B</b> (Machines with powered ext. platform)	1
2	108735	• COVER, Cable protection RH	1
	101297	• • BOLT, Hex-hd 3/8-16 x 1.25" lg. <b>A</b>	2
	300437	• • BOLT, Hex-hd 3/8-16 x 7/8" lg. <b>B</b>	2
	103999	• • WASHER, Lock 3/8"	4
	103472	• • WASHER, Flat 3/8"	4
	103978	• • NUT, 3/8 - 16	4
3	107865	• RAILING, Side RH, <b>A</b>	1
	110740	• RAILING, Side RH, <b>B</b>	1
4	107864	• RAILING, Side LH, <b>A</b>	1
	110741	• RAILING, Side LH, <b>B</b>	1
5	106520	• RAILING, Entry top	1
	103845	• • BOLT, Hex-hd 5/16-18 x 1/2" lg.	2
	103404	• • WASHER, Lock 5/16"	2
	103996	• • WASHER, Flat 5/16"	2
6	100702	• CAP, Tube end	2
7	104183	• PAD, Foam 25-1/4"	1
8	102975	• STRIPE, Warning	AR
9	106893	• CHAIN ASSEMBLY, Entry	1
	100297	• • LINK, Attaching	1
	106896	• • CHAIN, 25-1/2" lg.	1
	100493	• • LATCH, Chain snap	1
10	109478	• BRACKET, Scissor mount LH	1
	101297	• • BOLT, Hex-hd 3/8-16 x 1.25" lg.	4
	103999	• • WASHER, Lock 3/8"	4
	103472	• • WASHER, Flat 3/8"	4
11	109477	• BRACKET, Scissor mount RH	1
	101297	• • BOLT, Hex-hd 3/8-16 x 1.25" lg.	4
	103999	• • WASHER, Lock 3/8"	4
	103472	• • WASHER, Flat 3/8"	4
12	103543	• PAD, Platform slide	2
	103856	• • BOLT, Hex-hd 1/4-20 x 3/4" lg.	4
	104000	• • WASHER, Lock 1/4"	4
13	310031	• GUARD, Cable RH	1
14	108773	• ANGLE, Platform slider 22" lg.	1
15	103024	• CLIP, Control cable #G8	1
16	310032	• GUARD, Cable LH (option)	1
17	125584	RING KIT, Safety	AR
	113122	• BRACKET, D-Ring	AR
	114989	• D-RING	AR
	103473	• BOLT, Hex head 3/8 - 16 x 1" grade 5	AR
	103472	• WASHER, Flat 3/8 S.A.E.	AR
	104606	• NUT, Nylon lock hex 3/8-16 grade 5	AR
18	300833	LANYARD, 6"	2
19	104607	SCREW, Self Tap #6 X 1/4	2
20	100509	PIN, Quick release	2

**FIGURE 6-2. MAIN PLATFORM AND HINGED RAILINGS**



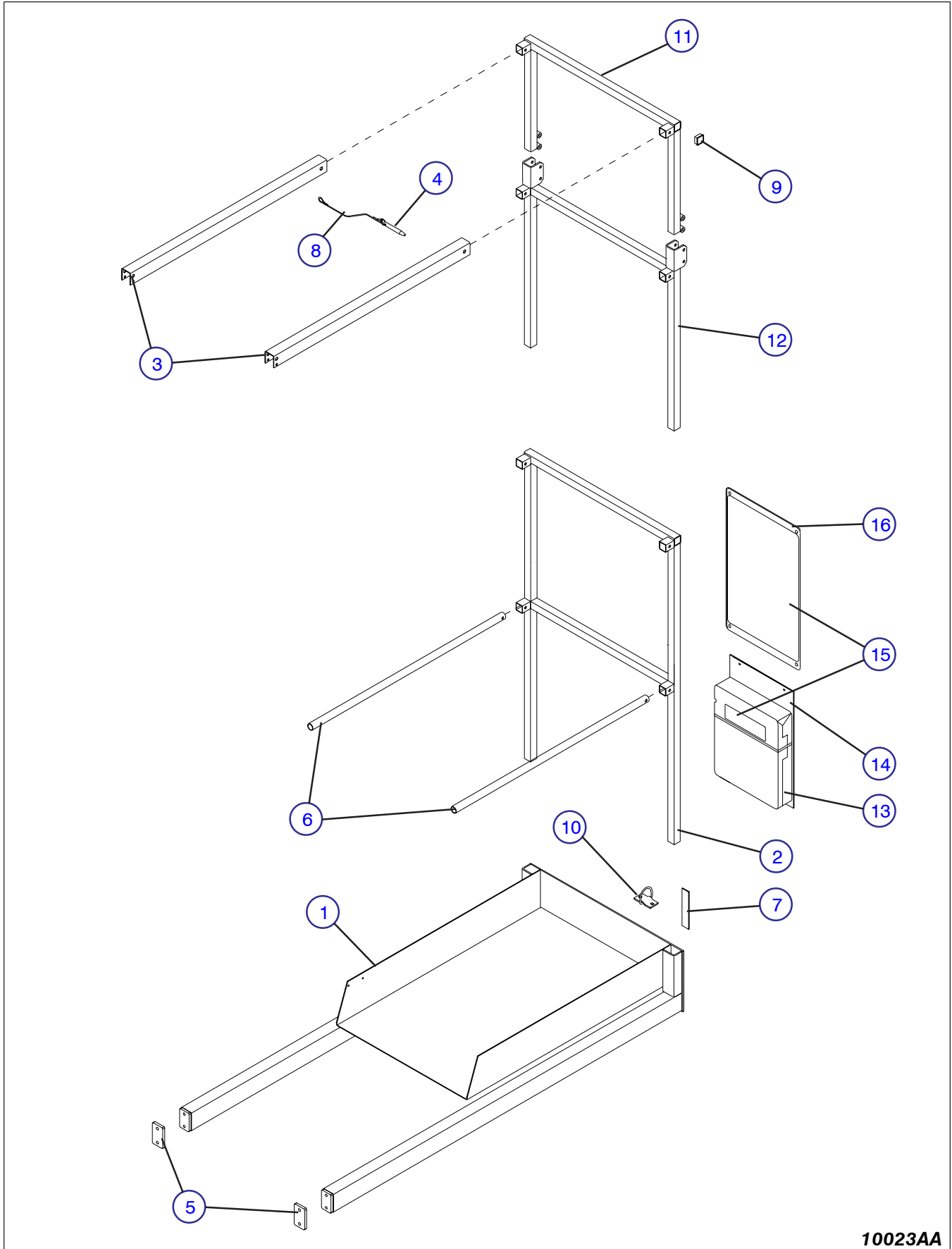
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**FIGURE 6-2. MAIN PLATFORM AND HINGED RAILINGS**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	(Ref.)	MAIN PLATFORM & HINGED RAILINGS - Model 3015	-
<b>B</b>	(Ref.)	MAIN PLATFORM & HINGED RAILINGS - Model 3219	-
<b>1</b>	107861	• WELDMENT, Main platform, <b>A</b> (Machines with manual extension platform)	1
	109687	• WELDMENT, Main platform, <b>A</b> (Machines with powered extension platform)	1
	109530	• WELDMENT, Main platform, <b>B</b> (Machines with manual extension platform)	1
	111888	• WELDMENT, Main platform, <b>B</b> (machines with powered extension platform)	1
<b>2</b>	108735	• COVER, Cable protection	1
	101297	• • BOLT, Hex-hd 3/8-16 x 1.25" lg. <b>A</b>	2
	300437	• • BOLT, Hex-hd 3/8-16 x 7/8" lg. <b>B</b>	2
	103999	• • WASHER, Lock 3/8"	2
	103472	• • WASHER, Flat 3/8"	2
	103978	• • NUT, 3/8 - 16	2
<b>3</b>	111812	• RAILING, Hinged side top RH	1
<b>4</b>	111817	• RAILING, Hinged side bottom RH	1
<b>5</b>	111815	• RAILING, Hinged side top LH	1
<b>6</b>	111818	• RAILING, Hinged side bottom LH	1
<b>7</b>	111821	• RAILING, Entry top	1
	103845	• • BOLT, Hex-hd 5/16-18 x 1/2" lg.	2
	103404	• • WASHER, Lock 5/16"	2
	103996	• • WASHER, Flat 5/16"	2
<b>8</b>	100702	• CAP, Tube end	2
<b>9</b>	104183	• PAD, Foam 25-1/4"	1
<b>10</b>	102975	• STRIPE, Warning	AR
<b>11</b>	106893	• CHAIN ASSEMBLY, Entry	1
	100297	• • LINK, Attaching	1
	103896	• • CHAIN, 25-1/2" lg.	1
	100493	• • LATCH, Chain snap	1
<b>12</b>	109478	• BRACKET, Scissor mount LH	1
	101297	• • BOLT, Hex-hd 3/8-16 x 1.25" lg.	4
	103999	• • WASHER, Lock 3/8"	4
	103472	• • WASHER, Flat 3/8"	4
<b>13</b>	109477	• BRACKET, Scissor mount RH	1
	101297	• • BOLT, Hex-hd 3/8-16 x 1.25" lg.	4
	103999	• • WASHER, Lock 3/8"	4
	103472	• • WASHER, Flat 3/8"	4
<b>14</b>	103543	• PAD, Platform slide	2
	103856	• • BOLT, Hex-hd 1/4-20 x 3/4" lg.	4
	104000	• • WASHER, Lock 1/4"	4
<b>15</b>	310031	• GUARD, Cable RH	1
<b>16</b>	108773	• ANGLE, Platform slider 22" lg.	1
<b>17</b>	103024	• CLIP, Control cable #G8	1
<b>18</b>	310032	• GUARD, Cable LH (option)	1
<b>19</b>	125584	RING KIT, Safety	AR
	113122	• BRACKET, D-Ring	AR
	114989	• D-RING	AR
	103473	• BOLT, Hex head 3/8 - 16 x 1" grade 5	AR
	103472	• WASHER, Flat 3/8 S.A.E.	AR
	104606	• NUT, Nylon lock hex 3/8-16 grade 5	AR
<b>20</b>	300833	LANYARD, 6"	2
<b>21</b>	104607	SCREW, Self Tap #6 X 1/4	2
<b>22</b>	100509	PIN, Quick release	2

**FIGURE 6-3. 3 FT. MANUAL EXTENSION PLATFORM**

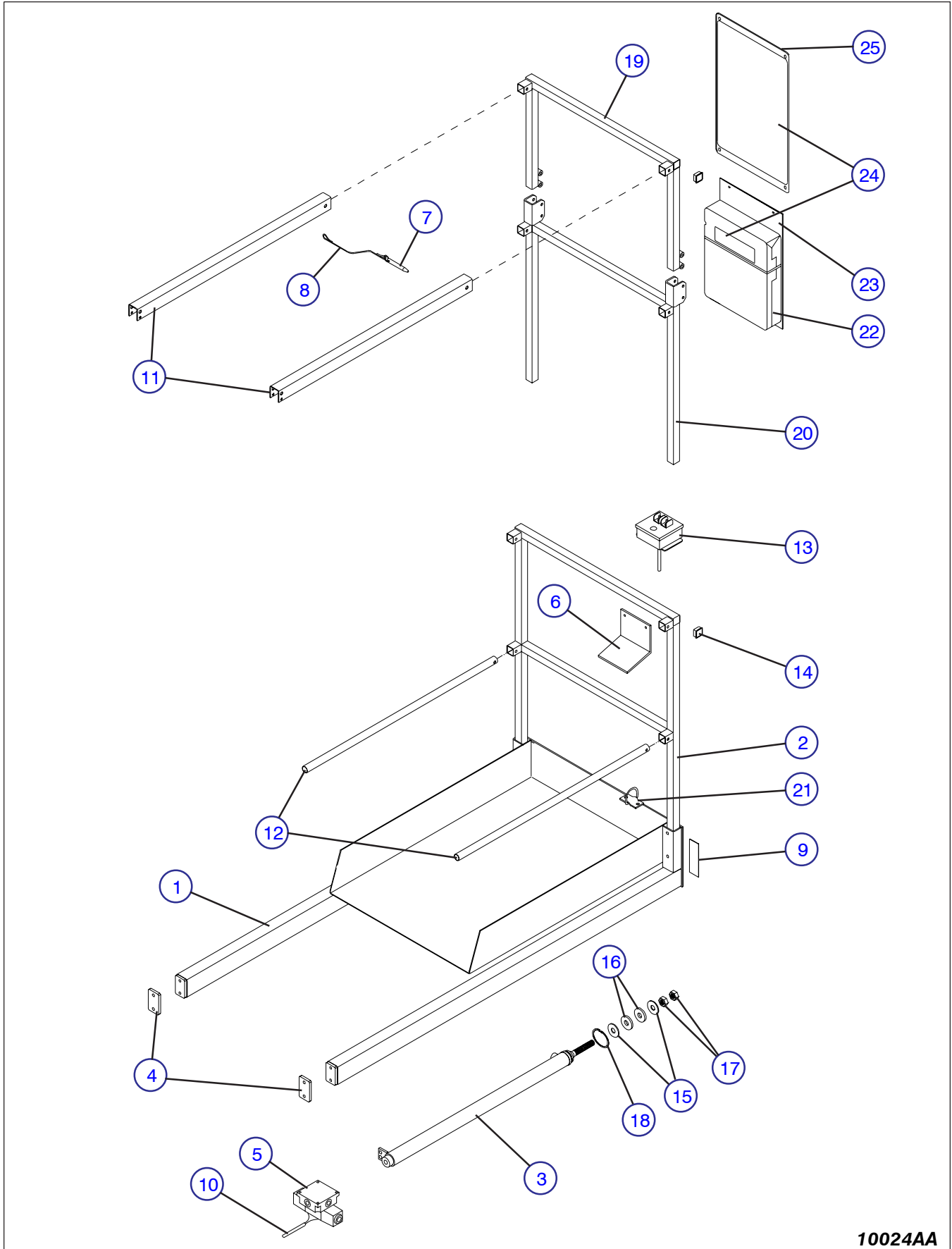


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**FIGURE 6-3. 3 FT. MANUAL EXTENSION PLATFORM**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	107749	3 FT. EXTENSION PLATFORM - Model 3015	-
<b>B</b>	111318	3 FT. EXTENSION PLATFORM - Model 3219	-
<b>1</b>	107866	• WELDMENT, Extension platform	1
<b>2</b>	106521	• RAILING, Extension platform front, <b>A</b>	1
	110744	• RAILING, Extension platform front, <b>B</b>	1
	104625	• • SCREW, Set 3/8-16 x 5/8" lg.	4
	103978	• • NUT, Hex 3/8-16	4
<b>3</b>	107450	• CHANNEL ASSEMBLY, Side handrail	2
	107451	• • CHANNEL, Side handrail	2
	103550	• • PAD, Wear	6
	103865	• • BOLT, Hex-hd 5/16-18 x 2" lg.	4
	103984	• • NUT, Lock 5/16-18	4
<b>4</b>	100509	• PIN, Locking	2
<b>5</b>	103554	• PAD, Rear slide	2
	103952	• • BOLT, Flat-hd 3/8-16 x 1" lg.	4
<b>6</b>	103796	• PIPE, Midrail	2
	103885	• • BOLT, Hex-hd 5/16-18 x 1-3/4" lg.	2
	103984	• • NUT, Lock 5/16-18	2
<b>7</b>	106950	• PLATE, Railing retainer	2
<b>8</b>	300833	• CABLE, Lanyard 6" lg.	2
<b>9</b>	100702	• CAP, Tube end	2
<b>10</b>	125584	RING KIT, Safety	AR
	113122	• BRACKET, D-Ring	AR
	114989	• D-RING	AR
	103473	• BOLT, Hex head 3/8 - 16 x 1" grade 5	AR
	103472	• WASHER, Flat 3/8 S.A.E.	AR
	104606	• NUT, Nylon lock hex 3/8-16 grade 5	AR
<b>11</b>	111826	RAILING, Optional powered extension platform hinged upper	1
<b>12</b>	111825	RAILING, Optional powered extension platform hinged lower	1
<b>13</b>	117293	ENCLOSURE, Manual	2
<b>14</b>	117367	PLATE, Manual box (3015) (ANSI/SIA & CSA and CE)	1
	117367	PLATE, Manual box (3219) (CE)	1
	117355	PLATE, Manual box (3219) (ANSI/SIA & CSA)	1
<b>15</b>	(Ref.)	LABELS (Refer to Figure 6-38)	-
<b>16</b>	117348	PLATE, Safety label	1

**FIGURE 6-4. 3 FT. POWERED EXTENSION PLATFORM**

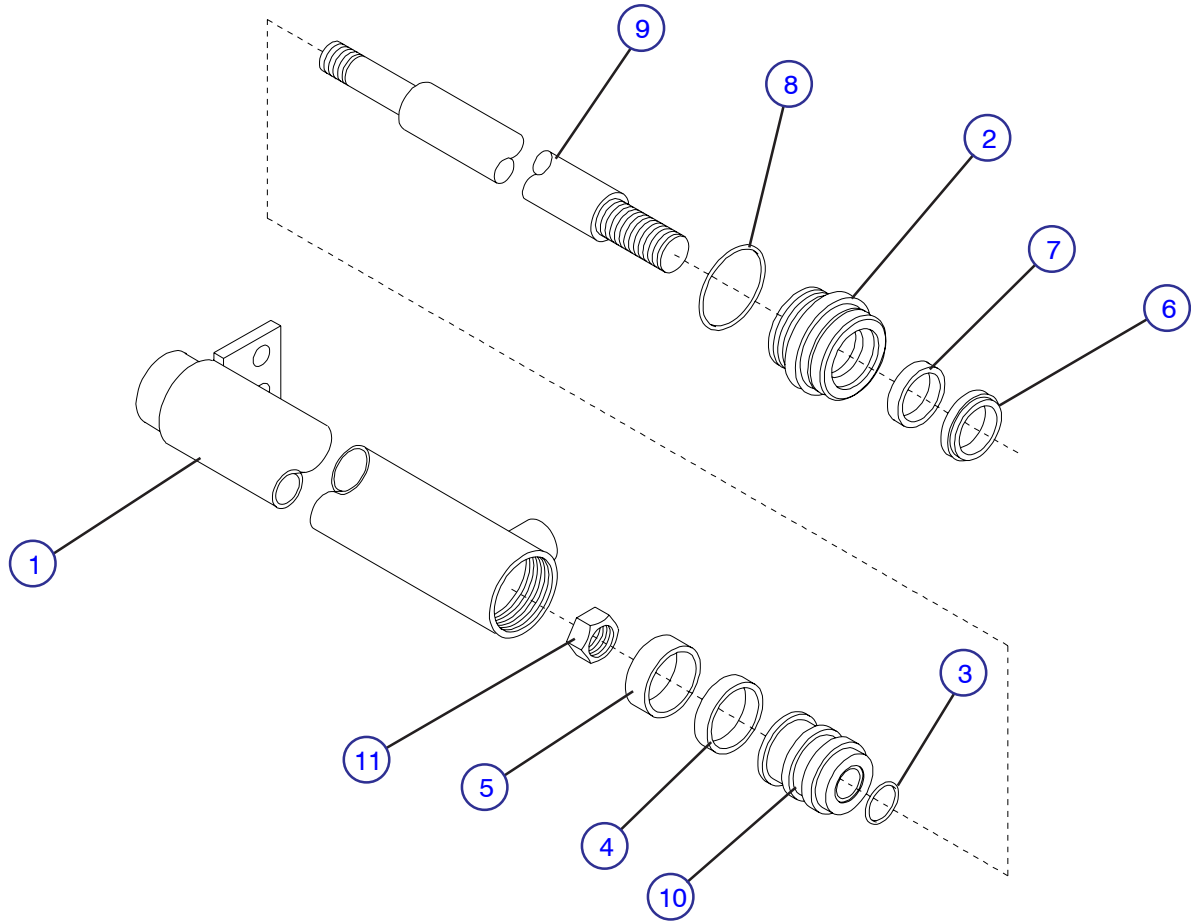


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**FIGURE 6-4. 3 FT. POWERED EXTENSION PLATFORM**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	113315	WELDMENT, Extension platform	1
2	106521	RAILING, Extension platform front (Model 3015)	1
	110744	RAILING, Extension platform front (Model 3219)	1
	104625	• SCREW, Set 3/8-16 x 5/8" lg.	4
	103978	• NUT, Hex 3/8-16	4
3	(Ref.)	CYLINDER ASSEMBLY, Powered extension platform	1
		(For components, refer to Figure 6-5.)	1
	101297	• BOLT, Hex-hd 3/8-16 x 1-1/4" lg.	2
	104606	• NUT, Lock 3/8-16	2
4	103554	• PAD, Rear slide	2
	103952	• • BOLT, Flat-hd 3/8-16 x 1" lg.	4
5	(Ref.)	VALVE & MANIFOLD ASSEMBLY	1
		(For components, refer to Figure 6-29.)	1
6	310009	PLATE, Control box mounting	1
7	100509	PIN, Locking	2
8	300833	CABLE, Lanyard 6" lg.	2
9	106950	PLATE, Railing retainer	2
10	115176	CORD ASSEMBLY, Valve manifold	1
	103257	• CORD, 18/3	100"
	107712	• PLUG ASSEMBLY, 5 Pin male	1
11	107450	CHANNEL ASSEMBLY, Side handrail	2
	103550	• PAD, Wear	6
	103865	• BOLT, Hex-hd 5/16-18 x 2" lg.	4
	103984	• NUT, Lock 5/16-18	4
12	103796	PIPE, Midrail	2
	103885	• BOLT, Hex-hd 5/16-18 x 1-3/4" lg.	2
	103984	• NUT, Lock 5/16-18	2
13	(Ref.)	CONTROL BOX ASSEMBLY, Powered ext. platform	1
		(For components, refer to Figure 6-7.)	-
14	100702	CAP, Tube end	2
15	300116	WASHER, Flat 3/4" x 2"	2
16	113305	ISOLATOR, Cylinder rod	2
17	106450	NUT, 3/4"-16 Jam	2
18	106446	RING, Retaining	1
19	111826	RAILING, Extension platform optional hinged upper rail	1
20	111825	RAILING, Extension platform optional hinged lower rail	1
21	125584	RING KIT, Safety	AR
	113122	• BRACKET, D-Ring	AR
	114989	• D-RING	AR
	103473	• BOLT, Hex head 3/8 - 16 x 1" grade 5	AR
	103472	• WASHER, Flat 3/8 S.A.E.	AR
	104606	• NUT, Nylon lock hex 3/8-16 grade 5	AR
22	117293	ENCLOSURE, Manual	2
23	117367	PLATE, Manual box (3015) (ANSI/SIA & CSA and CE)	1
	117367	PLATE, Manual box (3219) (CE)	1
	117355	PLATE, Manual box (3219) (ANSI/SIA & CSA)	1
24	(Ref.)	LABELS	-
		(Refer to Figure 6-38)	-
25	117348	PLATE, Safety label	1

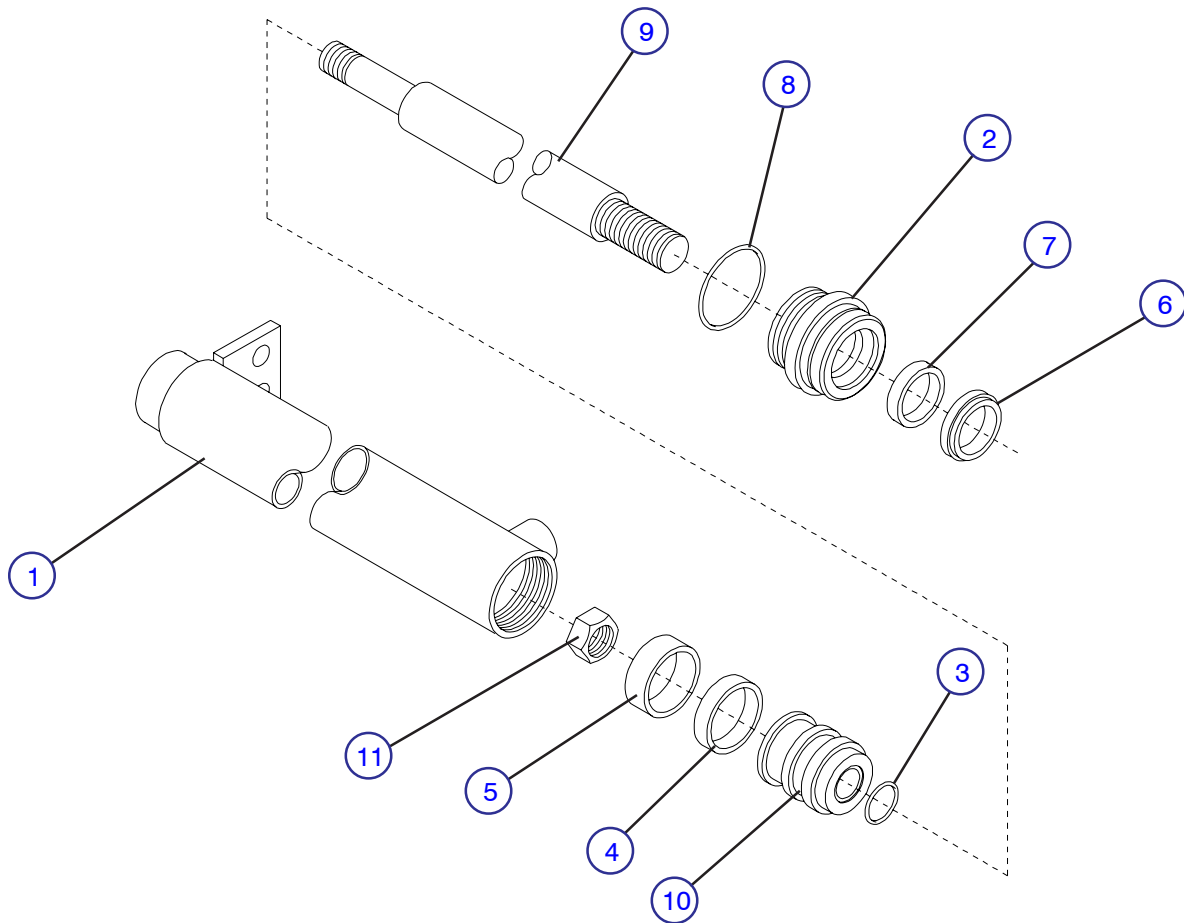
**FIGURE 6-5A. POWERED EXTENSION PLATFORM CYLINDER ASSEMBLY**  
**(Machines With Serial #150905 (3015) or #229360 (3219) and Below)**



MA-SJIIICOMP-05

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	113425	CYLINDER ASSEMBLY, Powered extension platform	-
1	106470	• WELDMENT, Cylinder barrel	1
2	108723	• GLAND, Cylinder end	1
*3	103829	• O-RING, Piston	1
*4	103825	• SEAL, Piston	1
*5	106452	• RING, Piston wear	1
*6	106449	• WIPER, Rod	1
*7	108798	• SEAL, Rod	1
*8	103828	• O-RING, Gland	1
9	106469	• ROD, Piston	1
10	114344	• PISTON	1
11	103830	• NUT, Lock 5/8-11	1
	107396	KIT, Seal repair	AR
		* Part of Seal Repair Kit, 107396.	

**FIGURE 6-5B. POWERED EXTENSION PLATFORM CYLINDER ASSEMBLY**  
**(Machines With Serial #150906 (3015) or #229361 (3219) and Above)**



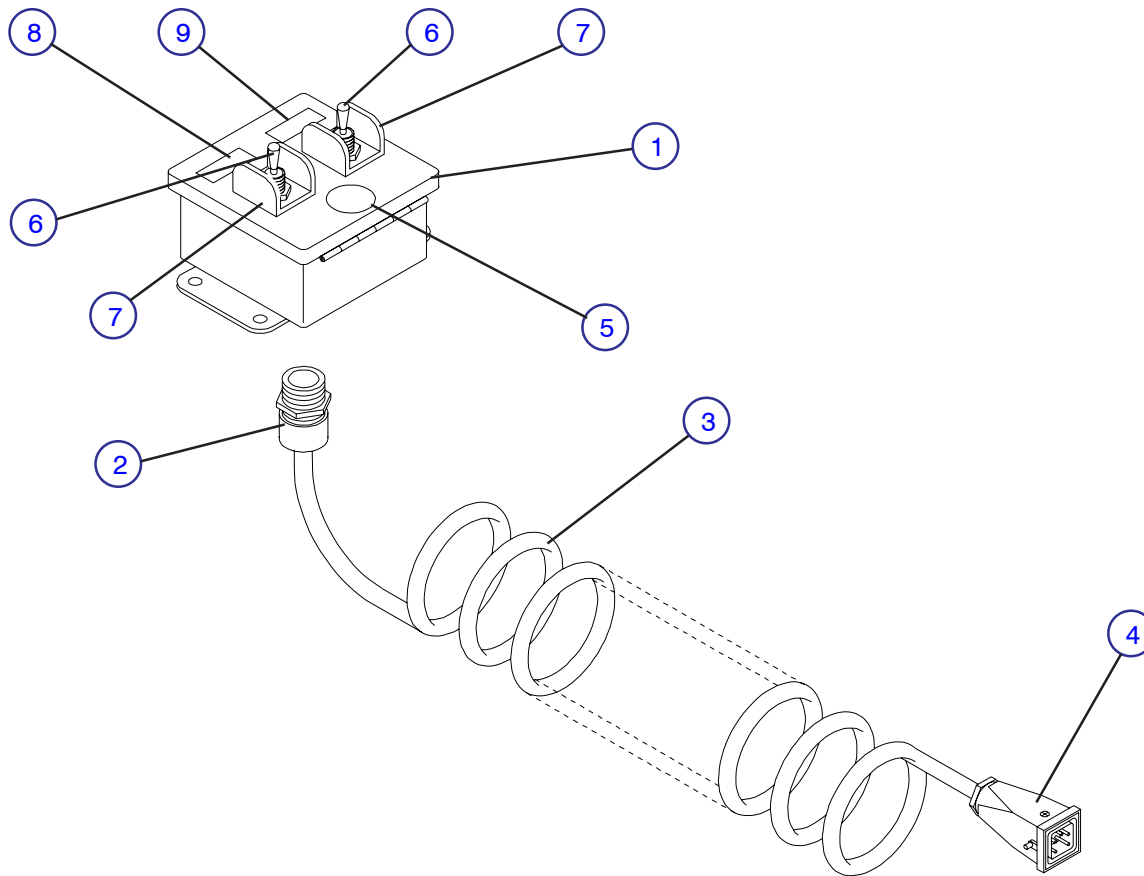
MA-SJIIICOMP-05

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	120259	CYLINDER ASSEMBLY, Powered extension platform	-
1	120257	• WELDMENT, Cylinder barrel	1
2	120254	• GLAND, Cylinder end	1
*3	110976	• O-RING, Piston	1
*4	103825	• SEAL, Piston	1
*5	106452	• RING, Piston wear	1
*6	106449	• WIPER, Rod	1
*7	108798	• SEAL, Rod	1
*8	120436	• O-RING, Gland	1
9	117970	• ROD, Piston	1
10	117942	• PISTON	1
11	103830	• NUT, Lock 5/8-11	1
	107396	KIT, Seal repair	AR
		* Part of Seal Repair Kit, 107396.	





