Genie V-1832 & V-1854 VERTICAL LIFTS

SERVICE AND PARTS MANUAL

Part No. 25183

Genie Industries

CONGRATULATIONS!

You now own the most stable and durable vertical lift on the market today--a Genie Vertical Lift. Genie takes pride in designing products that stand for quality, value, and service. You can be assured that your new Genie Vertical Lift will offer all of these.

This manual has been prepared to assist you with the initial unpacking and operation of your new Genie Vertical Lift. In addition, this manual will illustrate how to transport and troubleshoot the machine, as well as how to perform periodic maintenance.

We have tried to answer all possible questions and project any service situation that you might encounter. But, as with any publication of this type, we cannot guarantee that it is all inclusive. If you have a question or situation that has not been addressed in this manual, please contact us. WE RELY ON YOUR FEEDBACK!

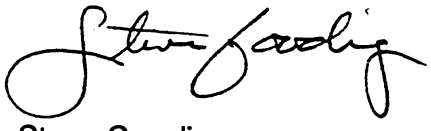
Write: GENIE INDUSTRIES
Attention: Service Manager
18340 North East 76th Street
P.O. Box 69
Redmond, WA 98073-0069

Call: Toll free, 800-426-8089
In Washington state (206) 881-1800

Once again, congratulations on the purchase of your new Genie Vertical Lift. We are confident it will provide you with quality, value and years of service.

Sincerely,

GENIE INDUSTRIES



Steve Gooding
Genie Service Department Manager

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INTRODUCTION

1.1 PURPOSE

This manual provides instructions for the operation and maintenance of the Genie Vertical Lift, models V-1832 & V-1854. After reading this manual be sure to keep it as a ready reference. If you require further information:

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Attn: Customer Service Department
18340 North East 76th Street
P.O. Box 69
Redmond, WA 98073-0069

Call: Toll free, 800-426-8089
In Washington state (206) 881-1800

Telex: 152351

Fax: (206) 885-4638

We are happy to help you and answer any questions you may have about your Genie Vertical Lift.

All information, illustrations and product descriptions contained in this manual are valid at the time of publication.

Genie Industries reserves the right to make changes in design, additions to, or improvements on any Genie products without imposing any obligation upon itself to install them on previously manufactured products.

1.2 ITEM DESCRIPTION

Physical

The Genie Vertical Lift V-1832 & V-1854 are two person self-propelled, integral frame, elevating work platforms. The machines are capable of elevating personnel, along with their tools and materials, to a platform height of 18 ft. (5.5 m). The machines have an obstacle clearance of 3.25 in. (82 mm), a high center clearance of 5.5 in. (140 mm), and a stowed height of 6 ft. 7 in. (2 m).

V-1832: Chassis width is 33 in. (.84 m), allowing the machine to easily be driven through a standard 3 ft. x 6 ft. 8 in. (.91 m x 2.03 m) single doorway.

V-1854: Chassis width is 54 in. (1.37 m), allowing the machine to easily be driven through a standard 6 ft. x 6 ft. 8 in. (1.83 m x 2.03 m) double doorway.

Power

Power for all machine functions of the Genie Vertical Lift V-1832 & V-1854 are provided by stored electrical energy. All machine functions (for both machines) are operated by a hydraulic pump. The pump, powered by an electric motor, supplies hydraulic oil to the machine function actuators.

Movement

With the platform fully lowered, the machines have a variable drive speed of 0-3 mph (0-4.8 km/h) and a gradeability of 25%. Drive speed decreases to 0.8 mph (1.3 km/h) when traveling with the platform elevated.

V-1832: With wheels turned to maximum in either direction, the V-1832 has an outside turning radius of 12 ft. 4 in. (3.8 m) and inside turning radius of 7 ft. 9 in. (2.4 m).

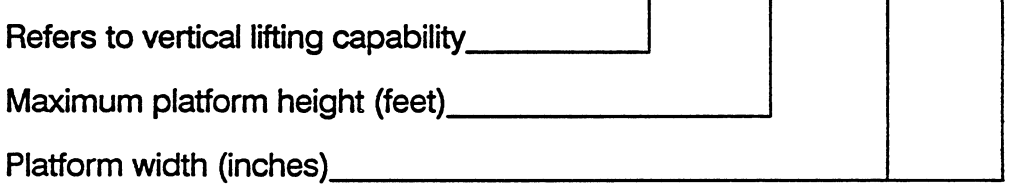
V-1854: With wheels turned to maximum in either direction, the V-1854 has an outside turning radius of 14 ft. 4 in. (4.4 m) feet and an inside turning radius of 8 ft. 4 in. (2.5 m).

NOTE: For a complete description of Genie Vertical Lift machine functions, refer to section 3.5, Theory of Operation.

1.3 IDENTIFICATION

This identification plate (above) is attached to the base weldment (at the time of manufacture) of every Genie Vertical Lift. Refer to the following page for a complete description of each item listed on the plate.

Model No. V - 18 32 or 54



Serial No.

This number identifies a particular machine with reference to the original owner. This number should always be referred to when requesting information or ordering service parts for the machine.

Rated Work Load

This is the maximum platform capacity. It designates the maximum safe load which can be evenly distributed on the platform at any elevation.

Platform Height

This is the maximum attainable platform height and is measured from level ground surface to the floor of the platform.

Nominal Operating Voltage

The number stamped into this box designates the voltage at which the unit operates.

Maximum Hydraulic System Pressure

This is the maximum achievable operating hydraulic pressure.

ANSI

This is the standard of the AMERICAN NATIONAL STANDARD INSTITUTE (ANSI) the machine complies to.

1.4 OPERATION

The Genie V-1832 & V-1854 are controlled from the platform control station. This control station consists of a DRIVE Forward/Reverse joystick, a DRIVE SPEED High/Low toggle switch, STEER Left/Right toggle switch, and an ELEVATE Up/Down toggle switch.

To operate the machine, the operator turns the key switch to the PLATFORM position and pulls up on the red POWER On/Off button located on the ground control station. The operator may now enter the platform and pull up on the platform control station red POWER On/Off button. The machine is now operational.

The machine may then be driven to the work location, and the platform elevated to the task. The chassis may be repositioned while the platform is elevated by driving the machine to the desired position.

IMPORTANT: NEVER ELEVATE THE PLATFORM OR DRIVE THE MACHINE WITH THE PLATFORM ELEVATED UNLESS THE MACHINE IS ON A FIRM LEVEL SURFACE.

The ground control station offers control for the elevate function. In the event of a control circuit or hydraulic system power loss, the machine incorporates a manual lowering valve, located at the base of the elevate cylinder. At the end of each day the key switch should be turned off and the integral battery charger connected to the appropriate AC power source.

NOTE: Refer to the Vertical Lift Operation Instructions in section 3.3 for a detailed description of how to operate your Genie Vertical Lift.

SAFETY

2.1 MANDATORY PRECAUTIONS

Your safety is Genie's utmost concern. Please make certain each person operating or servicing the machine reads and understands all of the following precautions. Please do not hesitate to call our Customer Service department toll free 800-426-8089 if you have any questions regarding the proper use or maintenance of this equipment.

Before using a Genie Vertical Lift, perform the preoperation inspection procedure detailed in section 3.2.

IMPORTANT: DO NOT USE DAMAGED EQUIPMENT.

WARNING: FAILURE TO COMPLY WITH THE SAFETY REGULATIONS LISTED IN THIS SECTION MAY RESULT IN SERIOUS PERSONAL INJURY AND PROPERTY DAMAGE.

- DO NOT change operating or safety systems.
- DO NOT operate any machine on which DANGER, WARNING, CAUTION or instruction placards or decals are missing or illegible.
- Only those personnel who have demonstrated that they understand safe and proper operation of the machine shall be authorized to operate the machine.
- Never use the machine for any purpose other than positioning personnel, their tools and equipment.
- Always familiarize yourself with the location and operation of the ground control station.
- Always close entrance gate after mounting platform.
- Always use safety belts and lanyards when occupying the platform. The belt should be positioned at the occupant's waist with the lanyard attached in the rear. *

- Never EXCEED THE RATED PLATFORM LOAD.
- Keep oil, mud and slippery substances cleaned off footwear and platform floor.
- DO NOT stand, sit or climb on the platform guard rail, mid-rail or entrance gate.
- DO NOT attach overhanging loads or increase platform size.
- Never position ladders, steps or similar items on the machine to provide additional height or reach for any purpose.
- Always survey work area for surface hazards such as holes, drop offs, bumps and debris before elevating platform. Do not operate machine near pits, loading docks or other dropoffs.
- Before driving on floors, bridges, trucks and other surfaces, check allowable weight capacity of surfaces.
- Never elevate the platform or drive the machine while elevated unless the machine is on a firm, level surface.
- Always post a look-out and sound the horn when driving in areas where vision is obstructed.
- The operator is responsible for avoiding ground personnel and warning them not to work or walk under an elevated vertical lift.
- Never lower the platform unless the area below the platform is clear of personnel and obstructions.
- Never lean a ladder against the platform or subject the platform to a horizontal or side force by pushing or pulling the platform.
- Always look up and around for overhead obstructions and electrical conductors. Do not operate the machine or position the platform within 10 ft. (3.1 m) of power lines or any other apparatus carrying up to 50,000 volts. One foot (.3 m) additional clearance is required for every additional 30,000 volts.

  WARNING: THIS MACHINE IS NOT ELECTRICALLY INSULATED.

- Never use the Genie Vertical Lift as a crane. This may result in structural damage or tipping.
- DO NOT tow the machine unless it is in free-wheel configuration and equipped with provisions for towing.
- DO NOT actuate the DRIVE joystick through Neutral to the opposite direction. Instead, return the lever to Neutral, stop, then proceed in the opposite direction.
- DO NOT change limit switch actuators, interlocks or relief valves from their recommended settings.
- Stow the machine and shut off the key switch and all POWER switches before leaving the machine.
- DO NOT recharge batteries near sparks or open flame. Batteries being charged emit highly explosive hydrogen gas.
- Battery acid is corrosive. Wear protective clothing, gloves and safety glasses when servicing.

* **As required by ANSI A92.6 1979 14.2.6:** "Personnel shall maintain a firm footing on the platform while working thereon unless they are secured by safety harness/lanyard devices fixed to manufacturer-approved hard points."

OPERATION

3.1 UNPACKING

Upon delivery, it is important to promptly and correctly unpack and inspect your new Genie Vertical Lift. Follow the steps listed below to unpack the machine. Prior to use, refer to section 3.2 and complete the preoperation inspection.

Steps

1. Remove all restraints used to secure the machine to the transport vehicle.
2. Close the manual lowering valve located at the base of the elevate cylinder.
3. Ensure that the ramp upon which the machine will be driven is capable of withstanding the 3600 lb. (1633 kg) V-1832 machine weight or the 4000 lb. (1814 kg) V-1854 machine weight [add 200 lbs. (91 kg) for the optional slide deck].
4. Before driving the machine off of the transport vehicle, ensure that you understand the functions of the controls (refer to section 3.3, Operating Instructions). Turn the key switch to PLATFORM position. Enter the platform and familiarize yourself with the platform control station.
5. Push the DRIVE joystick in the direction of desired travel. To slow down the machine, move the DRIVE joystick toward the Neutral position. To stop, move the DRIVE joystick to the Neutral position.

3.2 PREOPERATION INSPECTION

IMPORTANT: IT IS ESSENTIAL THAT THE INFORMATION CONTAINED IN THIS SECTION BE READ AND UNDERSTOOD BEFORE ANY ATTEMPT IS MADE TO OPERATE THE MACHINE.

Initial Inspection

Before a new Genie Vertical Lift is put into operation, it must be carefully inspected for any evidence of damage resulting from shipment. Use the following check list to detect defective, damaged or improperly installed parts.

Inspection Prior To Use

Before operating the machine each day, the following inspections should be performed to ensure maximum safety for the machine operator and others using the Genie Vertical Lift. It is recommended that each user inspect the vertical lift before operation even if the machine has already been put into service by another user. The most efficient method for inspecting your machine is by conducting a brief, but thorough, walk-around inspection.

IMPORTANT: NEVER OPERATE A DEFECTIVE MACHINE. ANY DEFECT OR DAMAGE NOTED DURING THIS INSPECTION MUST BE CORRECTED BEFORE THE MACHINE IS USED.

Steps

IMPORTANT: BEGIN THE PREOPERATION INSPECTION WITH THE MACHINE IN THE STOWED POSITION ON A FIRM LEVEL SURFACE.

1. **Overall cleanliness** - Check machine for hydraulic oil residue and foreign objects. Inspect the surface upon which the machine is resting for any indication of leaks.

2. **Front Tire and Wheel Assemblies** - Check for damaged, loose or missing parts. Look for worn spindles, defective components and hardware, and worn or damaged tires.

3. **Steering Assembly** - Check for damaged, loose or missing parts. Check for loose or bent tie rod. Inspect steering cylinder and hydraulic lines for leaks and proper installation.

4. **Chassis Covers** - Check for damaged, loose or missing parts. Ensure proper operation of latches and wing nuts.

5. **Batteries and charger** - Check for damaged, loose or missing parts. Ensure battery posts and connecting terminals are secure and free of corrosion. Ensure that the hold down brackets are tight. Check batteries for state of charge, and (if appropriate) electrolyte levels and specific gravity (between 1.20 and 1.25). Confirm charger operates properly when plugged in to appropriate AC power source. Before and after charging the batteries, electrolyte levels should be checked and brought to the proper level by adding only clean, distilled water.

6. **Ground Control Station** - Check for damaged, loose or missing parts and confirm electrical connections are secure and corrosion free. Inspect all wiring for insulation damage. Ensure all switches operate properly.

7. **Hydraulic Control Manifold and Hydraulic Power Unit** - Check for damaged, loose or missing parts. Inspect manifold, pump and hydraulic lines for leaks. Ensure motor and solenoid electrical connections are secure and free of corrosion.

8. **Hydraulic Oil Reservoir** - Be sure that the machine is in the stowed position, then check for damaged, loose or missing parts. Ensure that the hydraulic oil level is at approximately the 180°F mark on the oil level/temperature indicator. Inspect the reservoir, oil filters, breather cap, and hydraulic lines for leaks.

9. **Drive Motor and Rear Wheel Assembly** - Check for damaged, loose or missing parts. Inspect drive hubs, hydraulic motors, brakes, and all hydraulic lines for damage or leaks. The torque hubs should be approximately one half full of 90 weight oil.

10. **Placards and Decals** - Ensure that all placards and decals are clean, unobstructed, legible, and in the proper location. Make sure the operating instructions are included at the platform.

11. **Elevate Assembly** - Check for damaged, loose or missing parts. Make certain that all pivot pins and retaining clips for securing pivot pins, are in place. Inspect elevate cylinder and hydraulic lines for leaks.

12. **Platform Assembly** - Check for damaged, loose or missing parts. Ensure that the platform entrance gate and guard rails are in good working condition.

13. **Platform Control Station** - Check for damaged, loose or missing parts. Confirm electrical connections are secure and corrosion free. Inspect wiring for insulation damage. Ensure all switches operate properly.

IMPORTANT: PERFORM ALL INSPECTION TESTS WHERE THE PLATFORM IS ELEVATED WITH THE MACHINE POSITIONED ON A FIRM LEVEL SURFACE.

14. **Elevate Function Test** - A test of the elevate function must be performed to ensure proper operation. The test should be executed first from the ground control station and then from the platform control station. The platform should be elevated to its maximum height, then fully lowered. Repair any defects.

15. **Manual Lowering Test** - A test of the manual lowering function must be performed to ensure proper operation. With the platform at maximum elevation, operate the manual lowering valve (located at the base of the elevate cylinder) until the platform is fully lowered. Repair any defects.

16. **Drive System Test** - A test of all the drive functions should be performed after testing the manual lowering function. With the platform fully lowered, DRIVE Forward/Reverse speed should vary proportionally from zero to approximately 3 mph (4.8 km/h). With the platform elevated, DRIVE Forward/Reverse speed should vary proportionally from zero to .8 mph (1.3 km/h).

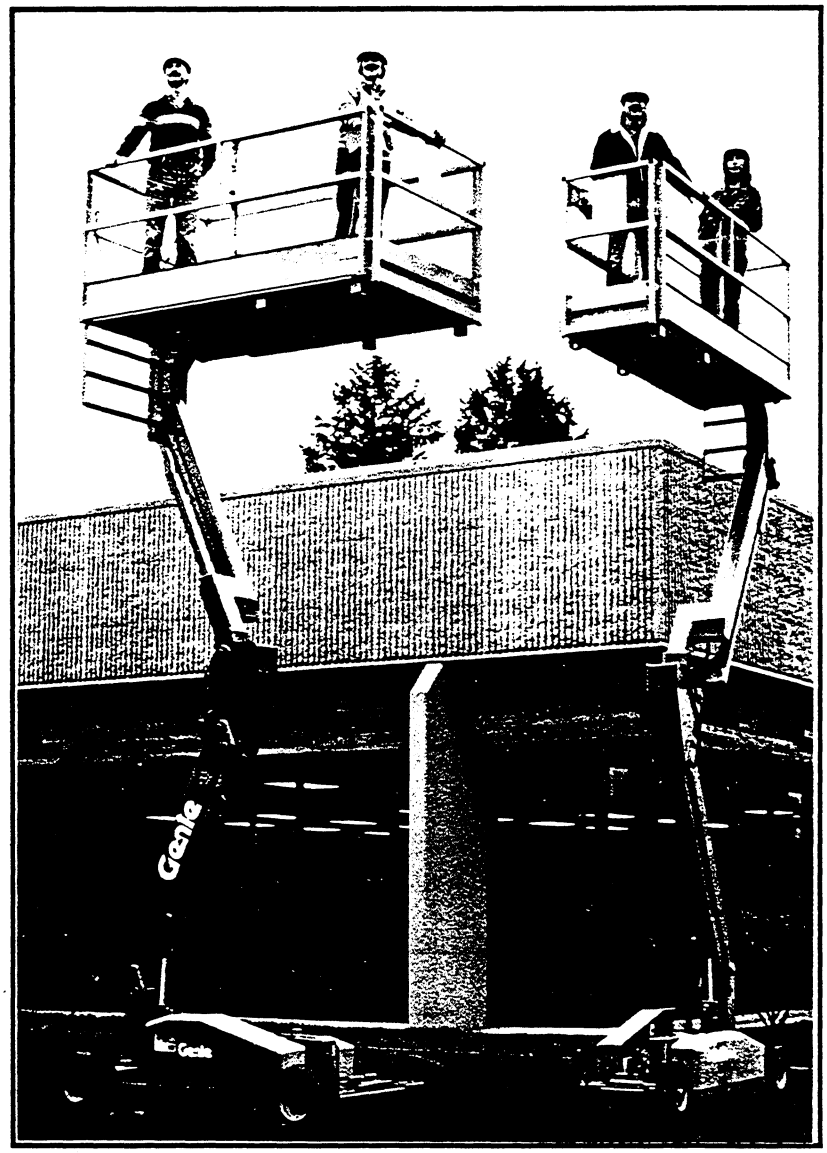
    IMPORTANT: DO NOT OPERATE THE MACHINE IF IT IS CAPABLE OF DRIVING FASTER THAN .8 mph (1.3 km/h) WITH THE PLATFORM ELEVATED. (Refer to section 3.2, Troubleshooting).

    Operate STEER Left/Right function to ensure proper operation in both directions. Check that the drive brakes hold when the machine is driven up a grade and stopped. Do not operate the machine if the brakes do not hold. Repair any defects.