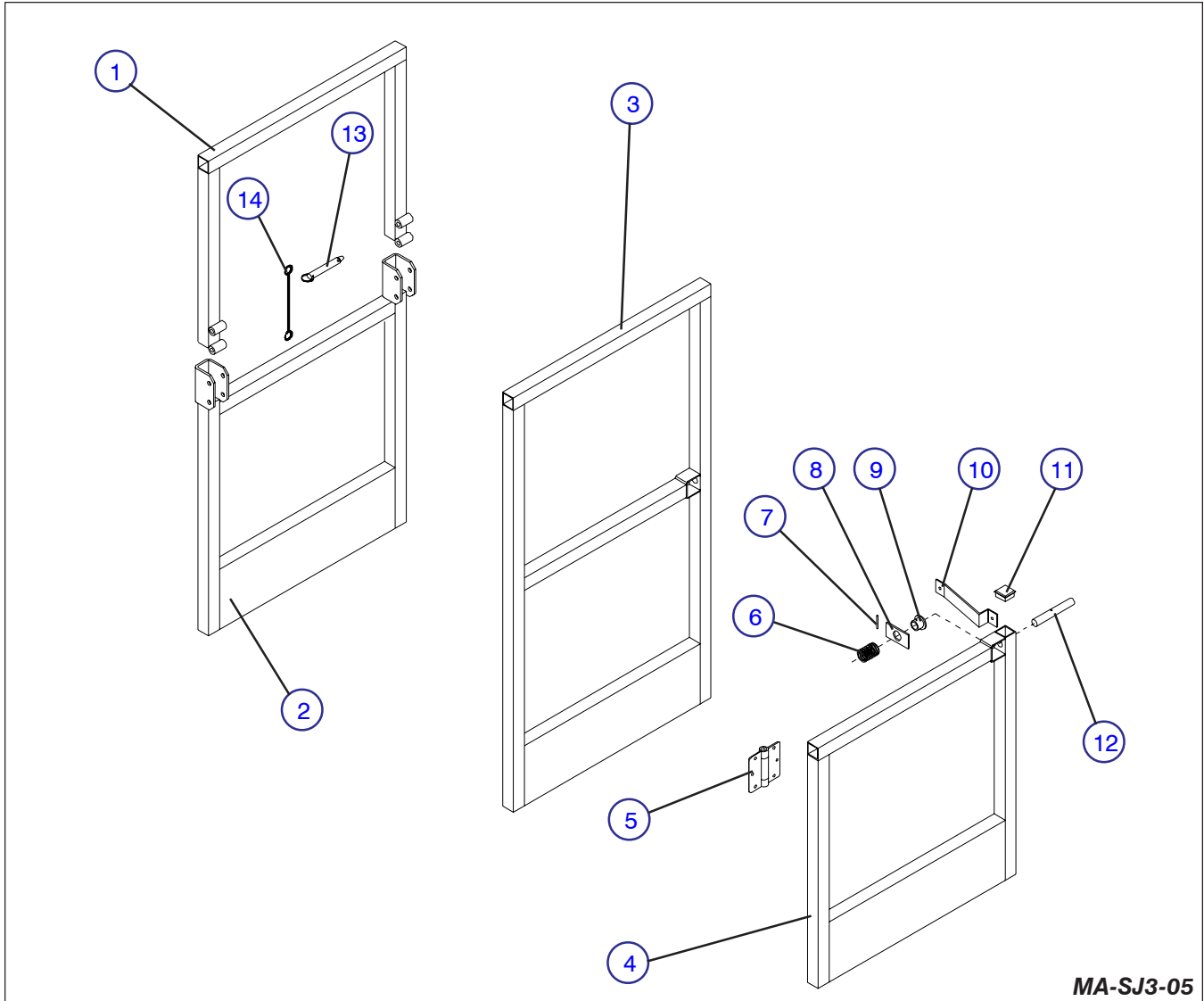
**FIGURE 6-7. POWERED EXTENSION PLATFORM CONTROL BOX ASSEMBLY**



**MA-SJII-31C**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	114832	BOX ASSEMBLY, Powered extension platform control	-
1	106399	• BOX, Control	1
2	300207	• STRAIN RELIEF, Straight 1/2"	1
3	106401	• CORD, Coiled 18/3	1
4	107712	• CONNECTOR ASSEMBLY, 5 Pole male	1
	103567	• • HOUSING, Connector	1
	103569	• • INSERT, Male	1
5	114377	• PLUG, Hole 1/2"	1
6	102853	• SWITCH, Toggle	2
7	111181	• GUARD, Toggle switch	2
8	(Ref.)	LABEL, Enable (Refer to Figure 6-38)	1
			-
9	(Ref.)	LABEL, Platform extend/retract (Refer to Figure 6-38)	1
			-

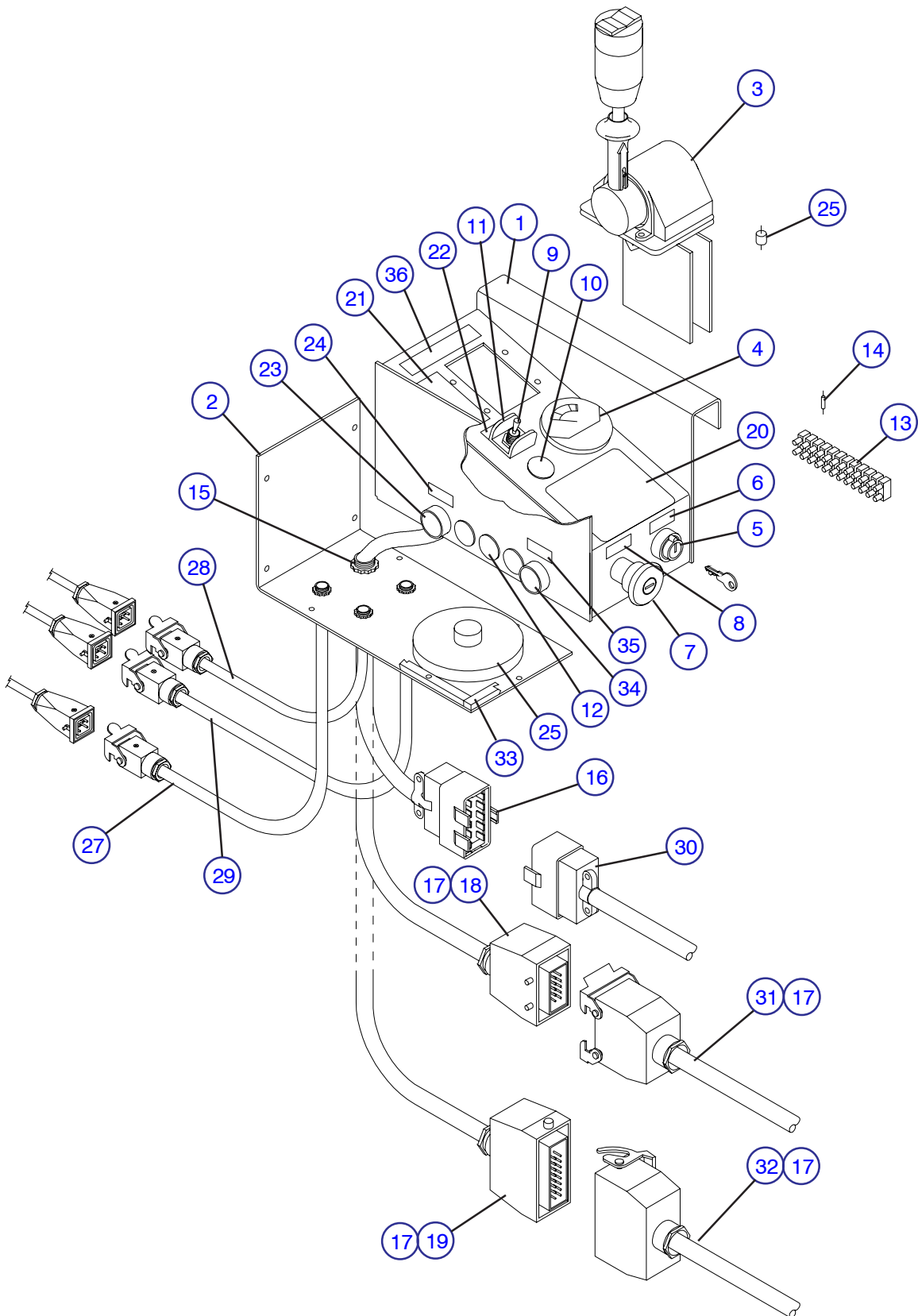
**FIGURE 6-8. GATE OPTIONS**



**MA-SJ3-05**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	117288	WELDMENT, Hinged upper gate	1
2	117287	WELDMENT, Hinged lower gate	1
3	117279	WELDMENT, Full gate (Model 3015)	1
	117286	WELDMENT, Full gate (Model 3219)	1
4	117278	WELDMENT, Half gate (Model 3015)	1
	117280	WELDMENT, Half gate (Model 3219)	1
5	117277	HINGE, Spring return (Stanley #2060R)	AR
6	103107	SPRING, Compression	1
7	105310	PIN, Roll 1/8" x 1-1/4" lg.	AR
8	105307	PLATE, Latch release	1
9	105311	GUIDE, Spring	1
10	105306	STOP, Latch	1
11	100702	CAP, Tube end	3
12	109377	PIN, 5/8" x 4-3/16" lg.	1
13	100509	PIN, Locking (hinged gate)	2
14	300833	CABLE, Lanyard 6" lg. (hinged gate)	2

**FIGURE 6-9A. OPERATOR'S CONTROL BOX ASSEMBLY**  
*(Used on Machines With Serial Numbers 150931 (3015), 229632 (3219) and Below)*



S3F-1039AA

**FIGURE 6-9A. OPERATOR'S CONTROL BOX ASSEMBLY**  
**(Used on Machines With Serial Numbers 150931 (3015), 229632 (3219) and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	310185	CONTROL BOX ASSEMBLY (Standard for ANSI/SIA and CSA)	-
<b>B</b>	310188	CONTROL BOX ASSEMBLY (EE-Rated)	-
<b>C</b>	310186	CONTROL BOX ASSEMBLY (Standard for CE)	-
<b>D</b>	\$	CONTROL BOX ASSEMBLY (All Options for ANSI/SIA and CSA)	-
<b>E</b>	\$	CONTROL BOX ASSEMBLY (All Options for CE)	-
<b>1</b>	108692	WELDMENT, Control box	1
<b>2</b>	108703	COVER, Bottom (Boxes equipped without Horn)	1
	108704	COVER, Bottom,	1
	104607	• SCREW, Set #6-32 x 1/2" lg.	9
<b>3</b>	(Ref.)	CONTROLLER ASSEMBLY, Proportional (For components, refer to Figure 6-10A.)	1
	103957	• SCREW, #8-32 x 1/2" lg.	4
	104185	• WASHER, Lock #10	4
<b>4</b>	122093	INDICATOR, Battery charge	1
<b>5</b>	(Ref.)	SWITCH ASSEMBLY, Key off/on, <b>A, B, D</b>	1
	100149	• WASHER	1
	102754	• HEAD, 2-Position key switch	1
	104460	• • KEY, #455	AR
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform, <b>C, E</b>	1
	100149	• WASHER	1
	102753	• HEAD, 3-Position key switch	1
	104460	• • KEY, #455	AR
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	2
<b>6</b>	(Ref.)	LABEL, Power off/on, <b>A, B, D</b> (Refer to Figure 6-38.)	1
	(Ref.)	LABEL, Base/off/platform, <b>C, E</b> (Refer to Figure 6-38.)	1
<b>7</b>	(Ref.)	SWITCH ASSEMBLY, Emergency stop	1
	100149	• WASHER, Switch	1
	102769	• HEAD, Stop switch	1
	103100	• BASE, Contact	1
	103225	• BLOCK, N.C. Contact	1
<b>8</b>	(Ref.)	LABEL, Emergency stop (Refer to Figure 6-38.)	1
<b>9</b>	116382	SWITCH, Lift/off/drive toggle	1
<b>10</b>	114377	PLUG, Hole 1/2"	1
<b>11</b>	111181	GUARD, Toggle switch	1
<b>12</b>	300460	PLUG, Hole 7/8"	AR
<b>13</b>	103012	BLOCK, Terminal	AR
	103955	• SCREW, #6-32 x 3/4" lg.	1
	114678	• SCREW, #6-32 x 1/2" lg.	1
	106099	• WASHER, Lock #6	2
	103985	• NUT, #6-32	2
<b>14</b>	119629	RESISTOR, 2.7K	1
<b>15</b>	300788	STRAIN RELIEF, Cable,	1

**Parts list continued on the following page.**

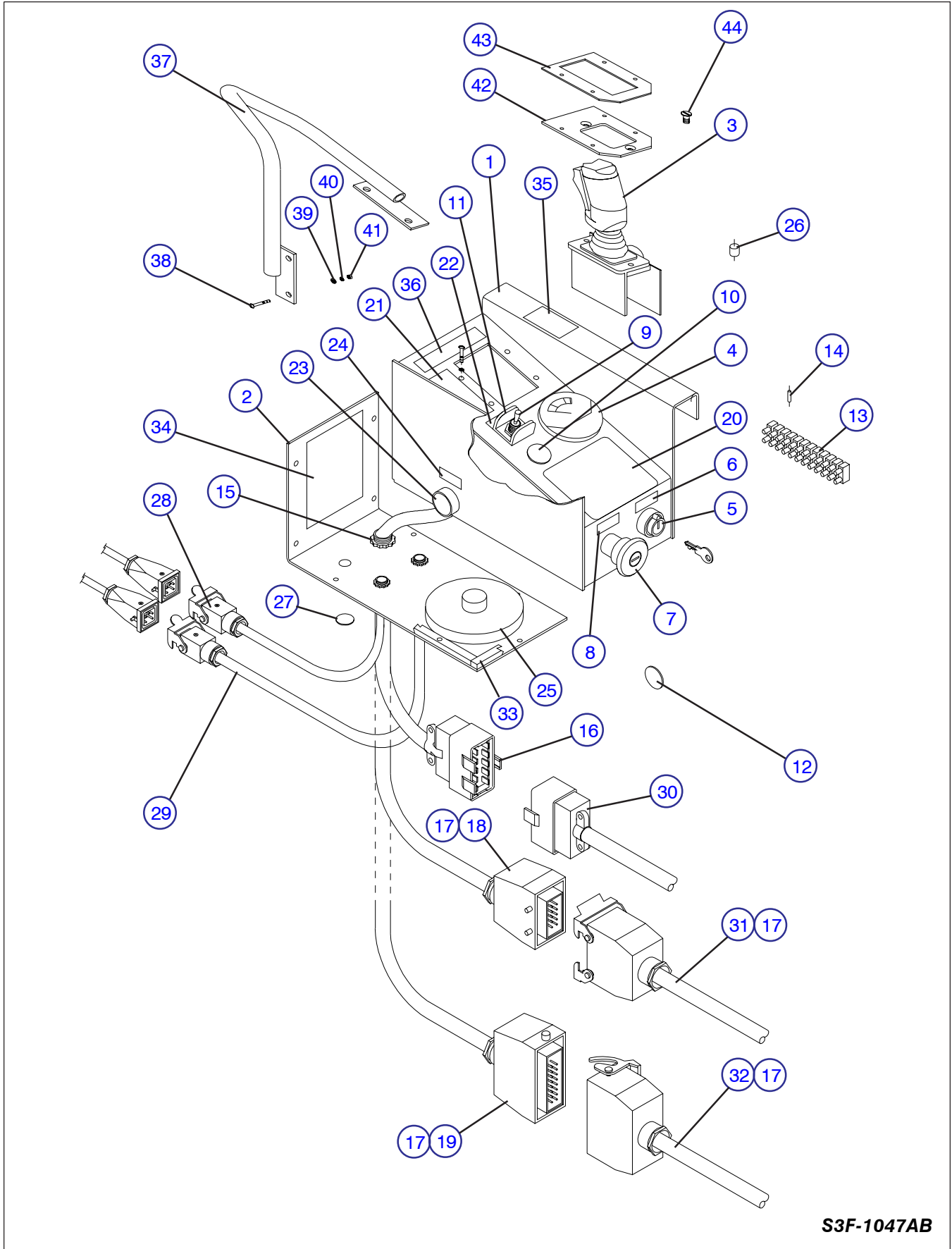
**FIGURE 6-9A. CONTROL BOX ASSEMBLY (continued)**  
**(Used on Machines With Serial Numbers 150931 (3015), 229632 (3219) and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
16	119642	CABLE ASSEMBLY, Control box, <b>A</b>	1
	102888	• CABLE, 16/10	37"
	102766	• PLUG, 10 Pole male	1
	119456	• COVER, Connector	1
	(Ref.)	• LABEL, Proportional connector (Refer to Figure 6-38.)	AR -
17	(Ref.)	LABEL, Proportional connector (Refer to Figure 6-38.)	AR -
18	114547	CABLE ASSEMBLY, Control box, <b>B</b>	1
	102888	• CABLE, 16/10	27"
	107778	• CONNECTOR ASSEMBLY, 10 Pole male	1
	119737	CABLE ASSEMBLY, Control Box, <b>B</b>	1
	102888	• CABLE, 16/10	37"
	119727	• PIN, Code	2
	107778	• CONNECTOR ASSEMBLY, 10 Pin	1
	103563	• • HOUSING	1
	103572	• • INSERT, Male	1
19	119731	CABLE ASSEMBLY, Control box, <b>C, D, E</b>	1
	102887	• CABLE, 16/15	37"
	107820	• CONNECTOR ASSEMBLY, 16 Pin	1
	310325	CABLE ASSEMBLY, Control box, <b>C, D, E</b>	1
	102887	• CABLE, 16/15	37"
	119727	• PIN, Code	2
	107820	• CONNECTOR ASSEMBLY, 16 Pin	1
	103564	• • HOUSING	1
	103574	• • INSERT, Male	1
20	(Ref.)	LABEL, Operator warning (Refer to Figure 6-38.)	1 -
21	(Ref.)	LABEL, Controller lift/drive (Refer to Figure 6-38.)	1 -
22	(Ref.)	LABEL, Lift/off/drive (Refer to Figure 6-38.)	1 -
23	(Ref.)	SWITCH ASSEMBLY, Horn push-button,	1
	100149	• WASHER	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
24	(Ref.)	LABEL, Horn (Refer to Figure 6-38.)	1 -
25	121058	HORN, 24 Volt operator,	1
26	102921	DIODE, 6 Amp 1000PIV,	2
27	(Ref.)	CORD ASSEMBLY, Powered platform control box	1
	103257	• CORD, 18/3	27"
	107711	• CONNECTOR ASSEMBLY, 5 Pole female	1
28	(Ref.)	CORD ASSEMBLY, Valve manifold	1
	103257	• CORD, 18/3	27"
	107711	• CONNECTOR ASSEMBLY, 5 Pole female	1
		<b>Parts list continued on the following page.</b>	

**FIGURE 6-9A. OPERATOR'S CONTROL BOX ASSEMBLY (continued)**  
**(Used on Machines With Serial Numbers 150931 (3015), 229632 (3219) and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
29	(Ref.) 103256	CORD ASSEMBLY, Limit switch • CORD, 18/2	1 27"
30	107711 310247 310246 102888 102888 102518 102766 119456 (Ref.)	• CONNECTOR ASSEMBLY, 5 Pole female CABLE ASSEMBLY, Scissors, <b>A</b> (Model 3015) CABLE ASSEMBLY, Scissors, <b>A</b> (Model 3219) • CABLE, 16/10 x 288" lg. (Model 3015) • CABLE, 16/10 x 348" lg. (Model 3219) • SOCKET, 10 pin female • PLUG, 10 pin male • COVER, Connector • LABEL, Proportional connector <b>(Refer to Figure 6-38.)</b>	1 1 1 1 1 1 1 2 AR
31	114553 114552 102888 102888 107778 107777	CABLE ASSEMBLY, Scissors, <b>B</b> (Model 3015) CABLE ASSEMBLY, Scissors, <b>B</b> (Model 3219) • CABLE, 16/10 x 288" lg. (Model 3015) • CABLE, 16/10 x 348" lg. (Model 3219) • CONNECTOR, 10 pole male • CONNECTOR, 10 pole female	1 1 1 1 1 1
31	310443 310444 102888 102888 107778 103563 103572 107777 103566 103571	CABLE ASSEMBLY, Scissors, <b>B</b> (Model 3015) CABLE ASSEMBLY, Scissors, <b>B</b> (Model 3219) • CABLE, 16/10 x 288" lg. (Model 3015) • CABLE, 16/10 x 348" lg. (Model 3219) • CONNECTOR, 10 pole male • • HOUSING • • INSERT, Male • CONNECTOR, 10 pole female • • HOUSING • • INSERT, Female	1 1 1 1 1 1 1 1 1 1
32	310255 310254 102887 102887 119727 107820 103564 103574 107821 103565 103573	CABLE ASSEMBLY, Scissors, <b>C, D, E</b> (Model 3015) CABLE ASSEMBLY, Scissors, <b>C, D, E</b> (Model 3219) • CABLE, 16/15 x 288" lg. (Model 3015) • CABLE, 16/15 x 348" lg. (Model 3219) • PIN, Code • CONNECTOR ASSEMBLY, 16 Pin • • HOUSING • • INSERT, Male • CONNECTOR ASSEMBLY, 16 Pin • • HOUSING • • INSERT, Female	1 1 1 1 4 1 1 1 1 1 1
33	103628	SEAL, Rubber 45" lg., <b>B</b>	1
34	(Ref.) 100149 108854 103100 103141	SWITCH ASSEMBLY, Enable push-button, • WASHER • HEAD, Green Push-button switch • BASE, Contact • BLOCK, N.O. Contact	1 1 1 1 1
35	(Ref.)	LABEL, Enable <b>(Refer to Figure 6-38.)</b>	1 -
36	(Ref.)	LABEL, Operating instructions (Models equipped with enable switch) <b>(Refer to Figure 6-38.)</b>	1 -
		<b>\$ - Consult factory.</b>	

**FIGURE 6-9B. OPERATOR'S CONTROL BOX ASSEMBLY**  
*(Used on Machines With Serial Numbers 150932 (3015), 229633 (3219) and Above)*



S3F-1047AB



**FIGURE 6-9B. OPERATOR'S CONTROL BOX ASSEMBLY**  
**(Used on Machines With Serial Numbers 150932 (3015), 229633 (3219) and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	310185	CONTROL BOX ASSEMBLY (Standard for ANSI/SIA and CSA)	-
<b>B</b>	310188	CONTROL BOX ASSEMBLY (EE-Rated)	-
<b>C</b>	310186	CONTROL BOX ASSEMBLY (Standard for CE)	-
<b>D</b>	\$	CONTROL BOX ASSEMBLY (All Options for ANSI/SIA and CSA)	-
<b>E</b>	\$	CONTROL BOX ASSEMBLY (All Options for CE)	-
<b>1</b>	310624	WELDMENT, Control box	1
<b>2</b>	108703	COVER, Bottom (Boxes equipped without Horn)	1
	310625	COVER, Bottom,	1
	104607	• SCREW, Set #6-32 x 1/2" lg.	9
<b>3</b>	(Ref.)	CONTROLLER ASSEMBLY, Proportional (For components, refer to Figure 6-10B.)	1 -
<b>4</b>	122093	INDICATOR, Battery charge	1
<b>5</b>	(Ref.)	SWITCH ASSEMBLY, Key off/on, <b>A, B, D</b>	1
	100149	• WASHER	1
	102754	• HEAD, 2-Position key switch	1
	104460	• • KEY, #455	AR
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
	(Ref.)	SWITCH ASSEMBLY, Key base/off/platform, <b>C, E</b>	1
	100149	• WASHER	1
	102753	• HEAD, 3-Position key switch	1
	104460	• • KEY, #455	AR
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	2
<b>6</b>	(Ref.)	LABEL, Power off/on, <b>A, B, D</b> (Refer to Figure 6-38.)	1 -
	(Ref.)	LABEL, Base/off/platform, <b>C, E</b> (Refer to Figure 6-38.)	1 -
<b>7</b>	(Ref.)	SWITCH ASSEMBLY, Emergency stop	1
	100149	• WASHER, Switch	1
	102769	• HEAD, Stop switch	1
	103100	• BASE, Contact	1
	103225	• BLOCK, N.C. Contact	1
<b>8</b>	(Ref.)	LABEL, Emergency stop (Refer to Figure 6-38.)	1 -
<b>9</b>	116382	SWITCH, Lift/off/drive toggle	1
<b>10</b>	114377	PLUG, Hole 1/2"	1
<b>11</b>	111181	GUARD, Toggle switch	1
<b>12</b>	300460	PLUG, Hole 7/8"	AR
<b>13</b>	103012	BLOCK, Terminal	AR
	103955	• SCREW, #6-32 x 3/4" lg.	1
	114678	• SCREW, #6-32 x 1/2" lg.	1
	106099	• WASHER, Lock #6	2
	103985	• NUT, #6-32	2
<b>Parts list continued on the following page.</b>			



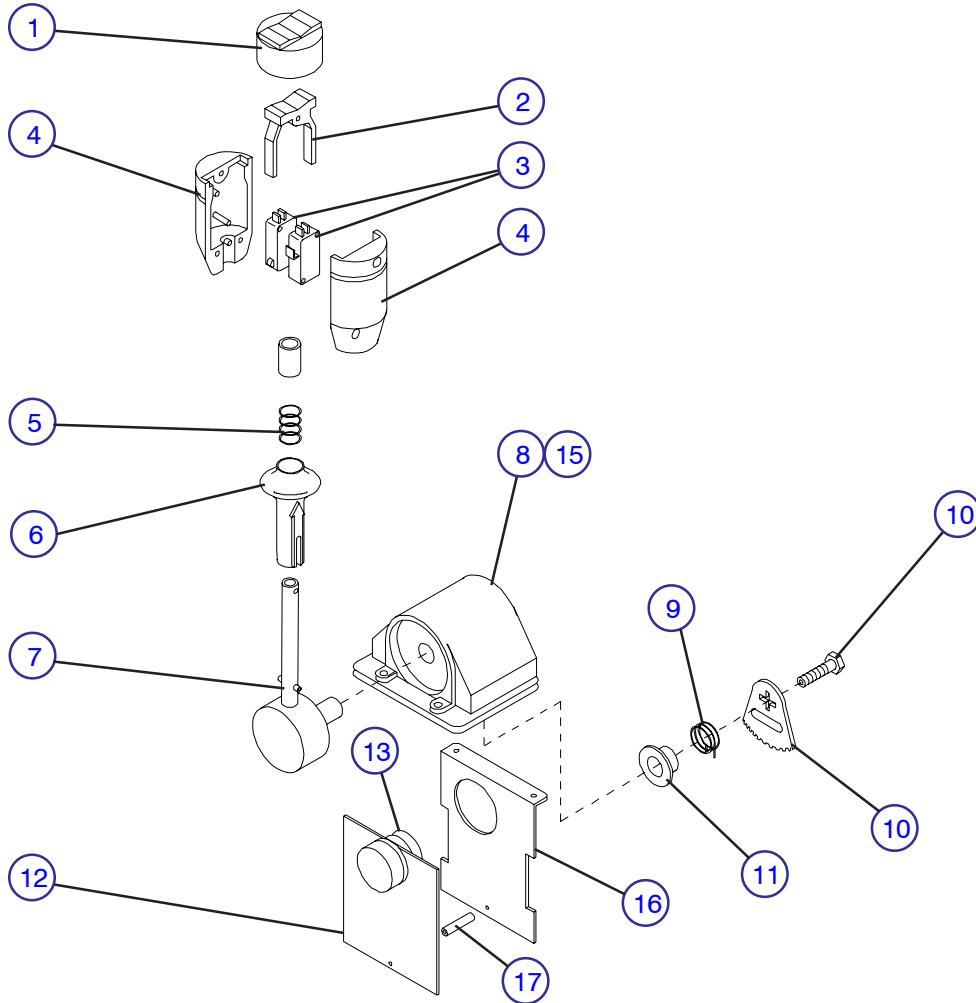
**FIGURE 6-9B. CONTROL BOX ASSEMBLY (continued)**  
**(Used on Machines With Serial Numbers 150932 (3015), 229633 (3219) and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
14	119629	RESISTOR, 2.7K	1
15	300788	STRAIN RELIEF, Cable,	1
16	119642	CABLE ASSEMBLY, Control box, <b>A</b>	1
	102888	• CABLE, 16/10	37"
	102766	• PLUG, 10 Pole male	1
	119456	• COVER, Connector	1
	(Ref.)	• LABEL, Proportional connector (Refer to Figure 6-38.)	AR -
17	(Ref.)	LABEL, Proportional connector (Refer to Figure 6-38.)	AR -
18	114547	CABLE ASSEMBLY, Control box, <b>B</b>	1
	102888	• CABLE, 16/10	27"
	107778	• CONNECTOR ASSEMBLY, 10 Pole male	1
19	310325	CABLE ASSEMBLY, Control box, <b>C, D, E</b>	1
	102887	• CABLE, 16/15	37"
	119727	• PIN, Code	2
	107820	• CONNECTOR ASSEMBLY, 16 Pin	1
	103564	• • HOUSING	1
	103574	• • INSERT, Male	1
20	(Ref.)	LABEL, Operator warning (Refer to Figure 6-38.)	1 -
21	(Ref.)	LABEL, Controller lift/drive (Refer to Figure 6-38.)	1 -
22	(Ref.)	LABEL, Lift/off/drive (Refer to Figure 6-38.)	1 -
23	(Ref.)	SWITCH ASSEMBLY, Horn push-button,	1
	100149	• WASHER	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
24	(Ref.)	LABEL, Horn (Refer to Figure 6-38.)	1 -
25	121058	HORN, 24 Volt operator,	1
26	102921	DIODE, 6 Amp 1000PIV,	2
27	300460	PLUG, 7/8" Snap	
28	310626	CORD ASSEMBLY, Powered platform control box	1
	103255	• CORD, 18/4	27"
	107711	• CONNECTOR ASSEMBLY, 5 Pole female	1
		<b>Parts list continued on the following page.</b>	

**FIGURE 6-9B. OPERATOR'S CONTROL BOX ASSEMBLY (continued)**  
**(Used on Machines With Serial Numbers 150932 (3015), 229633 (3219) and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
29	310627	CORD ASSEMBLY, Valve manifold	1
	103255	• CORD, 18/4	27"
	107711	• CONNECTOR ASSEMBLY, 5 Pole female	1
30	310247	CABLE ASSEMBLY, Scissors, <b>A</b> (Model 3015)	1
	310246	CABLE ASSEMBLY, Scissors, <b>A</b> (Model 3219)	1
	102888	• CABLE, 16/10 x 288" lg. (Model 3015)	1
	102888	• CABLE, 16/10 x 348" lg. (Model 3219)	1
	102518	• SOCKET, 10 pin female	1
	102766	• PLUG, 10 pin male	1
	119456	• COVER, Connector	2
	(Ref.)	• LABEL, Proportional connector (Refer to Figure 6-38.)	AR
31	114553	CABLE ASSEMBLY, Scissors, <b>B</b> (Model 3015)	1
	114552	CABLE ASSEMBLY, Scissors, <b>B</b> (Model 3219)	1
	102888	• CABLE, 16/10 x 288" lg. (Model 3015)	1
	102888	• CABLE, 16/10 x 348" lg. (Model 3219)	1
	107778	• CONNECTOR, 10 pole male	1
	107777	• CONNECTOR, 10 pole female	1
32	310255	CABLE ASSEMBLY, Scissors, <b>C, D, E</b> (Model 3015)	1
	310254	CABLE ASSEMBLY, Scissors, <b>C, D, E</b> (Model 3219)	1
	102887	• CABLE, 16/15 x 288" lg. (Model 3015)	1
	102887	• CABLE, 16/15 x 348" lg. (Model 3219)	1
	107820	• CONNECTOR, 16 pole male	1
	107821	• CONNECTOR, 16 pole female	1
33	103628	SEAL, Rubber 45" lg., <b>B</b>	1
34	124199	LABEL, Joystick Controller (Refer to Figure 6-38.)	1
	(Ref.)	LABEL, Enable Joystick (Refer to Figure 6-38.)	-
35	(Ref.)	LABEL, Enable Joystick (Refer to Figure 6-38.)	1
	(Ref.)	LABEL, Operating instructions (Models equipped with enable switch) (Refer to Figure 6-38.)	-
36	(Ref.)	LABEL, Operating instructions (Models equipped with enable switch) (Refer to Figure 6-38.)	1
	(Ref.)	LABEL, Operating instructions (Models equipped with enable switch) (Refer to Figure 6-38.)	-
37	124153	GUARD, Joystick	1
38	120094	SCREW, 10 - 32 x .63	6
39	104694	WASHER, Flat #10	2
40	104185	WASHER, Lock #10	6
41	104003	NUT, Machine #10 - 32	2
42	124002	ADAPTER, Joystick	1
43	124029	GASKET, Joystick	1
44	300831	SCREW, Machine flat head #10 - 32 x 5/8"	2
		<b>\$</b> - Consult factory.	

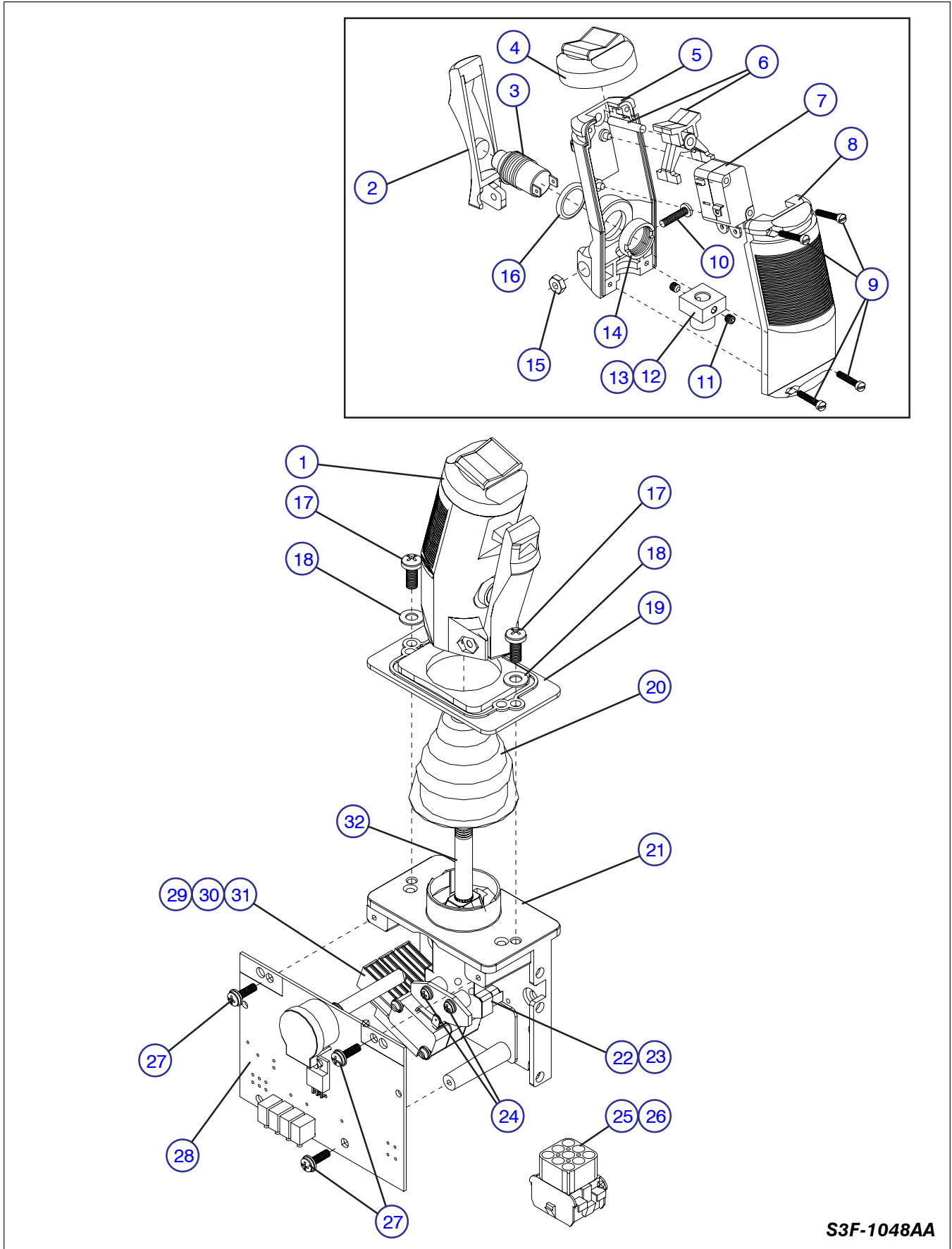
**FIGURE 6-10A. PROPORTIONAL CONTROLLER ASSEMBLY**  
*(Used on Machines With Serial Numbers 150931 (3015), 229632 (3219) and Below)*



**MA-SJM-43**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	115311	CONTROLLER ASSEMBLY, Proportional	-
1	105735	• CAP, Elastic	1
2	105734	• ACTUATOR, Rocker	1
3	105733	• SWITCH, Directional	2
4	105738	• KNOB HALF	2
5	105737	• SPRING, Compression	1
6	105736	• SLIDE LOCK	1
7	105378	• HANDLE EXTENSION	1
8	106729	• HOUSING	1
9	106730	• SPRING, Handle return	1
10	106725	• RATCHET	1
11	106726	• BUSHING, Spring	1
12	117150	• CIRCUIT BOARD ASSEMBLY	1
13	102768	• • SWITCH W/ACTUATOR	2
14	106731	• SCREW, Hollow	1
15	110982	• GASKET, Housing	1
16	117151	• BRACKET, Circuit board support	1
17	117152	• SPACER, Circuit board	1

**FIGURE 6-10B. PROPORTIONAL CONTROLLER ASSEMBLY**  
 (Used on Machines With Serial Numbers 150932 (3015), 229633 (3219) and Above)

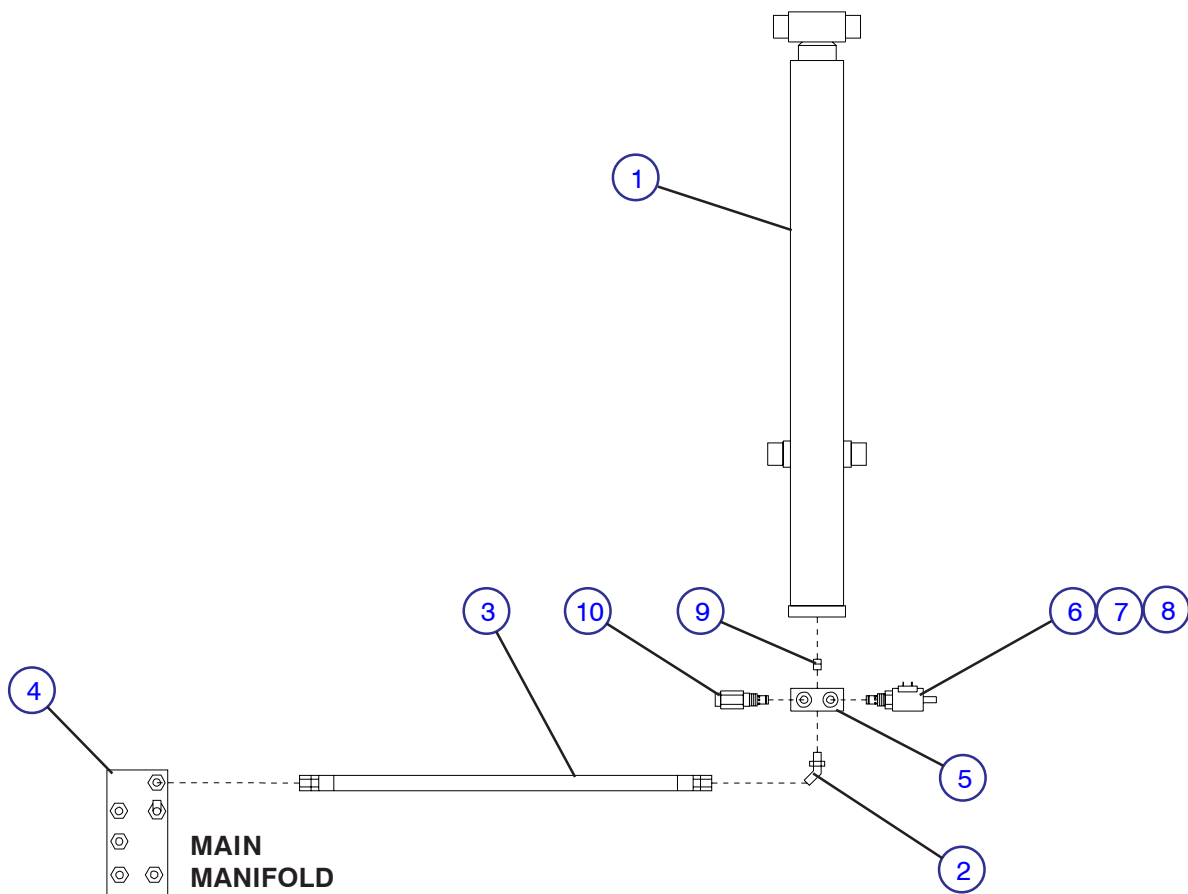


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**FIGURE 6-10B. PROPORTIONAL CONTROLLER ASSEMBLY**  
*(Used on Machines With Serial Numbers 150932 (3015), 229633 (3219) and Above)*

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	123994	CONTROLLER ASSEMBLY, Enable Joystick	-
<b>1</b>	122849	• HANDLE ASSEMBLY	1
<b>2</b>	122873	• • LEVER, Trigger	1
<b>3</b>	122872	• • SWITCH, Push button	1
<b>4</b>	122874	• • CAP, Rubber	1
<b>5</b>	122875	• • HANDLE, Front portion	1
<b>6</b>	122876	• • ROCKER ASSEMBLY	1
<b>7</b>	122877	• • SWITCH ASSEMBLY, Micro	2
<b>8</b>	122878	• • HANDLE, Back half	1
<b>9</b>	122879	• • SCREW, Joystick handle	4
<b>10</b>	122959	• • SCREW, Joystick lever	1
<b>11</b>	122960	• • SCREW, set	2
<b>12</b>	122961	• • COUPLING, 8mm	1
<b>13</b>	122962	• • COUPLING, 10mm	1
<b>14</b>	122963	• • NUT, Push button	1
<b>15</b>	122964	• • NUT, Joystick lever	1
<b>16</b>	122965	• • FITTING, O-Ring	1
<b>17</b>	122846	• SCREW	2
<b>18</b>	122847	• WASHER	2
<b>29</b>	122859	• GASKET	1
<b>20</b>	122848	• BOOT	1
<b>21</b>	122871	• BASE	1
<b>22</b>	122850	• SPACER	1
<b>23</b>	122851	• CAM	1
<b>24</b>	122852	• SCREW, Cam	2
<b>25</b>	122840	• CONNECTOR ASSEMBLY, Male 9 pole	1
	116993	• • HOUSING, Connector Male 9 pole	1
	116990	• • PIN, Female wire	9
<b>26</b>	122841	• CONNECTOR ASSEMBLY, Female 9 pin	1
	122839	• • HOUSING, Connector Female 9 pin	1
	116989	• • PIN, Male wire	9
<b>27</b>	122867	• SCREW, Circuit board	3
<b>28</b>	122868	• CIRCUIT BOARD ASSEMBLY	1
<b>29</b>	122869	• SWITCH, Micro	3
<b>30</b>	122870	• WASHER, Switch micro	2
<b>31</b>	122857	• SCREW, Switch micro	2
<b>32</b>	124820	• SHAFT, Modified Joystick	1

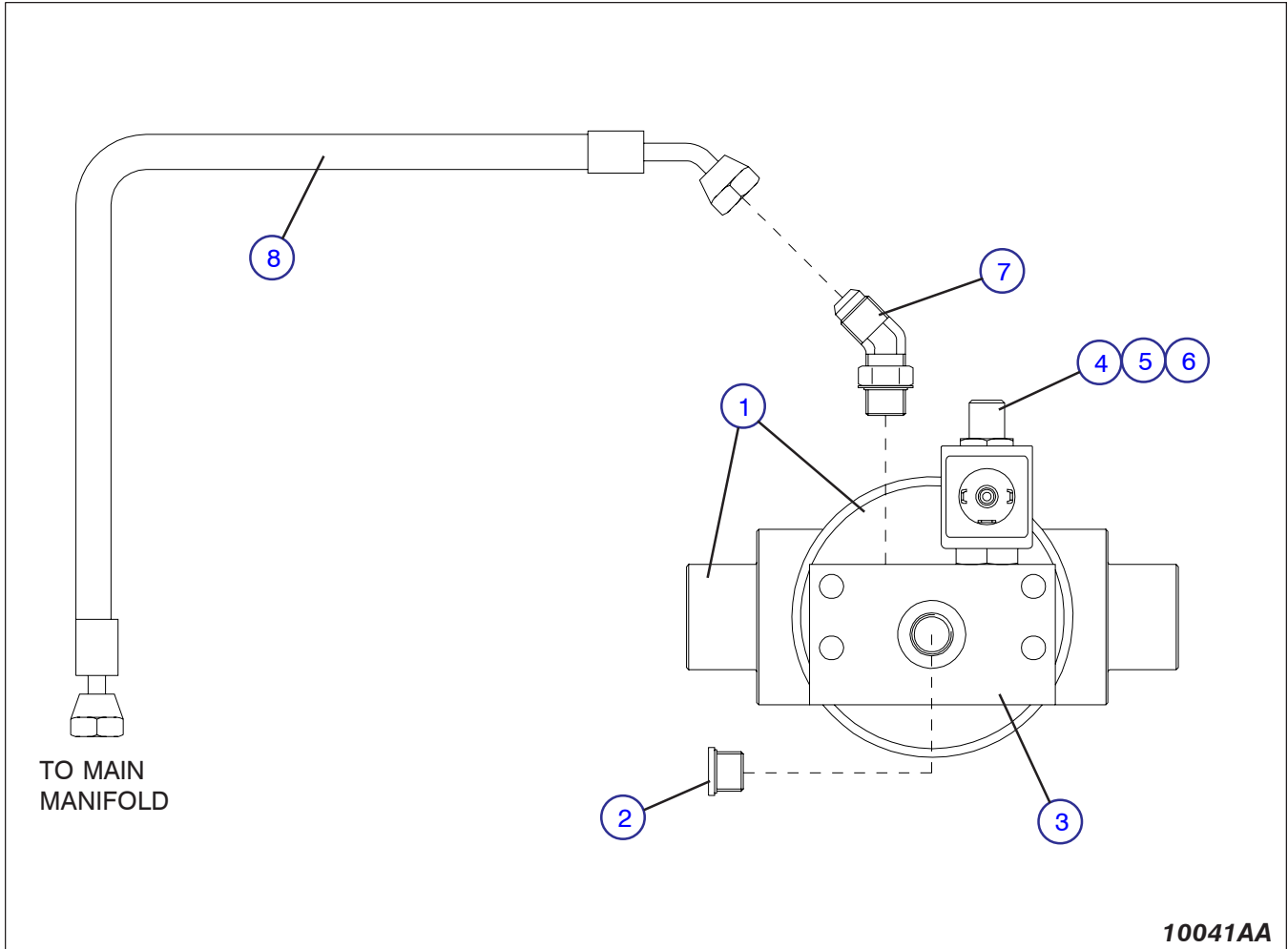
**FIGURE 6-11A. HYDRAULIC HOSE CONNECTIONS - Scissors  
(Cylinders Equipped With A Relief Valve)**



**MA-COMP-06**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CYLINDER ASSEMBLY, Lift (For components, refer to Figure 6-14 or 6-15.)	1
2	114580	FITTING, Elbow 45° #6orb-#6	1
3	102578	HOSE ASSEMBLY, Lift cylinder (Model 3015)	1
	111315	HOSE ASSEMBLY, Lift cylinder (Model 3219)	1
4	(Ref.)	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6-29.)	1
3	(Ref.)	BLOCK, Holding valve (For components, refer to Figure 6-14 or 6-15.)	1
6	107269	VALVE, N.C. (holding)	1
7	104493	COIL, 24 Volt	1
8	117518	CONNECTOR, Clear	1
9	(Ref.)	ORIFICE (For components, refer to Figure 6-14 or 6-15.)	1
10	106557	VALVE, Relief	1

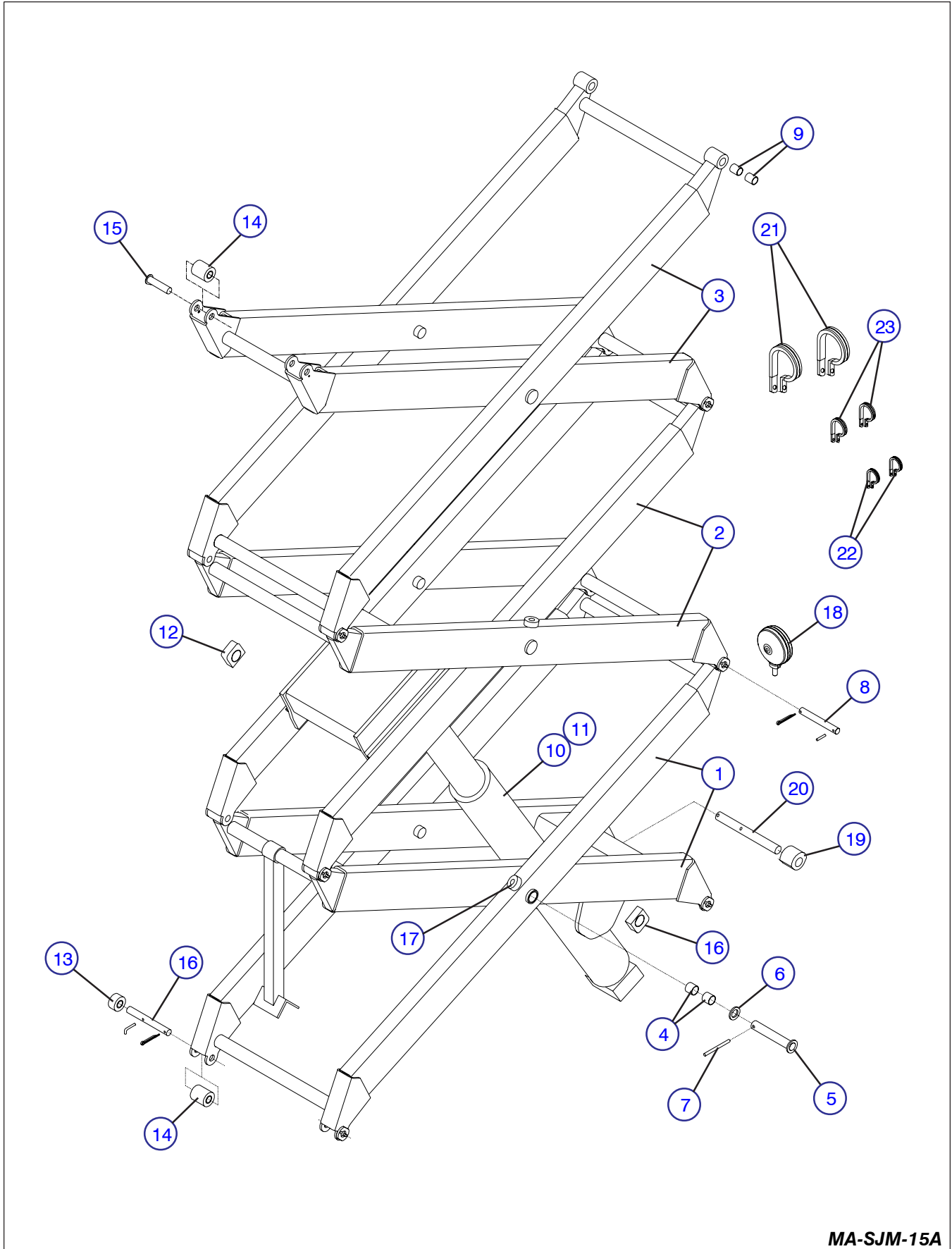
**FIGURE 6-11B. HYDRAULIC HOSE CONNECTIONS - Scissors  
(Cylinders Not Equipped With A Relief Valve)**



10041AA

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CYLINDER ASSEMBLY, Lift (For components, refer to Figure 6-14 or 6-15.)	1
2	104437	FITTING, #6 Plug	1
3	(Ref.)	BLOCK, Holding valve (For components, refer to Figure 6-14 or 6-15.)	1
4	107269	VALVE, N.C. (holding)	1
5	104493	COIL, 24 Volt	1
6	117518	CONNECTOR, Clear	1
7	114580	FITTING, Elbow 45° #6orb-#6	1
8	102578	HOSE ASSEMBLY, Lift cylinder (Model 3015)	1
	111315	HOSE ASSEMBLY, Lift cylinder (Model 3219)	1

**FIGURE 6-12. SCISSOR ARM ASSEMBLY - Model 3015**

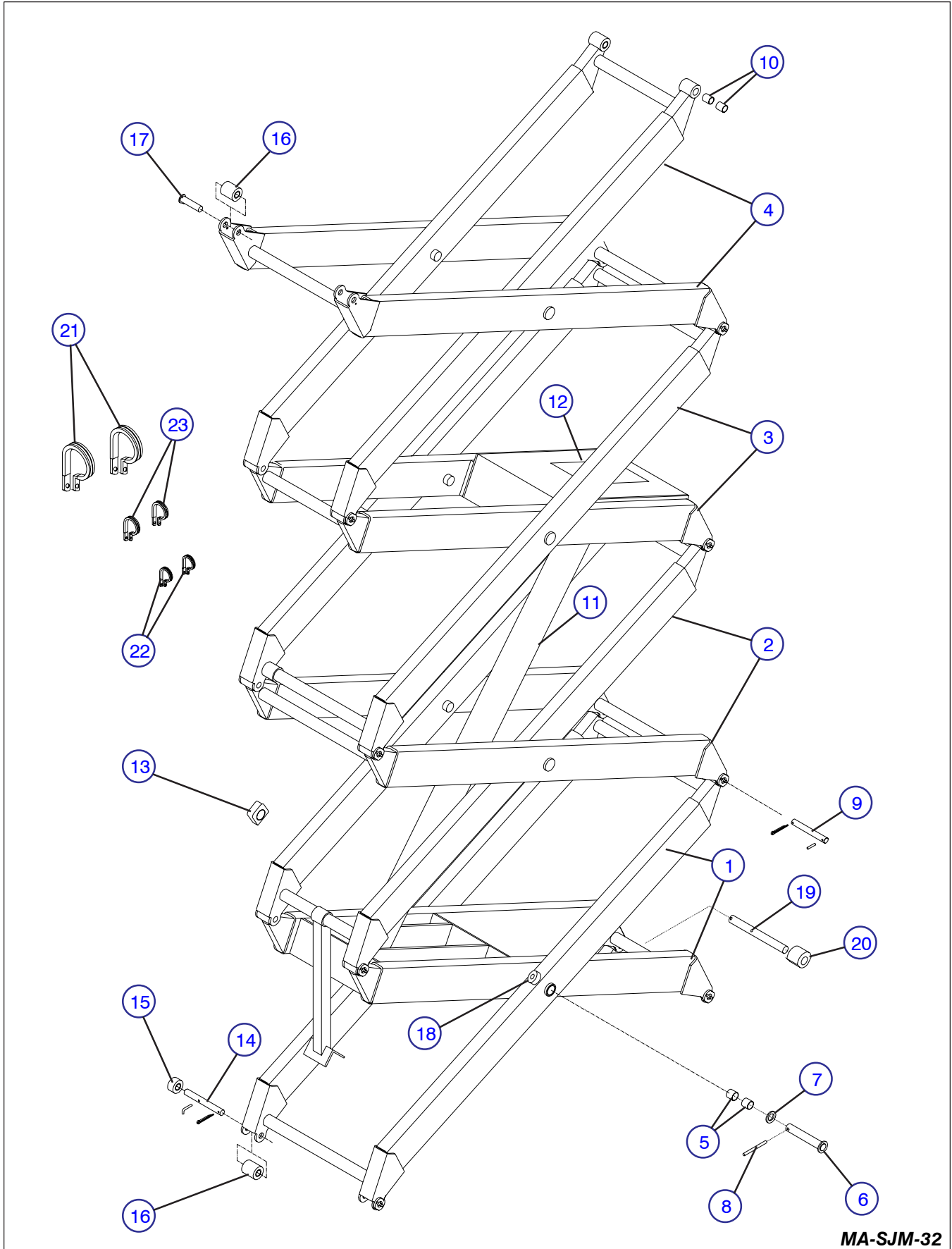




**FIGURE 6-12. SCISSOR ARM ASSEMBLY - Model 3015**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	106602	SCISSOR STACK, Complete	-
<b>B</b>	310605	SCISSOR STACK, Powered Extension Platform Complete	-
<b>1</b>	119093	• ARM ASSEMBLY, First level, <b>A</b>	1
	124867	• ARM ASSEMBLY, First level, <b>B</b>	1
<b>2</b>	119094	• ARM ASSEMBLY, Second level, <b>A</b>	1
	124868	• ARM ASSEMBLY, Second level, <b>B</b>	1
	114614	• • WELDMENT, Safety bar	1
<b>3</b>	119095	• ARM ASSEMBLY, Third level, <b>A</b>	1
	124869	• ARM ASSEMBLY, Third level, <b>B</b>	1
	(Ref.)	• KIT, Center pin service	AR
<b>4</b>	100071	• • BUSHING, Center pin	24
<b>5</b>	100900	• • PIN, Center	6
<b>6</b>	101520	• • WASHER, Nylon	6
<b>7</b>	100903	• • PIN, Retainer	6
<b>8</b>	100046	• PIN, End	8
	100825	• • PIN, Roll 1/4" x 1-1/4" lg.	8
	104346	• • PIN, Cotter 1/4" x 1" lg.	8
<b>9</b>	100050	• BUSHING, End pin	20
<b>10</b>	(Ref.)	• CYLINDER ASSEMBLY, Lift	1
		(For components, refer to Figure 6-14.)	-
<b>11</b>	(Ref.)	• • TRUNNION, Cylinder rod end pivot	1
		(For components, refer to Figure 6-14.)	-
<b>12</b>	101076	BLOCK, Cylinder mounting	4
	100904	• BUSHING	4
	103869	• BOLT, Hex-hd 5/16-18 x 4-1/2" lg.	4
	100397	• NUT, Hex 5/16-18	4
<b>13</b>	100140	ROLLER, Retainer	2
	119532	• BUSHING	2
<b>14</b>	(Ref.)	ROLLER ASSEMBLY, Scissors	4
	119532	• BUSHING	8
	100049	• ROLLER	4
<b>15</b>	102237	PIN, Top roller	2
	103855	• BOLT, Hex-hd 1/4-20 x 1/2" lg.	2
	104000	• WASHER, Lock 1/4"	2
	105686	• BOLT, Hex-hd 3/4-16 x 3" lg.	1
<b>16</b>	100047	PIN, Lower roller	2
	100825	• PIN, Retainer 1/4" x 1-3/16" lg.	2
	104346	• PIN, Cotter 1/4" x 1" lg.	2
<b>17</b>	109051	BUMPER, Scissor	4
	300511	• SCREW, Machine #10-32 x 3/4" lg.	4
<b>18</b>	(Ref.)	LIGHT ASSEMBLY, Flashing amber (Option)	1
		(For components, refer to Figure 6-17.)	-
<b>19</b>	100967	CAM, Limit switch (CE)	AR
<b>20</b>	107973	PIN, Cam limit switch (CE)	AR
<b>21</b>	123715	CLAMP, G40 (Ontario Option)	AR
<b>22</b>	102972	CLAMP, G8 (Ontario Option)	AR
<b>23</b>	103078	CLAMP, Double G10	2
	103995	WASHER, Flat 1/4"	4
	103855	BOLT, Hex head 1/4" - 20 X 1/2"	2
	300039	NUT, Nylock 1/4" - 20	2
	124445	CLIP, Double	8
	103962	BOLT, Machine #10 - 32 x 1/2"	8
	104694	WASHER, Flat #10 S.A.E.	8
	104185	WASHER, Lock #10	8
	104003	NUT, Machine #10 - 32	8

**FIGURE 6-13. SCISSOR ARM ASSEMBLY - Model 3219**

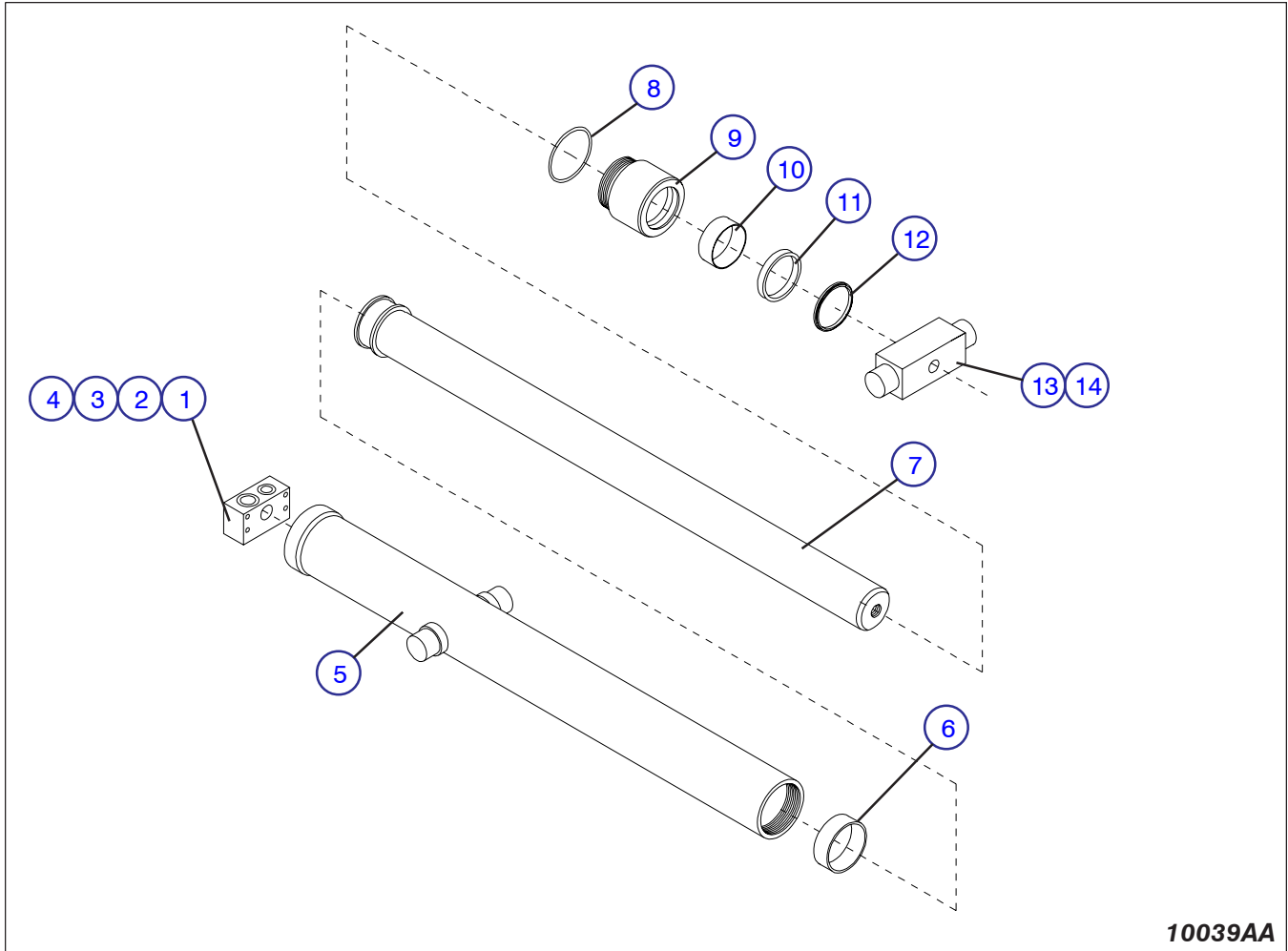


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**FIGURE 6-13. SCISSOR ARM ASSEMBLY - Model 3219**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	109928	SCISSOR STACK, Complete	-
<b>B</b>	310604	SCISSOR STACK, Powered Extension Platform Complete	-
<b>1</b>	119089	• ARM ASSEMBLY, First level, <b>A</b>	1
	124863	• ARM ASSEMBLY, First level, <b>B</b>	1
<b>2</b>	119090	• ARM ASSEMBLY, Second level, <b>A</b>	1
	124864	• ARM ASSEMBLY, Second level, <b>B</b>	1
	114614	• • WELDMENT, Safety bar	1
<b>3</b>	119091	• ARM ASSEMBLY, Third level, <b>A</b>	1
	124865	• ARM ASSEMBLY, Third level, <b>B</b>	1
<b>4</b>	119092	• ARM ASSEMBLY, Fourth level, <b>A</b>	1
	124866	• ARM ASSEMBLY, Fourth level, <b>B</b>	1
	(Ref.)	• KIT, Center pin service	AR
<b>5</b>	100071	• • BUSHING, Center pin	32
<b>6</b>	100900	• • PIN, Center	8
<b>7</b>	101520	• • WASHER, Nylon	8
<b>8</b>	100903	• • PIN, Retainer	8
<b>9</b>	100046	• PIN, End	12
	100825	• • PIN, Roll 1/4" x 1-1/4" lg.	12
	104346	• • PIN, Cotter 1/4" x 1" lg.	12
<b>10</b>	100050	• BUSHING, End pin	28
<b>11</b>	(Ref.)	• CYLINDER ASSEMBLY, Lift (For components, refer to Figure 6-15.)	1
	(Ref.)	• • TRUNNION, Cylinder rod end pivot (For components, refer to Figure 6-15.)	-
<b>12</b>	(Ref.)	• • TRUNNION, Cylinder rod end pivot (For components, refer to Figure 6-15.)	1
	(Ref.)	• • TRUNNION, Cylinder rod end pivot (For components, refer to Figure 6-15.)	-
<b>13</b>	101076	BLOCK, Cylinder mounting	4
	100904	• BUSHING	4
	103869	• BOLT, Hex-hd 5/16-18 x 4-1/2" lg.	4
	100397	• NUT, Hex 5/16-18	4
<b>14</b>	100047	PIN, Lower roller	2
	100825	• PIN, Retainer 1/4" x 1-3/16" lg.	2
	104346	• PIN, Cotter 1/4" x 1" lg.	2
<b>15</b>	100140	ROLLER, Retainer	2
	119532	• BUSHING	2
<b>16</b>	(Ref.)	ROLLER ASSEMBLY, Scissors	4
	119532	• BUSHING	8
	100049	• ROLLER	4
<b>17</b>	102237	PIN, Top roller	2
	103855	• BOLT, Hex-hd 1/4-20 x 1/2" lg.	2
	104000	• WASHER, Lock 1/4"	2
<b>18</b>	109051	BUMPER, Scissor	4
	300511	• SCREW, Machine #10-32 x 3/4" lg.	4
<b>19</b>	107973	PIN, Cam limit switch (CE)	AR
<b>20</b>	100967	CAM, Limit switch (CE)	AR
<b>21</b>	123715	CLAMP, G40 (Ontario Option)	AR
<b>22</b>	102972	CLAMP, G8 (Ontario Option)	AR
<b>23</b>	103078	CLAMP, Double G10	1
	103995	WASHER, Flat 1/4"	2
	103855	BOLT, Hex head 1/4" - 20 X 1/2"	1
	300039	NUT, Nylock 1/4" - 20	1
	124445	CLIP, Double	12
	103962	BOLT, Machine #10 - 32 x 1/2"	12
	104694	WASHER, Flat #10 S.A.E.	12
	104185	WASHER, Lock #10	12
	104003	NUT, Machine #10 - 32	12

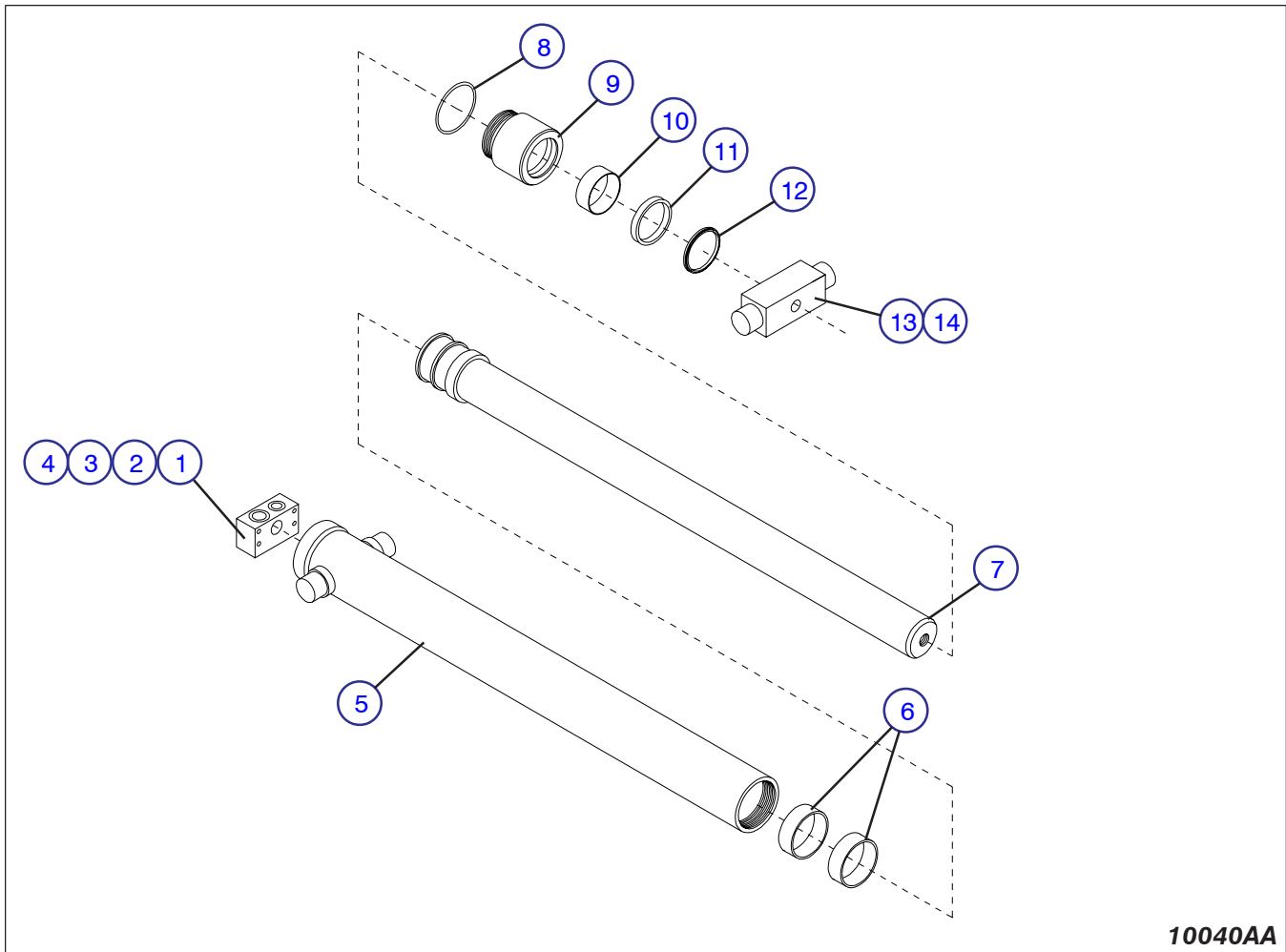
**FIGURE 6-14. LIFT CYLINDER ASSEMBLY - Model 3015**



**10039AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	106581	CYLINDER ASSEMBLY, Lift	-
1	106689	• MANIFOLD, Holding Valve	1
2	105281	• ORIFICE, One-way .067 diameter	1
3	103405	• BOLT, 5/16" x 2"	4
	104637	• WASHER, 5/16" Lock	4
4	103403	• SEAL, O-Ring	1
5	106558	• WELDMENT, Cylinder barrel	1
*6	106582	• RING, Piston wear	1
7	114644	• ROD ASSEMBLY, Piston	1
*8	106583	• O-RING, Gland	1
9	106563	• GLAND, Front end	1
*10	106227	• RING, Rod wear	1
*11	106228	• SEAL, Rod	1
*12	106229	• WIPER, Rod	1
13	105985	• TRUNNION	1
14	105686	• BOLT, 3/4-16 x 3	1
		* Part of Seal Repair Kit, 108098.	