3.3 OPERATING INSTRUCTIONS

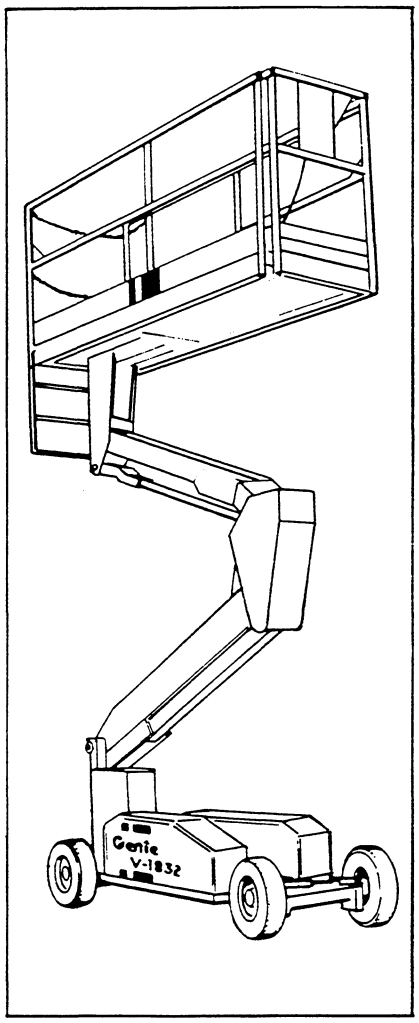
Refer to the following insert for Genie Vertical Lift models V-1832 & V-1854 Operating Instructions.

GENIE VERTICAL LIFT
Models V-1832, V-1854 & V-2470
OPERATING INSTRUCTIONS

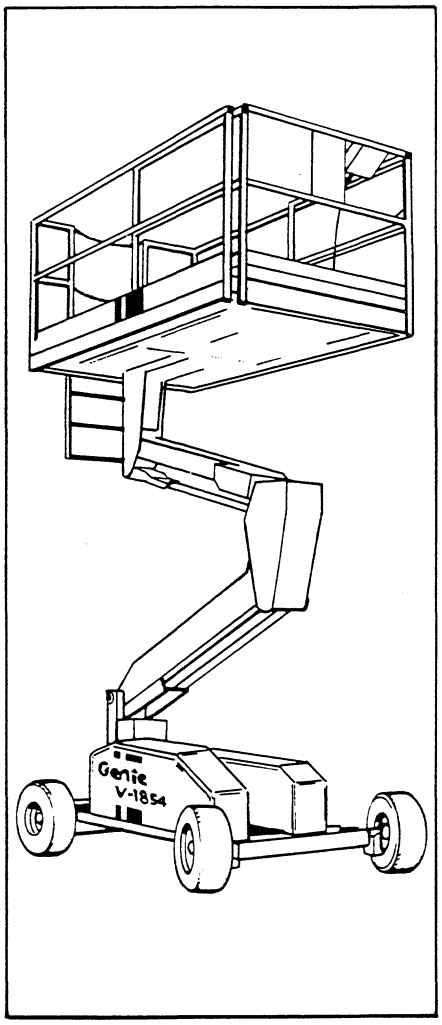


CAUTION

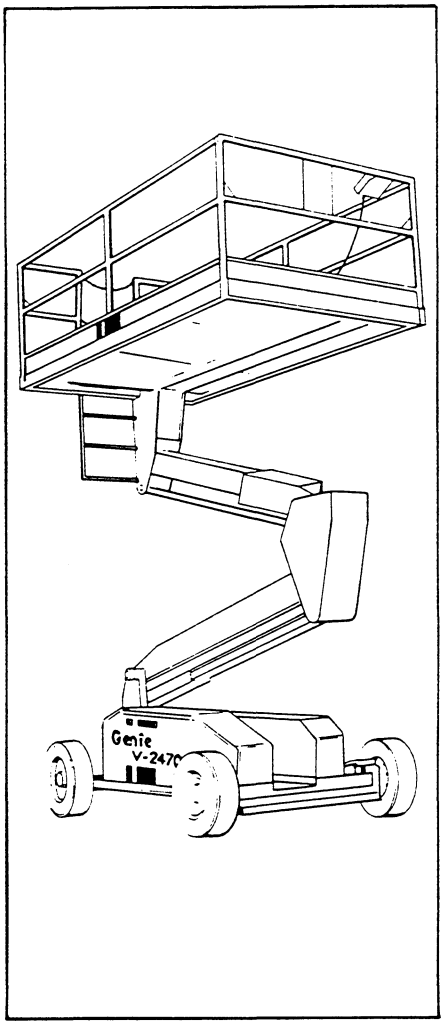
Understanding these Safety Rules and Operating Instructions is critical to the safe operation of Genie Vertical Lifts. Please study this brochure carefully, and make sure that all personnel using the Genie Vertical Lift read and understand it completely before using this equipment.



GENIE V-1832



GENIE V-1854

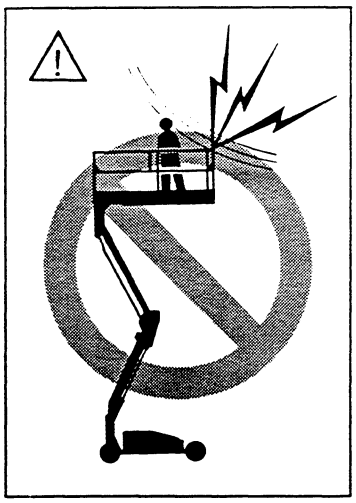


GENIE V-2470

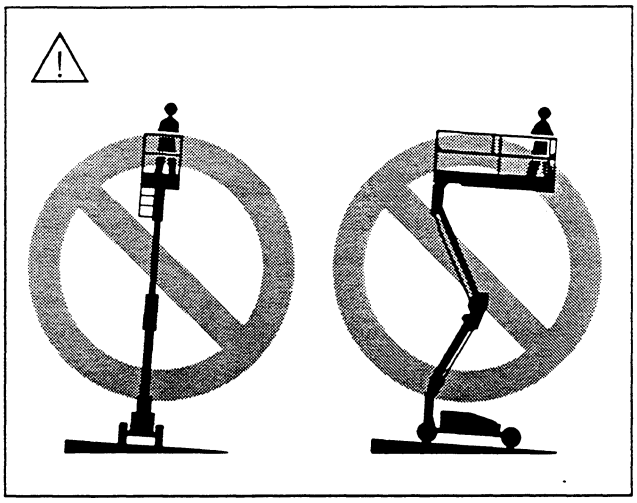
SAFETY RULES & OPERATING INSTRUCTIONS

Read and understand these Safety Rules and Operating Instructions before operating the Genie Vertical Lift aerial platform. Do not permit anyone to use the machine who does not understand the material in this document. A duplicate set of these instructions is contained in a water-tight plastic tube on the platform and should be kept there at all times for operator reference.

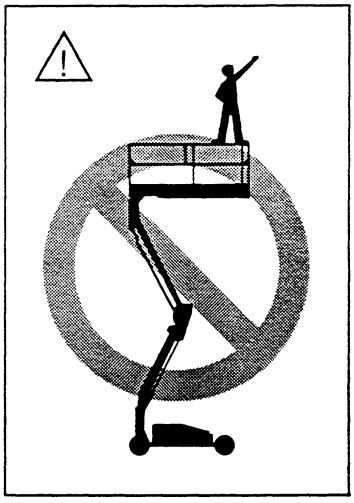
If there is anything you do not understand, or if you have questions regarding the operation of the Genie Vertical Lift, call Genie Industries in the U.S.A., 800/426-8089 or 206/881-1800, or telex 152351, or FAX 206/885-4638. In Canada call 800/663-4475 or 604/984-4242, or FAX 604/988-2662.



Do not use machine or position platform within 10 feet (3m) of power lines. This machine is not electrically insulated.



Do not raise platform unless machine is on firm level surface.



Do not stand on guard rails. Securely place working loads on platform floor.

SAFETY RULES

- On a daily basis before using the Genie Vertical Lift, conduct a visual inspection and functional test as detailed on pages 4-5 of these operating instructions and on the operating instructions on the unit.
- Check the area in which the aerial platform is to be used for possible hazards such as drop-offs, holes, bumps and floor obstructions, debris, overhead obstructions and high voltage conductors.
- The aerial platform must be on a firm level surface before elevating the platform. Do not drive while elevated except on a firm level surface.
- Close platform access openings before operating the aerial platform.
- Batteries must be charged in an open, well-ventilated area free of flame, smoke, sparks, and fire.

BATTERIES EMIT AN EXPLOSIVE GAS DURING CHARGING.

- Maintain firm footing on the platform floor. Do not sit, stand or climb on guard rails.
- Working loads must be securely placed on platform floor. Do not attach overhanging loads. Do not use ladders or scaffolding on or against the platform.
- Do not operate or position aerial platform within 10 feet (3m) of power lines.

THIS MACHINE IS NOT ELECTRICALLY INSULATED.

WARNING: FAILURE TO UNDERSTAND AND FOLLOW ALL SAFETY RULES AND OPERATING INSTRUCTIONS MIGHT RESULT IN SERIOUS INJURY OR DEATH.

PRE-OPERATIONAL & SAFETY INSPECTION

PRE-START

- DO NOT OPERATE A DEFECTIVE MACHINE.
- Make a walk around check of machine before operating.
- Inspect for frayed control cables, hydraulic oil leaks, missing or loose bolts, proper tire pressure, missing or loose wheel lug nuts, weld or structural cracks and any other defects or missing parts.
- Check battery pack condition and hydraulic oil level.

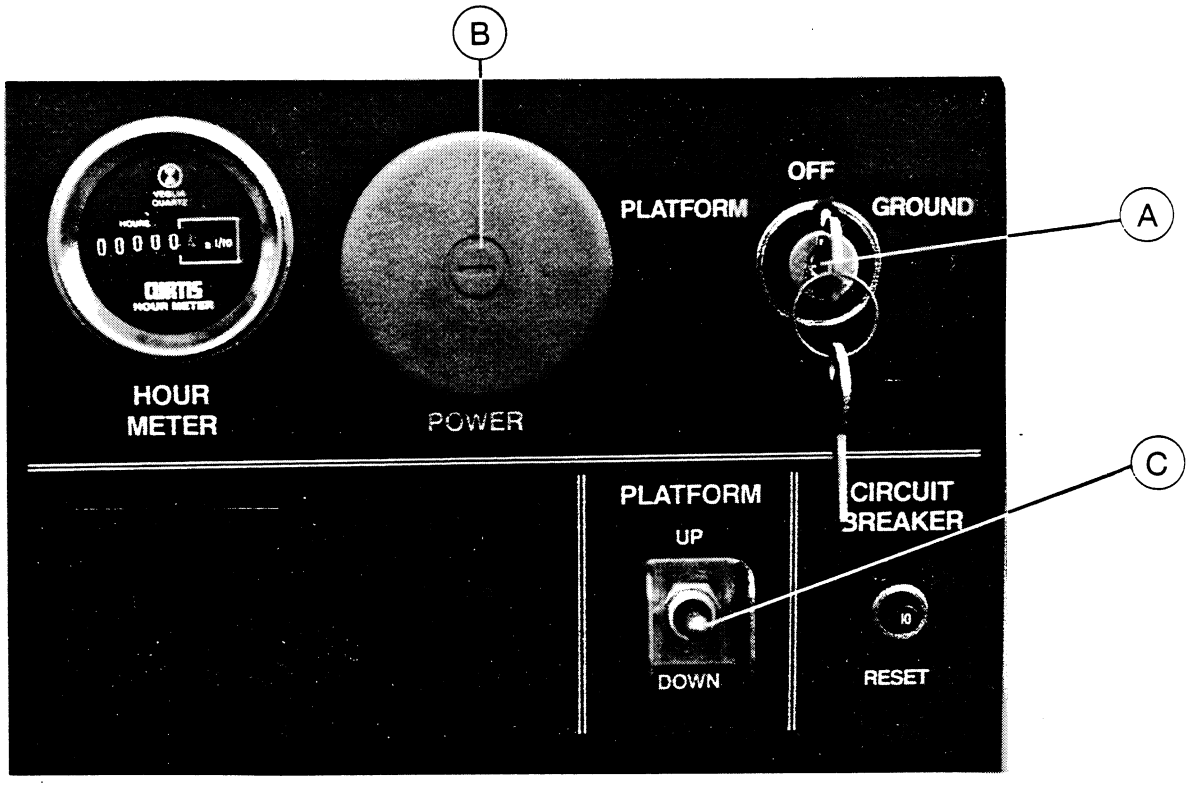
GROUND CONTROL TEST

- DO NOT ELEVATE PLATFORM UNLESS MACHINE IS ON A FIRM LEVEL SURFACE.
- Make sure batteries are properly connected.
- Check overhead for personnel, electrical cables, lights and other obstructions before operating.
- Insert key in control switch (Photo 1, detail A) and rotate to GROUND.
- Pull out red POWER button. To stop all functions, push in red POWER button (Photo 1, detail B).
- Operate PLATFORM switch in both directions to ensure proper operation (Photo 1, detail C). Repair any defective functions.
- Switch key to PLATFORM (Photo 1, detail A).

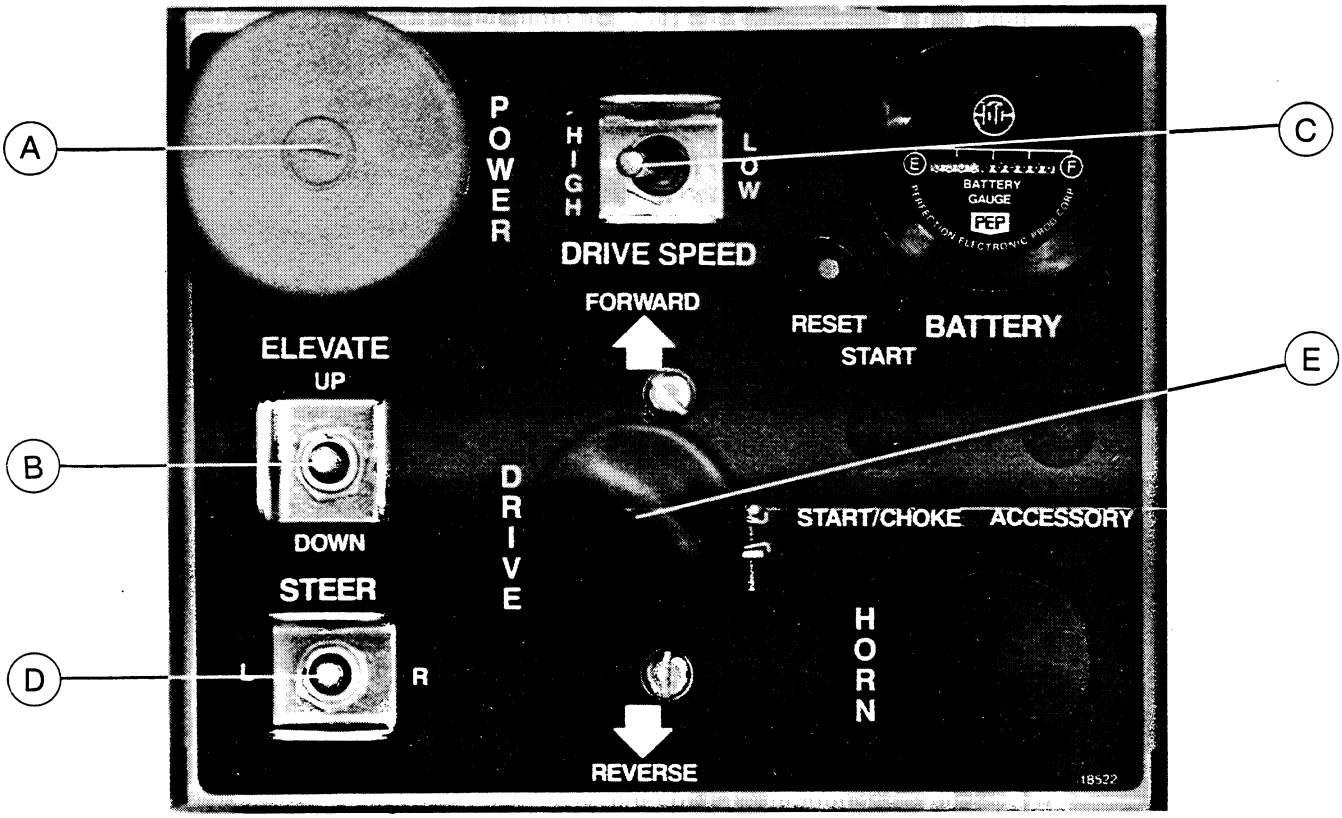
PLATFORM CONTROL TEST

- DO NOT OPERATE A DEFECTIVE MACHINE.
- Check surface area for possible drop-offs, holes, bumps, floor obstructions and personnel before driving or steering. DO NOT ELEVATE PLATFORM UNLESS MACHINE IS ON A FIRM LEVEL SURFACE.
- Make sure platform access closure is closed completely.
- Pull out red POWER button. To stop all functions, push red POWER button (Photo 2, detail A).
- Operate horn. Repair if it does not sound.
- Operate ELEVATE switch in both directions to ensure proper operation (Photo 2, detail B).
- Switch DRIVE SPEED (Photo 2, detail C) to LOW.
- Operate STEER switch L (left) or R (right) (Photo 2, detail D). Repair any defective functions.
- Move DRIVE lever just off center in both FORWARD and REVERSE directions to ensure proper operation of each (Photo 2, detail E). Repair any defective functions. NOTE: LIFT MECHANICAL LOCK ON DRIVE LEVER TO MOVE FORWARD OR REVERSE.
- Switch DRIVE SPEED (Photo 2, detail C) to HIGH.
- Move DRIVE lever just off center in both FORWARD and REVERSE directions to ensure proper operation of each (Photo 2, detail E). Repair any defective functions.

Contact your authorized Genie Service Center for information regarding service and repairs.



1 — Ground Control Panel



2 — Platform Control Panel

OPERATING INSTRUCTIONS

BEFORE OPERATING MACHINE UNDERSTAND FUNCTIONS OF ALL CONTROLS

EMERGENCY STOP

- To deactivate elevate and drive control, push red POWER button (Photo 2, detail A). Operate all functions to test for proper shut down. Repair if any function operates with POWER button pushed in.

RAISING AND LOWERING PLATFORM

- DO NOT ELEVATE PLATFORM UNLESS MACHINE IS ON A FIRM LEVEL SURFACE.
- Check below and overhead for personnel, electrical cables, lights and other obstructions before raising or lowering platform.
- Make sure platform access closure is closed completely.
- Operate ELEVATE toggle switch UP or DOWN in desired motion direction (Photo 2, detail B).

TRAVELING WITH PLATFORM DOWN

- Maximum travel speed is attainable only when platform is down.
- Always check to be sure route is clear of persons and obstructions.
- Select HIGH or LOW drive speed to meet travel and safety conditions (Photo 2, detail C).
- To increase speed, move DRIVE lever slowly in desired direction of travel (Photo 2, detail E).
- To slow down to stop, move DRIVE lever slowly to center position (Photo 2, detail E).

TRAVELING WITH PLATFORM UP

- OPERATE ON FIRM LEVEL SURFACE ONLY.
- Always check to be sure route is clear of persons and obstructions.
- With platform up, machine travel speed is restricted.
- To increase speed, move DRIVE lever in desired direction of travel (Photo 2, detail E).
- To slow down or stop, move DRIVE lever slowly to center position (Photo 2, detail E).