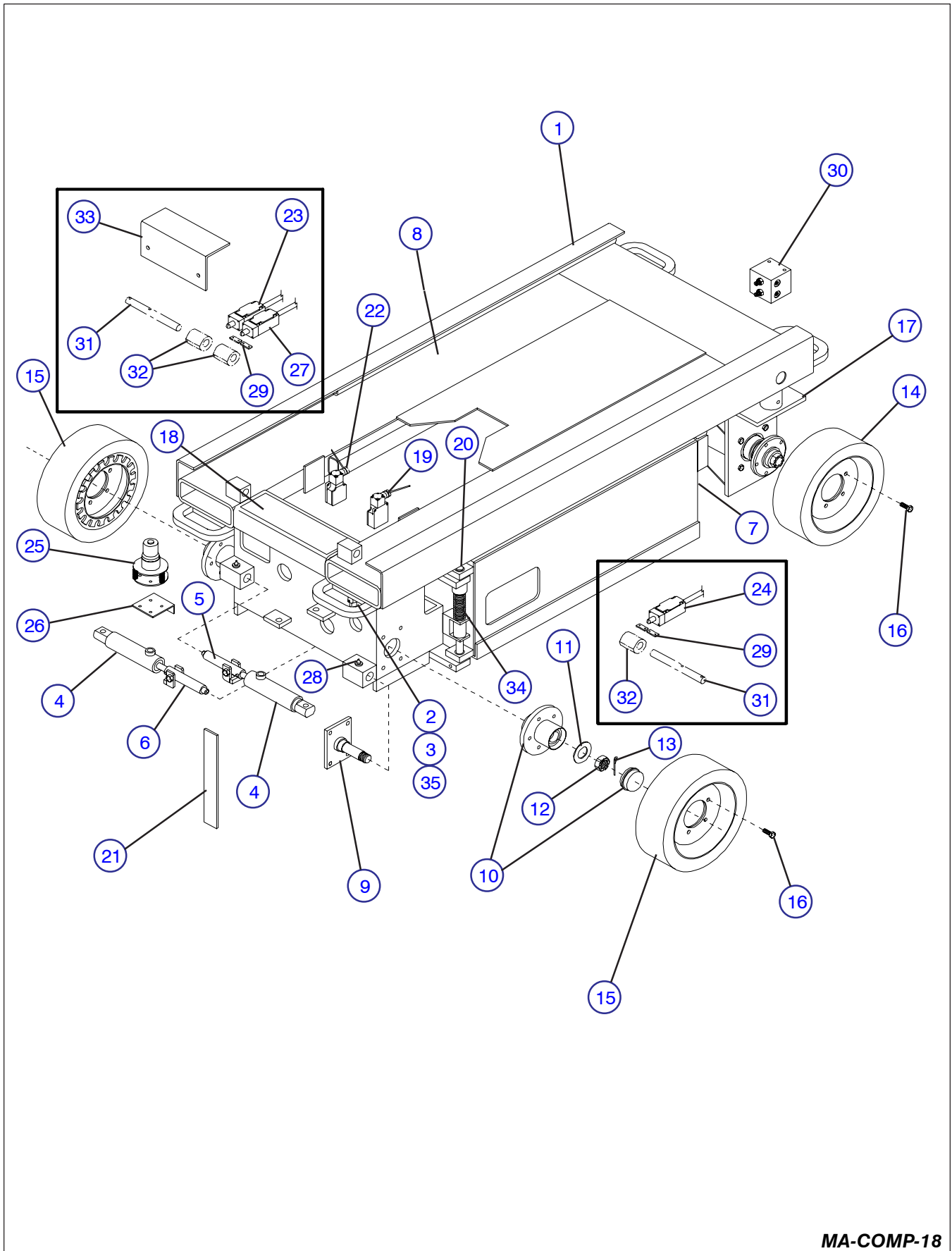
**FIGURE 6-15. LIFT CYLINDER ASSEMBLY - Model 3219**



**10040AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	110683	CYLINDER ASSEMBLY, Lift	-
1	106689	• MANIFOLD, Holding Valve	1
2	105281	• ORIFICE, One-way .067 diameter	1
3	103405	• BOLT, 5/16" x 2"	4
	104637	• WASHER, 5/16" Lock	4
4	103403	• SEAL, O-Ring	1
5	110681	• WELDMENT, Cylinder barrel	1
*6	106220	• RING, Piston wear	2
7	114646	• ROD ASSEMBLY, Piston	1
*8	106223	• O-RING, Gland	1
9	106209	• GLAND, Front end	1
*10	106219	• RING, Rod wear	1
*11	106222	• SEAL, Rod	1
*12	106221	• WIPER, Rod	1
13	105985	• TRUNNION	1
14	105686	• BOLT, 3/4-16 x 3	1
		* Part of Seal Repair Kit, 105888.	

**FIGURE 6-16. BASE, AXLES AND WHEELS - Model 3015**



**MA-COMP-18**

**FIGURE 6-16. BASE, AXLES AND WHEELS - Model 3015**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	310140	WELDMENT, Base with dual brakes (ANSI/SIA and CSA)	1
	310334	WELDMENT, base with dual brakes (CE)	1
2	102600	SWITCH, Main power disconnect	1
	108714	• KIT, Switch lockout	1
3	105983	LABEL, Power off/on	1
4	(Ref.)	CYLINDER ASSEMBLY, Brake (For components, refer to Figure 6-20.)	2 -
	103897	• BOLT, Hex-hd 5/8-11 x 2" lg.	1
	103982	• NUT, Hex jam 5/8-11	1
5	104488	WELDMENT, Brake pin LH	1
	103940	• BOLT, Soc-hd 1/4-20 x 1-1/4" lg.	1
	104000	• WASHER, Lock 1/4"	1
	103980	• NUT, Hex 1/4-20	1
6	105890	WELDMENT, Brake pin RH	1
	103940	• BOLT, Soc-hd 1/4-20 x 1-1/4" lg.	1
	104000	• WASHER, Lock 1/4"	1
	103980	• NUT, Hex 1/4-20	1
7	(Ref.)	TRAY ASSEMBLY, Battery (For components, refer to Figure 6-32.)	1 2
8	(Ref.)	TRAY ASSEMBLY, Hydraulic/electric (For components, refer to Figure 6-26.)	1 2
9	107503	WELDMENT, Rear axle spindle	2
	101297	• BOLT, Hex-hd 3/8-16 x 1-1/4" lg.	8
	103999	• WASHER, Lock 3/8"	8
	103978	• NUT, Hex 3/8-16	8
10	108101	HUB ASSEMBLY, Rear axle	2
	107502	• HUB, Rear axle	2
	103003	• BEARING, Cone	2
	103143	• SEAL, Grease	2
	102865	• CAP, Dust	2
11	102829	WASHER, Flat	2
12	102749	NUT, Castle 1"-14	2
13	103085	PIN, Cotter 3/16" x 1-1/2" lg.	2
14	108020	WHEEL/TIRE ASSEMBLY (12 x 4.00 x 8 Non-Marking)	2
	119136	• RIM ASSEMBLY	AR
	112604	• TIRE, Non-marking (2 x 8.00 rim 2.50)	AR
	107914	WHEEL/TIRE ASSEMBLY (12 x 4.00 x 8 Black) (optional)	2
15	108022	WHEEL/TIRE ASSEMBLY W/BRAKE (12 x 4.00 x 8 Non-Marking)	2
	107913	WHEEL/TIRE ASSEMBLY W/BRAKE (12 x 4.00 x 8 Black) (optional)	2
	119868	• RIM W/BRAKE ASSEMBLY	AR
	112604	• TIRE, Non-marking (2 x 8.00 rim 2.50)	AR
16	103199	BOLT, Wheel 1/2-20	20
17	(Ref.)	STEER MECHANISM (For components, refer to Figure 6-22.)	1 2
18	108542	TREAD, Safety step	1

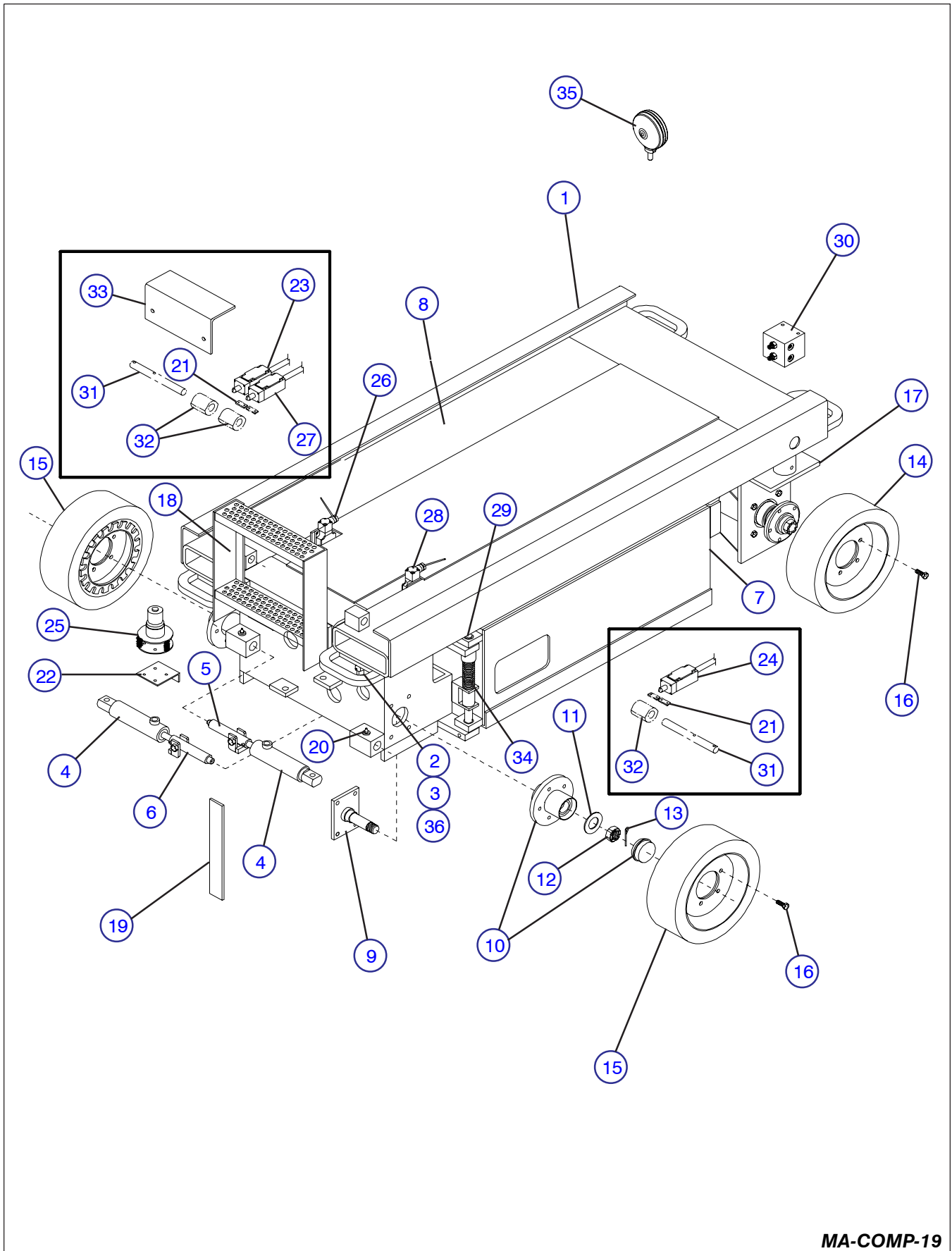
**Parts list continued on the following page.**

**FIGURE 6-16. BASE, AXLES AND WHEELS - Model 3015 (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
19	(Ref.)	SWITCH ASSEMBLY, High speed limit cut-out (ANSI/SIA and CSA)	1
	102848	• SWITCH, Limit	1
	102881	• HEAD, Limit switch	1
	103142	• ARM, Limit switch	1
	119130	• KIT, 4 Pole receptacle connector	1
	119132	• KIT, 8 Pole receptacle connector	1
20	100446	PIN, Eccentric tray leveler	2
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	2
21	115420	STRAP, Ground	1
22	310193	SWITCH ASSEMBLY, Drive override (ANSI/SIA and CSA)	1
	102848	• SWITCH, Limit	1
	102881	• HEAD, Limit switch	1
	103142	• ARM, Limit switch	1
	119128	• KIT, 2 Pole receptacle connector	1
23	310224	LIMIT SWITCH ASSEMBLY, High speed drive cut-out (CE)	1
	102847	• LIMIT SWITCH	1
	103017	• HEAD, Limit switch	1
	119133	• KIT, 8 Pole plug connector	1
24	310256	LIMIT SWITCH ASSEMBLY, Drive override (CE)	1
	102668	• LIMIT SWITCH	1
	103017	• HEAD, Limit switch	1
	119128	• KIT, 2 Pole receptacle connector	1
25	(Ref.)	TILT SWITCH ASSEMBLY, 8-28 Volt	1
		(For components, refer to figure 6-30 or 6-31)	-
	114866	• FUSE, 1 Amp	1
	119130	• KIT, 4 Pole receptacle connector	1
26	109505	PLATE, Tilt switch mounting	1
27	310215	LIMIT SWITCH ASSEMBLY, End-of-stroke (Optional for CE)	1
	102668	• SWITCH, Limit	1
	103017	• HEAD, Limit switch	1
	119129	• KIT, 2 Pole plug connector	1
28	102027	FITTING, Grease 1/8NPT	2
29	310184	PLATE, Limit switch mounting (CE) (welded to baseframe)	AR
	103962	• BOLT, Machine #10-32 x 1/2"	4
30	(Ref.)	FRONT AXLE MANIFOLD	1
		(For components, Refer to Figure 6-24)	-
	111711	• BOLT, Hex-hd 1/4-20 x 3 1/2" lg.	2
	104000	• WASHER, Lock 1/4"	2
	103980	• NUT, Hex-hd 1/4-20	2
31	(Ref.)	PIN, Limit switch (CE)	2
		(For components, Refer to Figure 6-12)	-
32	(Ref.)	CAM, Limit switch (CE)	AR
		(For components, Refer to Figure 6-12)	-
33	310263	COVER, Limit switch cam (CE)	2
34	(Ref.)	POTHOLE PROTECTION DEVICE	1
		(For components, refer to Figure 6-18)	-
35	105600	BOOT, Red Terminal Cover (not shown)	2



**FIGURE 6-17. BASE, AXLES AND WHEELS - Model 3219**



**MA-COMP-19**

**FIGURE 6-17. BASE, AXLES AND WHEELS - Model 3219**

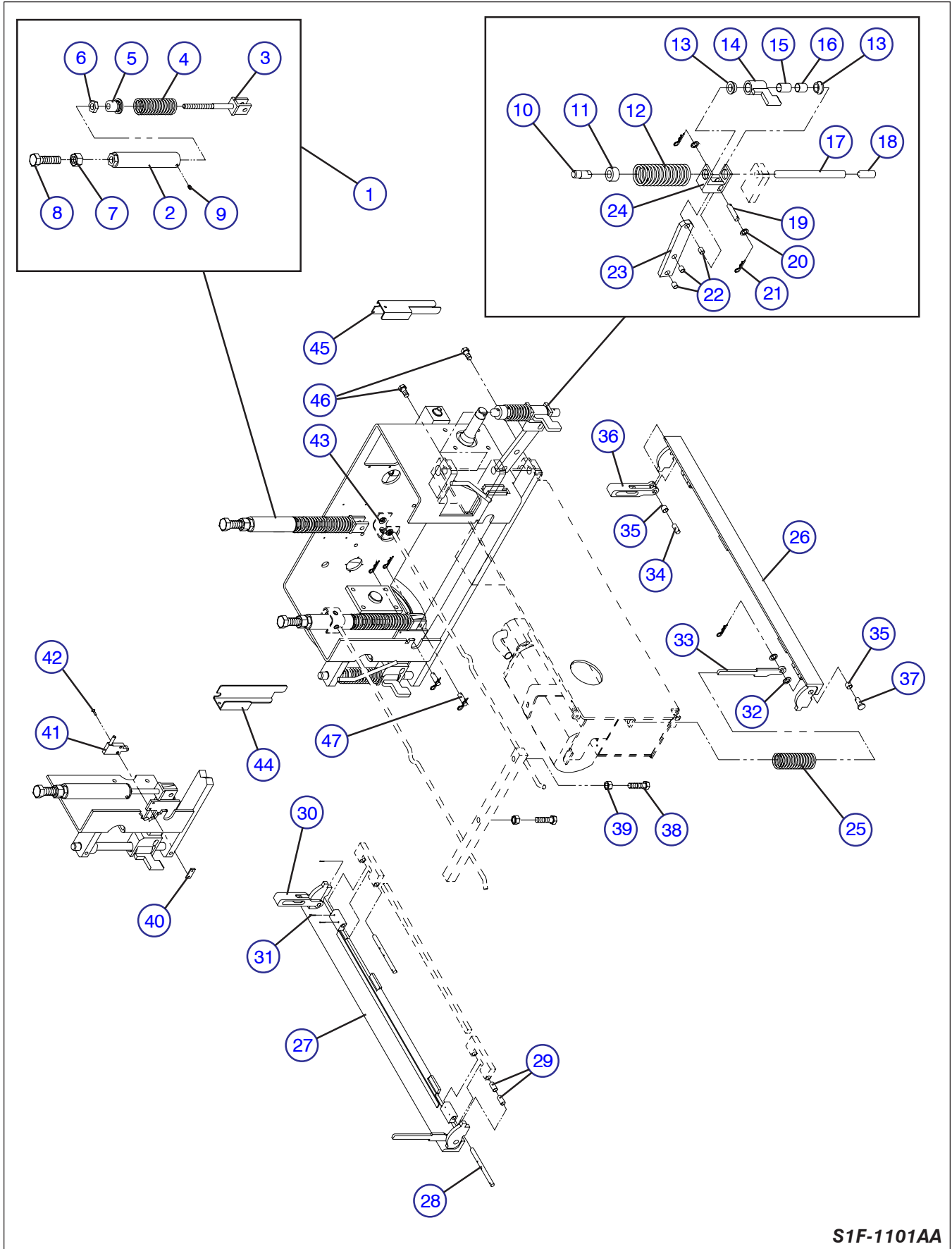
Index No.	Skyjack Part No.	Description	Units per Assy.
1	310139	WELDMENT, Base with dual brakes	1
2	102600	SWITCH, Main power disconnect	1
	108714	• KIT, Switch lockout	1
3	(Ref.)	LABEL, Power off/on (Refer to Figure 6-38)	AR
4	(Ref.)	CYLINDER ASSEMBLY, Brake (For components, refer to Figure 6-20.)	2
	103897	• BOLT, Hex-hd 5/8-11 x 2" lg.	2
	103982	• NUT, Hex jam 5/8-11	2
5	104488	WELDMENT, Brake pin LH	1
	103940	• BOLT, Soc-hd 1/4-20 x 1-1/4" lg.	1
	104000	• WASHER, Lock 1/4"	1
	103980	• NUT, Hex 1/4-20	1
6	105890	WELDMENT, Brake pin RH	1
	103940	• BOLT, Soc-hd 1/4-20 x 1-1/4" lg.	1
	104000	• WASHER, Lock 1/4"	1
	103980	• NUT, Hex 1/4-20	1
7	(Ref.)	TRAY ASSEMBLY, Battery (For Components, Refer to Figure 6-32)	1
8	(Ref.)	TRAY ASSEMBLY, Hydraulic/electric (For Components, Refer to Figure 6-26)	1
9	107503	WELDMENT, Rear axle spindle	2
	101297	• BOLT, Hex-hd 3/8-16 x 1-1/4" lg.	8
	103999	• WASHER, Lock 3/8"	8
	103978	• NUT, Hex 3/8-16	8
10	108101	HUB ASSEMBLY, Rear axle	2
	107502	• HUB, Rear axle	2
	103003	• BEARING, Cone	2
	103143	• SEAL, Grease	2
	102865	• CAP, Dust	2
11	300758	WASHER, Flat	2
12	102749	NUT, Castle 1"-14	2
13	103085	PIN, Cotter 3/16" x 1-1/2" lg.	2
14	108020	WHEEL/TIRE ASSEMBLY (12 x 4.00 x 8 Non-Marking)	2
	119136	• RIM ASSEMBLY	AR
	112604	• TIRE, Non-marking (2 x 8.00 rim 2.50)	AR
	107914	WHEEL/TIRE ASSEMBLY (12 x 4.00 x 8 Black) (optional)	2
15	108022	WHEEL/TIRE ASSEMBLY W/BRAKE (12 x 4.00 x 8 Non-Marking)	2
	107913	WHEEL/TIRE ASSEMBLY W/BRAKE (12 x 4.00 x 8 Black) (optional)	2
	119868	• RIM W/BRAKE ASSEMBLY	AR
	112604	• TIRE, Non-marking (2 x 8.00 rim 2.50)	AR
16	103199	BOLT, Wheel 1/2-20	20
17	(Ref.)	STEER MECHANISM (For Components, Refer to Figure 6-23)	1
18	109029	LADDER	2
19	115420	STRAP, Ground	1
20	102027	FITTING, Grease 1/8NPT	2
21	310184	PLATE, Limit switch mounting (CE) (welded to baseframe)	AR

**Parts list continued on the following page.**

**FIGURE 6-17. BASE, AXLES AND WHEELS - Model 3219 (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
22	109505	PLATE, Tilt switch mounting	1
23	310224	LIMIT SWITCH ASSEMBLY, High speed drive cut-out (CE)	1
	102847	• LIMIT SWITCH	1
	103017	• HEAD, Limit switch	1
	119133	• KIT, 8 Pole plug connector	1
24	310256	LIMIT SWITCH ASSEMBLY, Drive override (CE)	1
	102668	• LIMIT SWITCH	1
	103017	• HEAD, Limit switch	1
	119128	• KIT, 2 Pole receptacle connector	1
25	(Ref.)	TILT SWITCH ASSEMBLY, 8-28 Volt (For components, refer to figure 6-30 or 6-31)	1 -
26	310193	SWITCH ASSEMBLY, Drive override (ANSI/SIA and CSA)	1
	102848	• SWITCH, Limit	1
	102881	• HEAD, Limit switch	1
	103142	• ARM, Limit switch	1
	119128	• KIT, 2 Pole receptacle connector	1
27	310215	SWITCH ASSEMBLY, End-of-stroke limit (Option for CE)	1
	102668	• SWITCH, Limit	1
	103017	• HEAD, Limit switch	1
	119129	• KIT, 2 Pole plug connector	1
28	(Ref.)	SWITCH ASSEMBLY, High speed limit cut-out (ANSI/SIA and CSA)	1
	102848	• SWITCH, Limit	1
	102881	• HEAD, Limit switch	1
	103142	• ARM, Limit switch	1
	119130	• KIT, 4 Pole receptacle connector	1
	119132	• KIT, 8 Pole receptacle connector	1
29	100446	PIN, Eccentric tray leveler	2
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	2
30	(Ref.)	FRONT AXLE MANIFOLD (For components, Refer to Figure 6-24)	1 -
	111711	• BOLT, Hex-hd 1/4-20 x 3 1/2" lg.	2
	104000	• WASHER, Lock 1/4"	2
	103980	• NUT, Hex-hd 1/4-20	2
31	(Ref.)	PIN, Limit switch (CE) (For components, Refer to Figure 6-13)	2 -
32	(Ref.)	CAM, Limit switch (CE) (For components, Refer to Figure 6-13)	AR -
33	310263	COVER, Limit switch cam (CE)	2
34	(Ref.)	POTHOLE PROTECTION DEVICE (For components, refer to Figure 6-18)	1 -
35	121838	LIGHT ASSEMBLY, Flashing amber (Option)	1
	121477	• LIGHT, Beacon	1
	121533	• • LENS, Amber	1
	103111	• • BULB, 24 Volt	1
	103267	• FLASHER, 24 Volt	1
	102509	• CLAMP, Plastic	1
	103962	• BOLT, HSWH #10-32 x .5	1
	104185	• WASHER, lock #10	1
	104003	• NUT, Mach #10-32	1
36	105600	BOOT, Red Terminal Cover (not shown)	2

**FIGURE 6-18. POT HOLE PROTECTION DEVICE**

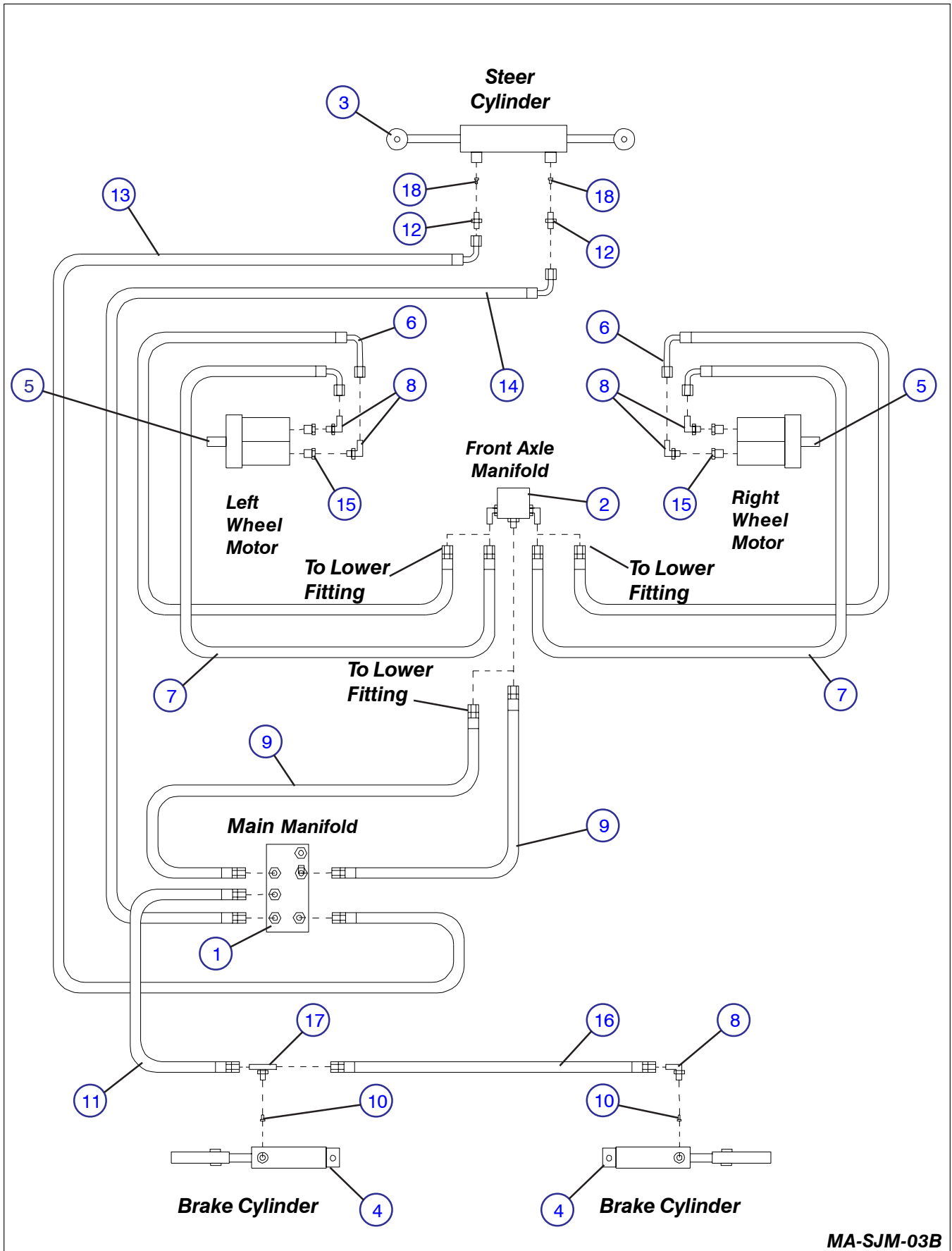


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**FIGURE 6-18. POT HOLE PROTECTION DEVICE**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	310228	SHOCK ASSEMBLY	2
2	118743	• WELDMENT, Compression tube	2
3	118727	• WELDMENT, Compression rod	2
4	119311	• SPRING, Shock	2
5	118742	• PLUG, Compression tube	2
6	103741	• NUT, Hex 1/2-13	2
7	100252	• NUT, Hex 3/4-10	2
8	119310	• BOLT, Hex-hd 3/4-10 x 1 3/4" lg.	2
9	118469	• SCREW, Set 1/4-20	2
10	119298	PIN, Eccentric	2
11	118729	PIN, Locator	2
12	119314	SPRING, Cam lock	2
13	118778	BUSHING, Cam lock	4
14	118721	LOCK, Hydraulic tray cam	1
	118720	LOCK, Battery tray cam	1
15	300675	BUSHING, 3/4" Diameter x 3/4" lg.	2
16	100050	BUSHING	2
17	118730	PIN, Lever bar guide	2
18	118983	PIN, Lower tray	2
19	118726	PIN, Tray spring guide	2
20	300604	WASHER, Flat 7/16"	8
21	119325	PIN, Cotter clip	14
22	119312	BUSHING, 7/16" Diameter x 1/2" lg.	6
23	118724	BAR, Lever	2
24	118718	DRIVER, Lock	2
25	119321	SPRING, Compression	2
26	119435	WELDMENT, Hydraulic tray angle	1
27	118989	WELDMENT, Battery tray angle	1
28	119339	PIN, Angle	4
29	119316	BUSHING, 3/8" Diameter x 5/8" lg.	16
30	119315	PIN, Spring 3/32" diameter x 7/8" lg.	2
31	119319	PIN, Spring 3/32" diameter x 5/8" lg.	8
32	300119	WASHER, Flat 3/8"	4
33	118982	PLATE, Kicker	2
34	118690	PIN, Lock	2
35	119318	BUSHING, 7/8" Diameter x 3/8" lg.	4
36	118818	SLIDER, Lock cam	2
37	118689	PIN, Kicker clevis	2
38	103907	BOLT, Hex-hd 1/2-13 x 1 1/2" lg.	2
39	107949	NUT, Jam 1/2-13	2
40	310184	PLATE, Limit switch	2
41	310192	LIMIT SWITCH ASSEMBLY, Pothole device interlock	1
	119348	• LIMIT SWITCH, Sealed	2
	119131	• KIT, 4 Pole plug connector	1
42	300759	BOLT, #8-32 x 1"	4
43	103550	PLUG, Slider	6
44	310489	GUARD, Debris, RH	1
45	310490	GUARD, Debris, LH	1
46	101632	BOLT, Hex-hd 3/8-16 x 3/4" lg.	4
47	118728	PIN, Lever	4

**FIGURE 6-19. HYDRAULIC HOSE CONNECTIONS - Base (Steer, Drive and Brake Circuits)**

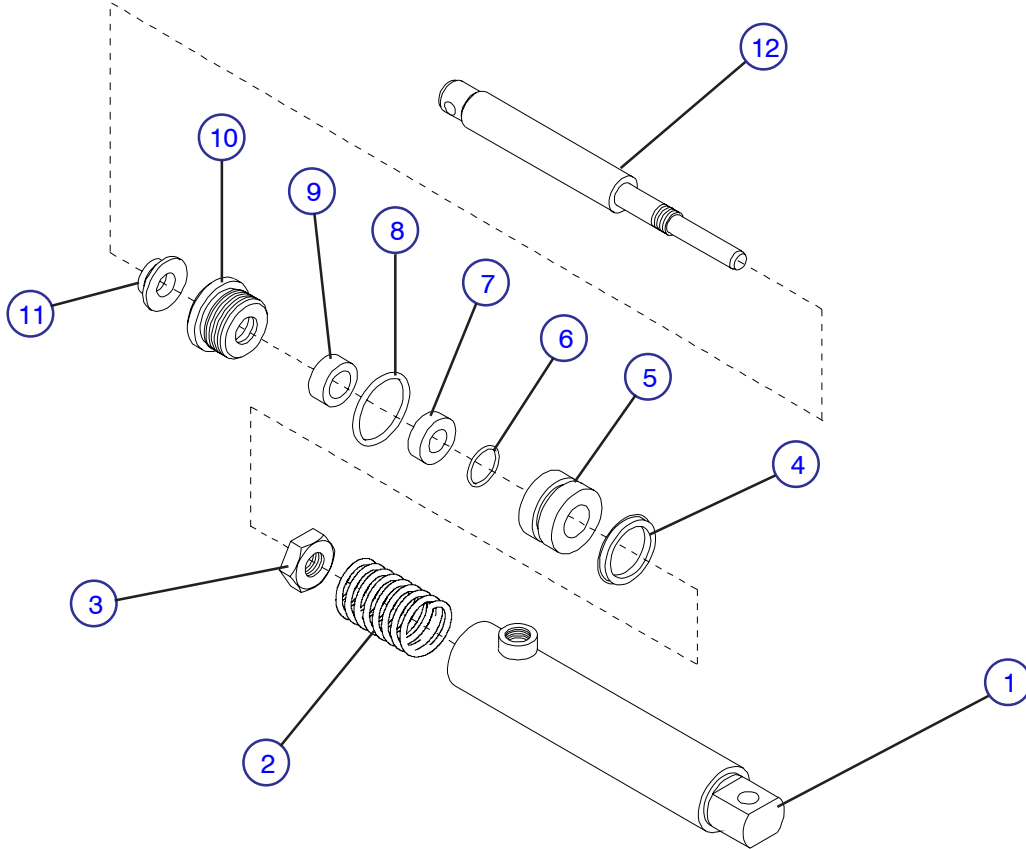


MA-SJM-03B

**FIGURE 6-19. HYDRAULIC HOSE CONNECTIONS - Base (Steer, Drive and Brake Circuits)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	MANIFOLD ASSEMBLY, Main (For Components, Refer to Figure 6-29)	1 -
2	(Ref.)	MANIFOLD ASSEMBLY, Front axle (For Components, Refer to Figure 6-24)	1 -
3	(Ref.)	CYLINDER ASSEMBLY, Steer (For Components, Refer to Figure 6-21)	1 -
4	(Ref.)	CYLINDER ASSEMBLY, Brake (For Components, Refer to Figure 6-20)	2 -
5	(Ref.)	MOTOR, Hydraulic drive (For Components, Refer to Figures 6-22 or 6-23)	2 -
6	107731	HOSE ASSEMBLY, Drive 25" lg. w/long 90° tube)	2
7	107732	HOSE ASSEMBLY, Drive 25" lg. w/short 90° tube)	2
8	103073	FITTING, Elbow 90° #6orb-#6	6
9	107733	HOSE ASSEMBLY, Main manifold to front axle manifold	2
10	105811	ORIFICE, Brake .040 dia.	2
11	107735	HOSE ASSEMBLY, Brake	1
12	310049	FITTING, Connector #6orb-#6	2
13	107736	HOSE ASSEMBLY, Steer LH	1
14	107737	HOSE ASSEMBLY, Steer RH	1
15	103074	FITTING, Adapter #10orb-#6orb	4
16	107739	HOSE ASSEMBLY, Brake to brake	1
17	103309	FITTING, Tee #6orb-#6	1
18	108002	ORIFICE, Steer cyliner .040	2

**FIGURE 6-20A. BRAKE CYLINDER ASSEMBLY**  
**(Machines With Serial #150685 (3015) or #228400 (3219) and below)**

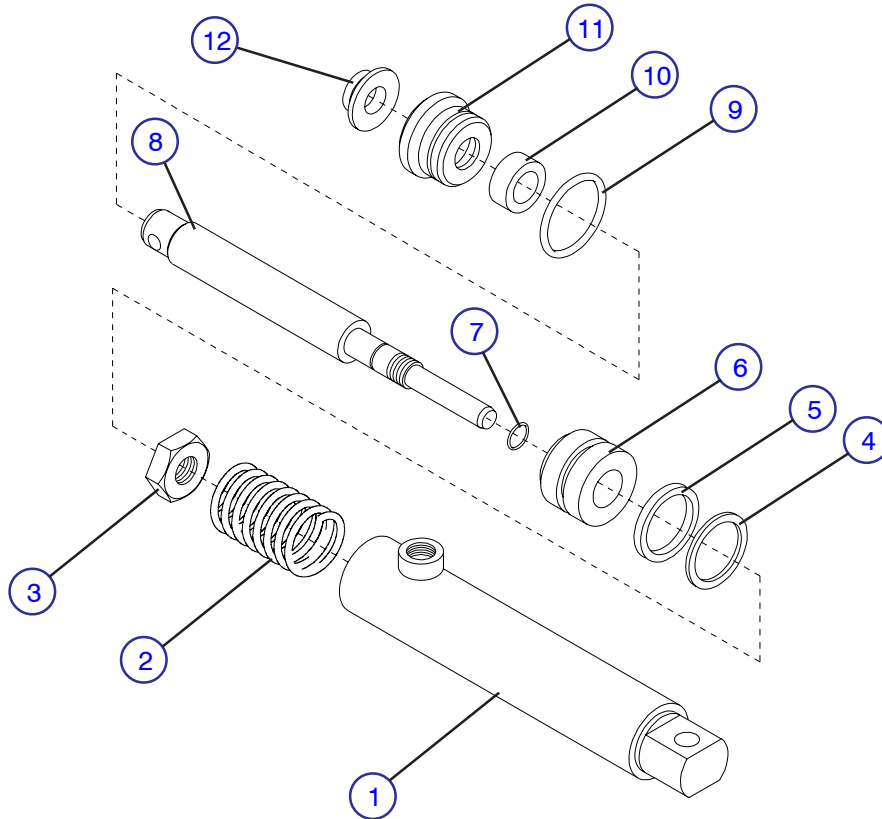


**MA-SJM-17**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	103817	CYLINDER ASSEMBLY, Brake	-
1	105410	• HOUSING, Brake cylinder	1
2	102844	• SPRING, Brake return	1
3	103830	• NUT, Lock 5/8-11 grade C	1
*4	111295	• SEAL, Piston	1
5	112259	• PISTON	1
*6	103829	• O-RING, Piston	1
7	103822	• SPACER	1
*8	103828	• O-RING, Gland	1
*9	103826	• SEAL, Rod	1
10	103819	• GLAND, Cylinder	1
*11	103827	• WIPER, Rod	1
12	103821	• ROD, Brake	1
	105816	KIT, Seal repair	AR
		* Part of Seal Repair Kit, 105816.	



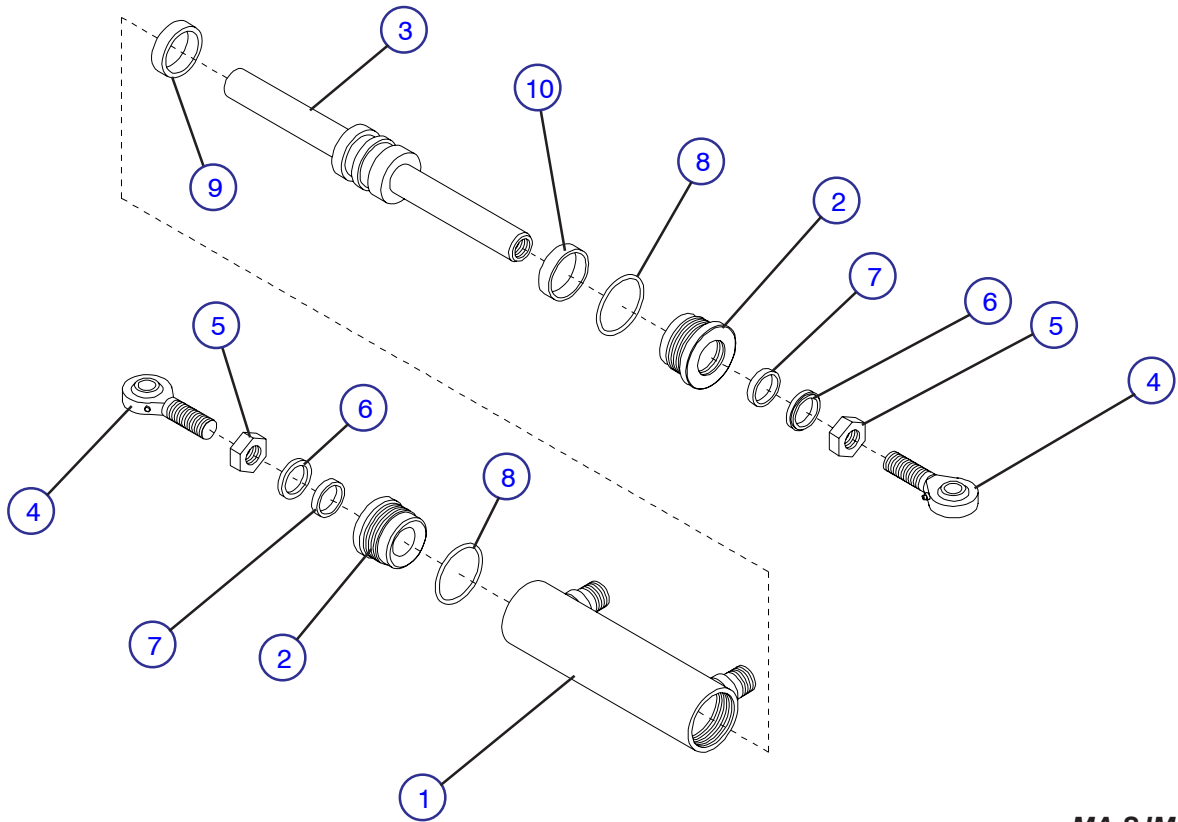
**FIGURE 6-20B. BRAKE CYLINDER ASSEMBLY**  
**(Machines With Serial #150686 (3015) or #228401 (3219) and Above)**



**S1F-1007AB**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	120220	CYLINDER ASSEMBLY, Brake	-
1	120153	• BARREL, Brake cylinder	1
2	102844	• SPRING, Brake return	1
3	103830	• NUT, Lock 5/8-11 grade C	1
4	120368	• RING, Back-up	1
*5	111295	• SEAL, Piston	1
6	118844	• PISTON	1
*7	110976	• O-RING, Rod	1
8	120154	• ROD, Brake	1
*9	120436	• O-RING, Gland	1
*10	103826	• SEAL, Rod	1
11	120148	• GLAND	1
*12	103827	• WIPER, Rod	1
	105816	KIT, Seal repair	AR
		* Part of Seal Repair Kit, 105816	

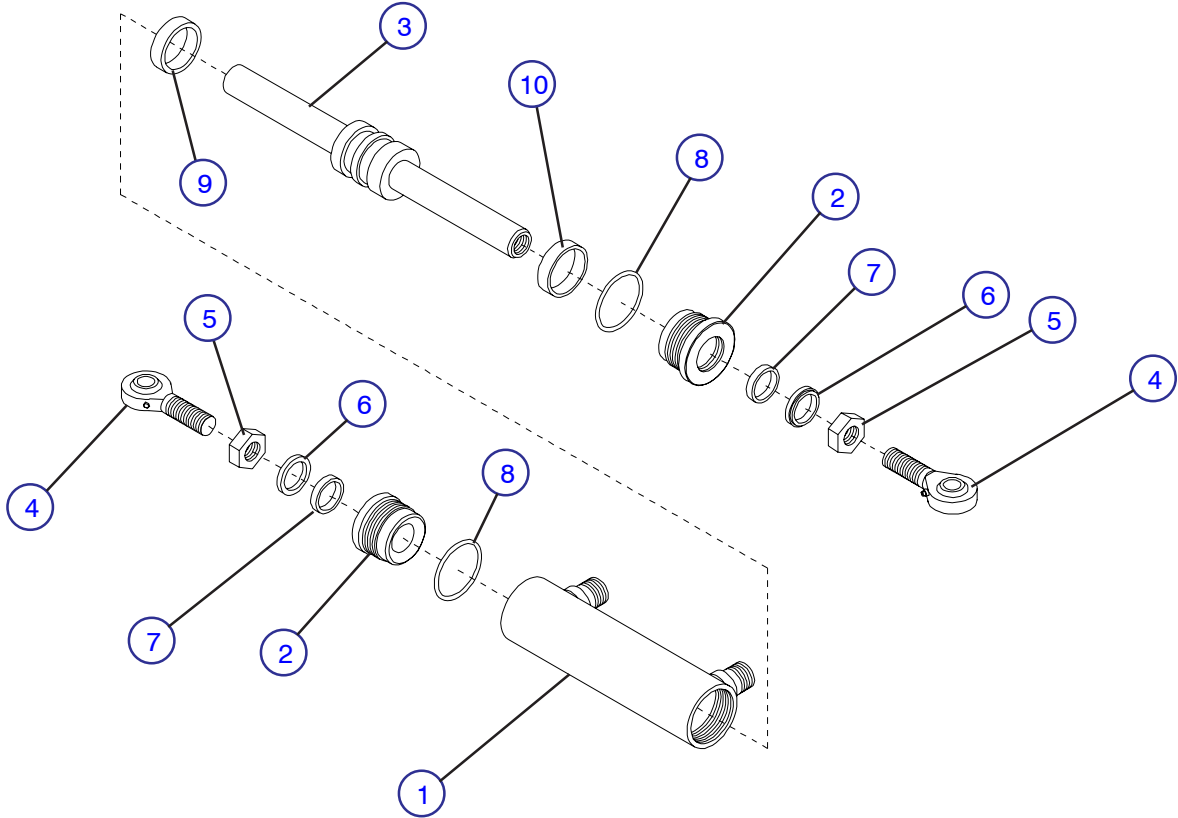
**FIGURE 6-21A. STEER CYLINDER ASSEMBLY**  
**(Machines With Serial #150611 (3015) or #227712 (3219) and Below)**



**MA-SJM-08**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	107932	CYLINDER ASSEMBLY, Steer	-
1	107943	• HOUSING, Steer cylinder	1
2	107942	• CAP, Cylinder end	2
3	107939	• WELDMENT, Rod/piston	1
4	107143	• END, Male spherical rod	2
	103513	• • FITTING, Grease	2
5	106450	• NUT, Jam 3/4-16	2
*6	107144	• WIPER, Rod	2
*7	107146	• SEAL, Rod	2
*8	107934	• O-RING, End cap	2
*9	107935	• SEAL, Piston	1
*10	107936	• RING, Piston wear	1
	108099	KIT, Seal repair	AR
		* Part of Seal Repair Kit, 108099.	

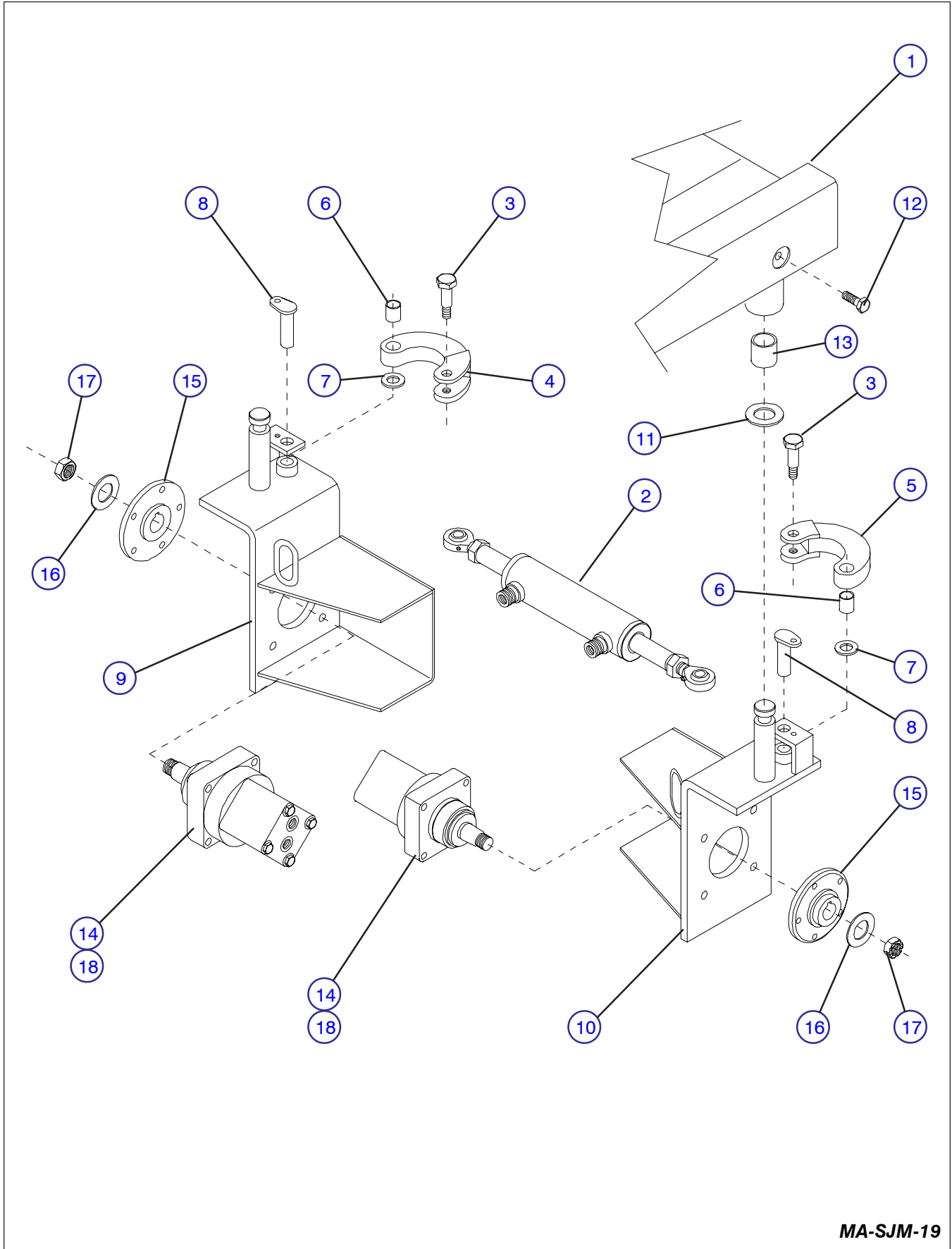
**FIGURE 6-21B. STEER CYLINDER ASSEMBLY**  
**(Machines With Serial #150612 (3015) or #227713 (3219) and Above)**



**MA-SJM-08**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	121087	CYLINDER ASSEMBLY, Steer	-
1	121089	• BARREL, Steer cylinder	1
2	121088	• GLAND, Cylinder end	2
3	107939	• WELDMENT, Rod/piston	1
4	107143	• END, Male spherical rod	2
	103513	• • FITTING, Grease	2
5	106450	• NUT, Jam 3/4-16	2
*6	107144	• WIPER, Rod	2
*7	107146	• SEAL, Rod	2
*8	120438	• O-RING, Gland	2
*9	107935	• SEAL, Piston	1
*10	107936	• RING, Piston wear	1
	121090	KIT, Seal repair	AR
		* Part of Seal Repair Kit, 121090.	

**FIGURE 6-22. STEER MECHANISM - Model 3015**



**MA-SJM-19**

FIGURE 6-22. STEER MECHANISM - Model 3015

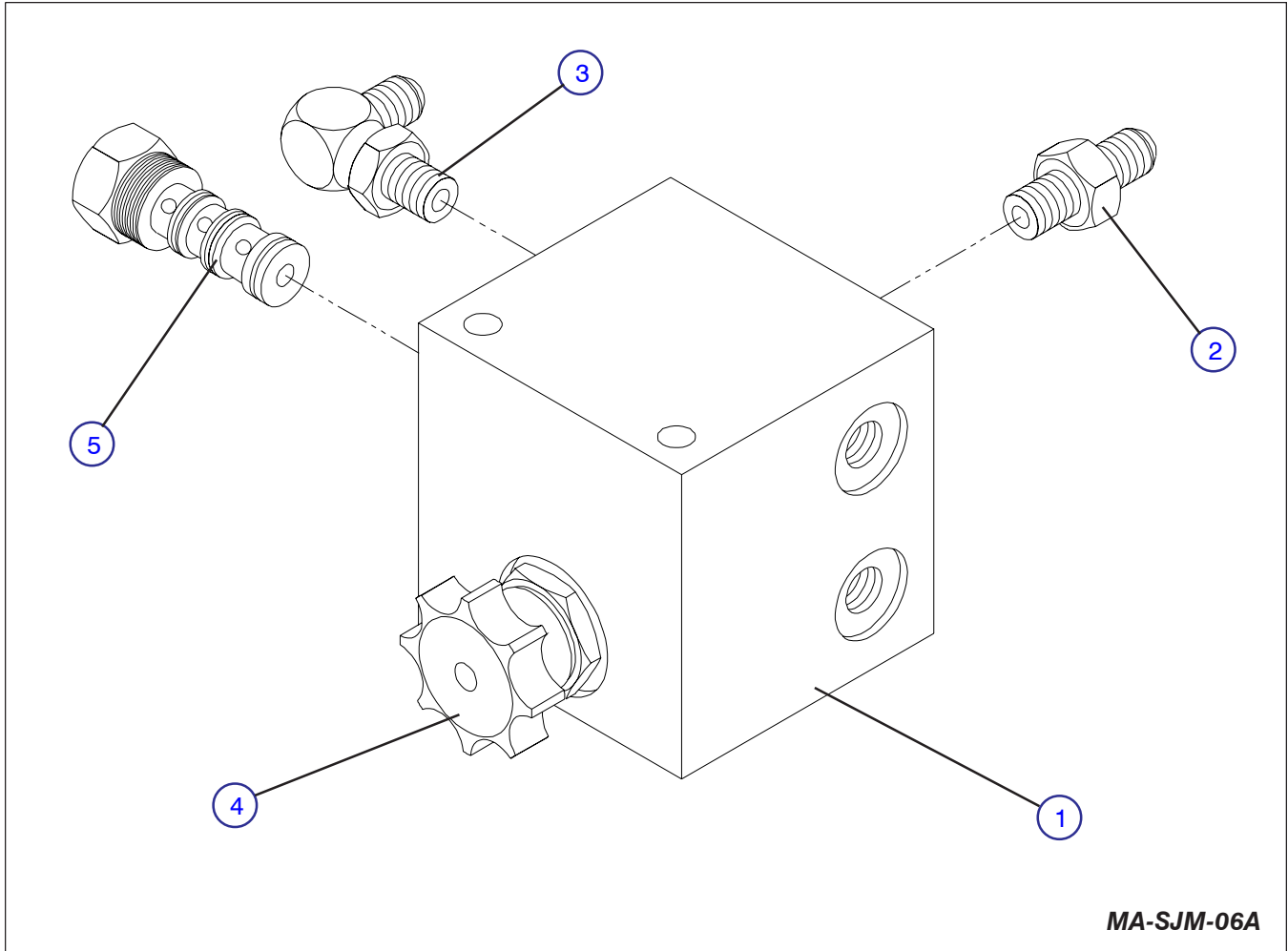
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Index No.	Skyjack Part No.	Description	Units per Assy.	
1	(Ref.)	WELDMENT, Base (For components, refer to Figure 6-16.)	1	
2	(Ref.)	CYLINDER ASSEMBLY, Steer (For components, refer to Figure 6-21.)	1	
3	107948	• WASHER, Tooth lock 1"	2	
	107947	• NUT , Jam 1"-14	2	
	107951	BOLT , Shoulder 1/2-13	2	
	104129	• WASH ER, Brass 5/8" x 1" x 7/64" thk.	2	
	107949	• NUT , Jam 1/2-13	2	
4	107955	ARM, Steer LH with 3/4" bushings	1	
5	107953	ARM, Steer RH with 3/4" bushings	1	
6	100050	BUSHING, Pivot 3/4"	2	
7	104129	WASHER, Bronze 3/4" x 1-3/8" x 1/8" thk.	2	
8	107956	PIN, Steer arm 3/4" x 2-11/16" lg.	2	
	103845	• BOLT, Hex-hd 5/16-18 x 1/2" lg.	2	
	104637	• WASHER, Lock 5/16"	2	
9	111689	HOUSING, Wheel motor LH	1	
10	111688	HOUSING, Wheel motor RH	1	
11	107952	WASHER, Bronze 1-1/4" x 2-1/4" x 1/8" thk.	2	
12	107963	BOLT , Brass retainer	2	
	107964	• WASHER, Tooth lock 1/2"	2	
13	100071	BUSHING, Steer spindle 1-1/4 "	6	
14	310545	MOTOR, Hydraulic drive	2	
	Use Part #110701 for Machines with Serial # 150611 and below. (Use Seal kit #110702 for these motors)			
	103901	• BOLT, Hex-hd 1/2-13 x 2-1/2" lg.	8	
	103470	• WASHER, Lock 1/2"	8	
	103471	• NUT, Hex 1/2-13	8	
	194741	• SPACER, Bearing	1	
	194742	• BEARING, Roller	1	
	194743	• BEARING, Thrust	1	
	15	107912	HUB, Drive wheel	2
	16	103789	WASHER, Tooth lock 1"	2
	17	106451	NUT, Wheel motor	2
	18	310568	KIT, Seal	AR



Index No.	Skyjack Part No.	Description	Units per Assy.	
1	(Ref.)	WELDMENT, Base (For components, refer to Figure 6-17.)	1	
2	(Ref.)	CYLINDER ASSEMBLY, Steer (For components, refer to Figure 6-21.)	1	
3	107948	• WASHER, Tooth lock 1"	2	
	107947	• NUT , Jam 1"-14	2	
	107951	BOLT , Shoulder 1/2-13	2	
	104129	• WASH ER, Brass 5/8" x 1" x 7/64" thk.	2	
	107949	• NUT , Jam 1/2-13	2	
4	111300	ARM, Steer LH with 3/4" bushings	1	
5	111306	ARM, Steer RH with 3/4" bushings	1	
6	100050	BUSHING, Pivot 3/4"	2	
7	104129	WASHER, Bronze 3/4" x 1-3/8" x 1/8" thk.	2	
8	107956	PIN, Steer arm 3/4" x 2-11/16" lg.	2	
	103845	• BOLT, Hex-hd 5/16-18 x 1/2" lg.	2	
	104637	• WASHER, Lock 5/16"	2	
9	111689	HOUSING, Wheel motor LH	1	
10	111688	HOUSING, Wheel motor RH	1	
11	107952	WASHER, Bronze 1-1/4" x 2-1/4" x 1/8" thk.	2	
12	107963	BOLT , Brass retainer	2	
	107964	• WASHER, Tooth lock 1/2"	2	
13	100071	BUSHING, Steer spindle 1-1/4"	6	
14	310545	MOTOR, Hydraulic drive	2	
		Use Part # 110701 for Machines with Serial # 227665 and below. (Use Seal kit #110702 for these motors)		
	103901	• BOLT, Hex-hd 1/2-13 x 2-1/2" lg.	8	
	103470	• WASHER, Lock 1/2"	8	
	103471	• NUT, Hex 1/2-13	8	
	194741	• SPACER, Bearing	1	
	194742	• BEARING, Roller	1	
	194743	• BEARING, Thrust	1	
	15	107912	HUB, Drive wheel	2
	16	103789	WASHER, Tooth lock 1"	2
	17	106451	NUT, Wheel motor	2
	18	310568	KIT, Seal	AR

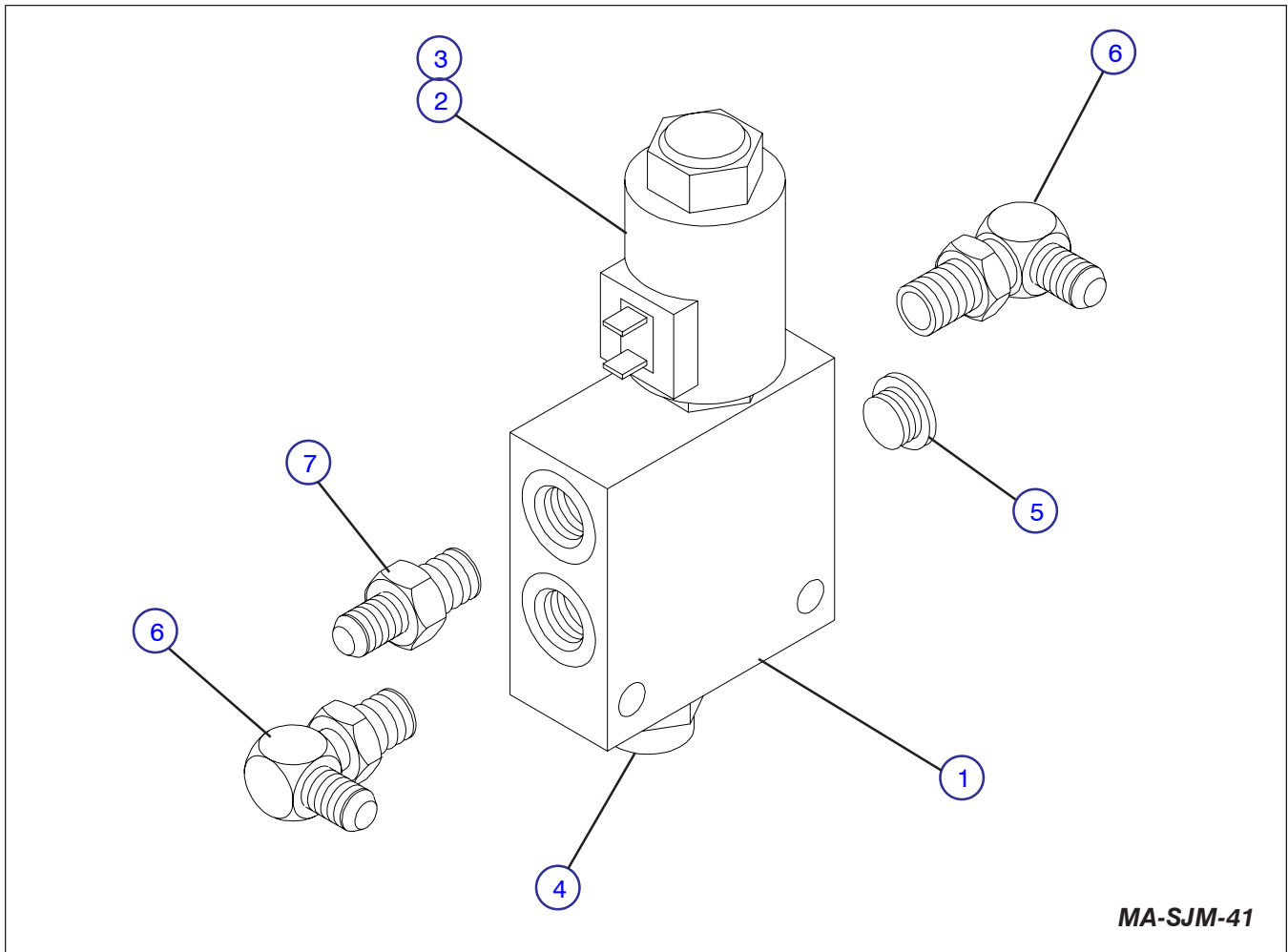
**FIGURE 6-24. FRONT AXLE MANIFOLD ASSEMBLY**



Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	108440	MANIFOLD ASSEMBLY, Front axle	-
1	107369	• BLOCK, Manifold	1
	108506	• • PLUG, Expander	3
2	103069	• FITTING, Connector #6orb-#6	2
3	103073	• FITTING, Elbow 90° #6orb-#6	4
4	103136	• VALVE, Free-wheeling	1
5	103354	• VALVE, Flow divider/combiner	1