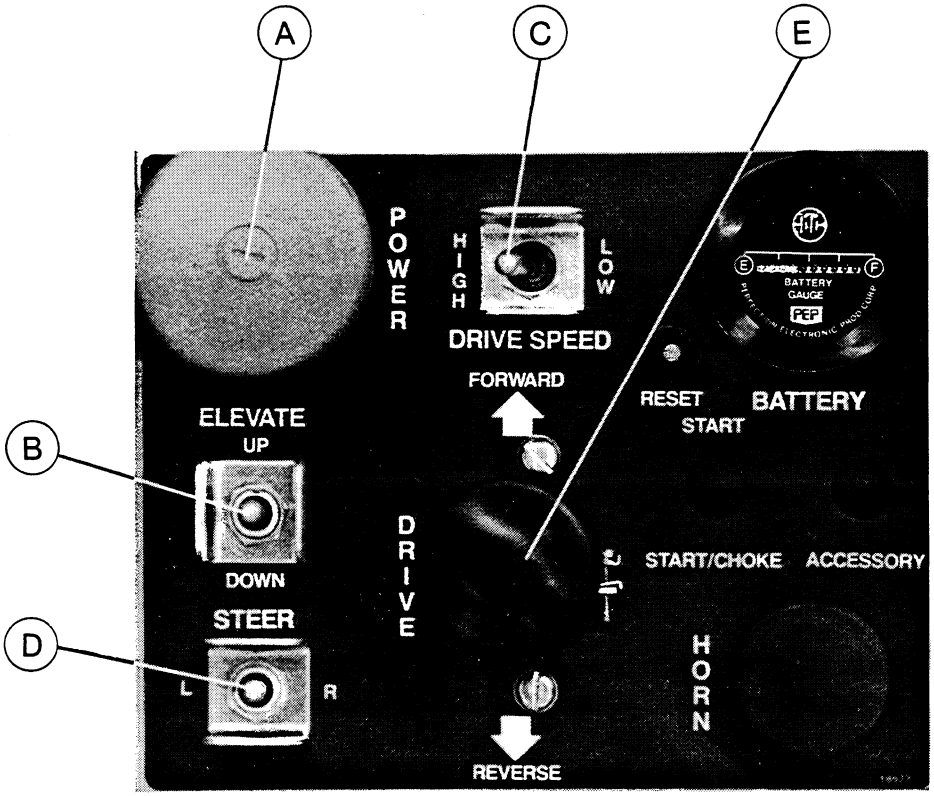
AUXILIARY LOWERING

- IF PLATFORM FAILS TO DESCEND, NEVER CLIMB DOWN ELEVATE ASSEMBLY. Ask person on ground to actuate manual lowering valve to lower platform (Photo 3). The manual lowering valve is attached to the base of the elevate cylinder at the ground control station. Check for obstructions before lowering platform.

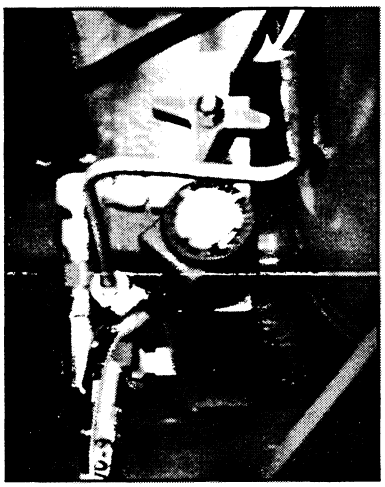
SLIDE DECK (Accessory)

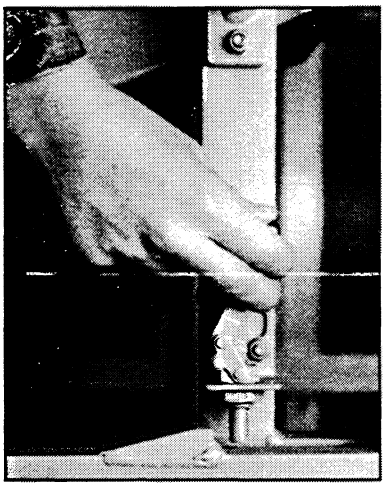
- Push down on slide deck latch (photo 4) until pin is completely disengaged.
- Grasp the slide deck handle (photo 5) and push out platform deck.
- Pull up on slide deck latch until pin is completely engaged to lock slide deck.

MAXIMUM PLATFORM CAPACITY		LOAD DISTRIBUTION	
MODEL	STANDARD PLATFORM (or optional slide deck retracted)	PLATFORM WITH OPTIONAL SLIDE DECK EXTENDED LOAD CAPACITY ON PLATFORM	LOAD CAPACITY ON EXTENSION DECK
V-1832	750 lbs. (335 kg)	450 lbs. (200 kg)	300 lbs. (135 kg)
V-1854	1000 lbs. (460 kg)	700 lbs. (325 kg)	300 lbs. (135 kg)
V-2470	1250 lbs. (570 kg)	950 lbs. (435 kg)	300 lbs. (135 kg)

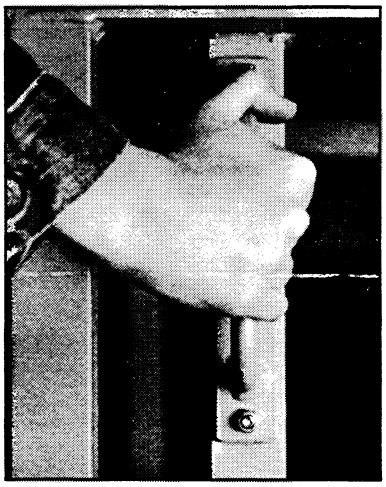


2 — Platform Control Panel





4 — Slide Deck Latch



5 — Slide Deck Handle

TRANSPORT

SECURING TO TRUCK OR TRAILER FOR ROAD TRANSIT

- Weight of Genie V-1832 is 3,800 lbs. Weight of Genie V-1854 is 4,000 lbs. Weight of Genie V-2470 is 5,200 lbs.
- Use chains or straps of ample load capacity.
- Always chock wheels on truck or trailer bed (see instructional decal on machine).
- Use tie points on chassis for anchoring down to truck or trailer bed (see instructional decal on machine).
- Turn off master power key and remove key before transporting (Photo 6).

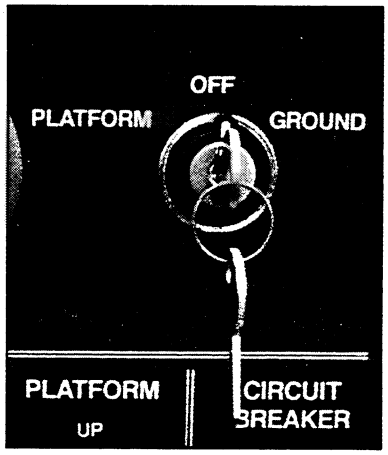
MOVING A DISABLED MACHINE

To release brake:

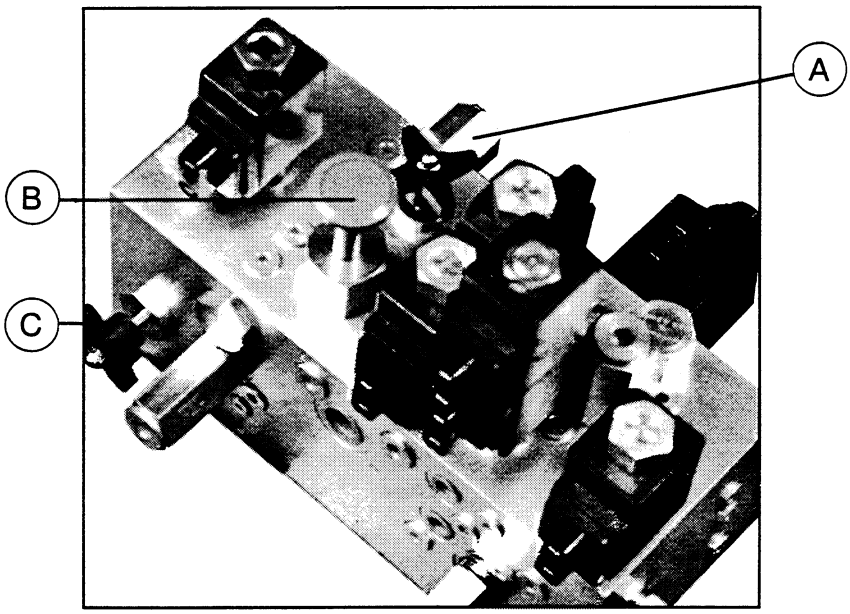
- Close brake isolator valve (Photo 7, detail A) by turning it clockwise.
- Pump the brake release pump (Photo 7, detail B) 5-10 times.
- Open drive motor loop valve (Photo 7, detail C) by turning it counterclockwise.

To re-engage brake:

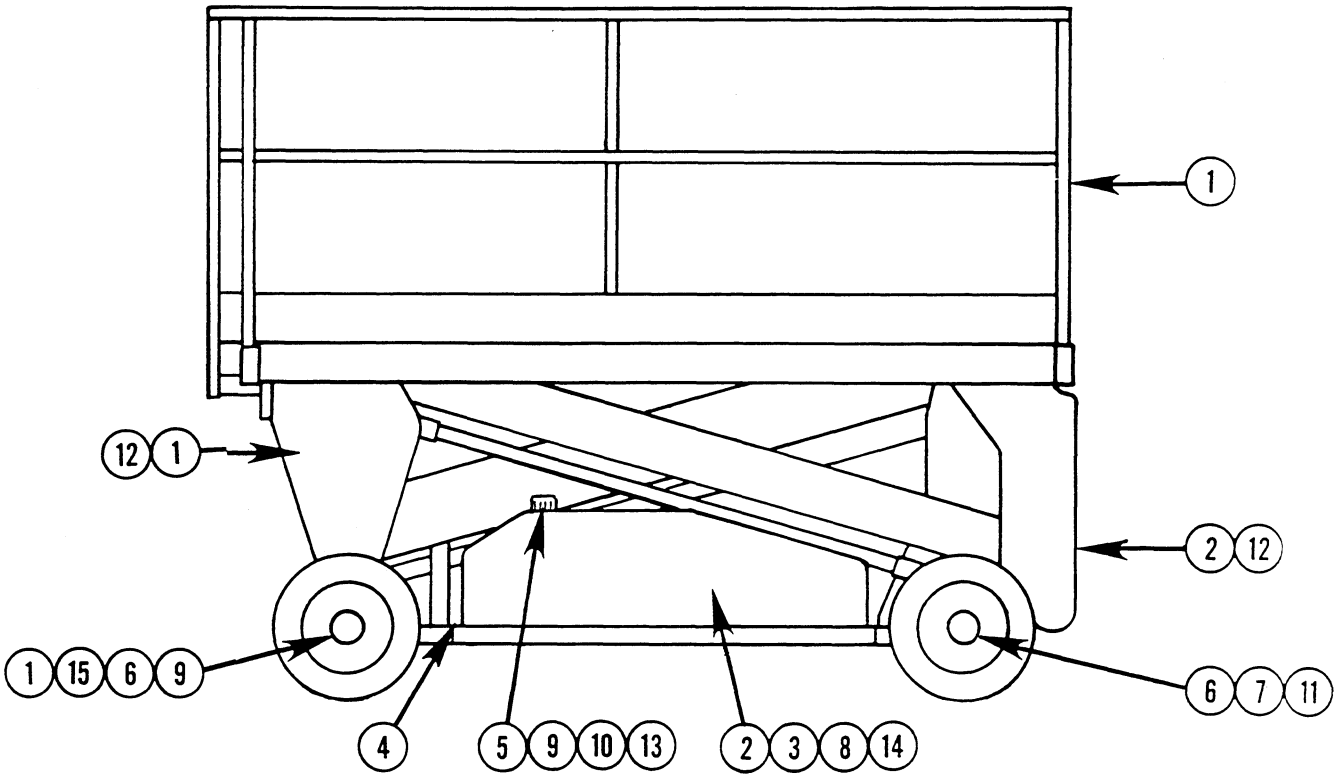
- Open brake isolator valve (Photo 7, detail A) by turning it counterclockwise.
- Close drive motor loop valve (Photo 7, detail C) by turning it clockwise.



6 — Master Power Key



7 — Brake Release



Maintenance Schedule

SERVICE OPERATION	SERVICE INTERVAL			
	*Daily	* Monthly or Every 50 hours	* Every 6 months or Every 250 hours	* Every 2 yrs. or Every 1000 hrs.
(1) Inspect for physical damage	•			
(2) Inspect for hydraulic leaks	•			
(3) Check battery fluid level**	•			
(4) Charge batteries	•			
(5) Check hydraulic fluid level	•			
(6) Check lug nuts *	•			
(7) Check brake operation, bleed if necessary	•			
(8) Check battery condition**		•		
(9) Clean or replace hydraulic tank screen			•	
(10) Change hydraulic filter			•	
(11) Change oil in drive gear box (model V-2470 only)			•	
(12) Inspect all boom linkage pivot points for wear			•	
(13) Change hydraulic oil				•
(14) Check electric motor brushes				•
(15) Repack front axle bearings				•

* For complete list of required Maintenance Service consult Operating and Maintenance Manual.

** Applies to standard (non-maintenance-free) batteries only

3.4 GENIE V-1832 & V-1854 TRANSPORT

The Genie Vertical Lift may be transported by truck, ship or airplane. It is not recommended to ship by train due to possible shock or vibration damage. The machine is capable of climbing a 25% slope. We recommend driving the machine on to the truck bed or shipping vessel. If driving is impractical, the machine has free-wheeling capabilities to allow towing or winching into the shipping position.

The instructions listed below are designed to prevent any undue stress on the mechanical and hydraulic systems. All transport loads should be carried through the tie down points on the chassis weldment and the tire blocking points.

Steps

1. Park the machine with the platform fully lowered. Ensure that the steering wheels are straight, and remove any material from the platform. Lock optional slide deck in retracted position.

2. The machine may now be driven or winched on to the transport vehicle.

   A. **Driving**: The machine is capable of driving on to the transport vehicle as long as the ramp* does not exceed a 25% grade.

      NOTE: *Maximum drive speed is available only when the platform is fully lowered, the drive speed control limit switch is in the held position, and the DRIVE SPEED High/Low toggle switch is in the High position.*

      IMPORTANT: DO NOT DRIVE THE MACHINE ON AN UNLEVEL SURFACE UNLESS THE PLATFORM IS FULLY LOWERED.

B. Winching: Before winching* the machine must be placed in the free-wheel configuration (see instructions on the next page).

WARNING: WHEN IN FREE-WHEEL CONFIGURATION THE MACHINE HAS NO BRAKING CAPABILITIES. BE SURE TO SECURE THE MACHINE TO PREVENT IT FROM ROLLING BEFORE RELEASING THE BRAKE.

Secure the winch cable to the tie down points on the chassis of the machine.

3. The wheels should be blocked from rolling by wood pieces nailed to the transport vehicle. Binder chains should be used to prevent sideways and fore/aft movement.

4. If the machine was placed in the free-wheel configuration, the drive brake should be re-engaged after it has been secured in position for shipment. To re-engage the brake, open the brake isolation valve and close the drive motor loop valve.

5. Secure the elevate assembly to its resting pad and open the manual lowering valve on the base of the elevate cylinder to prevent bouncing during transport.

6. Shut off the key switch and all POWER switches. Inspect the machine thoroughly before shipping for loose or unsecured items.

* Ensure that the transport vehicle ramp, winch (if a winch is to be used) and winch cable are of sufficient strength to support the machine.

V-1832: 3,600 lbs. (1633 kg)

V-1854: 4,000 lbs. (1814 kg)

NOTE: *Add 200 lbs. (91 kg) for an optional slide deck.*

How To Place The Machine In Free-Wheel Configuration

WARNING: WHEN IN FREE-WHEEL CONFIGURATION THE MACHINE HAS NO BRAKING CAPABILITIES. BE SURE TO SECURE THE MACHINE TO PREVENT IT FROM ROLLING BEFORE RELEASING THE BRAKE.

1. Chock the wheels to prevent the machine from rolling.
2. Close the brake isolator valve by turning the handle clockwise.
3. Pump the brake release pump five (5) to ten (10) times.
4. Open the drive motor loop valve by turning the handle counter clockwise. The brakes are now released--the machine is now in free-wheel configuration.

3.5 THEORY OF OPERATION

Energy Source

The Genie V-18 series Vertical Lifts are powered by four (4) 6 volt batteries connected in series to provide 24 volt DC power. Each battery is rated at 250 amp. hr. at a 20 hour rate. Sealed batteries provided with the extended warranty package are rated at 220 amp. hr. at a 20-hour rate.

Charging System

A 24 volt, 35 amp line compensating battery charger is used to recharge the battery pack after each day's use. The charger utilizes an electronic current limiting system which automatically controls the charge rate, depending on battery condition. The charge rate tapers off as the batteries approach full charge.

Hydraulic System

The hydraulic system consists of ELEVATE Up/Down, STEER Left/Right, and DRIVE Forward/Reverse. To power these functions the hydraulic system uses a hydraulic power unit incorporating a 24 volt electric motor and a two stage gear pump. Each pump delivers a 2.5 gpm (9.5 liters per minute) fixed displacement, totaling a maximum pump displacement of 5 gpm (18.9 liters per minute). A pump unloader valve is incorporated to regulate one stage of the pump. When pilot pressure to the unloader valve reaches a set pressure it will open, creating a flow path to the tank for the regulated pump stage. When the motor is supplied with 24 volts, it turns the pump to supply hydraulic oil to the hydraulic system directional control valves located on the chassis mounted hydraulic control manifold. When actuated, the directional control valves direct hydraulic oil to the hydraulic system actuators (elevate cylinder, steering cylinder, wheel drive motors and wheel drive brakes). A 3000 psi (20684 kPa) relief valve (located on the hydraulic control manifold) is used to prevent the hydraulic system from being over pressurized. To ensure that the steering system is always supplied with hydraulic oil, the hydraulic control manifold incorporates a priority flow divider. The priority flow divider ensures that the steering systems hydraulic oil requirement is met prior to

supplying hydraulic oil to the drive system. Located on the hydraulic control manifold is a drive proportional control valve. The drive proportional control valve is used to control the speed of the DRIVE Forward/Reverse functions by regulating the flow of hydraulic oil in direct relation to the valves input voltage.

The ELEVATE Up/Down functions utilize one lifting cylinder. The ELEVATE Up function is accomplished by actuating the elevate up directional control valve (located on the hydraulic control manifold) thereby directing hydraulic oil to the elevate cylinder. The hydraulic control manifold incorporates a 2500 psi (17237 kPa) relief valve which prevents the elevate system from experiencing over pressurization. Attached to the barrel end port of the cylinder is a manifold. This manifold incorporates a down directional control valve, a manual lowering valve, a pressure compensated flow control cartridge valve, and a check valve. The ELEVATE Down function is accomplished by actuating the down directional control valve, this allows a flow path for hydraulic oil to exit the cylinder causing it to retract. The manual lowering valve is used to create a flow path for hydraulic oil to exit the cylinder in the event of an electrical system failure. A pressure compensated flow control cartridge valve restricts the rate that the cylinder retracts by regulating the rate of the hydraulic oil exiting the cylinder. The check valve (located on the manifold at the barrel end port of the elevate cylinder) is used to maintain cylinder pressure and prevent free descent in the event of a hydraulic line failure.

The STEERING Left/Right functions utilize one dual acting cylinder. The steering functions are accomplished by actuating the steering left and right, 3-position, 4-way, directional control valve (located on the hydraulic control cylinder), thereby directing hydraulic oil to the steering cylinder. Located on the hydraulic control manifold is a 1100 psi (7584 kPa) relief valve, which prevents the steering system from being over pressurized.