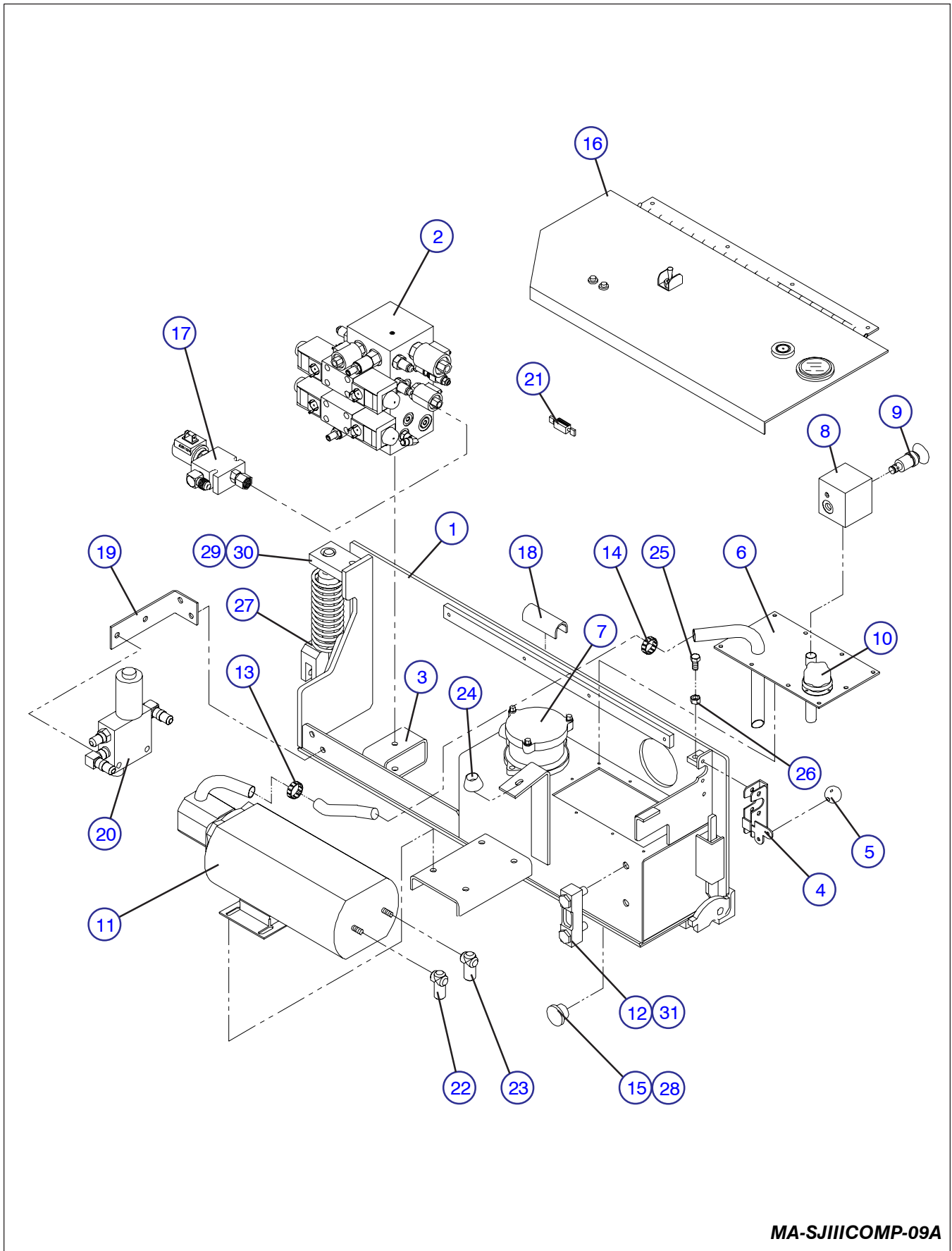


**FIGURE 6-25. PROPORTIONAL VALVE MANIFOLD ASSEMBLY**



Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	115308	MANIFOLD ASSEMBLY, Proportional valve	1
1	115349	• BLOCK, Proportional manifold	1
2	115350	• VALVE, Proportional	1
3	115370	• COIL, 24 Volt (proportional valve)	1
4	115381	• VALVE, Pressure compensator	1
5	115320	• PLUG, Soc-hd #8orb	1
6	102665	FITTING, Elbow 90° #8orb-#6	2
7	103070	FITTING, Connector #8orb-#8	1

**FIGURE 6-26. HYDRAULIC/ELECTRIC TRAY ASSEMBLY**



**MA-SJIIICOMP-09A**

**FIGURE 6-26. HYDRAULIC/ELECTRIC TRAY ASSEMBLY**

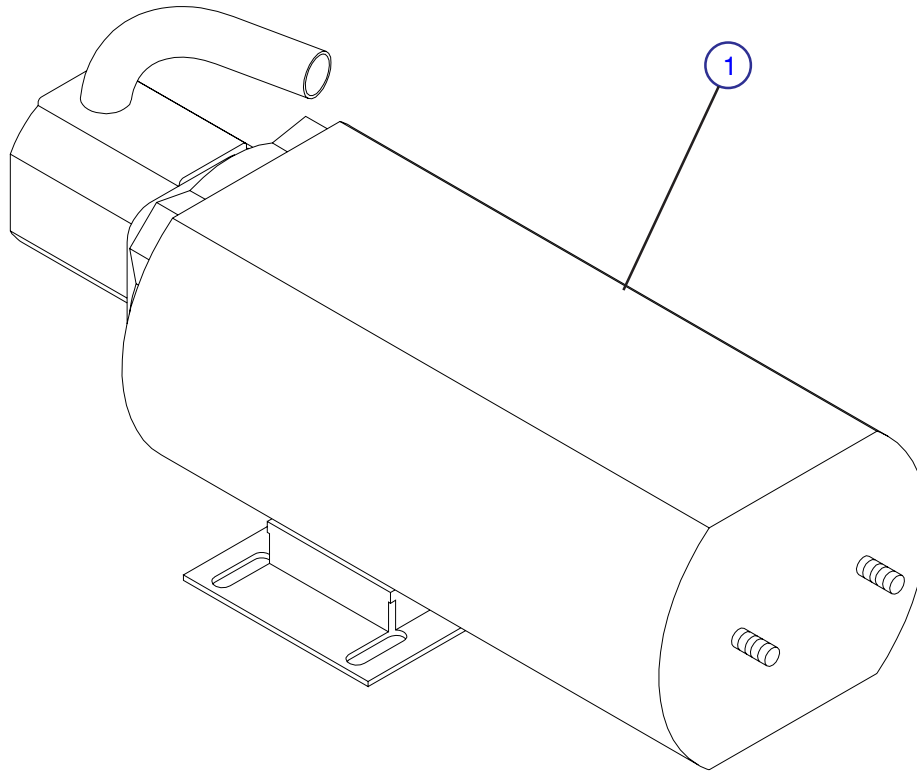
Index No.	Skyjack Part No.	Description	Units per Assy.
1	310120	WELDMENT, Hydraulic/Electric tray	1
	310120	WELDMENT, Hydraulic/Electric tray (EE Rated)	1
2	(Ref.)	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6-29)	1 -
	103873	• BOLT, Hex-hd 3/8-16 x 2-1/2" lg.	1
	103999	• WASHER, Lock 3/8"	1
3	310163	SPACER, Manifold	1
	310645	SPACER, Manifold (EE Rated)	1
	103916	BOLT, Hex head 3/8" - 16 x 3 1/4" lg.	1
	103999	WASHER, Lock 3/8"	1
4	102780	LATCH, Hydraulic/electric tray	1
	111710	BOLT, Hex-hd 5/16-18 x 1" lg.	3
5	111534	KNOB, Rotary latch	1
	103857	BOLT, Hex-hd 1/4-20 x 1" lg.	1
	104000	WASHER, Lock 1/4"	1
	103980	NUT, Hex 1/4-20	1
6	109270	WELDMENT, Tank cover	1
	310110	WELDMENT, Tank cover (EE Rated)	1
	103962	SCREW, Machine #10-32 x 1/2" lg.	10
7	109568	FILTER ASSEMBLY, Return	1
	111710	• BOLT, Hex-hd 5/16-18 x 1" lg.	2
	104637	• WASHER, Lock 5/16"	2
	100397	• NUT, Hex 5/16-18	2
	104254	• ELEMENT, Filter	1
	123022	• SEAL, Filter Assembly	1
	123021	• COVER, Filter Assembly	1
	123020	• SPRING, Filter Assembly	1
	122973	• CASTING, Aluminum	1
	121571	• SCREW, Set	1
	122969	• BOLT, Washer Combined	3
	122968	• CASING, Filter	1
8	107493	MANIFOLD, Lowering valve	1
9	107271	VALVE, Lowering (pull-type)	1
10	102693	CAP W/GASKET, Filler/breather	1
	103962	SCREW, Machine #10-32 x 1/2" lg.	3
11	(Ref.)	PUMP & MOTOR ASSEMBLY (For components, refer to Figure 6-27A or 6-27B.)	1 -
12	103236	GAUGE, Oil level/temp	1
13	103032	HOSE, Tank 3/4"	1
14	102854	CLAMP, Worm #16	2
15	117701	FITTING, Drain plug (magnetic)	1

**Parts list continued on following page.**

**FIGURE 6-26. HYDRAULIC/ELECTRIC TRAY ASSEMBLY (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from previous page.</b>	
16	(Ref.)	PANEL ASSEMBLY, Electrical (For components, refer to Figure 6-30 or Figure 6-31.)	1
	103855	BOLT, Hex-hd 1/4-20 x 1/2" lg.	-
	104000	WASHER, Lock 1/4"	4
17	(Ref.)	MANIFOLD ASSEMBLY, Cushion valve (For components, refer to Figure 6-29.)	4
18	110007	COVER, Edge 3" lg.	1
19	310024	BRACKET, Proportional valve manifold	1
	103473	BOLT, hex-hd 3/8-16 x 1" lg.	2
	103999	WASHER, Lock 3/8"	2
	103978	NUT, Hex 3/8-16	2
20	(Ref.)	MANIFOLD ASSEMBLY, Proportional valve (For components, refer to Figure 6-25.)	1
	103872	BOLT, Hex-hd 3/8-16 x 2-1/4" lg.	-
	103999	WASHER, Lock 3/8"	2
	103978	NUT, Hex 3/8-16	2
21	110998	RESISTOR ASSEMBLY, Battery protection (option)	2
22	105600	BOOT, Motor cable (red)	1
23	105601	BOOT, Motor cable (black)	1
24	112447	BUMPER, Electrical panel	1
	103940	BOLT, Soc-hd 1/4-20 x 1-1/4" lg.	1
	103995	WASHER, Flat 1/4"	1
	104000	WASHER, Lock 1/4"	1
	103980	NUT, Hex 1/4-20	1
25	101632	BOLT, tray stop 3/8-16 x 3/4" lg.	1
26	103978	NUT, Hex 3/8 - 16	AR
27	(Ref.)	POTHOLE PROTECTION (For components refer to Figure 6-18)	-
28	120190	SEAL, Magnetic plug	-
29	103907	BOLT, Hex head 1/2" - 13 x 1 1/2"	1
30	107949	NUT, Jam 1/2" - 13	1
31	124311	INSERT	2

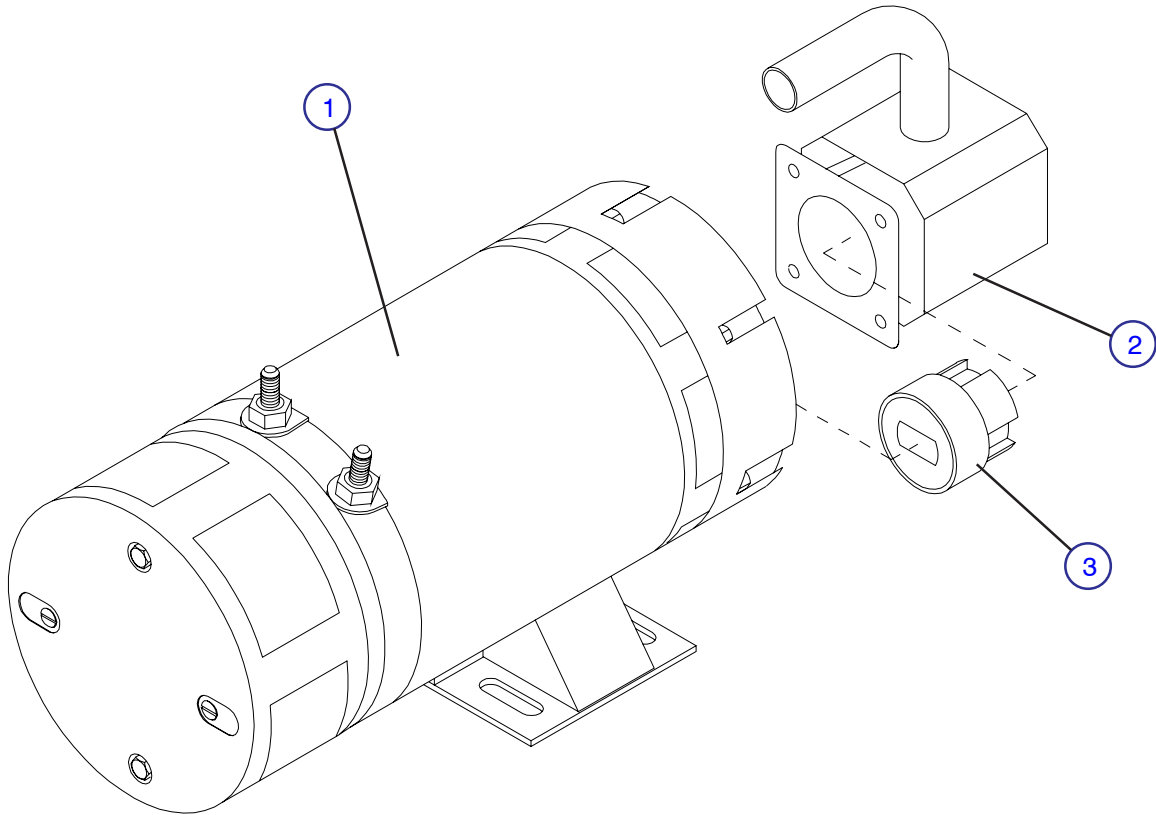
**FIGURE 6-27A. PUMP AND MOTOR ASSEMBLY**  
*(Used on Machines with Serial numbers 151039 (3015) and 229809 (3219) and Below.*



**L1F-1162AA**

Index No.	Skyjack Part No.	Description	Units per Assy.	
1	310550	PUMP & MOTOR ASSEMBLY (Standard machines)	1	
	106576	• MOTOR, 24V	1	
	310567	• PUMP, Hydraulic	1	
	<b>Use Pump And Motor Assembly #310010 for Standard Machines with Serial numbers 150611 (3015) or 227665 (3219) and below.</b>			
	• Uses Pump #117140			
	• Uses Motor #106576			
	310561	PUMP & MOTOR ASSEMBLY (EE-Rated machines)	1	
	310567	• PUMP, Hydraulic	1	
	<b>Use Pump And Motor Assembly #108948 for EE-Rated Machines with Serial numbers 150611 (3015) or 227665 (3219) and below.</b>			
	• Uses Pump #109216			
• Uses Motor #107081				
• • Brushes #109174 (set of 8)				
• • Springs #109175 (each)				
103864	• BOLT, Hex-hd 5/16-18 x 1" lg.	4		
103996	• WASHER, Flat 5/16"	4		
104637	• WASHER, Lock 5/16"	4		
100397	• NUT, Hex 5/16-18	4		

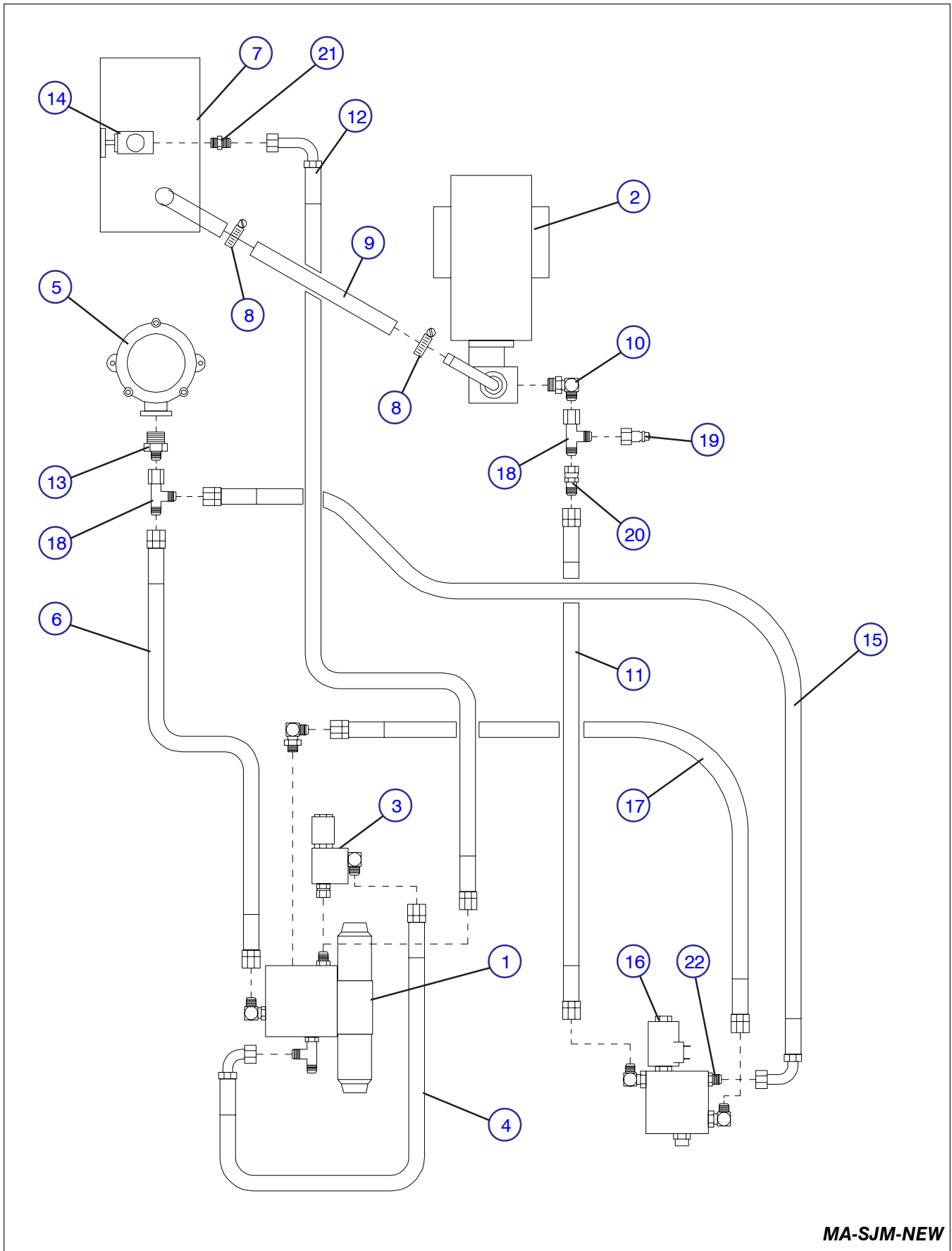
**FIGURE 6-27B. PUMP AND MOTOR ASSEMBLY**  
 (Used on Machines with Serial numbers 151040 (3015) and 229810 (3219) and Above.



**S1F-1111AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	123474	PUMP & MOTOR ASSEMBLY	1
	123477	• MOTOR, 24V 4Hp	1
	122967	• • Brush Kit (Includes Brushes and Springs)	1
2	310567	• PUMP, Hydraulic	1
	103864	• BOLT, Hex-hd 5/16-18 x 1" lg.	4
	103996	• WASHER, Flat 5/16"	4
	104637	• WASHER, Lock 5/16"	4
	100397	• NUT, Hex 5/16-18	4
3	703183	• COUPLER (includes seals)	1

**FIGURE 6-28. HYDRAULIC HOSE CONNECTIONS - Hydraulic/Electric Tray**



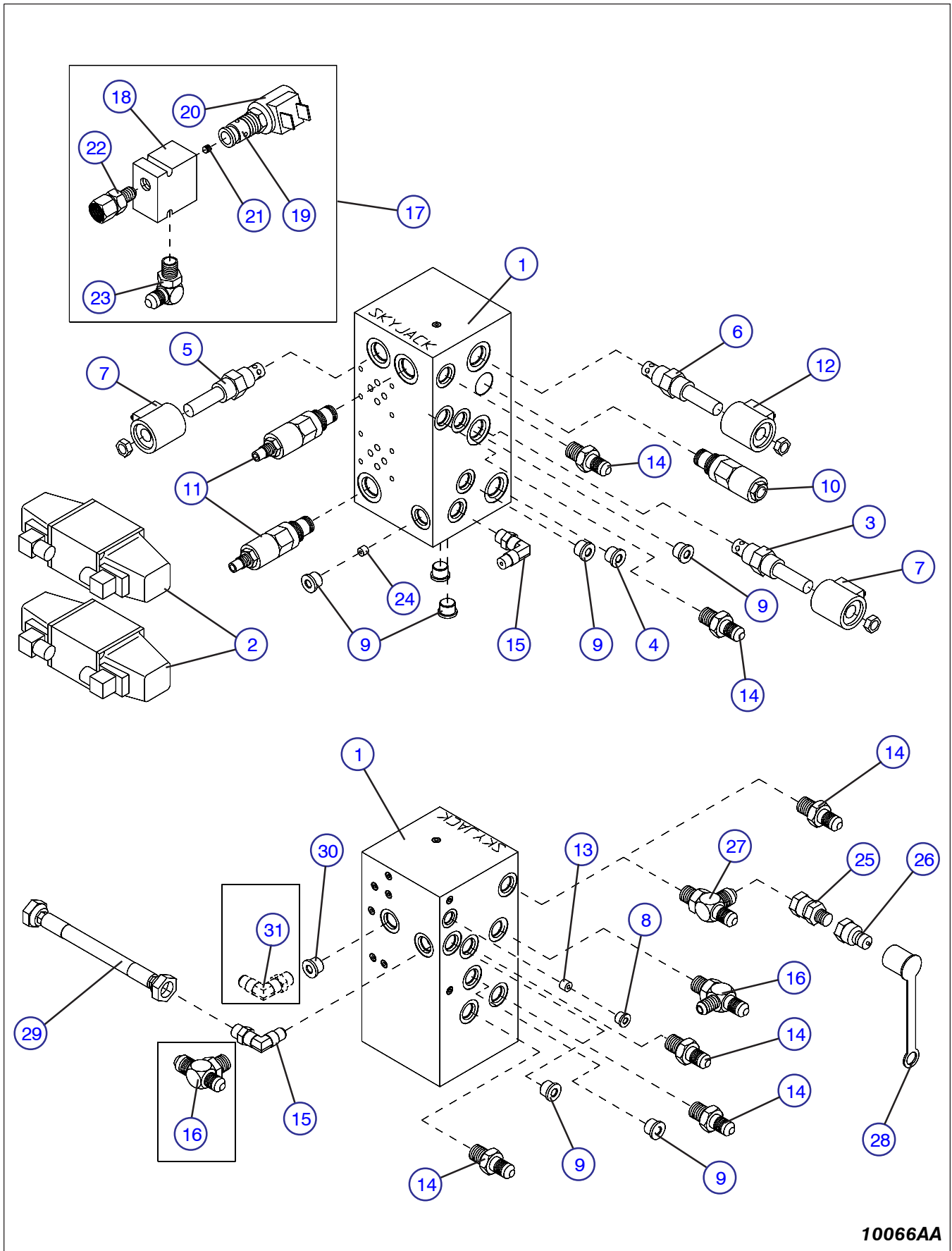
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**FIGURE 6-28. HYDRAULIC HOSE CONNECTIONS - Hydraulic/Electric Tray**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	MANIFOLD ASSEMBLY, Main (For Components, Refer to Figure 6-29)	1 -
2	(Ref.)	PUMP AND MOTOR ASSEMBLY (For Components, Refer to Figure 6-27A or 6-27B)	1 -
3	(Ref.)	MANIFOLD ASSEMBLY, Cushion (For Components, Refer to Figure 6-29)	1 -
4	108003	HOSE ASSEMBLY, Cushion valve to main manifold	1
5	(Ref.)	FILTER ASSEMBLY, Return (For Components, Refer to Figure 6-26)	1 -
6	107738	HOSE ASSEMBLY, Filter to main manifold	1
7	(Ref.)	WELDMENT, Tank cover (For Components, Refer to Figure 6-26)	1 -
8	102854	CLAMP, Worm #12	2
9	103032	HOSE, Suction 3/4"	11"
10	102665	FITTING, Elbow 90° #8orb-#6	1
11	114742	HOSE ASSEMBLY, Manifold supply	1
12	108003	HOSE ASSEMBLY, Manual lowering valve to main manifold	1
13	109052	FITTING, Connector #12orb-#6	1
14	(Ref.)	LOWERING VALVE AND MANIFOLD (For Components, Refer to Figure 6-26)	1 -
15	114741	HOSE ASSEMBLY, Proportional valve manifold return	1
16	(Ref.)	MANIFOLD ASSEMBLY, Proportional valve (For Components, Refer to Figure 6-25)	1 -
17	102562	HOSE ASSEMBLY, Proportional manifold to main manifold	1
18	103309	FITTING, Tee #6swl-#6-#6	1
19	114520	FITTING, Quick disconnect	1
20	103304	FITTING, Connector #6swl	1
21	103069	FITTING, #6 3/8" npt	1
22	103070	FITTING, o-ring brass	1



**FIGURE 6-29. MAIN MANIFOLD AND CUSHION VALVE MANIFOLD ASSEMBLY**



10066AA

**FIGURE 6-29. MAIN MANIFOLD AND CUSHION VALVE MANIFOLD ASSEMBLY**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	MAIN MANIFOLD AND CUSHION VALVE MANIFOLD	-
1	(Ref.)	• MANIFOLD ASSEMBLY (Order components)	1
	107354	• • BLOCK, Main manifold	1
	108506	• • PLUG, Expander	9
2	103614	• • VALVE ASSEMBLY, 24 Volt spool (drive/steer)	2
	107439	• • • COIL, 24 Volt	4
	117518	• • • CONNECTOR, Clear	AR
	103943	• • • BOLT, Soc-hd 1/4-20 x 2" lg.	4
3	103623	• • VALVE, 3-Way (brake)	1
4	115320	• • PLUG, Soc.-hd #8 orb	1
5	103655	• • VALVE, N.C. (lowering)	1
6	106273	• • VALVE, 3-Way (lift)	1
7	103605	• • COIL, 24 Volt	2
8	102856	• • PLUG, Soc-hd #3orb	1
9	104437	• • PLUG, Soc-hd #6orb	7
10	104133	• • VALVE, Counterbalance	1
11	104534	• • VALVE, Relief	2
12	105610	• • COIL, 24 Volt	1
13	108053	• ORIFICE, .055 Diameter (lowering)	1
14	103069	• FITTING, Connector #6orb-#6	7
15	114578	• FITTING, Elbow 90° #6orb-#6	2
16	103072	• FITTING, Tee #6orb-#6	1
17	114667	• CUSHION VALVE MANIFOLD ASSEMBLY	1
18	103615	• • BLOCK, Cushion valve manifold	1
19	104132	• • VALVE, N.C. (cushion)	1
20	103605	• • COIL, 24 Volt	1
21	108002	• • ORIFICE, .040 Diameter (cushion)	1
22	114666	• • FITTING, Swivel 1/4P-#6	1
23	103324	• • FITTING, Elbow 90° 1/4P-#6	1
24	104419	• PLUG, Brass 1/16	1
		<b>Items 25 thru 28 are for machines with quick disconnects.</b>	
25	103304	• FITTING, Adapter #4-#6	1
26	114520	• QUICK DISCONNECT, Pressure test	1
27	103072	• FITTING, Tee #6orb-#6-#6	1
28	114521	• COVER, Quick disconnect dust	1
29	107738	HOSE ASSEMBLY, Return filter	1
30	104437	PLUG, Soc-hd #6orb (Machines with powered extension platform)	1 -
31	114578	FITTING, Elbow 90° #6orb-#6 (Machines with powered extension platform)	1 -



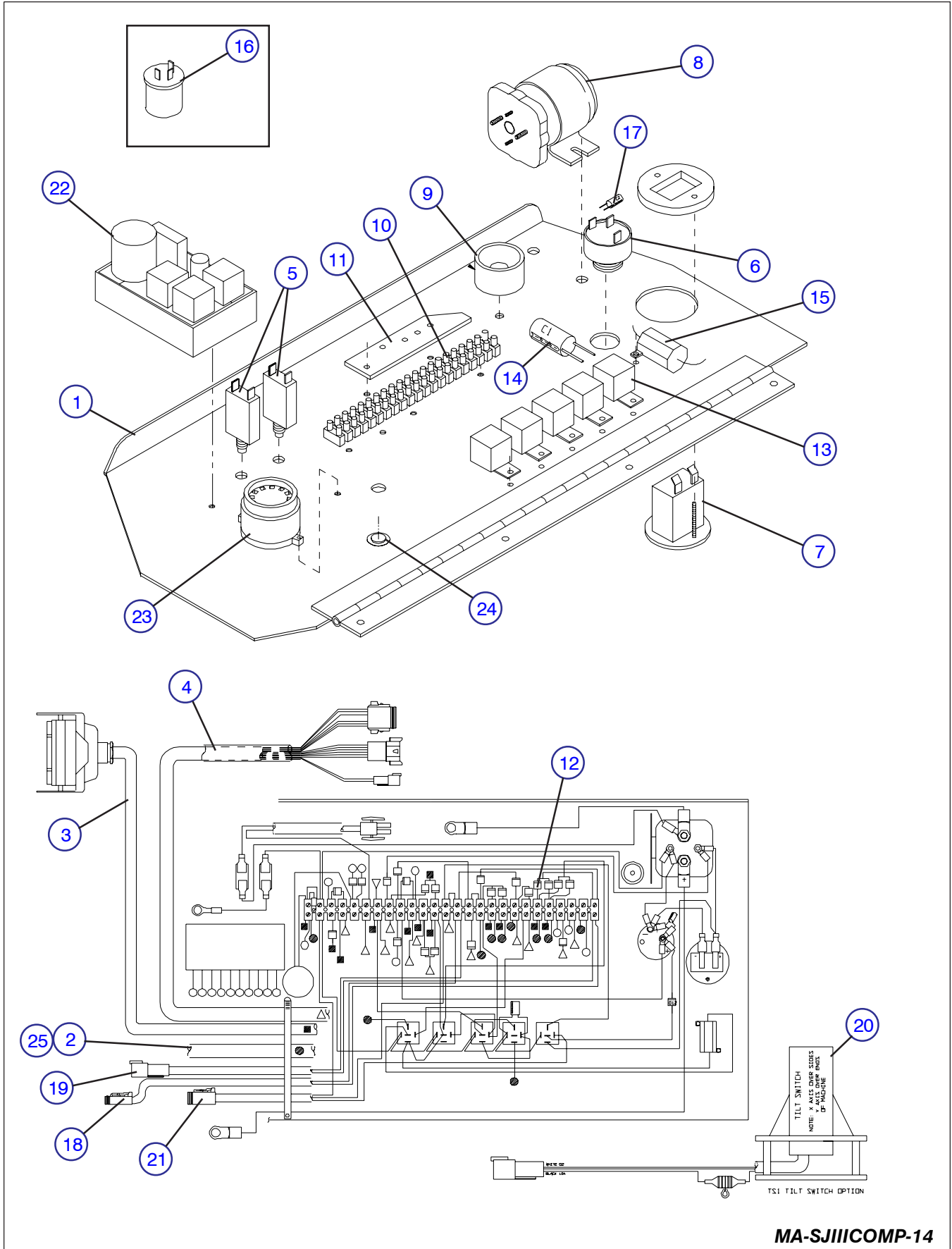
**FIGURE 6-30. ELECTRICAL PANEL ASSEMBLY - ANSI/SIA and CSA**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	310170	PANEL ASSEMBLY, Electrical	-
<b>B</b>	(Ref.)	PANEL ASSEMBLY, All Options Electrical	-
<b>C</b>	(Ref.)	PANEL ASSEMBLY, EE Electrical	-
<b>1</b>	107211	• WELDMENT, Electrical panel	1
	310347	• WELDMENT, Electrical panel, <b>C</b>	1
	108994	• WELDMENT, Cover, <b>C</b>	1
	108995	• GROMMET, Rubber, <b>C</b>	1
	103986	• NUT, Machine #8 - 32, <b>C</b>	10
	300529	• WASHER, Lock #8, <b>C</b>	10
	300209	• SCREW, #8 - 32 x 7/8", <b>C</b>	10
	104064	• GASKET, Foam .38 x .25, <b>C</b>	42.5"
<b>2</b>	310244	• HARNESS, Manifold wiring	1
<b>3</b>	119641	• CORD ASSEMBLY, Panel control	1
	102888	• • CABLE, 16/10	67"
	102518	• • SOCKET, 10 Pin	1
	119456	• • COVER, Connector	1
	114515	CABLE ASSEMBLY, 16 Pin Control (Not Shown), <b>B</b>	1
	102887	• CABLE, 16/15	67"
	119727	• PIN, Code	2
	107821	• CONNECTOR ASSEMBLY, 16 Pin	1
	103565	• • HOUSING	1
	103573	• • INSERT, Female	1
	119736	CABLE ASSEMBLY, EE 10 Pin Control (Not Shown), <b>C</b>	1
	102888	• CABLE, 16/10	67"
	119727	• PIN, Code	2
	107777	• CONNECTOR ASSEMBLY, 10 Pin	1
	103566	• • HOUSING	1
	103571	• • INSERT, Female	1
	(Ref.)	• LABEL, Proportional connector (Refer to Figure 6-38.)	AR
<b>4</b>	117325	• BREAKER, 15 Amp circuit	2
<b>5</b>	103057	• BEEPER, 24 Volt	1
<b>6</b>	103336	• HOURMETER	1
<b>7</b>	103101	• CONTACTOR	1
	103962	• • SCREW, Machine #10-32 x 1/2" lg.	2
	104185	• • WASHER, Lock #10	2
	103995	• • WASHER, Flat #10	2
	104003	• • NUT, Hex #10-32	2
<b>8</b>	102853	• SWITCH, Up/down toggle	1
	116996	• WASHER, Flat M12	1
<b>9</b>	111181	• GUARD, Toggle switch	1
<b>10</b>	112447	• BUMPER, Rubber	1
	110463	• • SCREW, Hex-hd 6mm x 14mm	1
<b>Parts list continued on the following page.</b>			

**FIGURE 6-30. ELECTRICAL PANEL ASSEMBLY - ANSI/SIA and CSA (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
11	103011	• STRIP, Terminal block	1
	103956	• • SCREW, Machine #6-32 x 1" lg.	2
	106099	• • WASHER, Lock #6	2
	103985	• • NUT, Hex #6-32	2
12	108000	• DIODE ASSEMBLY	1
	102921	• • DIODE, 6 Amp	7
13	108589	• RELAY, 24 Volt (brake, cushion, proportional, steering)	4
	103962	• • SCREW, Machine #10-32 x 1/2" lg.	2
	104185	• • WASHER, Lock #10	2
	104003	• • NUT, Hex #10-32	2
14	103319	• CAPACITOR, 35 Volt	1
15	115312	• RESISTOR, 40 Ohm/25W	1
	300827	• RESISTOR, 33 Ohm/25W	1
	310006	• NUT, Hex #4 - 40	1
	310007	• WASHER, Lock #4	1
	310008	• SCREW, PPHMS #4 - 40 x 1/2"	1
16	103267	• FLASHER, 24 Volt (Machines with Flashing Light Option)	1
17	110669	• CAPACITOR, .47uF 50 volt	1
18	310227	CABLE ASSEMBLY, Drive override limit switch	1
	103257	• CABLE, 18/3 x 68" lg.	1
	119131	• KIT, 4 Pole plug connector	1
19	310219	CABLE ASSEMBLY, Pothole interlock limit switch	1
	103256	• CABLE, 18/2 x 64" lg.	1
	119130	• KIT, 4 Pole receptacle connector	1
20	108589	RELAY, 24 Volt (tilt)	1
21	310585	SWITCH ASSEMBLY, Tilt	1
		<b>Use Part Number 117880 for Machines with Serial Numbers 150913 (3015), 229438 (3219) and Below.</b>	
	114866	• FUSE, 1 Amp	1
	119130	• KIT, 4 Pole receptacle connector	1
22	310061	CABLE ASSEMBLY, Tilt switch	1
23	310526	CABLE ASSEMBLY, Lift cylinder holding valve (3015)	1
	310527	CABLE ASSEMBLY, Lift cylinder holding valve (3219)	1
24	(Ref.)	LABEL, Up/down (Refer to Figure 6-38)	1 -
25	310498	CABLE ASSEMBLY, High Speed/Tilt Harness (8 Pole Connector)	1
	115147	• CABLE, 18/6	60"
	119133	• KIT, 8 Pole Deutsch Plug Connector	1
26	310220	CABLE ASSEMBLY, Lift override limit switch (Not Shown)	1
	103256	• CABLE, 18/2	56"
	117591	• SOCKET, Connector 16 - 18	2
	117599	• CONNECTOR, Plug 2 - pin wedge	1
	117597	• CONNECTOR, Plug 2 - pin	1

**FIGURE 6-31. ELECTRICAL PANEL ASSEMBLY - CE**



**MA-SJIIICOMP-14**

**FIGURE 6-31. ELECTRICAL PANEL ASSEMBLY - CE**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	310216	PANEL ASSEMBLY, Electrical	-
<b>1</b>	310207	• WELDMENT, Electrical panel	1
<b>2</b>	310494	• HARNESS, Manifold wiring	1
<b>3</b>	119730	• CABLE ASSEMBLY, Panel control	1
	102887	• • CABLE, 16/15	67"
	107821	• • CONNECTOR ASSEMBLY, 16 pole	1
	310324	CABLE ASSEMBLY, 16 Pin Control	1
	102887	• CABLE, 16/15	67"
	119727	• PIN, Code	2
	107821	• CONNECTOR ASSEMBLY, 16 Pin	1
	103565	• • HOUSING	1
	103573	• • INSERT, Female	1
<b>4</b>	310221	• CORD ASSEMBLY, Lower control box and high speed limit	1
<b>5</b>	117325	• BREAKER, 15 Amp circuit	2
<b>6</b>	103057	• BEEPER, 24 Volt	1
<b>7</b>	103336	• HOURMETER	1
<b>8</b>	103101	• CONTACTOR	1
	103962	• • SCREW, Machine #10-32 x 1/2" lg.	2
	104185	• • WASHER, Lock #10	2
	103995	• • WASHER, Flat #10	2
	104003	• • NUT, Hex #10-32	2
<b>9</b>	112447	• BUMPER, Rubber	1
	110463	• • SCREW, Hex-hd 6mm x 14mm	1
<b>10</b>	103011	• STRIP, Terminal block	2
	103956	• • SCREW, Machine #6-32 x 1" lg.	2
	106099	• • WASHER, Lock #6	2
	103985	• • NUT, Hex #6-32	2
<b>11</b>	310025	• MOUNT, Diode	1
<b>12</b>	102921	• DIODE, 6 Amp	23
<b>13</b>	108589	• RELAY, 24 Volt (brake, cushion, proportional, steering, tilt)	5
	103962	• • SCREW, Machine #10-32 x 1/2" lg.	2
	104185	• • WASHER, Lock #10	2
	104003	• • NUT, Hex #10-32	2
	310527	CABLE ASSEMBLY, Lift cylinder holding valve (3219)	1

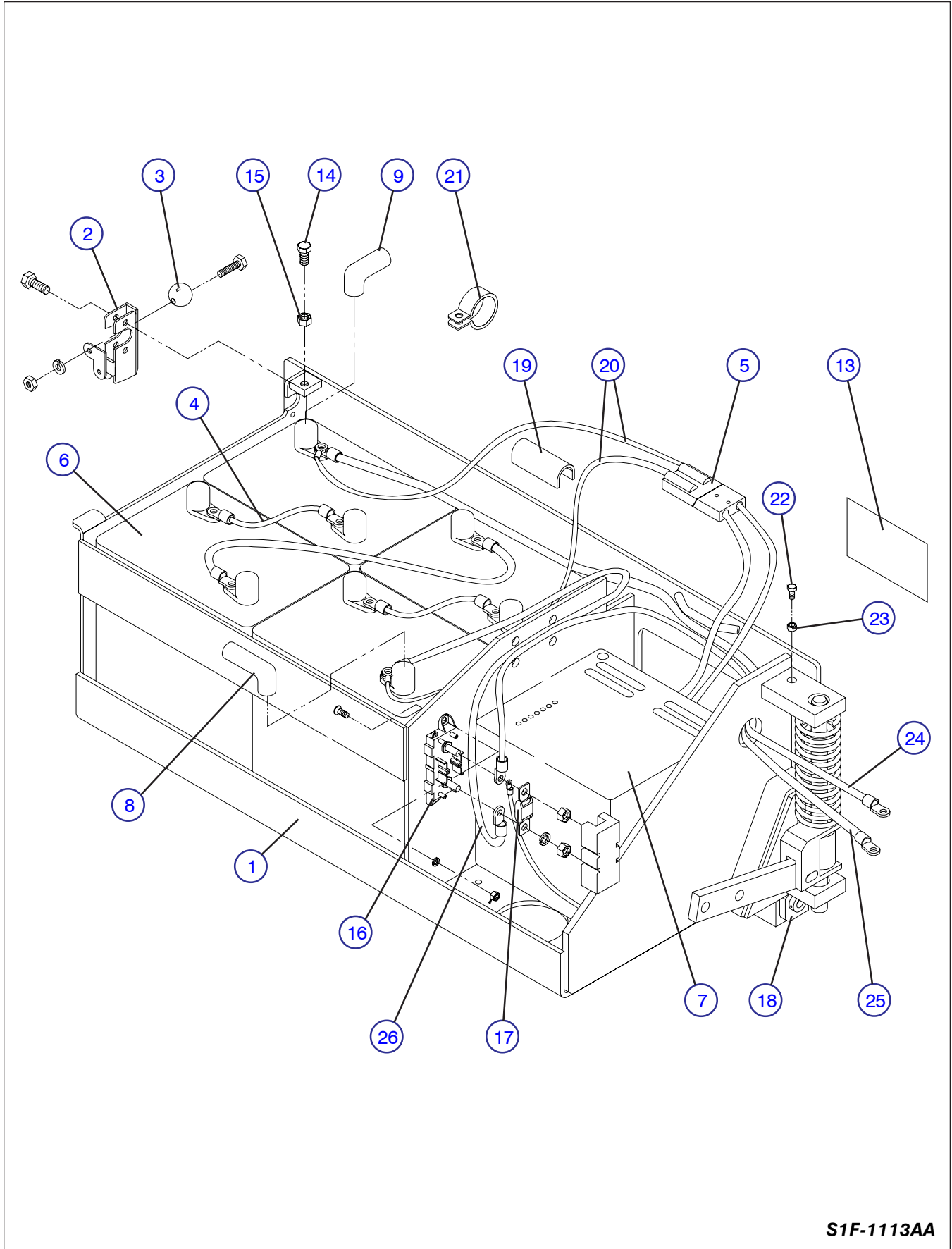
**Parts list continued on the following page.**

**FIGURE 6-31. ELECTRICAL PANEL ASSEMBLY - CE (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
13	108589	• RELAY, 24 Volt (brake, cushion, proportional, steering, tilt)	5
	103962	• • SCREW, Machine #10-32 x 1/2" lg.	2
	104185	• • WASHER, Lock #10	2
	104003	• • NUT, Hex #10-32	2
14	103319	• CAPACITOR, 35 Volt	1
15	115312	• RESISTOR, 40 Ohm/25W	1
	300827	• RESISTOR, 33 Ohm/25W	1
16	103267	• FLASHER, 24 Volt (Machines with Flashing Light Option)	1
17	110669	• CAPACITOR, .47uF 50 volt	1
18	310227	• CABLE ASSEMBLY, Drive override limit switch	1
	103257	• • CABLE, 18/3 x 68" lg.	1
	119131	• • KIT, 4 Pole plug connector	1
19	310219	• CABLE ASSEMBLY, Pothole interlock limit switch	1
	103256	• • CABLE, 18/2 x 64" lg.	1
	119130	• • KIT, 4 Pole receptacle connector	1
20	310585	• SWITCH ASSEMBLY, Tilt	1
		<b>Use Part Number 117880 for Machines with Serial Numbers 150913 (3015), 229438 (3219) and Below.</b>	
	114866	• • FUSE, 1 Amp	1
	119130	• • KIT, 4 Pole receptacle connector	1
21	310061	• CABLE ASSEMBLY, Tilt switch	1
22	118717	• MODULE, Lowering warning system	1
	108589	• • RELAY, 24 Volt (latching, time delay cutout, limit switch)	3
	117625	• • RELAY, 24 Volt (time delay)	1
	119134	• • KIT, 12 Pole receptacle connector	1
23	117967	• BEEPER, 9-28 Volt DC	1
24	300649	• PLUG, 1/2" Hole	1
25	310526	CABLE ASSEMBLY, Lift cylinder holding valve (3015)	1
	310527	CABLE ASSEMBLY, Lift cylinder holding valve (3219)	1



**FIGURE 6-32. BATTERY TRAY ASSEMBLY**

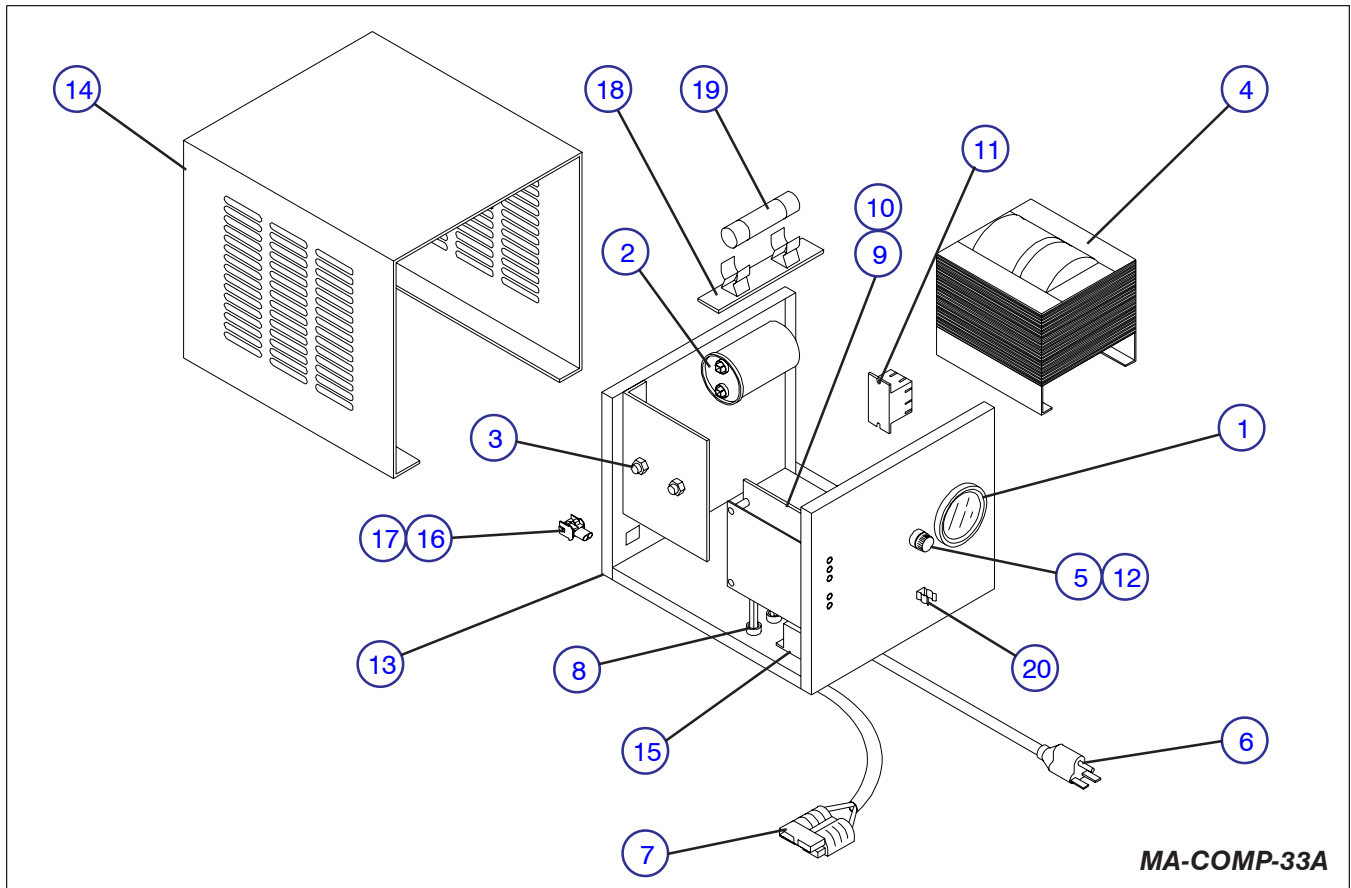


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**FIGURE 6-32. BATTERY TRAY ASSEMBLY**

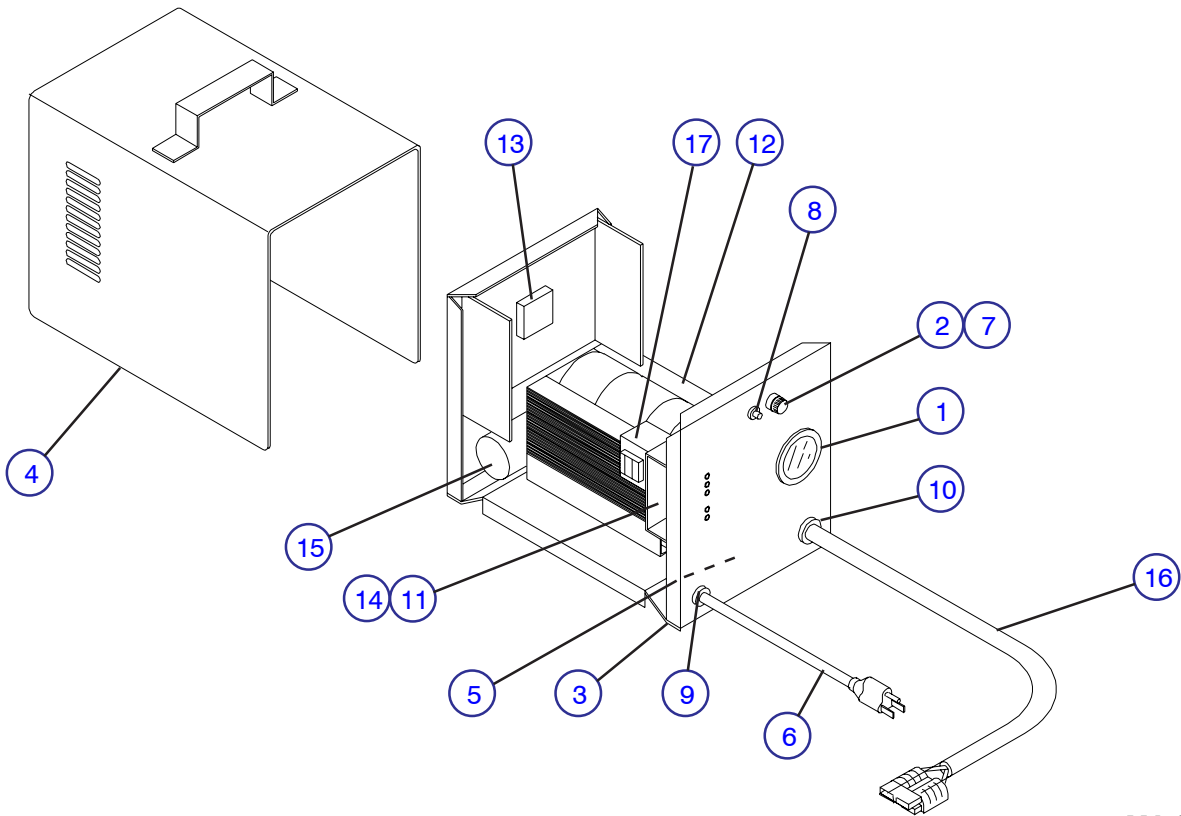
Index No.	Skyjack Part No.	Description	Units per Assy.
1	310132	WELDMENT, Battery tray	1
	104049	• BRACKET, Battery tray lock	1
2	102781	LATCH, Battery tray	1
	103864	• BOLT, Hex-hd 5/16-18 x 1" lg.	3
3	111534	KNOB, Rotary latch	1
	103857	• BOLT, Hex-hd 1/4-20 x 1" lg.	1
	104000	• WASHER, Lock 1/4"	1
	103980	• NUT, Hex 1/4-20	1
4	355100	CABLE, Battery	3
5	103364	PLUG, 50 Amp	1
6	\$	BATTERY, 6V 220AH (Interstate #U2200)	4
7	(Ref.)	CHARGER, 24V Battery	1
		<a href="#">(For Components, Refer to Figure 6-33A - Figure 6-33E)</a>	-
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	2
	103404	• WASHER, Lock 5/16"	2
8	105600	BOOT, Cable (red) (Optional)	6
9	105601	BOOT, Cable (black) (Optional)	4
10	112156	PLYWOOD, 3/8" x 14" x 2"	1
11	111423	SPACER, Wooden battery 2" x 3" x 11"	1
12	113654	PLYWOOD, (EE-Rated machines)	5
13	(Ref.)	LABEL, Battery charger	1
		<a href="#">(Refer to Figure 6-38)</a>	-
14	101632	BOLT, Tray stop 3/8-16 x 3/4" lg.	1
15	108575	NUT, Jam 3/8-16	1
16	300616	HOUSING, Fuse holder	1
	110853	• BOLT, Flat-hd 1/4-20 x 1-1/4" lg.	2
	104000	• WASHER, Lock 1/4"	2
	103980	• NUT, Hex 1/4-20	2
17	310517	FUSE, 300 Amp	1
18	(Ref.)	POT HOLE PROTECTION DEVICE	1
		<a href="#">(For components, refer to Figure 6-18.)</a>	-
19	110007	PROTECTOR, Edge 3" lg.	1
20	102700	WIRE, Black 10 AWG	AR
21	300829	CLAMP, Neoprene tube	1
22	103473	BOLT, Hex head 3/8 - 16 x 1" lg.	1
23	103978	NUT, Hex head 3/8 - 16	1
24	355103	CABLE, Pump/battery	1
	103148	• CABLE, #4 Welding	100"
25	355102	CABLE, Fuse box	1
	103148	• CABLE, #4 Welding	41.5"
26	355101	CABLE, Fuse box/battery	1
	103148	• CABLE, #4 Welding	35"
		\$ - Purchase locally.	

**FIGURE 6-33A. BATTERY CHARGER ASSEMBLY - (Motor Appliance BA611)**



Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	112258	CHARGER ASSEMBLY, Battery, 24V 25A, 115VAC 60Hz (#BA611)	-
1	108554	• AMMETER, 0-30	1
2	108555	• CAPACITOR	1
3	108556	• DIODE	2
4	108557	• TRANSFORMER	1
5	108558	• HOLDER, Fuse	1
6	108559	• CORD, AC	1
7	108560	• CORD, DC	1
8	103364	• • PLUG, 50 Amp	1
8	108561	• RELIEF, Strain	2
9	108565	• CIRCUIT BOARD ASSEMBLY, Timer control	1
10	108564	• • TRANSFORMER, Timer control	1
11	115315	• • RELAY, Timer control	1
12	102773	• FUSE, AGC15	1
13	\$	• BASE, Charger	1
14	\$	• COVER, Charger	1
15	115315	• RELAY, Charger cutout 120V	1
16	115391	• PLUG, Charger cutout	1
17	115392	• WIRE ASSEMBLY, Charger cutout	1
18	111905	• FUSE, 45 Amp NON	1
19	700687	• HOLDER ASSEMBLY, 45 Amp fuse	1
20	119137	• CLIP, AC Cord	1
		\$ Consult Factory.	

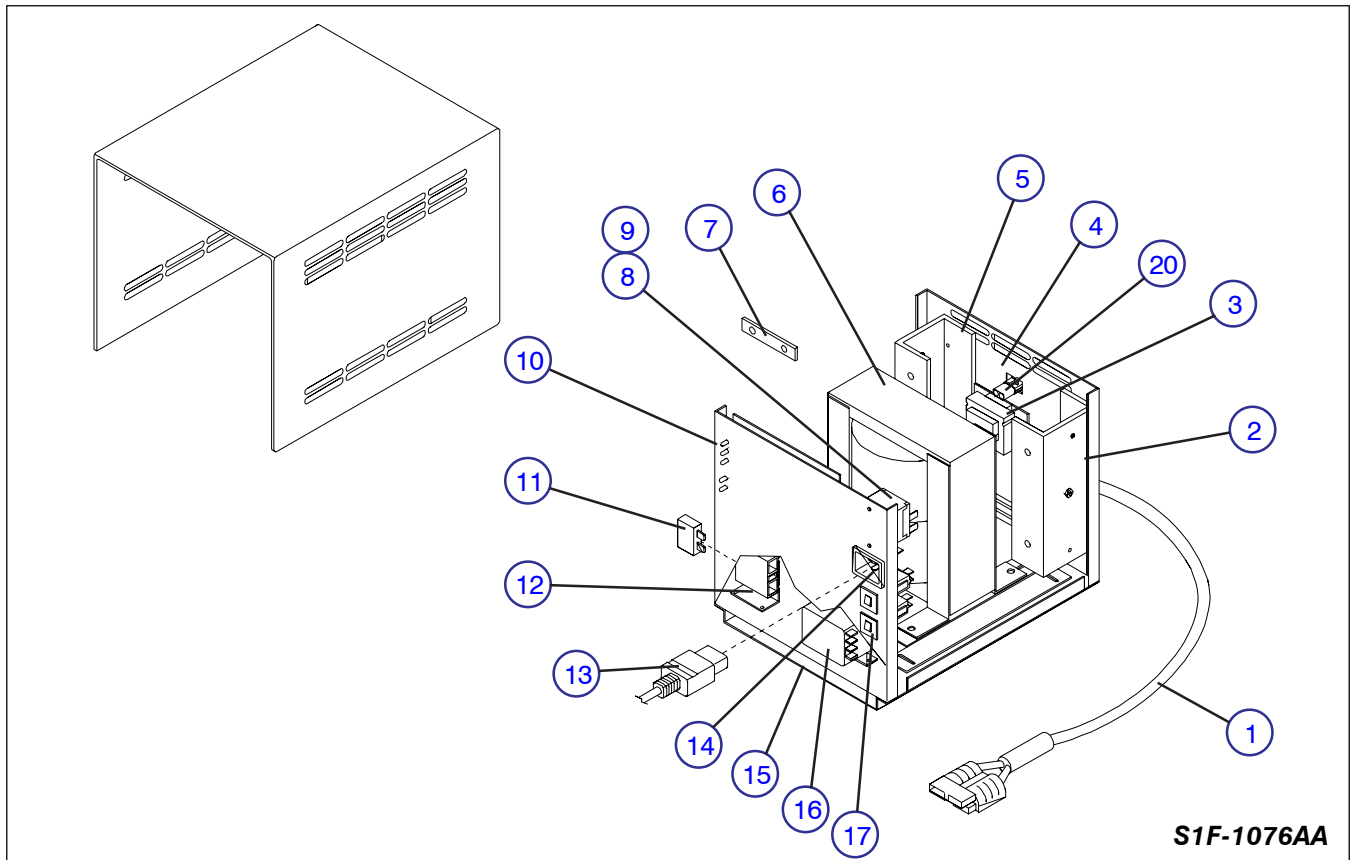
**FIGURE 6-33B. BATTERY CHARGER ASSEMBLY - EE-Rated (Motor Appliance BA9338)**



**MA-SJM-28**

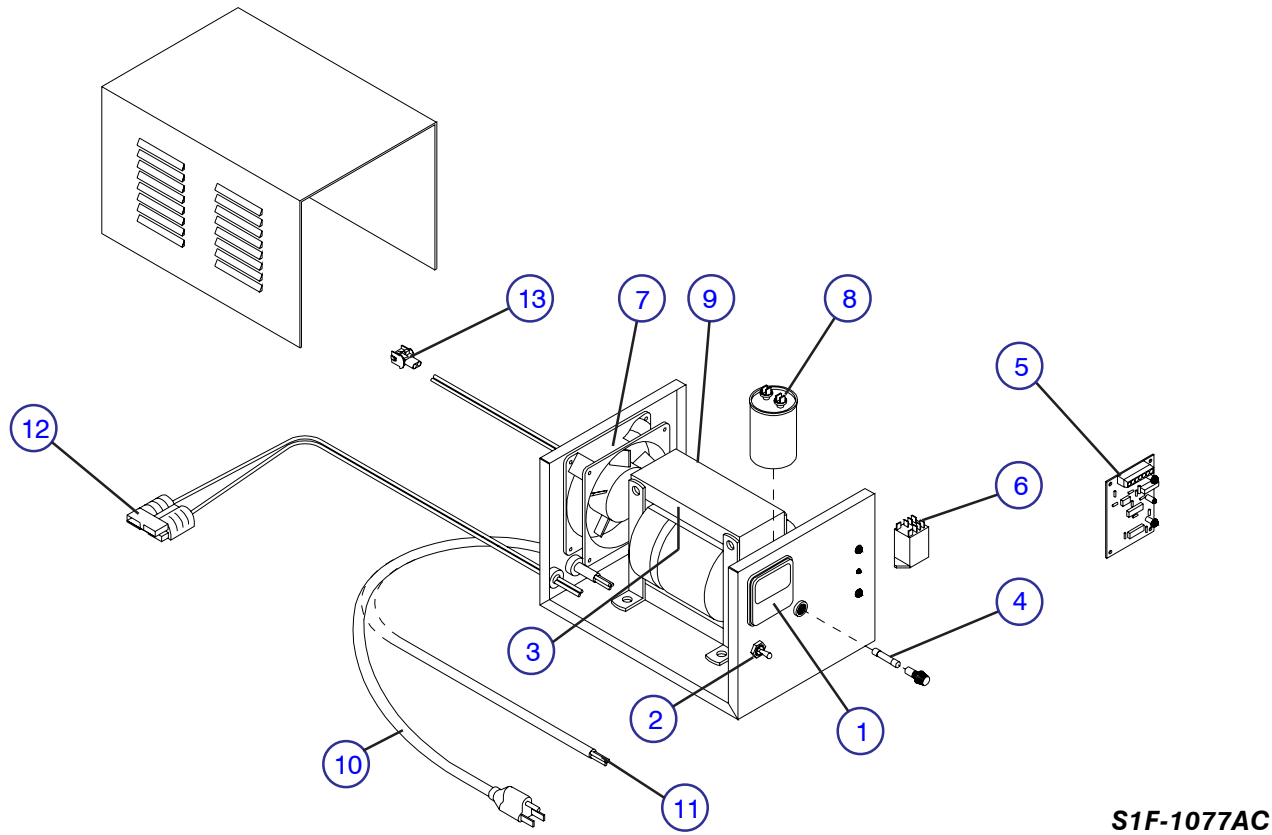
Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	110550	CHARGER ASSEMBLY, Battery, 24V20A, 115VAC 60Hz	-
1	110854	• AMMETER, 0-20 (M9818)	1
2	110855	• FUSE, AC AGC10 (M11641)	1
3	\$	• BASE, Charger	1
4	\$	• COVER W/HANDLE, Charger	1
5	110856	• CIRCUIT BREAKER (M7692)	1
6	108559	• CORD, AC (M0296)	1
7	108558	• HOLDER, Fuse (M1374)	1
8	110857	• BUTTON, Charger stop (M8258)	1
9	108561	• RELIEF, Strain, AC cord (M0366)	1
10	109105	• RELIEF, Strain, DC cord (M6680)	1
11	108562	• TRIAC (M8118)	1
12	110858	• POWER TRANSFORMER (TX09394A)	1
13	110859	• RECTIFIER (M7488)	1
14	108565	• CONTROL CIRCUIT, VFC2200 (CBA202413)	1
15	109102	• CAPACITOR (M3448)	1
16	110861	• CORD, DC (M9186)	1
	103364	• PLUG, 50 Amp	1
17	110862	• TRANSFORMER, Control circuit (M10602)	1
		\$ Consult factory.	