The DRIVE Forward/Reverse functions uses two 16.2 cubic in. (265 cm^3) rotary drive motors and two spring applied, hydraulically released brakes. The functions are accomplished by actuating the drive forward or reverse directional control valve (located on the hydraulic control manifold), which directs hydraulic oil to the drive brake shuttle valve (located in the hydraulic control manifold) and to the wheel drive motors. The shuttle valve directs hydraulic oil to the drive brakes releasing the brakes. The DRIVE functions use two counter balance valves (located on the hydraulic control manifold) to prevent the machine from exceeding the maximum drive speed and provide dynamic hydraulic braking. Located on the hydraulic control manifold is a series/parallel directional valve. This gives the machine the capability of operating the drive functions in a low speed,

high torque mode or in a high speed, low torque mode. When operating in DRIVE SPEED Low position, the valve creates a parallel path for hydraulic oil flowing to the wheel drive motors. This causes a low speed, high torque drive mode. When operating in DRIVE SPEED High position, the valve creates a series path for hydraulic oil flowing to the wheel drive motors. This causes a high speed, low torque drive mode.

Electrical System

The electrical system consists of ELEVATE Up/Down, STEER Left/Right and DRIVE Forward/Reverse. The electrical system uses stored electrical energy to power and control all machine functions. The electrical system can be divided into two categories the control circuit and the power circuit.

The control circuit incorporates the components and circuitry required to turn the machine on and off, or control other electrical devices. Components include the key switch, toggle switches, limit switches, POWER On/Off buttons, low voltage interrupt system (optional), diodes and solenoids. Since the control circuit typically conducts very low current, small diameter wire and multi-wire (19 conductor, 18 AWG) control cables are used, to connect the control circuit components.

The power circuit incorporates the components which convert stored electrical energy into a mechanical force to provide movement. Components include the batteries, electric motors and contacts. Since the power circuit must be able to conduct full operating current, heavy #2 and #4 welding cable is used to connect the power circuit components.

Before any machine functions can be operated, the key switch (located on the ground control station) must be turned to the appropriate PLATFORM or GROUND position and the red POWER On/Off buttons must be pulled up. Turning the key switch to either position (PLATFORM or GROUND) and pulling up the red POWER buttons completes a 24 volt circuit from the batteries to the printed circuit board located at the ground control station. At the printed circuit board, current is used to energize a 24 volt control circuit master relay (located in the ground control station). The 24 volt control circuit master relay energizes a set of 24 volt contacts, which when closed completes a circuit supplying 24 volts from the batteries to the selected platform or ground control station actuators.

The ELEVATE Up/Down functions can be operated from either the platform control station or the ground control station by actuating the proper function control toggle switch. When the toggle switch is actuateda circuit is completed from the toggle switch to the 24 volt motor start relay and to the elevate up 24 volt directional control valve solenoid. The ELEVATE Down function is not a powered function and does not supply 24 volts to the motor start relay. When supplied with 24 volts the motor start relay energizes a set of 24 volt contacts which, when closed, completes a circuit supplying 24 volts to the hydraulic power unit. When energized the 24 volt directional control valve actuates its related valve spool. Whenever the above-mentioned actions are accomplished, the appropriate elevate function will operate.

The STEER Left/Right functions are operated from the platform control station by actuating the STEER toggle switch to the desired position. When actuated, the toggle switch completes a circuit to the 24 volt motor start relay and to the 24 volt steer left or right directional control valve solenoid. When supplied with 24 volts the motor start relay energizes a set of 24 volt contacts which, when closed, completes a circuit supplying 24 volts to the hydraulic power unit. When energized the 24 volt directional control valve actuates its related valve spool. Whenever the above mentioned actions are accomplished, the appropriate steer function will operate.

The DRIVE Forward/Reverse functions are operated from the platform control station. The direction of the DRIVE Forward/Reverse functions are accomplished by actuating the drive proportional control joystick in either the Forward or Reverse position. When actuated the joystick completes a circuit to the 24 volt motor start relay, the 24 volt forward or reverse directional control valve solenoid and the drive proportional control valve solenoid. When supplied with 24 volts the motor start relay energizes a set of 24 volt contacts which when closed completes a circuit supplying 24 volts to the hydraulic power unit. When energized the 24 volt directional control valve actuates its related valve spool. The speed of the DRIVE Forward/Reverse functions is controlled by the variable current supplied to the drive proportional control valve from the drive proportional control joystick. Whenever the above-mentioned functions are accomplished, the appropriate drive function will operate.

MAINTENANCE

4.1 MAINTENANCE SCHEDULE

To gain optimum performance from your Genie Vertical Lift, simply follow these routine maintenance and service procedures.

Daily

- o Thoroughly inspect the entire machine for physical damage and wear. Complete the preoperation inspection detailed in section 3.2. Repair any defects before operating the machine.
- o Check the electrolyte level on all batteries.*
- o Charge the batteries.
- o Check hydraulic fluid level.
- o Check brake operation.
- o Check lug nuts for tightness. Torque to 45 ft. lbs. (61 Nm).

First Month or After the First 50 Hours of Use

- o Change the hydraulic oil filters.+
- o Check the electrolyte level on all batteries and test their specific gravity.* Clean all battery tops and posts.

Monthly Or Every 50 Hours

- Check the electrolyte level on all batteries and test their specific gravity.* Clean all battery tops and posts.

Every Six Months Or Every 250 Hours

- Inspect the elevate assembly pivot points for signs of wear.
- Inspect the steering and front end assembly for signs of wear.
- Change the hydraulic oil filters.+
- Service the hydraulic oil reservoir, replace suction screens and filler breather. +

Every Two Years Or Every 1000 Hours

- Repack the front axle bearings. Use Texaco Marfax (or equivalent multipurpose lithium grease).
- Change the hydraulic oil. Use Shell Tellus T-46 (or equivalent).+
- Check electric motor brushes and field coils.

* Applies to standard (non-maintenance-free) batteries only.

\+ Extreme dust or temperature conditions will require more frequent servicing.

4.2 CONSUMABLE MATERIALS

MATERIAL	DESCRIPTION	LOCATION
Hydraulic Oil	Shell Tellus T-46	Hydraulic Oil Reservoir
Thread Adhesive	Loctite Removable Thread Locker 242	Fasteners
Paint	Rudd 91-869, Blue Rudd 91-841, Grey	Painted Surfaces
Wheel Bearing Grease	Texaco Marfax (or equivalent multi-purpose lithium grease)	Front Wheel Hubs

4.3 SPECIFICATIONS

The following page details specifications for Genie Vertical Lift models V-1832 & V-1854.

Genie V-1832 & V-1854 Specifications

MODEL		V-1832	V-1854
Height-working max.	U.S.-ft.	25	25
	Metric-m	7.62	7.62
Height-platform max.	U.S.-ft.	18	18
	Metric-m	5.48	5.48
Height-stowed	U.S.-ft.	6'7"	6'7"
	Metric-m	2.01	2.01
Width drive chassis	U.S.-in.	33	54
	Metric-m	.84	1.37
Length-stowed	U.S.-ft.	8	8
	Metric-m	2.44	2.44
Lift capacity (evenly distributed)	U.S.-lbs.	750	1000
	Metric-kg	340	454
Wheelbase	U.S.-in.	71	71
	Metric-m	1.80	1.80
Turning radius (outside)	U.S.-ft.	12'4"	14'4"
	Metric-m	3.76	4.37
Turning radius (inside)	U.S.-ft.	7'9"	8'4"
	Metric-m	2.36	2.54
Power Source	24 volts DC		
Batteries (included)	(4) 6 volts Deep cycle		
Travel speed-stowed	U.S.-mph	0-3	0-3
	Metric-km/h	0-4.8	0-4.8
Travel speed-raised	U.S.-mph	0-0.8	0-0.8
	Metric-km/h	0-1.3	0-1.3
Controls-drive	Proportional		
Platform dimensions (length × width)	U.S.-in.	96 × 32	96 × 54
	Metric-m	2.44 × .81	2.44 × 1.37
AC outlet in platform	Standard		
Hydraulic pressure max.	U.S.-PSI	3000	3000
	Metric-kPa	20684	20684
Tires	16 × 4 × 8 Solid rubber		
Gradeability*†	25% +		
Ground clearance obstacle/high center	U.S.-in.	3.25/5.5	3.25/5.5
	Metric-mm	83/140	83/140
Hydraulic reservoir capacity	U.S.-gal.	5	5
	Metric-l	18.93	18.93
Weight (gross)**	U.S.-lbs.	3600	4000
	Metric-kg	1633	1814

* In lift mode (platform elevated), the Genie V-1832 and Genie V-1854 are designed for operation on firm level surfaces only.

** Add 200 lbs. (91 kg) for optional slide deck.

† Affected by battery condition.

4.4 TORQUE REQUIREMENTS

The purpose of this section is to allow the user to take prompt, effective action in the event of an unacceptable condition discovered during the inspection procedure. The table on the following page lists the standard torque values based on bolt diameters, grades, and lubricated or dry conditions.

Torque Requirement Table

Size	Threads Per Inch	Bolt Diameter D (In.)	Tensile Stress Area (Sq. In.)	SAE Grade 5 Bolts			SAE Grade 8 Bolts		
				Clamp Load P (lb.)	Torque Dry K = 0.20	Torque Lub. K = 0.15	Clamp Load P (lb.)	Torque Dry K = 0.20	Torque Lub. K = 0.15
					In. Lb.	In. Lb.		In. Lb.	In. Lb.
4	40	0.1120	0.00604	380	8	6	540	12	9
	48	0.1120	0.00661	420	9	7	600	13	10
6	32	0.1380	0.00909	580	16	12	820	23	17
	40	0.1380	0.01015	610	18	13	920	25	19
8	32	0.1640	0.01400	900	30	22	1260	41	31
	36	0.1640	0.01474	940	31	23	1320	43	32
10	24	0.1900	0.01750	1120	43	32	1580	60	45
	32	0.1900	0.02000	1285	49	36	1800	68	51
1/4	20	0.2500	0.0318	2020	96	75	2860	144	108
	28	0.2500	0.0364	2320	120	86	3280	168	120
					Ft. Lb.	Ft. Lb.		Ft. Lb.	Ft. Lb.
5/16	18	0.3125	0.0524	3340	17	13	4720	25	18
	24	0.3125	0.0580	3700	19	14	5220	25	20
3/8	16	0.3750	0.0775	4940	30	23	7000	45	35
	24	0.3750	0.0878	5600	35	25	7900	50	35
7/16	14	0.4375	0.1063	6800	50	35	9550	70	55
	20	0.4375	0.1187	7550	55	40	10700	80	60
1/2	13	0.5000	0.1419	9050	75	55	12750	110	80
	20	0.5000	0.1599	10700	90	65	14400	120	90
9/16	12	0.5625	0.1820	11600	110	80	16400	150	110
	18	0.5625	0.2030	12950	120	90	18250	170	130
5/8	11	0.6250	0.2260	14400	150	110	20350	220	170
	18	0.6250	0.2560	16300	170	130	23000	240	180
3/4	10	0.7500	0.3340	21300	260	200	30100	380	280
	16	0.7500	0.3730	23800	300	220	33600	420	320
7/8	9	0.8750	0.4620	29400	430	320	41600	600	460
	14	0.8750	0.5090	32400	470	350	45800	660	500
1	8	1.0000	0.6060	38600	640	480	51500	900	680
	12	1.0000	0.6630	42200	700	530	59700	1000	740
1 1/8	7	1.1250	0.7630	42300	800	600	68700	1280	960
	12	1.1250	0.8560	47500	880	660	77000	1440	1080
1 1/4	7	1.2500	0.9690	53800	1120	840	87200	1820	1360
	12	1.2500	1.0730	59600	1240	920	96600	2000	1500
1 3/8	6	1.3750	1.1550	64100	1460	1100	104000	2380	1780
	12	1.3750	1.3150	73000	1680	1260	118100	2720	2040
1 1/2	6	1.5000	1.4050	78000	1940	1460	126500	3160	2360
	12	1.5000	1.5800	87700	2200	1640	142200	3560	2660

Grade 5 Grade 8

4.5 TROUBLESHOOTING

Page

Troubleshooting Introduction

The following section is designed to aid in the diagnosis of problems which may occur on a Genie Vertical Lift. A system of troubleshooting flow charts is used to diagnose problems ranging from defective solenoids to the need for pump replacement. To use this section, a technician should have the following basic hand tools and test equipment: a voltmeter, ohmmeter, pressure gauges, and flow meters.

Included in this section are twelve (12) troubleshooting flow charts which cover various machine defective conditions. These flow charts include several numbered tests, and test results (shaded boxes), which are used to direct the technician to the recommended machine repair. Bold framed boxes indicate that the flow chart continues on another page.

Before performing any machine tests the following safety precautions should be observed:

- Read and understand section 3.5, Theory of Operation.
- Read and follow all safety instructions as recommended in this manual and indicated by decals on the Genie Vertical Lift and/or required to comply with safety regulations.
- When troubleshooting, make certain the machine is resting on a firm, smooth, level surface.
- When testing drive system defective conditions, make certain the machine is secured from rolling by chocking the front tires and by jacking the machine drive assembly off the ground before conducting any tests.
- Two persons will be needed to safely conduct some drive system defective condition tests.

This Troubleshooting section deals primarily with malfunctions or defective components. Therefore, make certain all correct operating procedures are performed prior to conducting any of the recommended tests.

It should be noted that various degrees of a particular function loss may occur. For example: "ELEVATE Up function inoperative". This should mean "Elevate cylinder will not extend with the same speed or power of a properly functioning machine."

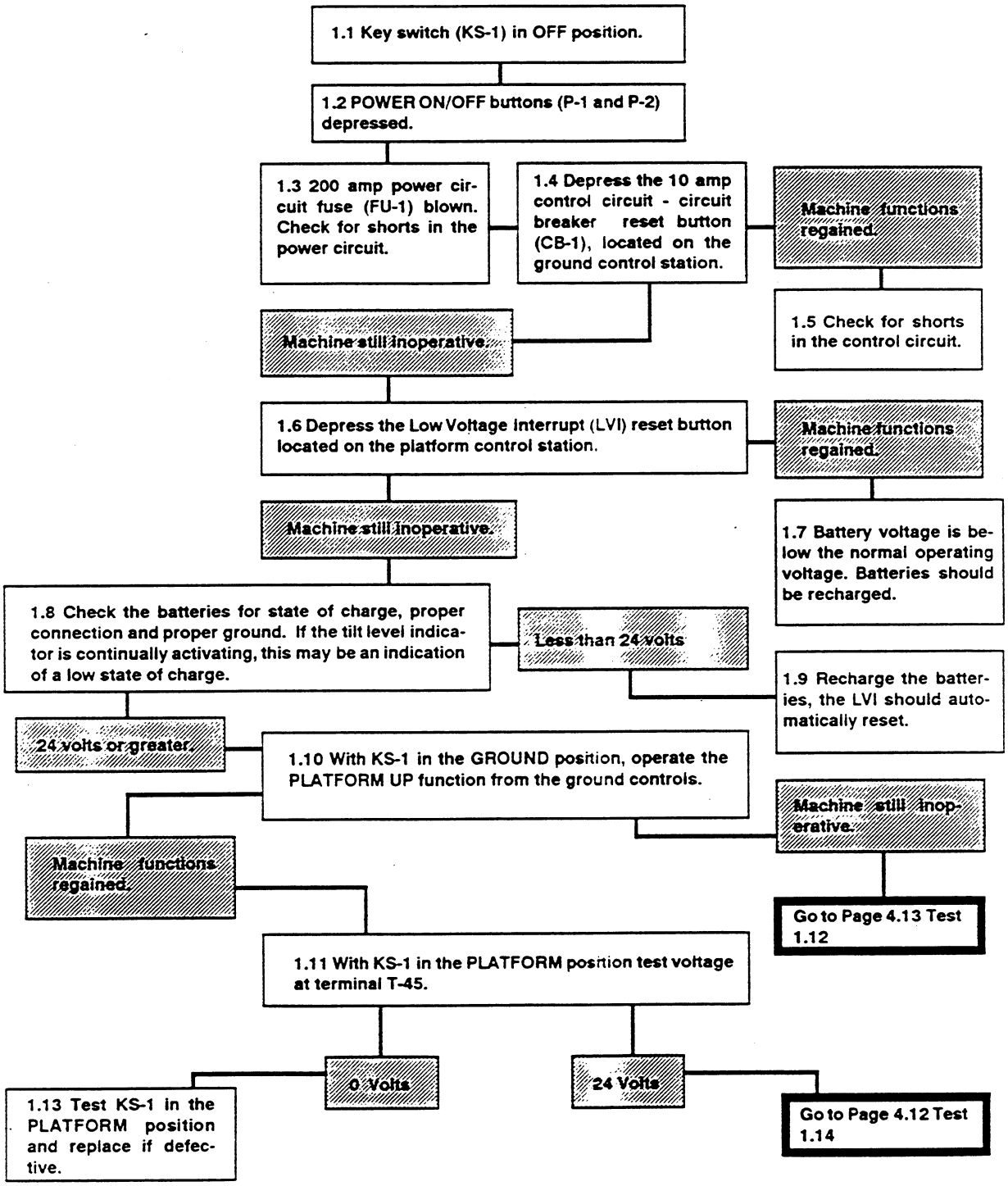
NOTE: *Proper diagnosis of a problem can only be done with batteries which are fully charged. Discharged batteries will result in sluggish operation.*

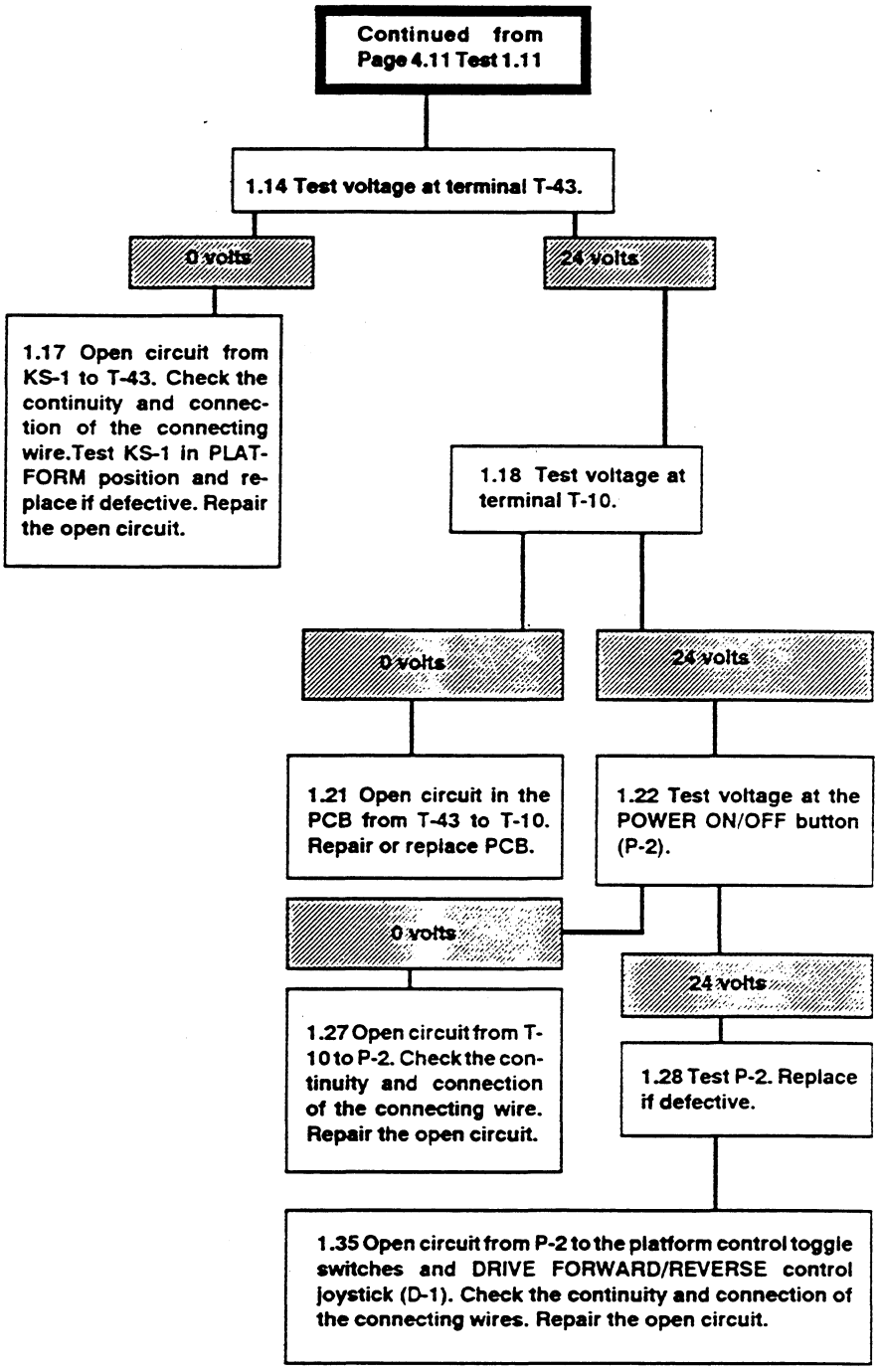
Throughout the Troubleshooting section, references are made to terminal numbers. For the exact location of these terminal points, refer to the electrical schematic and accompanying legend in section 5.2, Electrical Schematics & Diagrams.