**FIGURE 6-33C. BATTERY CHARGER ASSEMBLY (Motor Appliance Model BA1044)**



Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	119863	CHARGER ASSEMBLY, Battery (BA 1044) (ANSI/SIA , CSA and CE)	-
1	121550	• CORD ASSEMBLY, DC	1
	121551	• • PLUG, 50 Amp (Gray)	1
2	121552	• RECTIFIER ASSEMBLY	2
3	119159	• TRANSFORMER, Control	2
4	121549	• CONTROL, AC1/24V	1
5	119157	• CAPACITOR ASSEMBLY, 400V	2
6	121553	• TRANSFORMER, Main 48V 20A, 120/240V, 50/60Hz	1
7	119149	• SHUNT ASSEMBLY	1
8	119162	• INSULATOR, Relay	2
9	119155	• RELAY, 24VDC 30A	1
10	121548	• CONTROL CIRCUIT	1
11	122957	• FUSE ASS'Y, DC Fuse, Bracket, Lock and Connectors	1
	117177	• • FUSE, 80 Amp DC	1
12	117178	• • HOLDER, Fuse	1
13	120790	• CORD, 220V AC (C19) (Europe)	1
	120791	• CORD, 110/220V AC (C19) (U.K.)	1
	120789	• CORD, 120V AC (C19) (North America)	1
14	119187	• SOCKET, AC Cord (C20)	1
15	119161	• PLATE, Mounting	1
16	119156	• RELAY, 120VAC	1
17	119143	• CIRCUIT BREAKER, 10 Amp	2
18	119144	• VARISTOR ASSEMBLY (Not Shown)	1
19	119150	• RECTIFIER, SCR 40A 400V (Not Shown)	1
20	115391	• PLUG, Charger cutout	1

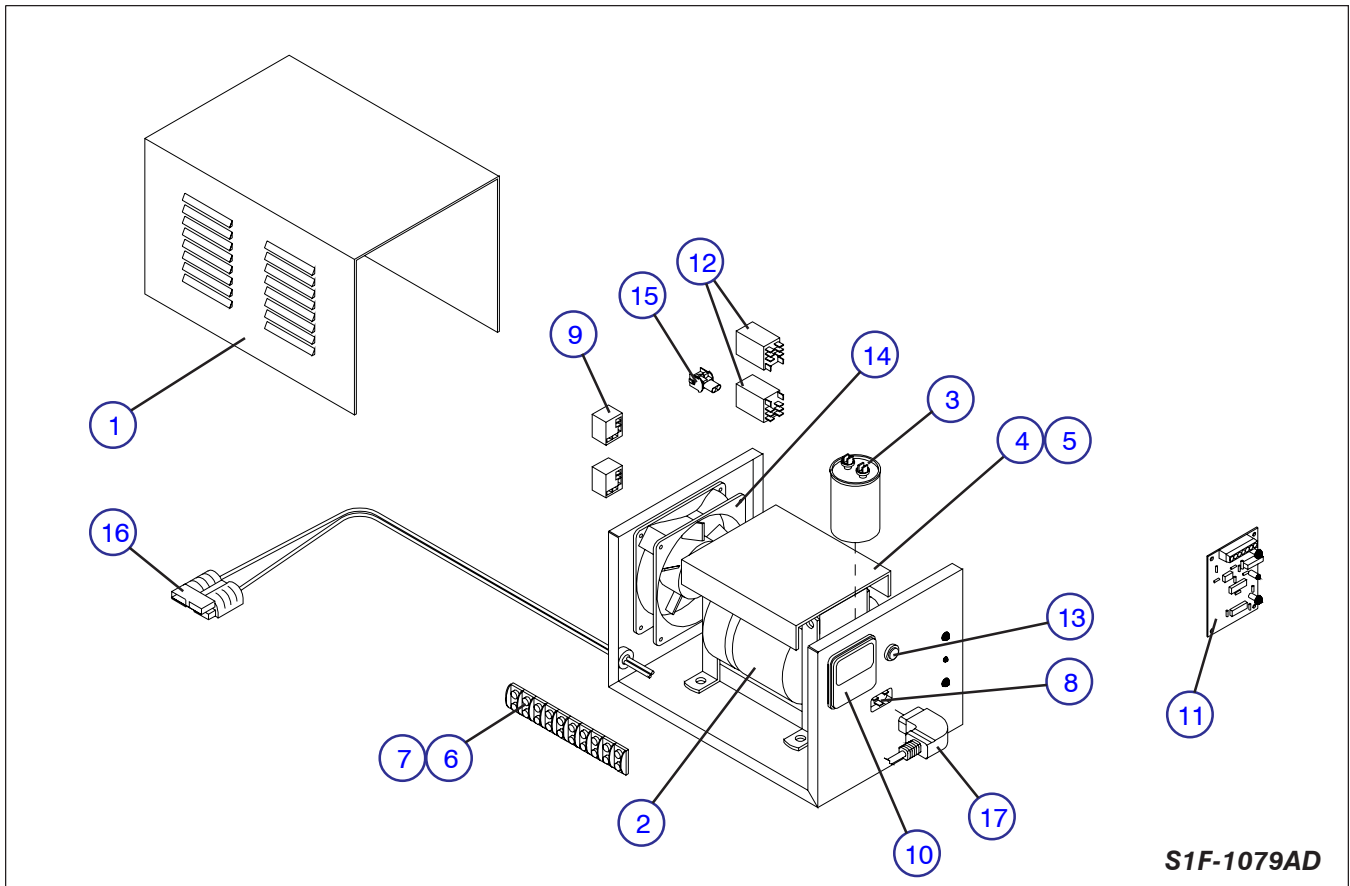
**FIGURE 6-33D. BATTERY CHARGER ASSEMBLY (Bycan Model 2440A and 2440E)**



**S1F-1077AC**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	112255	CHARGER ASSEMBLY, Battery (2440A, 60 Hz)	-
<b>B</b>	113415	CHARGER ASSEMBLY, Battery (2440E, 50-60 Hz)	-
1	117162	• AMMETER, 50 Amp	1
2	117163	• SWITCH, Toggle 4PDT	1
3	117164	• RECTIFIER, 70 Amp	2
4	117165	• FUSE AND HOLDER, AC	1
5	117166	• CONTROLLER	1
6	121545	• RELAY, Vehicle disable	1
7	117168	• FAN, Cooling	1
8	117169	• TRANSFORMER, <b>A</b>	1
	117170	• TRANSFORMER, <b>B</b>	1
9	117171	• CAPACITOR, <b>A</b>	1
	117172	• CAPACITOR, <b>B</b>	1
10	121560	• CORD, AC Supply (120V) <b>A</b>	1
11	121561	• CORD, AC Supply (220V) <b>B</b>	1
12	121562	• CORD, DC Battery	1
13	115391	PLUG, Charger Cutout	1

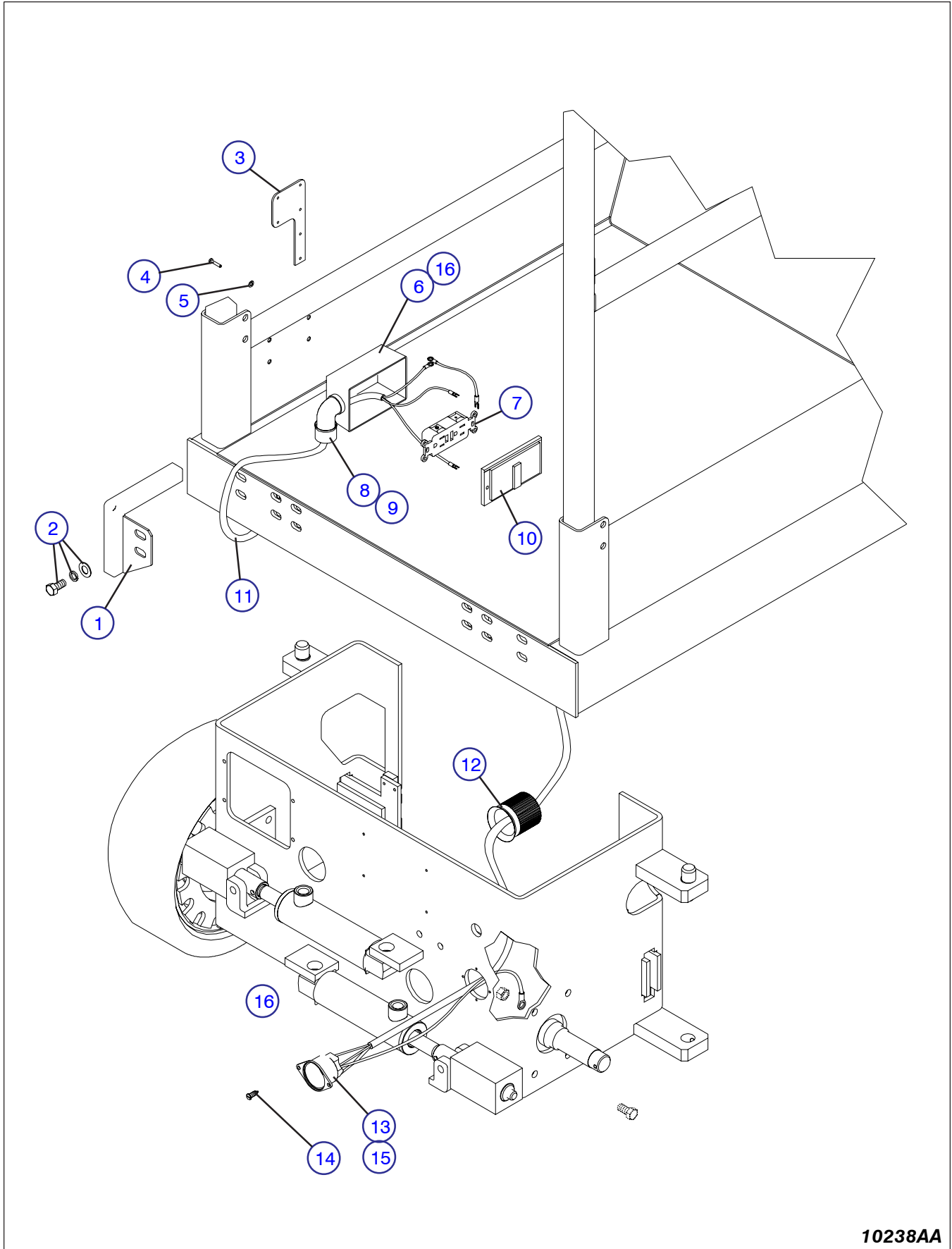
**FIGURE 6-33E. BATTERY CHARGER ASSEMBLY (Bycan Model 2440U)**



**S1F-1079AD**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	121485	CHARGER ASSEMBLY, Battery (2440U, 50/60 Hz)	-
1	121534	• HOUSING, Charger	1
2	121535	• TRANSFORMER	1
3	121536	• CAPACITOR	1
4	121537	• HEATSINK	1
5	121538	• RECTIFIER	2
6	121539	• BLOCK, TERMINAL	1
7	121540	• FUSE, LINK	1
8	121541	• SOCKET, AC Cord	1
9	121542	• RELAY, 24V DC	2
10	121543	• AMMETER, 50A DC	1
11	121544	• CONTROLLER ASSEMBLY	1
12	121545	• RELAY, 240 V	2
13	121546	• CIRCUIT BREAKER, AC	1
14	121547	• FAN, Cooling	1
15	115391	• PLUG, Charger cutout	1
16	121562	CORD, DC Battery	1
17	120789	CORD, AC 120V	1
	120790	CORD, AC 220V	1
	120791	CORD, AC No Plug	1
	120820	CORD, AC 120V (U.K.)	1
	120821	CORD, AC 220V (U.K.)	1

**FIGURE 6-34. AC OUTLET ON PLATFORM OPTION**



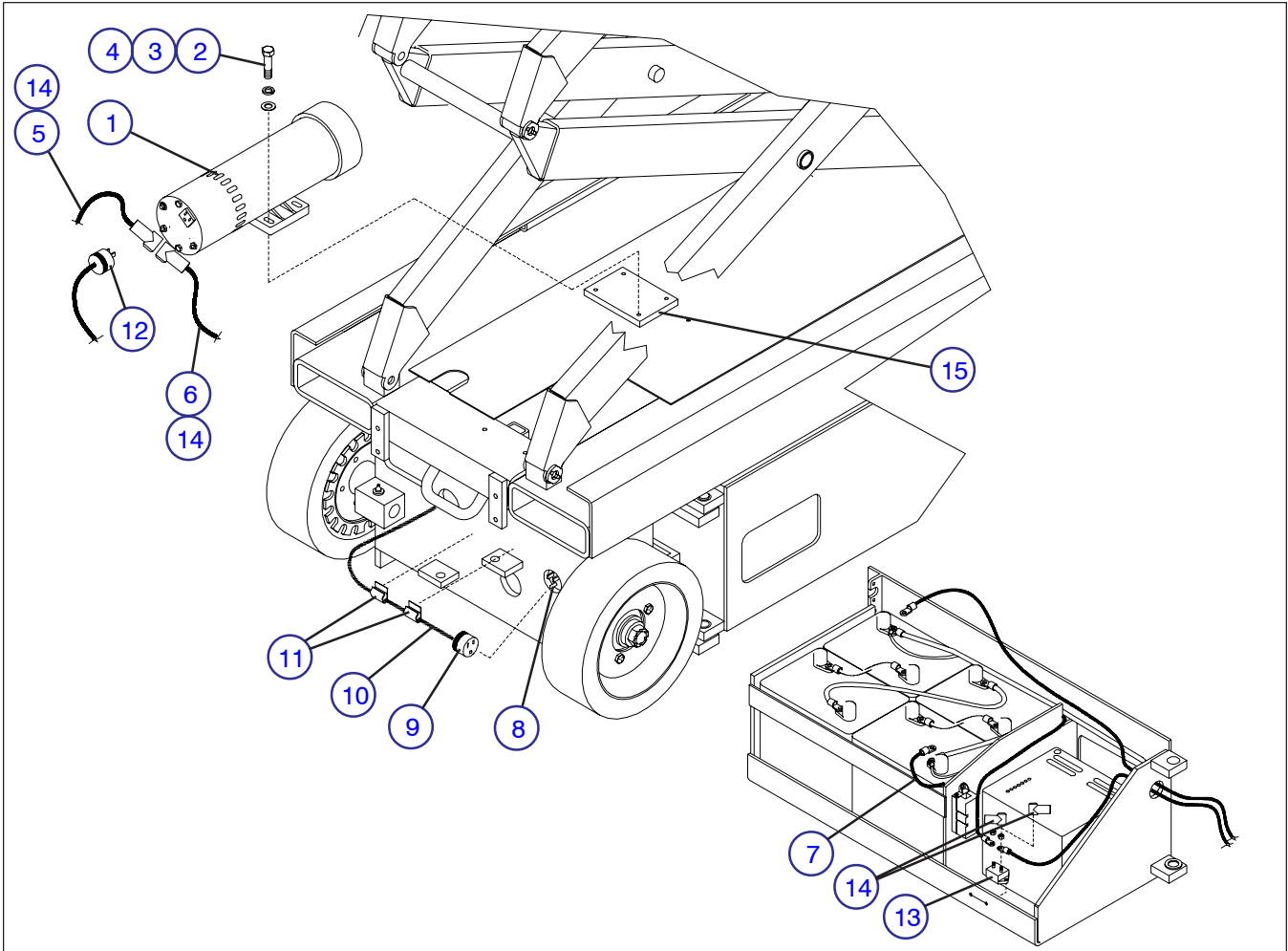
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**FIGURE 6-34. AC OUTLET ON PLATFORM OPTION**

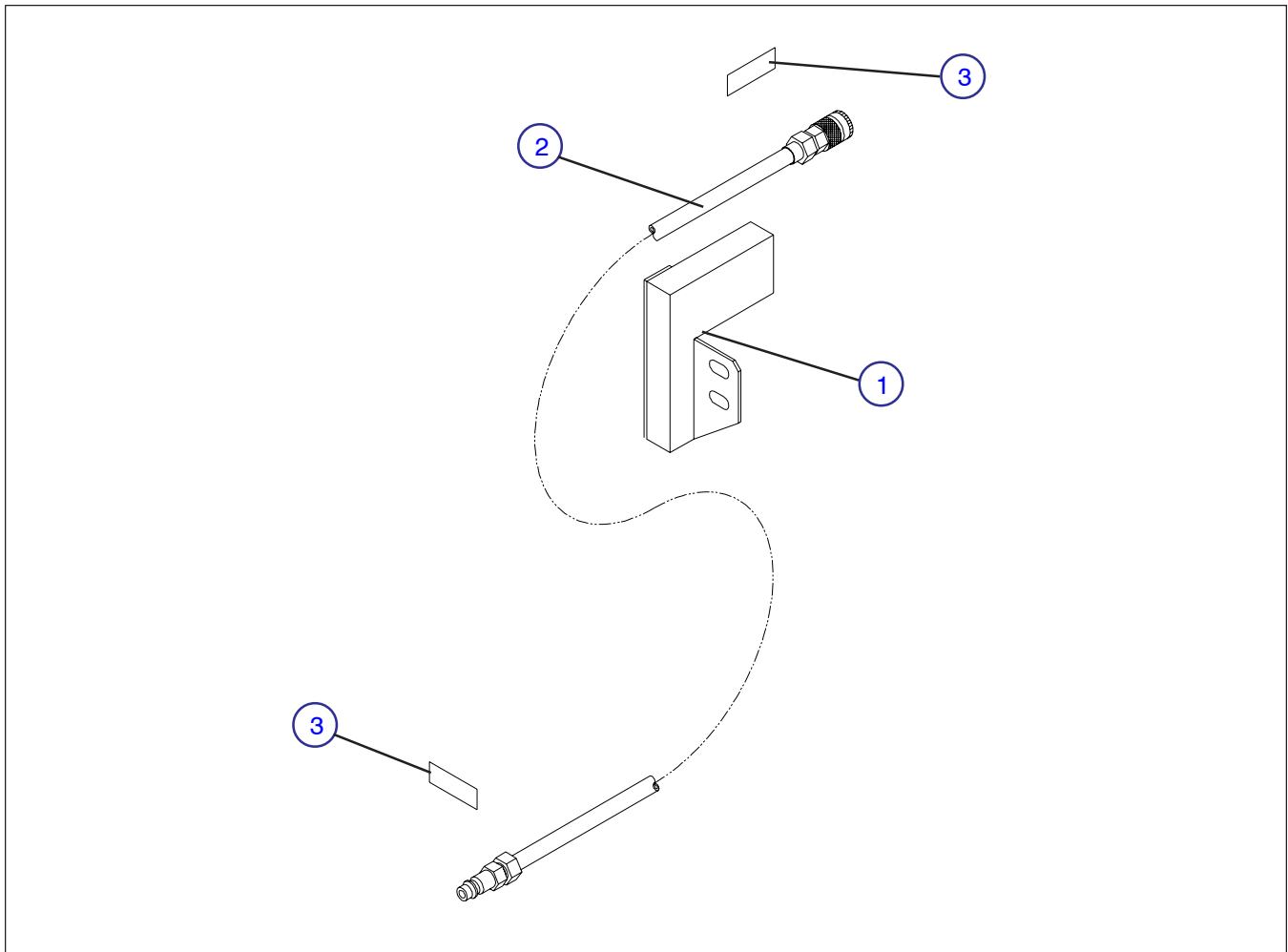
Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	(Ref.)	ELECTRICAL ASSEMBLY, AC Outlet, Model 3015	1
<b>B</b>	(Ref.)	ELECTRICAL ASSEMBLY, AC Outlet, Model 3219	1
<b>1</b>	108736	COVER, Cable protection LH	1
	(Ref.)	COVER, Cable protection LH (Extra Large) (For Components, Refer to Figure 6-36)	-
<b>2</b>	(Ref.)	HARDWARE, Cable Protection (Model 3015) (For Components, Refer to Figure 6-1)	-
	(Ref.)	HARDWARE, Cable Protection (Model 3219)	-
	103473	• BOLT, Hex head 3/8-16 x 1"	2
	103999	• WASHER, 3/8" Lock	2
	103472	• WASHER, 3/8" Flat	4
	103978	• NUT, 3/8"	2
<b>3</b>	121992	PLATE, 110V Outlet Support (Machines Equipped With Gate Option)	1
	103960	• BOLT, Machine #10-24 x .5"	2
	104185	• WASHER, Lock #10	2
	103987	• NUT, Machine #10-24	2
<b>4</b>	300511	• SCREW, #10-32 x .75"	4
<b>5</b>	103995	• WASHER, 1/4" Flat	4
<b>6</b>	109700	• BOX, GFI Receptacle	1
<b>7</b>	109698	• RECEPTACLE, 125V GFI	1
	300835	• RECEPTACLE, 125V GFI (800W Generator option)	1
<b>8</b>	103035	• CONNECTOR, 90° Strain relief	1
<b>9</b>	114599	• LOCKNUT, Conduit	1
<b>10</b>	109699	• PLATE, Weatherproof GFI cover	1
	300496	• PLATE, Blank Cover (220V)	1
<b>11</b>	105269	• CORD, 14/3, <b>A</b>	247"
	105269	• CORD, 14/3, <b>B</b>	295"
<b>12</b>	113227	• COVER, Seal-tite	1
<b>13</b>	105271	• PLUG, 3-Prong male recessed	1
<b>14</b>	310005	• SCREW, #10-32 x 3/8"	2
<b>15</b>	110333	LABEL, Connect supply here	1
<b>16</b>	(Ref.)	LABEL, 110V (110V Only) or 220V (220V Only) (Refer to Figure 6-38)	1 -

**FIGURE 6-35. 800W GENERATOR OPTION**



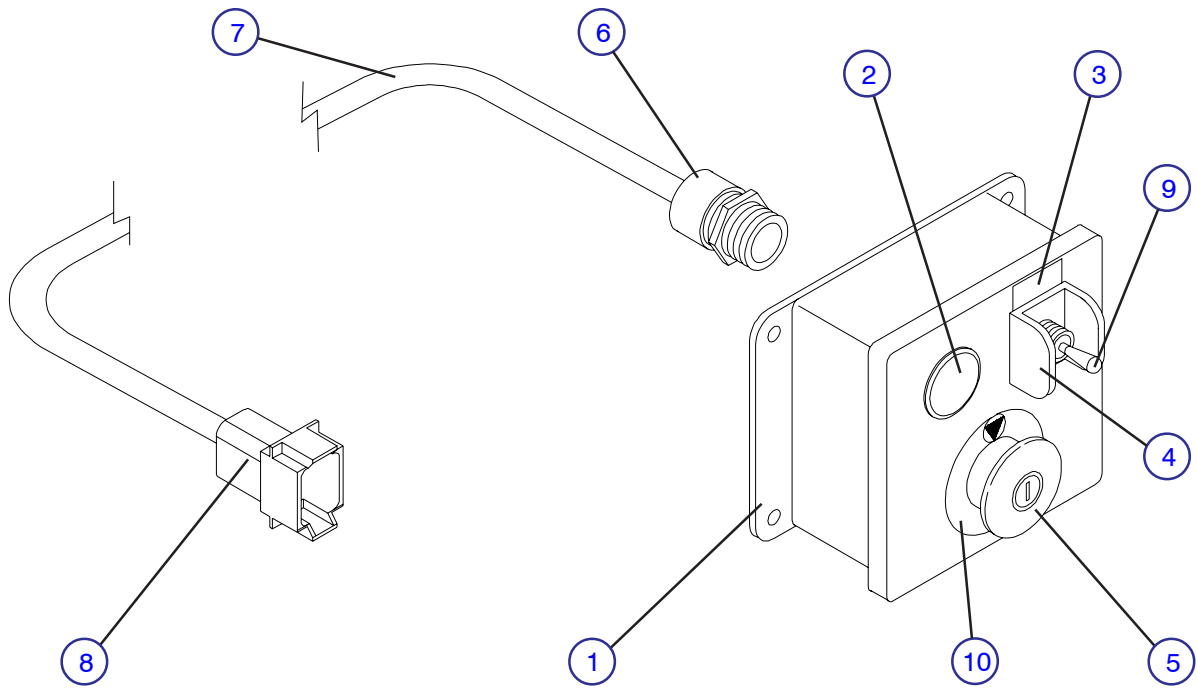
Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	(Ref.)	800 WATT GENERATOR OPTION	-
1	105882	• GENERATOR, 800 Watt	1
2	103887	• • BOLT, Carriage 5/16-18 x 1-1/4 " lg.	4
3	104637	• • WASHER, Lock 5/16"	4
4	103996	• • WASHER, Flat 5/16"	4
5	355125	• CABLE, Fuse to generator positive	1
6	355124	• CABLE, Battery negative to generator negative	1
7	355126	• CABLE, Fuse to battery positive	1
8	(Ref.)	• AC OUTLET TO PLATFORM (For Components, Refer to Figure 6-34)	1
9	300838	• PLUG, Female	1
10	105269	• CABLE, 14/3 Cabtire	38"
11	108791	• CLIP, Adhesive wire	2
12	104208	• PLUG, Male	1
13	310077	• BREAKER, 50A Circuit	1
14	105600	• BOOT, Rubber terminal red	3
	105601	• BOOT, Rubber terminal black	1
15	310075	• PLATE, Generator mounting	1

**FIGURE 6-36. AIR HOSE TO PLATFORM OPTION**



Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	109556	AIR HOSE TO PLATFORM - Model 3015	-
<b>B</b>	107888	AIR HOSE TO PLATFORM - Model 3219	-
1	109372	• COVER, Hose Protection Extra Large LH	1
2	(Ref.)	• HOSE ASSEMBLY, Air to platform	1
	107882	• • FITTING, Female disconnect	1
	107883	• • FITTING, Male disconnect	1
	107884	• • HOSE, Air line 1/2" x 330" lg., <b>A</b>	1
	107884	• • HOSE, Air line 1/2" x 450" lg., <b>B</b>	1
	109050	• • FITTING, Hose barb	2
	107886	• • CLAMP, Hose	2
3	107887	• LABEL, Connect air here	2
	102891	• STRAP, Tie 7" lg.	AR
	102893	• STRAP, Tie 13-1/2" lg.	AR

**FIGURE 6-37. BASE CONTROL BOX ASSEMBLY - CE**



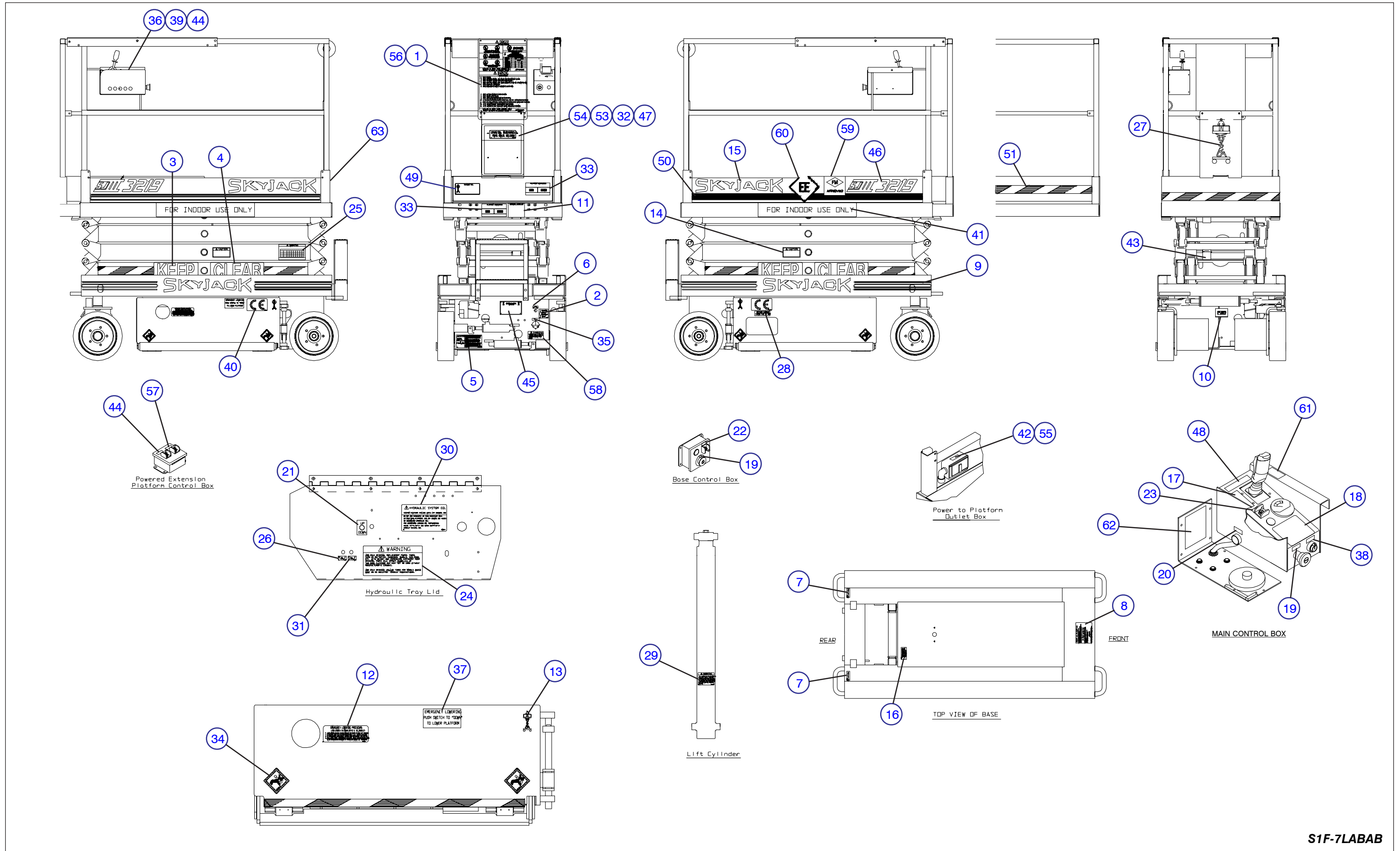
**MA-COMP-32A**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	310321	BASE CONTROL BOX ASSEMBLY	-
1	107986	• BOX, Base control	1
2	102956	• PLUG, 7/8" hole	1
3	102853	• SWITCH, Toggle	1
4	111181	• GUARD, Toggle switch	1
5	(Ref.)	• SWITCH ASSEMBLY, Emergency stop	1
	102769	• • HEAD, Stop switch	1
	103100	• • BASE, Contact	1
	103225	• • BLOCK, N.C. Contact	1
6	103041	• STRAIN RELIEF, Cord 1/2"	1
7	115147	• CORD, 18/6 x 24" lg	1
8	119132	• KIT, 8 Pole receptacle	1
9	(Ref.)	LABEL, Platform up/down (Refer to Figure 6-38)	1
			-
10	(Ref.)	LABEL, Emergency stop (Refer to Figure 6-38)	1
			-

**FIGURE 6-38. LABELS AND NAMEPLATES**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	122837	KIT, Label ( <b>ANSI/SIA &amp; CSA</b> )	-
<b>B</b>	122838	KIT, Label ( <b>CE</b> )	-
		<b>(See Note for Items Not Included in Kits)</b>	-
1	118277	LABEL, Danger/warning (safety plate)	1
2	119674	LABEL, Battery disconnect switch	1
3	106760	LABEL, Keep	2
4	106761	LABEL, Clear	2
5	106515	LABEL, Towing instructions	1
6	105983	LABEL, Power off/on	1
7	102896	LABEL, Forklift boot	2
8	106406	LABEL, Safety bar	1
9	310259	LABEL, Skyjack logo with stripe	2
10	103297	LABEL, Free-wheeling valve	1
11	106691	LABEL, Operator's checklist	1
12	109442	LABEL, Emergency lowering	1
13	103706	LABEL, Skyjack vertical logo	2
14	102894	LABEL, Do not lift from sides	2
15	119835	LABEL, Skyjack logo	2
16	106705	LABEL, Do not alter (near limit switches)	2
17	115327	LABEL, Controller, lift/drive (on control box)	1
18	106704	LABEL, Operator warning (on control box)	1
19	111814	LABEL, Emergency stop (on control box & base control box)	2
20	105352	LABEL, Horn	1
21	103805	LABEL, Up/down (on electrical panel)	1
22	108328	LABEL, Up/down (on base control box)	1
23	108333	LABEL, Lift/off/drive (on control box)	1
24	108666	LABEL, Replacement parts	1
25	109985	LABEL, Annual inspection	1
26	117387	LABEL, Push to reset power	2
27	700025	LABEL, Vertical logo	1
28	110334	LABEL, Battery charger connection in tray	1
29	106703	LABEL, Orifice (on lift cylinder)	1
30	114378	LABEL, Hydraulic system	1
31	117389	LABEL, Push to reset ground	1
32	123628	LABEL, Manual box	2
33	108674	LABEL, Platform capacity	2
34	201758	LABEL, Pinching hazard	4
35	110333	LABEL, Connect AC supply here	1
36	118711	LABEL, Hydraulic Proportional	1
37	108442	LABEL, Push to down (on hydraulic tray), <b>A</b>	1
38	105983	LABEL, Power on/off (on control box), <b>A</b>	1
39	310281	LABEL, Base/off/platform (on control box), <b>B</b>	1
40	117023	LABEL, CE Approval, <b>B</b>	2
41	112834	LABEL, For Indoor Use Only, <b>B</b>	2
<b>Parts list continued on the following page.</b>			

FIGURE 6-38. LABELS AND NAMEPLATES



S1F-7LABAB

**FIGURE 6-38. LABELS AND NAMEPLATES (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>Parts list continued from the previous page.</b>			
*42	201447	LABEL, 220 VAC	1
*43	114602	TAPE, Caution 1"	AR
*44	115594	LABEL, Enable (Main & Powered Extension Control Boxes) (Models equipped with lift/drive enable)	AR -
*45	(Ref.)	NAMEPLATE, Serial number (Consult factory)	1
*46	(Ref.)	LABEL, Model designation	-
	310177	• SJIII 3015	2
	310178	• SJIII 3219	2
*47	122882	MANUAL, Operating	1
*48	123488	LABEL, Operating (Control Box)	1
*49	124931	LABEL, Compliance to CE standards (CE)	1
	125476	LABEL, Compliance to ANSI/SIA and CSA standards (ANSI/SIA & CSA)	1
<p><b>Use Part # 108665 for ANSI/SIA &amp; CSA Machines with Serial # 150611(3015) or 227367 (3219) and below.</b></p> <p><b>Use Part # 310291 for CE Machines with Serial # 150611(3015) or 227367 (3219) and below.</b></p>			
*50	103125	STRIPE, White/blue (113" total)	AR
*51	102975	TAPE, Warning (150" total)	AR
*52	102912	LABEL, Daily maintenance (on battery charger)	1
*53	114224	MANUAL, ANSI/SIA Responsibilities	1
*54	(Ref.)	PLATE & ENCLOSURE, Manual box (For Components, Refer to Figure 6-3. or 6-4.)	1 -
*55	201446	LABEL, 110 VAC	1
*56	(Ref.)	PLATE, Safety label (For Components, Refer to Figure 6-3. or 6-4.)	1 -
*57	108328	LABEL, Extend/Retract (Powered Extension Control Box)	1
*58	123274	LABEL, Warning 110V (EE Rated)	1
*59	104588	LABEL, FM Approved (EE Rated)	2
*60	104589	LABEL, EE (EE Rated)	2
*61	124080	LABEL, Enable joystick (Machines with enable joystick)	1
*62	124199	LABEL, Joystick Controller (Machines with enable joystick)	1
*63	124465	LABEL, Side force/outdoor (ANSI/CSA)	1
	126505	LABEL, Side force/no wind (CE)	1
<p><b>* Not included in Label Kit.</b></p>			
<p><b>NOTE: Supply Model Number, Serial Number and Country when ordering complete machine labels.</b></p>			







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