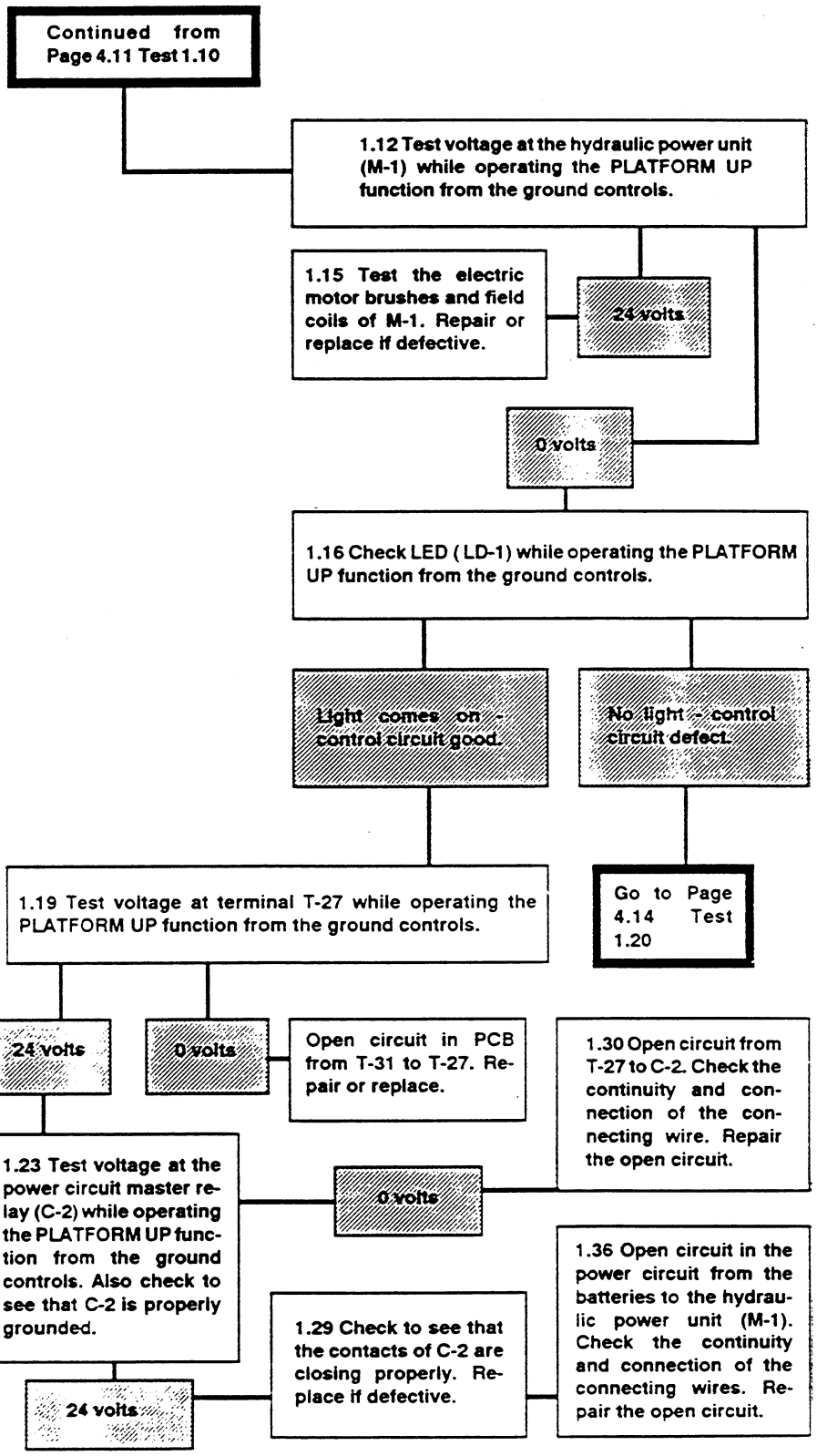
Page 4.08 contains a list of problems which may occur due to component malfunctions. Refer to the section which most accurately describes your problem. In multiple-problem cases, solve one problem at a time beginning with the lowest number.

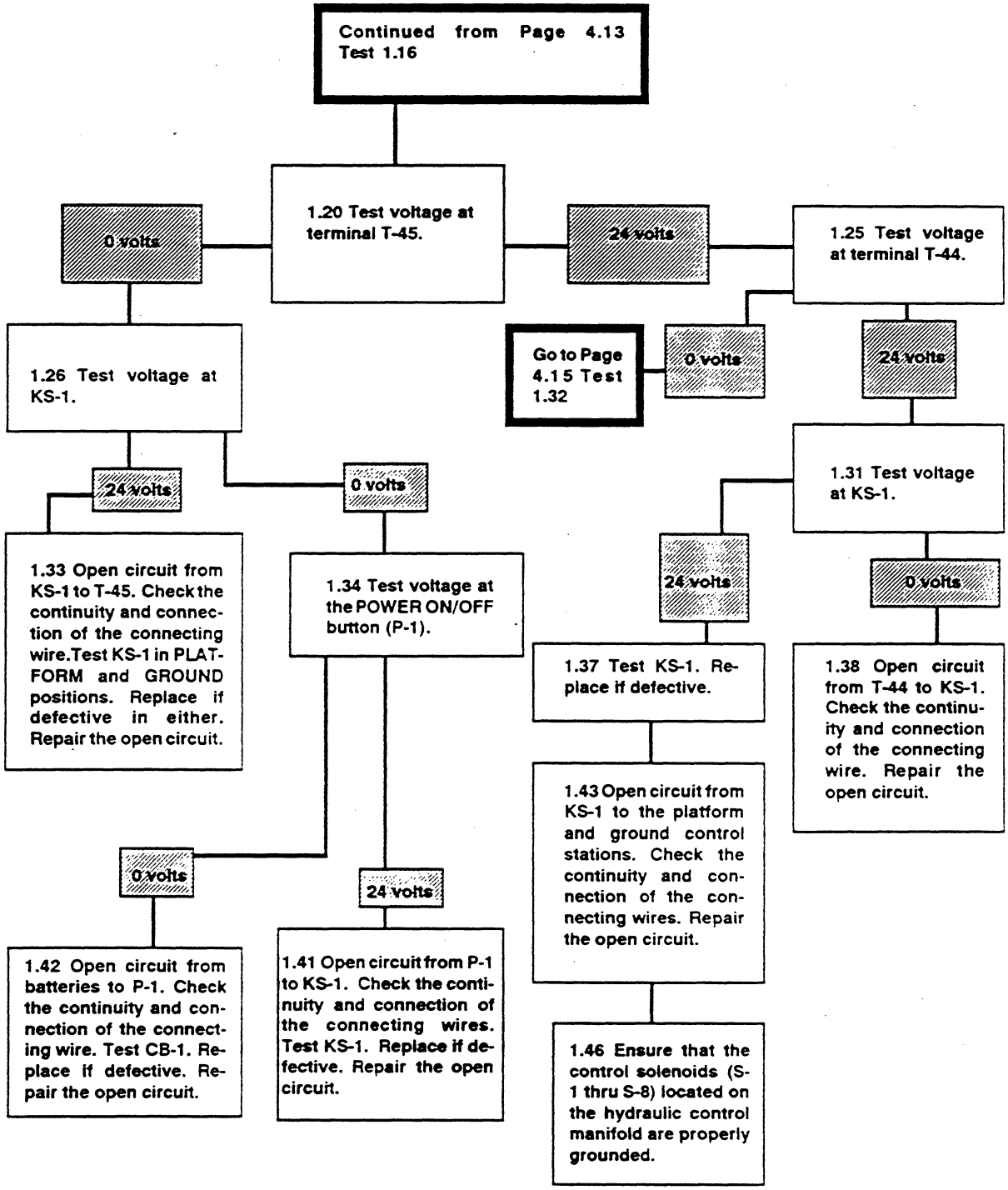
If you have any questions concerning this Troubleshooting section, you will be best served by referring to the defective condition flow chart number and machine test number when calling the Genie Customer Service department toll free 800-426-8089.

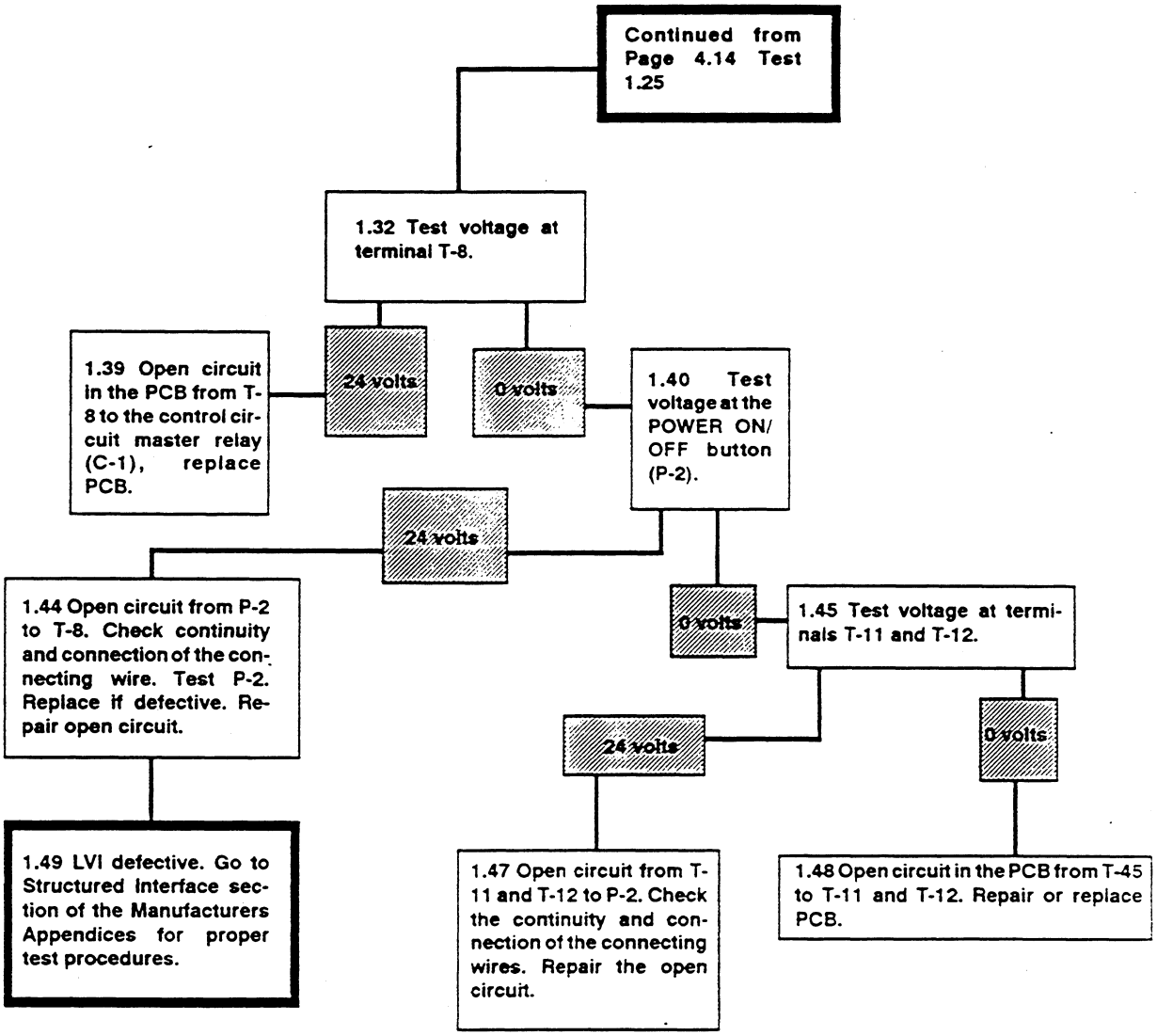
1. Machine will not lift, lower, drive or steer. All power funtions lost. Electric motor will not start.



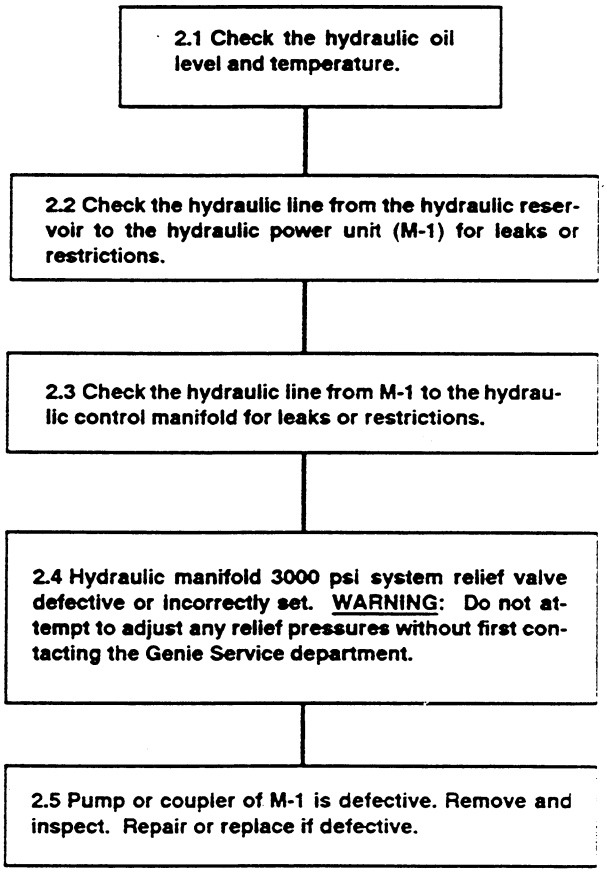

Continued from Page 4.11 Test 1.11
1.14 Test voltage at terminal T-43.
0 volts
24 volts
1.17 Open circuit from KS-1 to T-43. Check the continuity and connection of the connecting wire.Test KS-1 in PLATFORM position and replace if defective. Repair the open circuit.
1.18 Test voltage at terminal T-10.
0 volts
24 volts
1.21 Open circuit in the PCB from T-43 to T-10. Repair or replace PCB.
1.22 Test voltage at the POWER ON/OFF button (P-2).
0 volts
24 volts
1.27 Open circuit from T-10 to P-2. Check the continuity and connection of the connecting wire. Repair the open circuit.
1.28 Test P-2. Replace if defective.
1.35 Open circuit from P-2 to the platform control toggle switches and DRIVE FORWARD/REVERSE control joystick (D-1). Check the continuity and connection of the connecting wires. Repair the open circuit.


Continued from Page 4.11 Test 1.10
1.12 Test voltage at the hydraulic power unit (M-1) while operating the PLATFORM UP function from the ground controls.
1.15 Test the electric motor brushes and field coils of M-1. Repair or replace if defective.
24 volts
0 volts
1.16 Check LED (LD-1) while operating the PLATFORM UP function from the ground controls.
Light comes on - control circuit good.
No light - control circuit defect.
1.19 Test voltage at terminal T-27 while operating the PLATFORM UP function from the ground controls.
Go to Page 4.14 Test 1.20
24 volts
0 volts
Open circuit in PCB from T-31 to T-27. Repair or replace.
1.30 Open circuit from T-27 to C-2. Check the continuity and connection of the connecting wire. Repair the open circuit.
1.23 Test voltage at the power circuit master relay (C-2) while operating the PLATFORM UP function from the ground controls. Also check to see that C-2 is properly grounded.
0 volts
1.36 Open circuit in the power circuit from the batteries to the hydraulic power unit (M-1). Check the continuity and connection of the connecting wires. Repair the open circuit.
1.29 Check to see that the contacts of C-2 are closing properly. Replace if defective.
24 volts

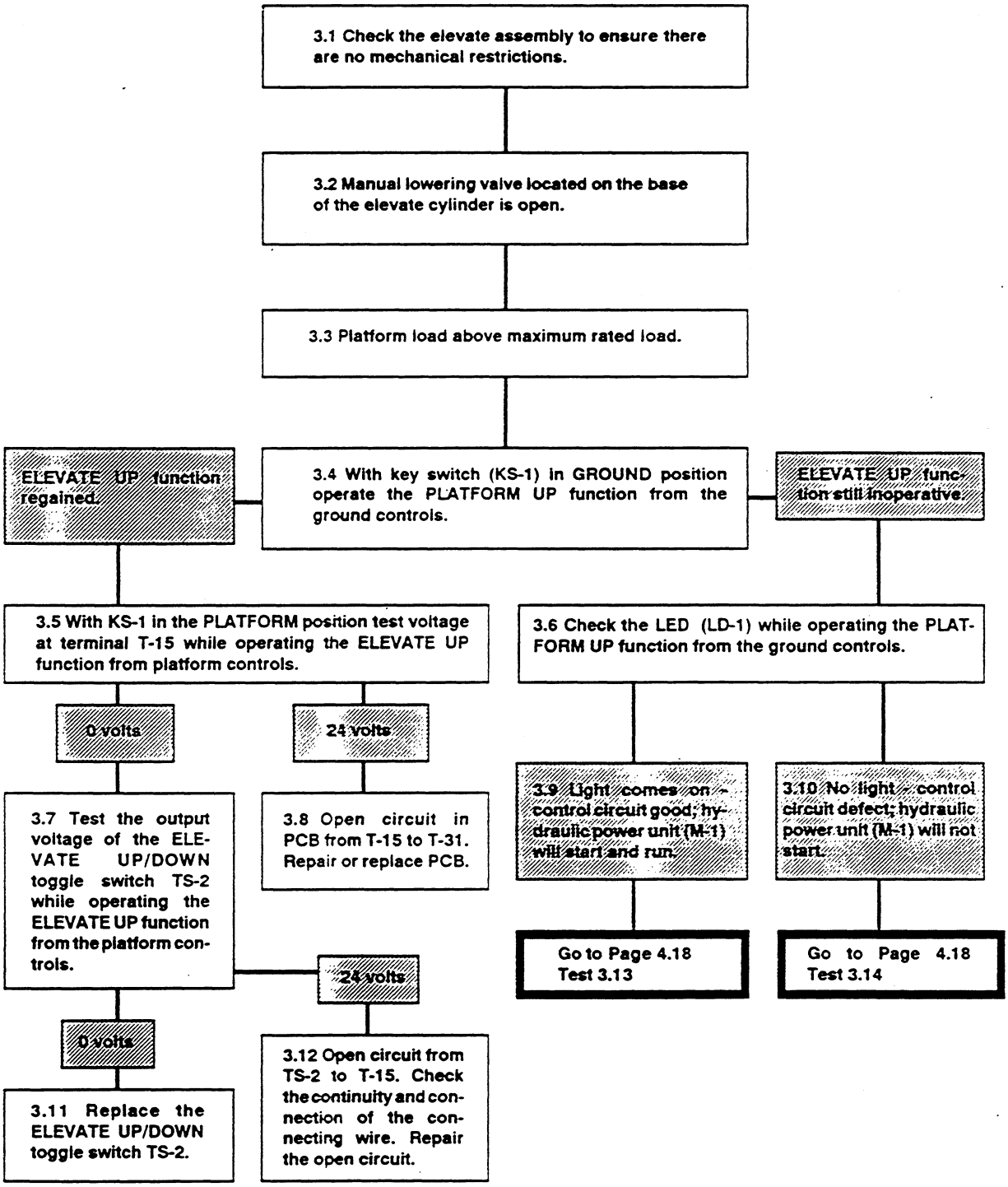

Continued from Page 4.13 Test 1.16
1.20 Test voltage at terminal T-45.
0 volts
24 volts
1.25 Test voltage at terminal T-44.
1.26 Test voltage at KS-1.
Go to Page 4.15 Test 1.32
0 volts
24 volts
1.31 Test voltage at KS-1.
24 volts
0 volts
24 volts
0 volts
1.33 Open circuit from KS-1 to T-45. Check the continuity and connection of the connecting wire. Test KS-1 in PLATFORM and GROUND positions. Replace if defective in either. Repair the open circuit.
1.34 Test voltage at the POWER ON/OFF button (P-1).
1.37 Test KS-1. Replace if defective.
1.38 Open circuit from T-44 to KS-1. Check the continuity and connection of the connecting wire. Repair the open circuit.
0 volts
24 volts
1.43 Open circuit from KS-1 to the platform and ground control stations. Check the continuity and connection of the connecting wires. Repair the open circuit.
1.42 Open circuit from batteries to P-1. Check the continuity and connection of the connecting wire. Test CB-1. Replace if defective. Repair the open circuit.
1.41 Open circuit from P-1 to KS-1. Check the continuity and connection of the connecting wires. Test KS-1. Replace if defective. Repair the open circuit.
1.46 Ensure that the control solenoids (S-1 thru S-8) located on the hydraulic control manifold are properly grounded.

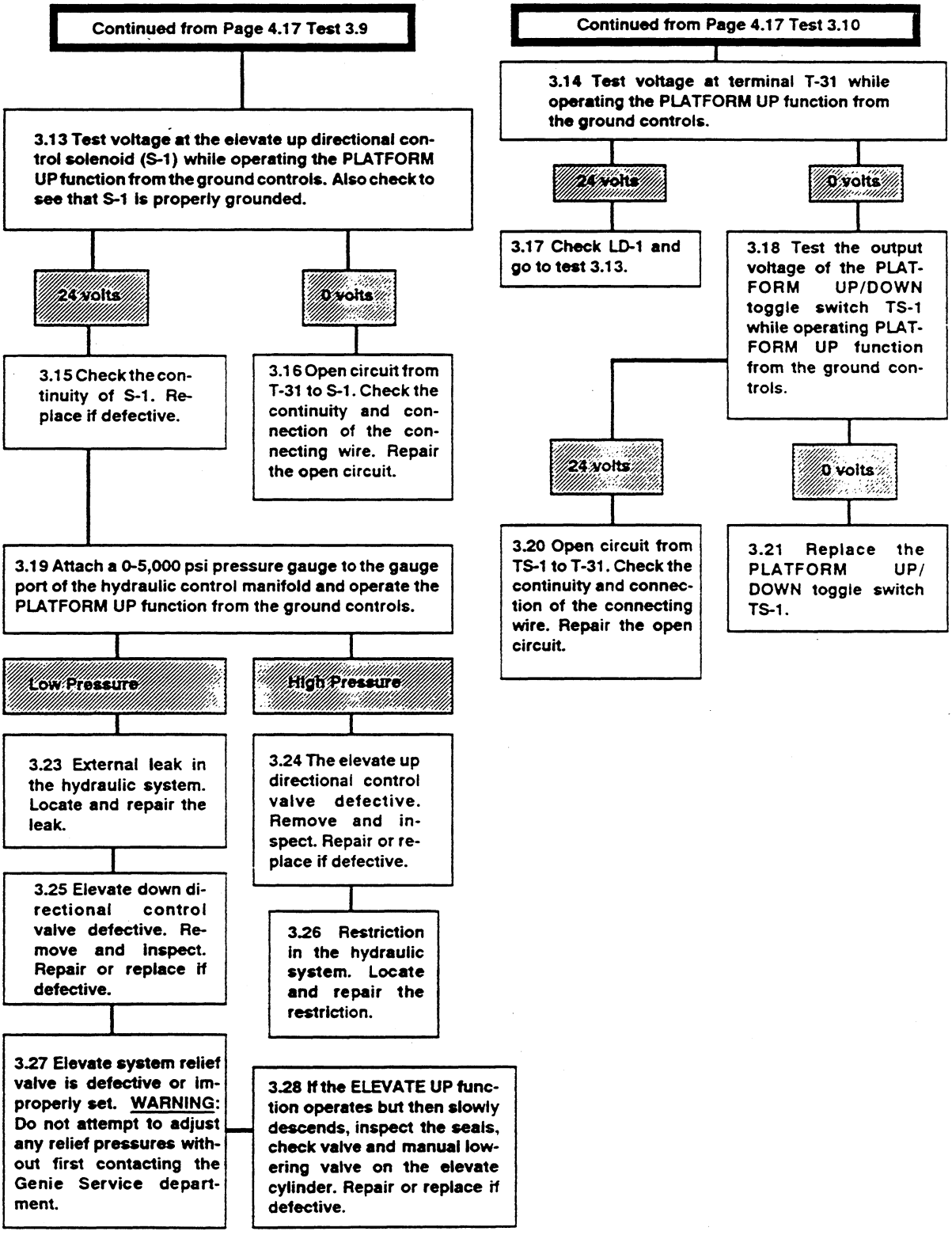

Continued from Page 4.14 Test 1.25
1.32 Test voltage at terminal T-8.
24 volts
0 volts
1.39 Open circuit in the PCB from T-8 to the control circuit master relay (C-1), replace PCB.
1.40 Test voltage at the POWER ON/OFF button (P-2).
24 volts
0 volts
1.44 Open circuit from P-2 to T-8. Check continuity and connection of the connecting wire. Test P-2. Replace if defective. Repair open circuit.
1.45 Test voltage at terminals T-11 and T-12.
24 volts
0 volts
1.49 LVI defective. Go to Structured Interface section of the Manufacturers Appendices for proper test procedures.
1.47 Open circuit from T-11 and T-12 to P-2. Check the continuity and connection of the connecting wires. Repair the open circuit.
1.48 Open circuit in the PCB from T-45 to T-11 and T-12. Repair or replace PCB.

2. Machine will not lift, lower, drive or steer. All powered functions lost. Electric motor starts and runs.

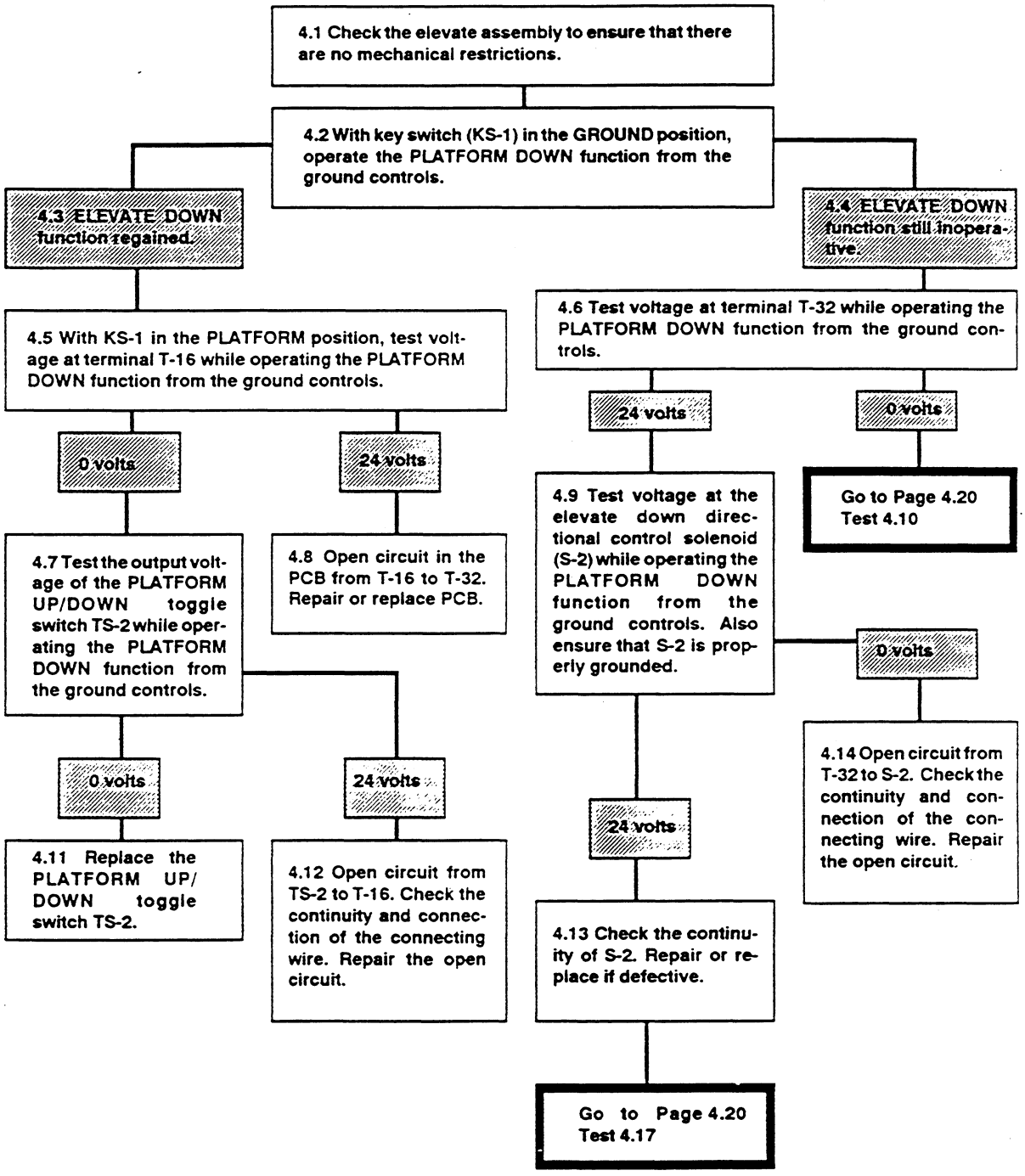


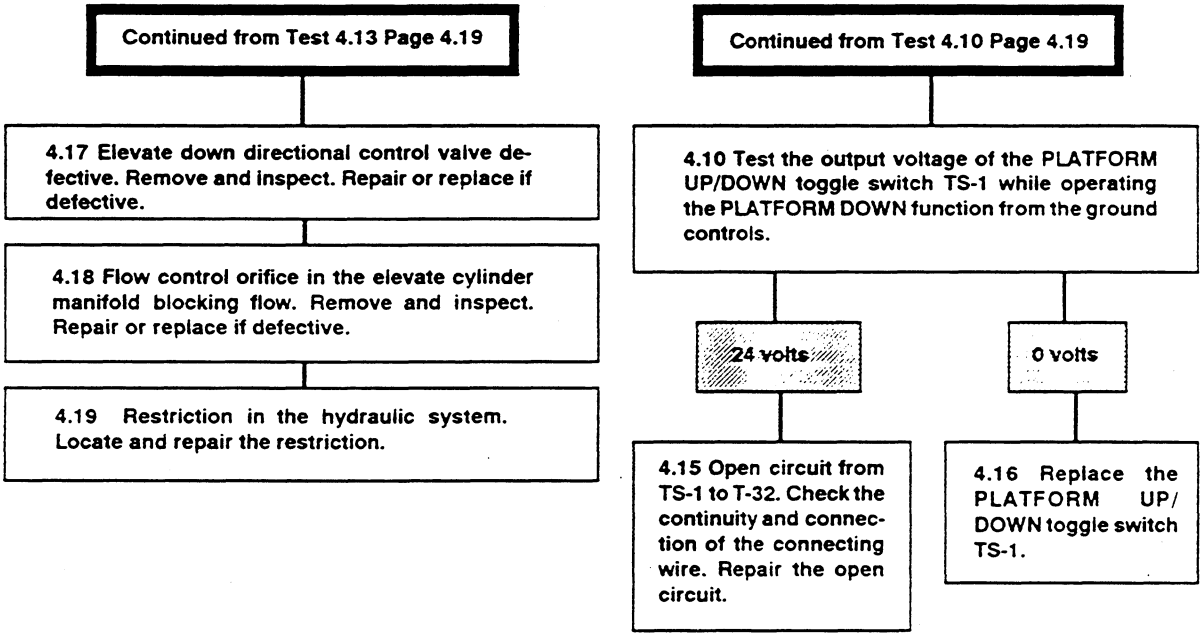
3. ELEVATE Up function inoperative.



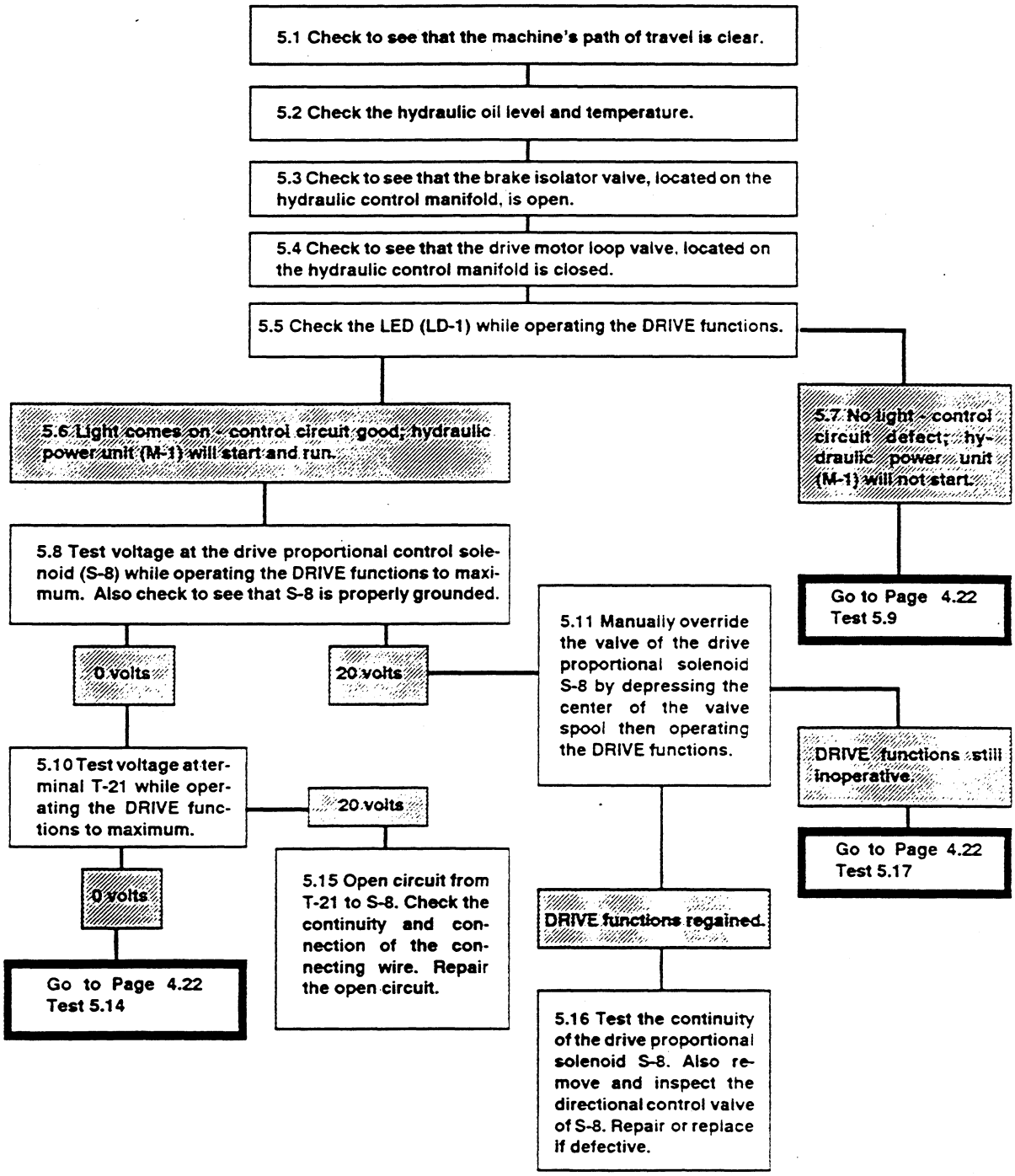

Continued from Page 4.17 Test 3.9
3.13 Test voltage at the elevate up directional control solenoid (S-1) while operating the PLATFORM UP function from the ground controls. Also check to see that S-1 is properly grounded.
24 volts
0 volts
3.15 Check the continuity of S-1. Replace if defective.
3.16 Open circuit from T-31 to S-1. Check the continuity and connection of the connecting wire. Repair the open circuit.
3.19 Attach a 0-5,000 psi pressure gauge to the gauge port of the hydraulic control manifold and operate the PLATFORM UP function from the ground controls.
Low Pressure
High Pressure
3.23 External leak in the hydraulic system. Locate and repair the leak.
3.24 The elevate up directional control valve defective. Remove and inspect. Repair or replace if defective.
3.25 Elevate down directional control valve defective. Remove and inspect. Repair or replace if defective.
3.26 Restriction in the hydraulic system. Locate and repair the restriction.
3.27 Elevate system relief valve is defective or improperly set. WARNING: Do not attempt to adjust any relief pressures without first contacting the Genie Service department.
3.28 If the ELEVATE UP function operates but then slowly descends, inspect the seals, check valve and manual lowering valve on the elevate cylinder. Repair or replace if defective.
Continued from Page 4.17 Test 3.10
3.14 Test voltage at terminal T-31 while operating the PLATFORM UP function from the ground controls.
24 volts
0 volts
3.17 Check LD-1 and go to test 3.13.
3.18 Test the output voltage of the PLATFORM UP/DOWN toggle switch TS-1 while operating PLATFORM UP function from the ground controls.
24 volts
0 volts
3.20 Open circuit from TS-1 to T-31. Check the continuity and connection of the connecting wire. Repair the open circuit.
3.21 Replace the PLATFORM UP/DOWN toggle switch TS-1.

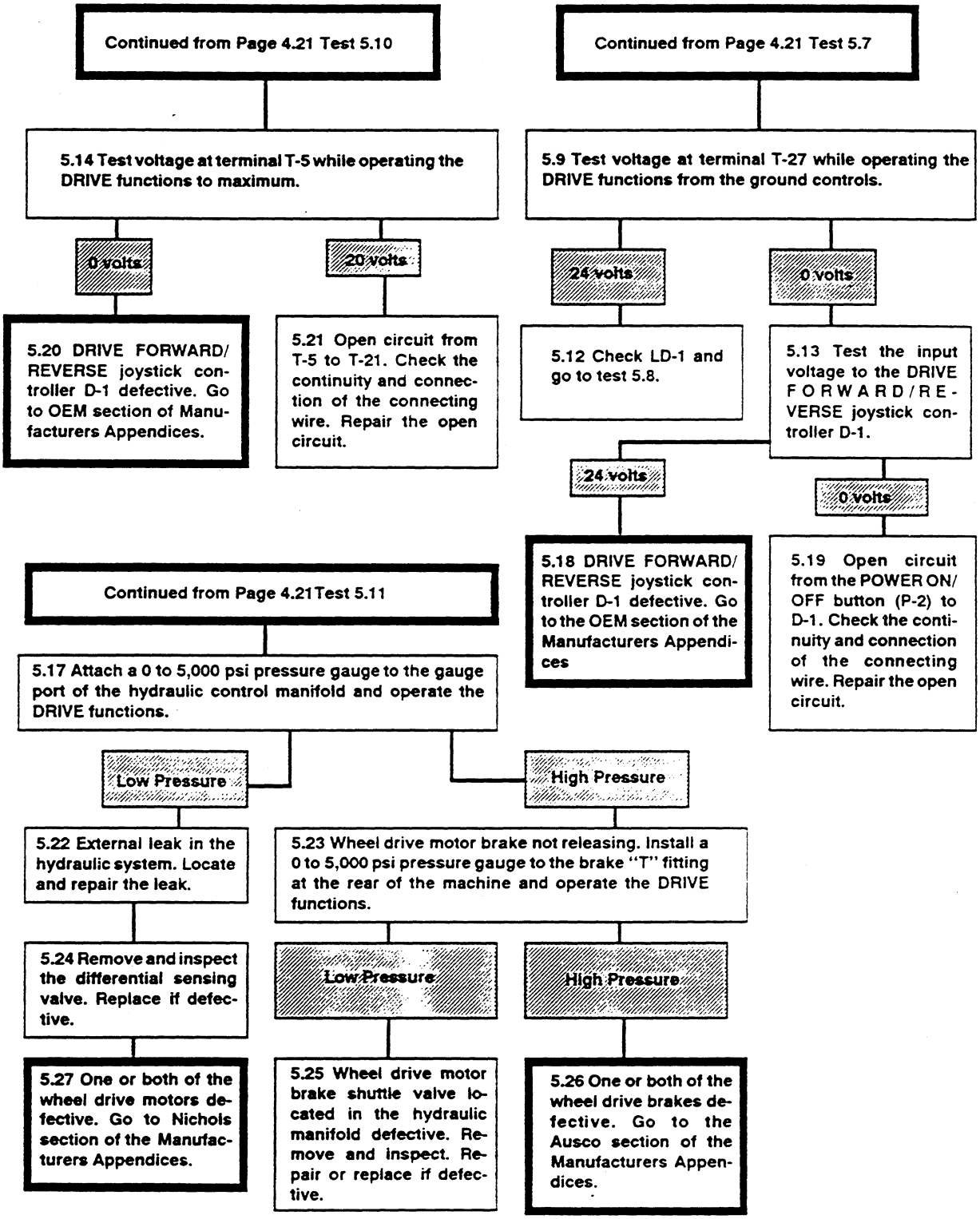
4. ELEVATE Down function inoperative.



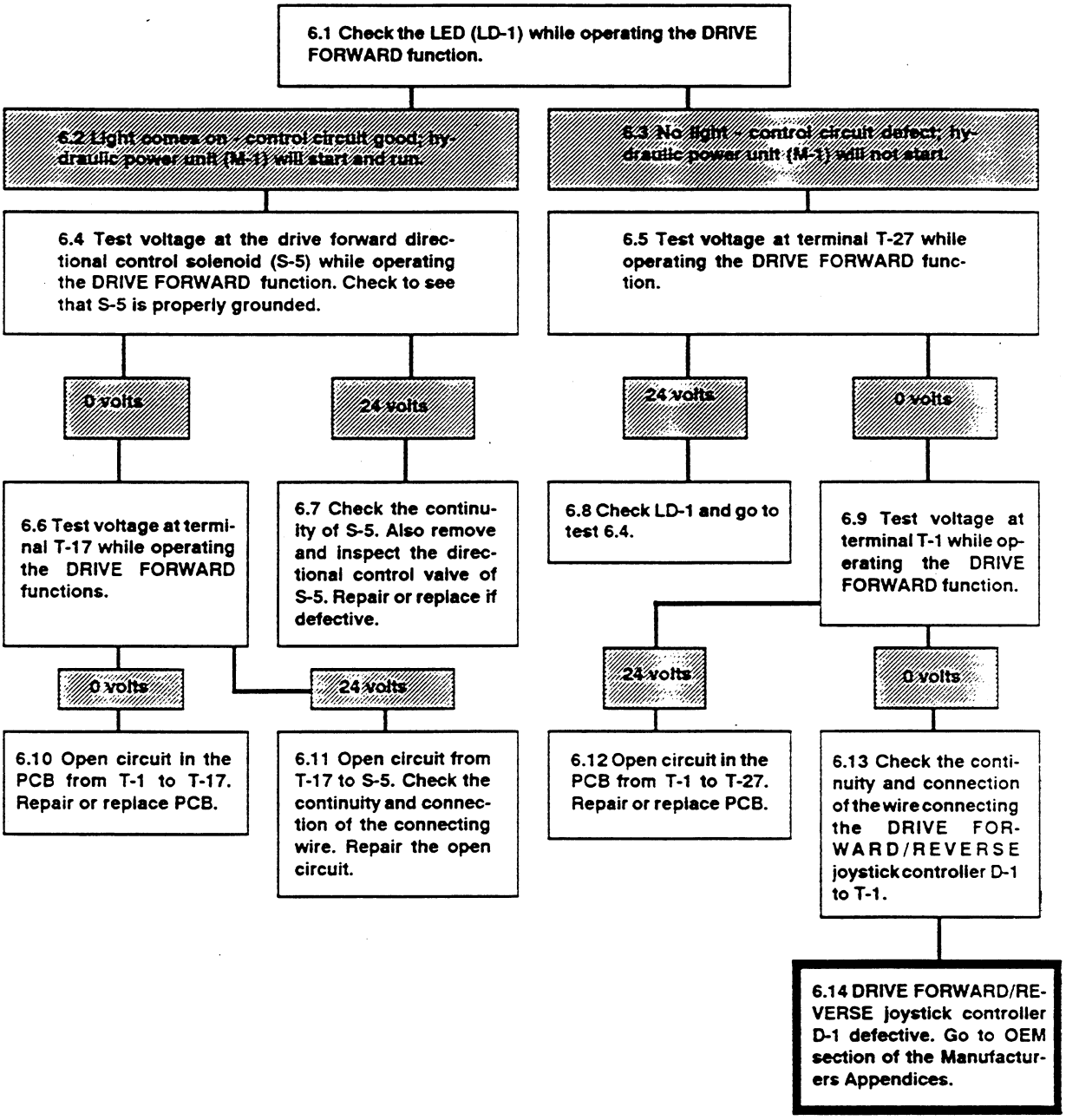

Continued from Test 4.13 Page 4.19
4.17 Elevate down directional control valve defective. Remove and inspect. Repair or replace if defective.
4.18 Flow control orifice in the elevate cylinder manifold blocking flow. Remove and inspect. Repair or replace if defective.
4.19 Restriction in the hydraulic system. Locate and repair the restriction.
Continued from Test 4.10 Page 4.19
4.10 Test the output voltage of the PLATFORM UP/DOWN toggle switch TS-1 while operating the PLATFORM DOWN function from the ground controls.
24 volts
0 volts
4.15 Open circuit from TS-1 to T-32. Check the continuity and connection of the connecting wire. Repair the open circuit.
4.16 Replace the PLATFORM UP/DOWN toggle switch TS-1.

5. Machine will not DRIVE Forward or Reverse.

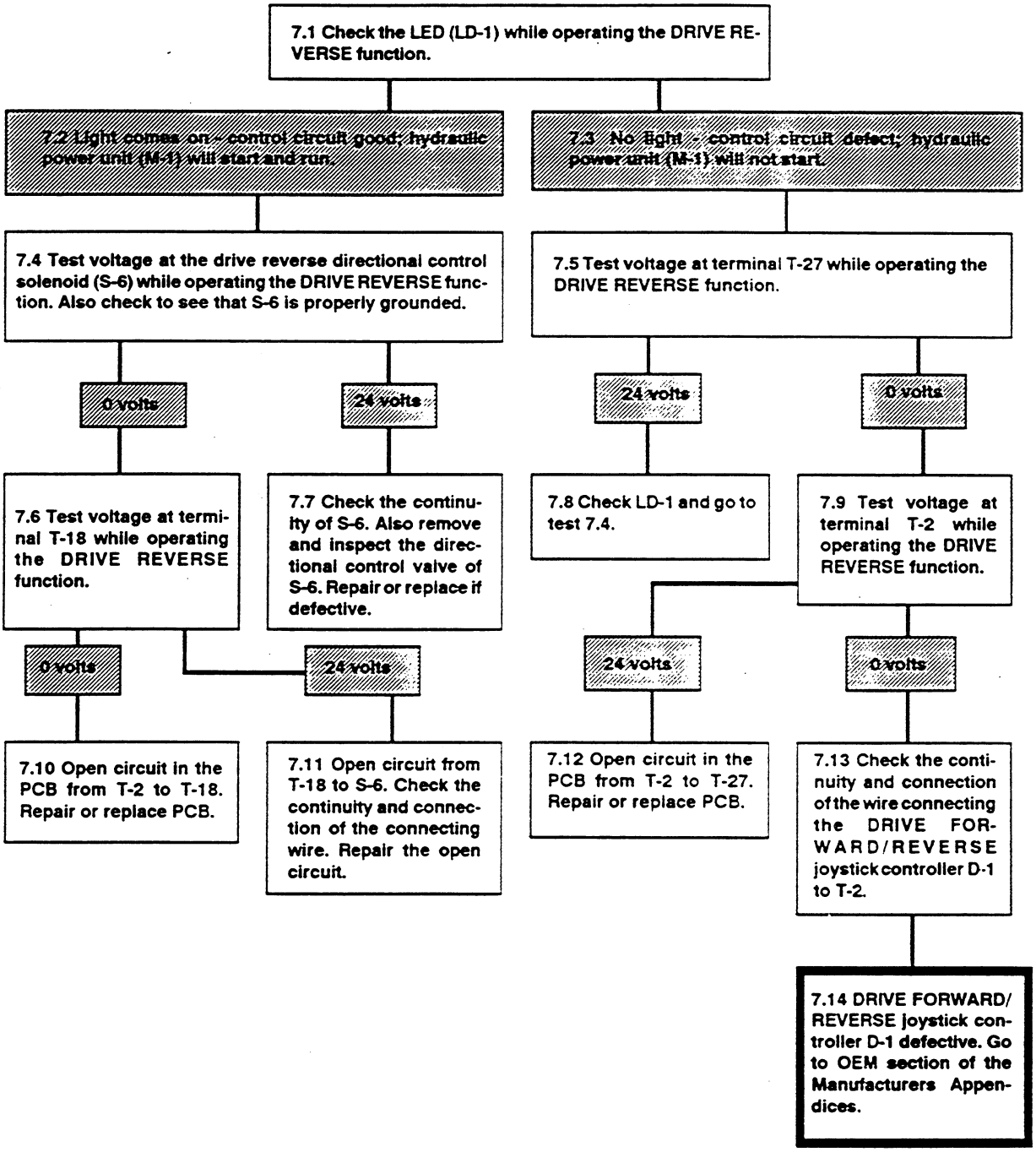



Continued from Page 4.21 Test 5.10
5.14 Test voltage at terminal T-5 while operating the DRIVE functions to maximum.
0 volts
20 volts
5.20 DRIVE FORWARD/ REVERSE joystick controller D-1 defective. Go to OEM section of Manufacturers Appendices.
5.21 Open circuit from T-5 to T-21. Check the continuity and connection of the connecting wire. Repair the open circuit.
Continued from Page 4.21 Test 5.7
5.9 Test voltage at terminal T-27 while operating the DRIVE functions from the ground controls.
24 volts
0 volts
5.12 Check LD-1 and go to test 5.8.
5.13 Test the input voltage to the DRIVE FORWARD/REVERSE joystick controller D-1.
24 volts
0 volts
5.18 DRIVE FORWARD/ REVERSE joystick controller D-1 defective. Go to the OEM section of the Manufacturers Appendices
5.19 Open circuit from the POWER ON/ OFF button (P-2) to D-1. Check the continuity and connection of the connecting wire. Repair the open circuit.
Continued from Page 4.21Test 5.11
5.17 Attach a 0 to 5,000 psi pressure gauge to the gauge port of the hydraulic control manifold and operate the DRIVE functions.
Low Pressure
High Pressure
5.22 External leak in the hydraulic system. Locate and repair the leak.
5.23 Wheel drive motor brake not releasing. Install a 0 to 5,000 psi pressure gauge to the brake "T" fitting at the rear of the machine and operate the DRIVE functions.
5.24 Remove and inspect the differential sensing valve. Replace if defective.
Low Pressure
High Pressure
5.27 One or both of the wheel drive motors defective. Go to Nichols section of the Manufacturers Appendices.
5.25 Wheel drive motor brake shuttle valve located in the hydraulic manifold defective. Remove and inspect. Repair or replace if defective.
5.26 One or both of the wheel drive brakes defective. Go to the Ausco section of the Manufacturers Appendices.

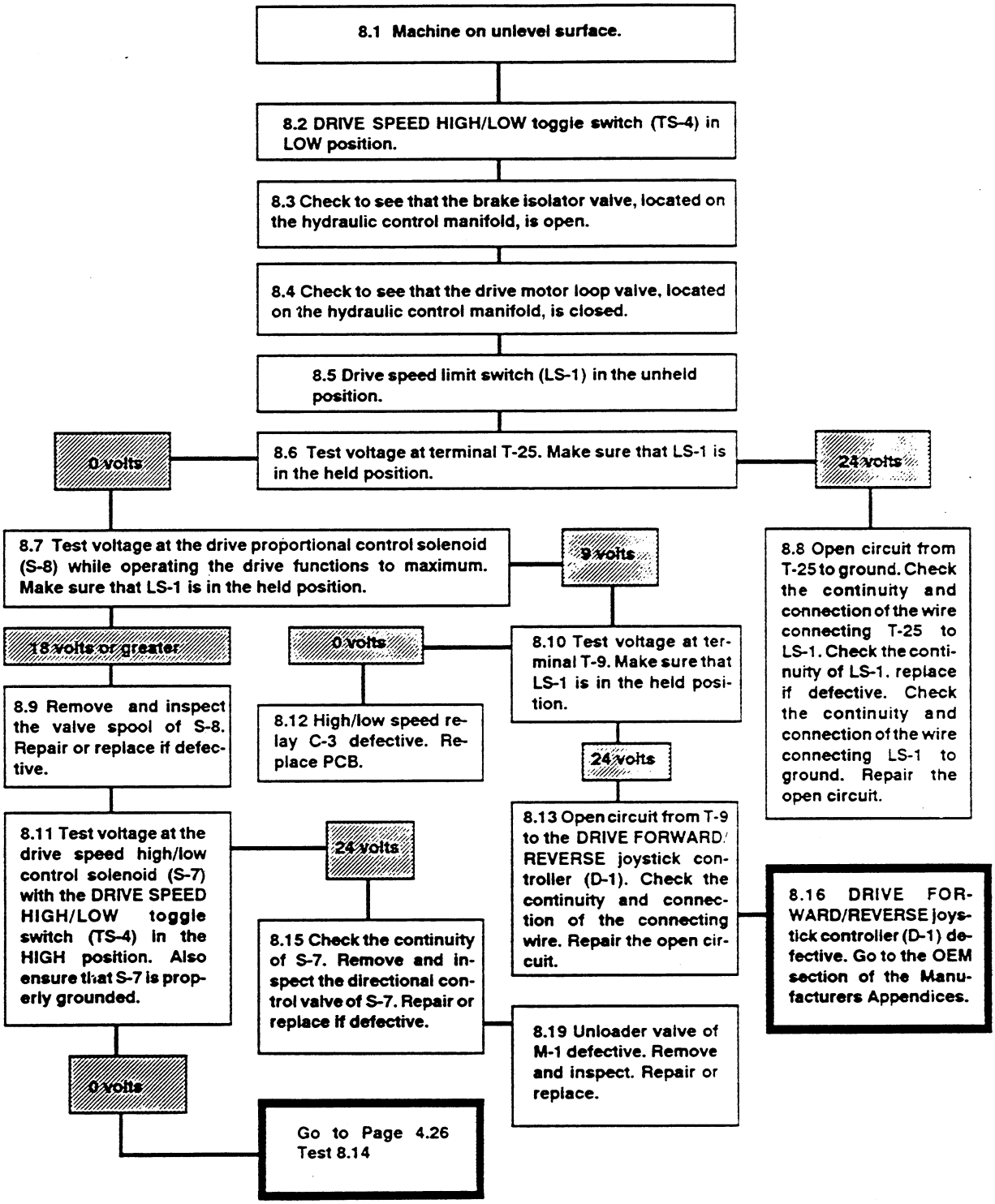
6. DRIVE Forward function inoperative.

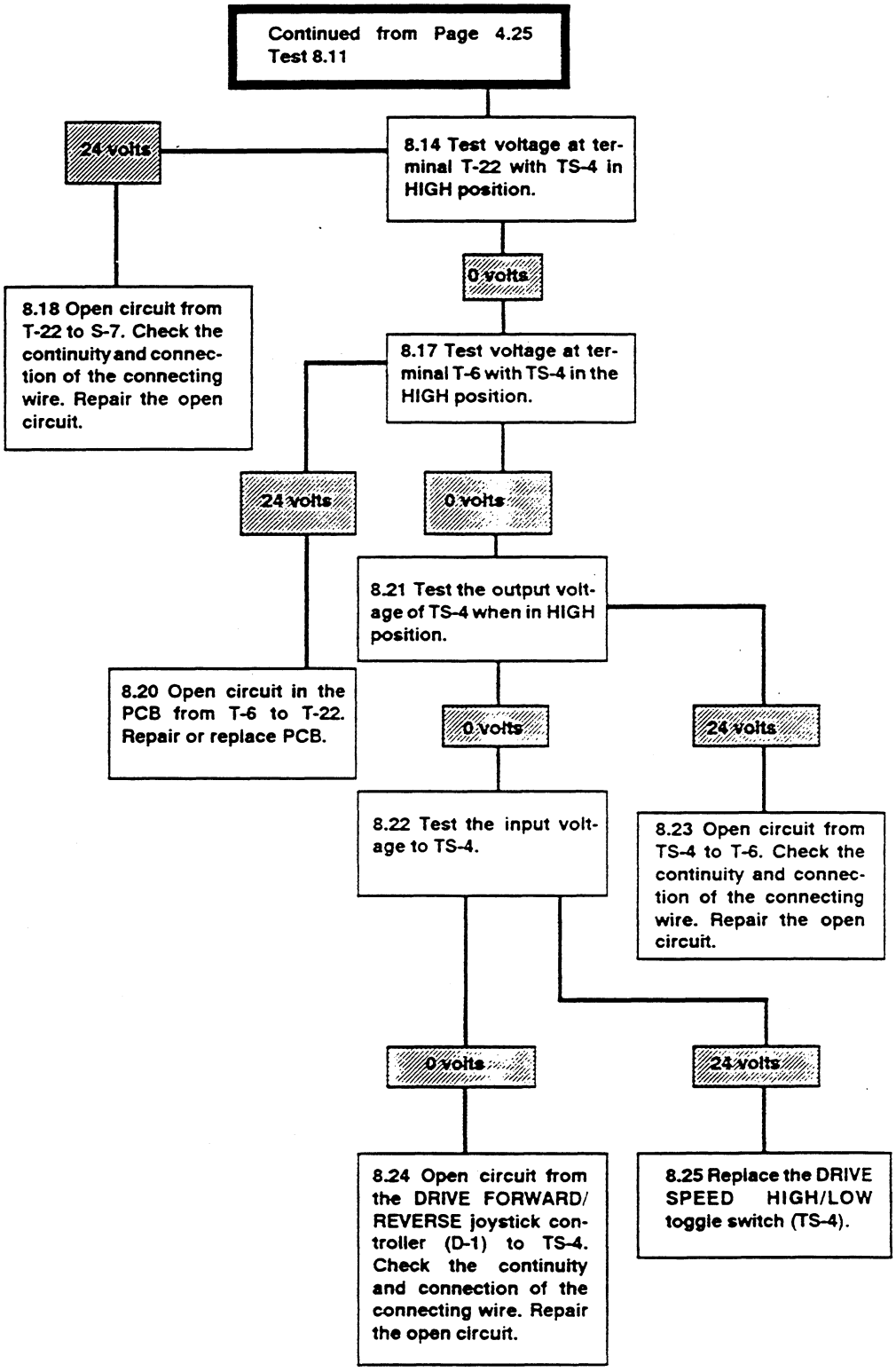


7. DRIVE Reverse function inoperative.

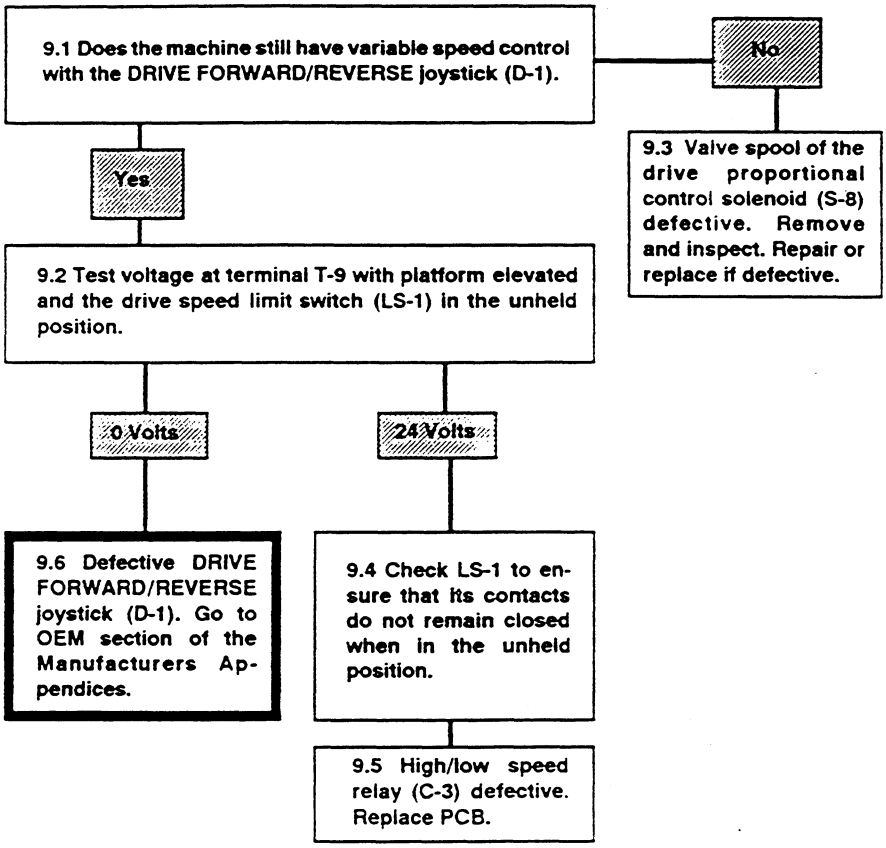


8. Machine will not drive at full speed.

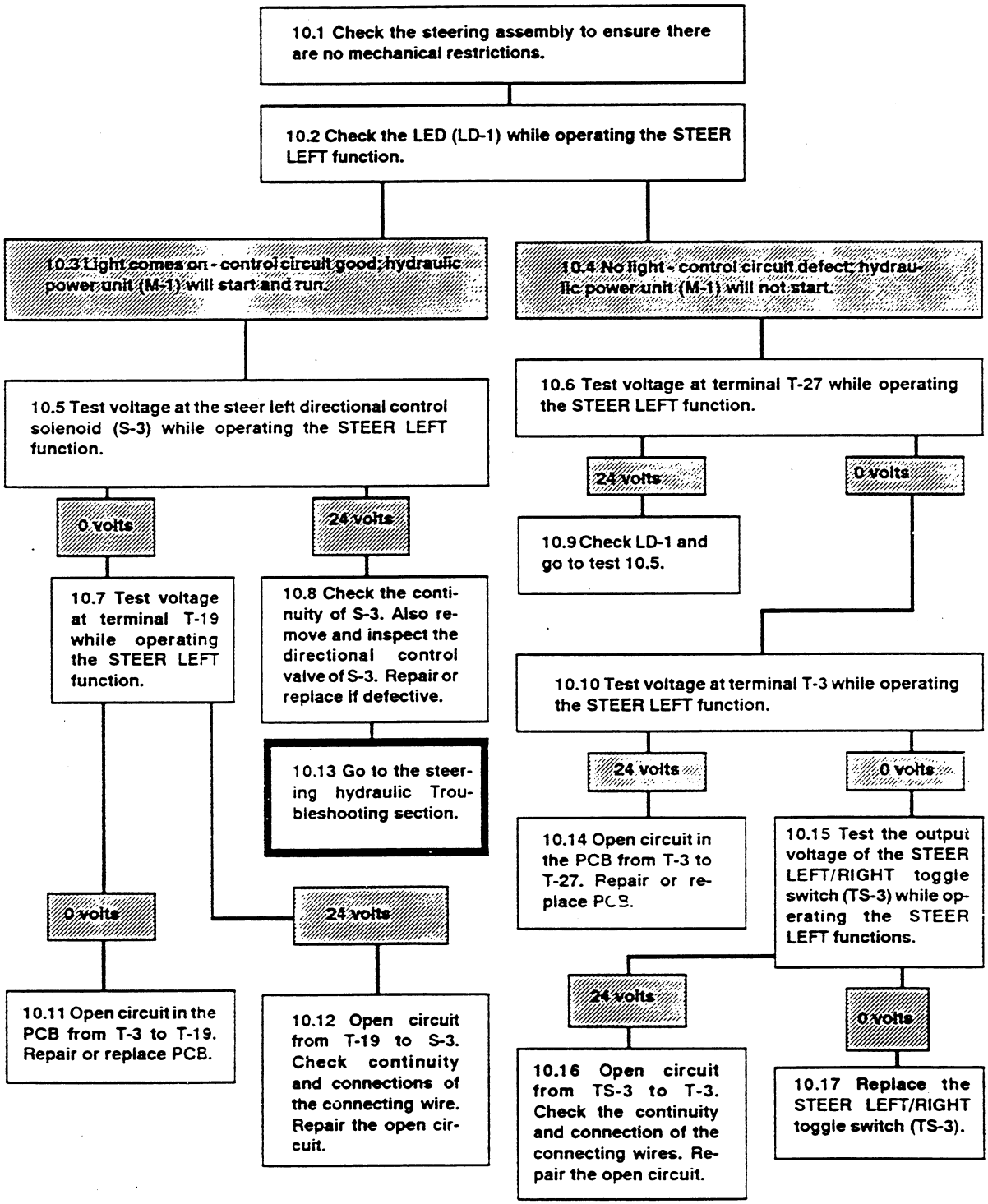



Continued from Page 4.25
Test 8.11
24 volts
8.14 Test voltage at terminal T-22 with TS-4 in HIGH position.
0 volts
8.18 Open circuit from T-22 to S-7. Check the continuity and connection of the connecting wire. Repair the open circuit.
8.17 Test voltage at terminal T-6 with TS-4 in the HIGH position.
24 volts
0 volts
8.21 Test the output voltage of TS-4 when in HIGH position.
8.20 Open circuit in the PCB from T-6 to T-22. Repair or replace PCB.
0 volts
24 volts
8.22 Test the input voltage to TS-4.
8.23 Open circuit from TS-4 to T-6. Check the continuity and connection of the connecting wire. Repair the open circuit.
0 volts
24 volts
8.24 Open circuit from the DRIVE FORWARD/ REVERSE joystick controller (D-1) to TS-4. Check the continuity and connection of the connecting wire. Repair the open circuit.
8.25 Replace the DRIVE SPEED HIGH/LOW toggle switch (TS-4).

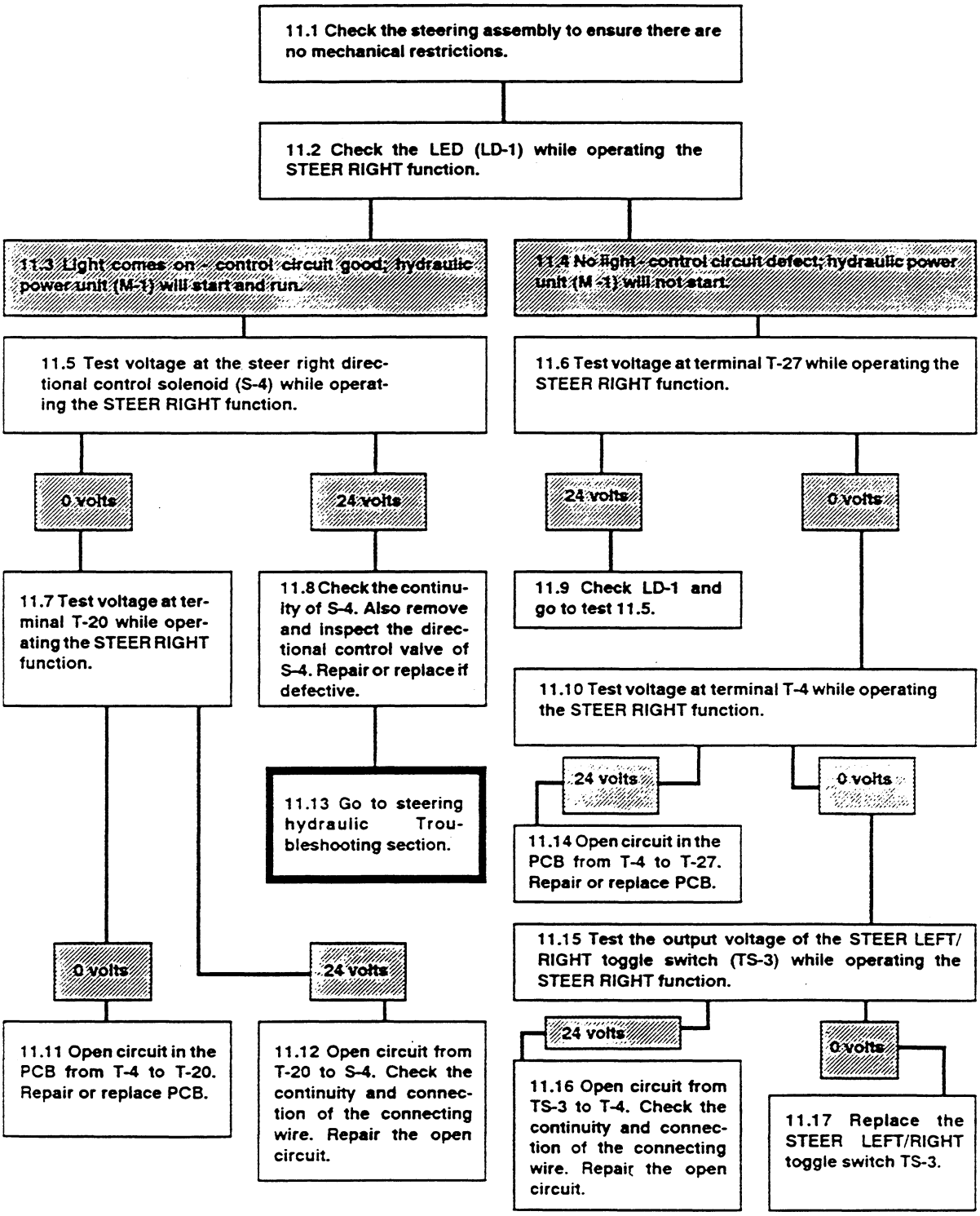
9. Machine drives at full speed with platform elevated.



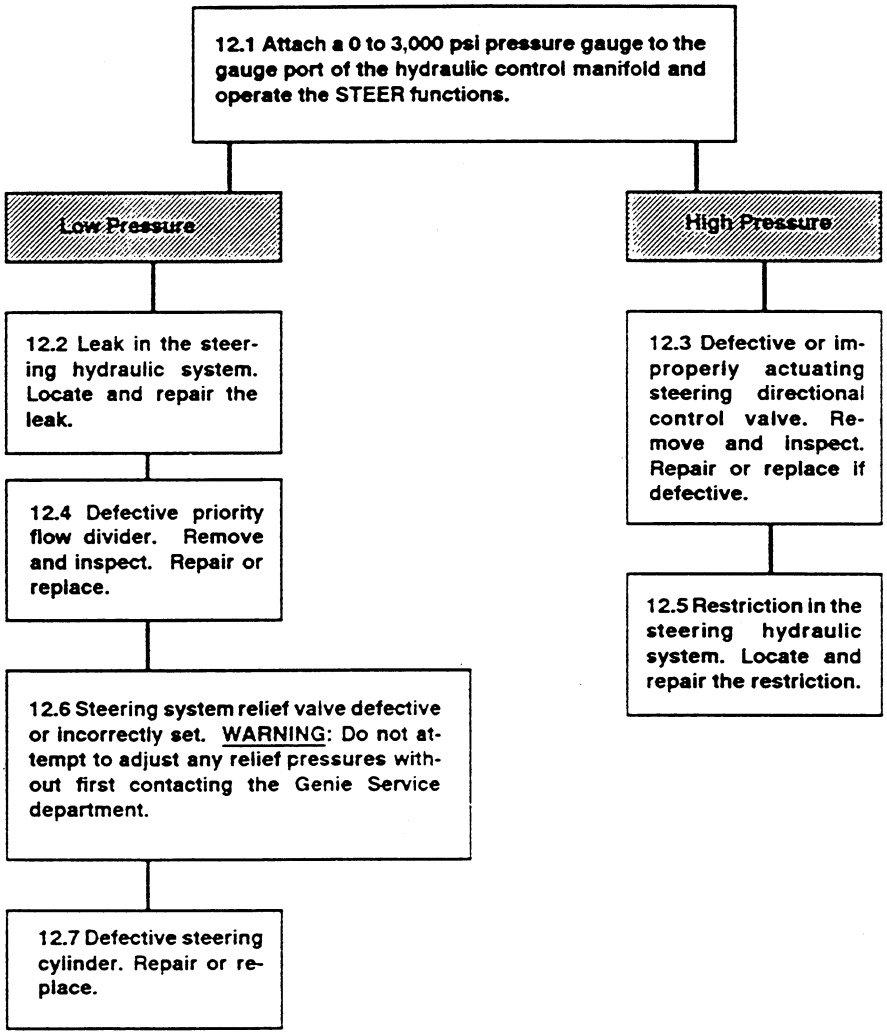
10. STEER Left function inoperative.



11. STEER Right function inoperative.



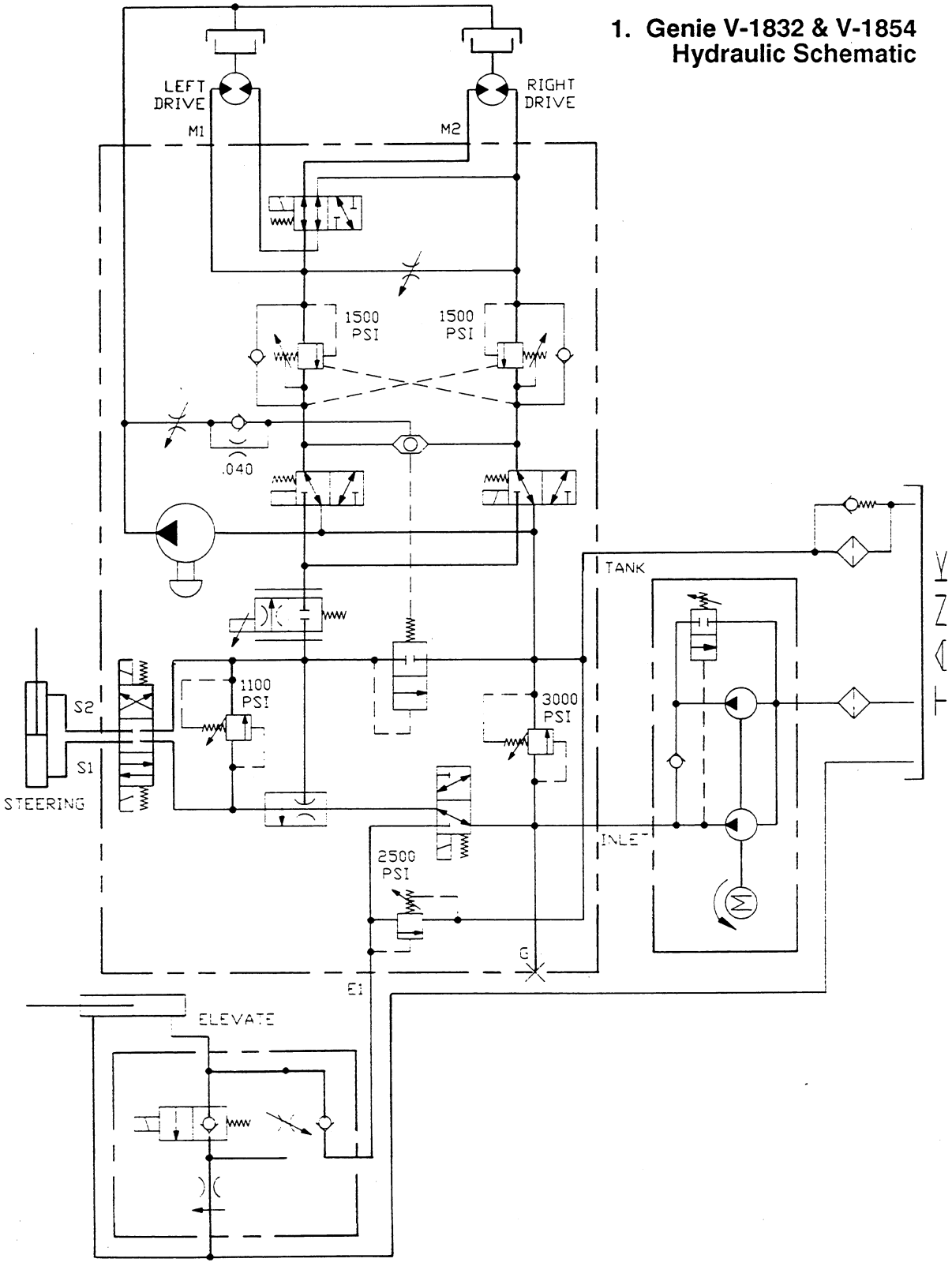
12. Steering functions lost (hydraulic section).



SCHEMATICS

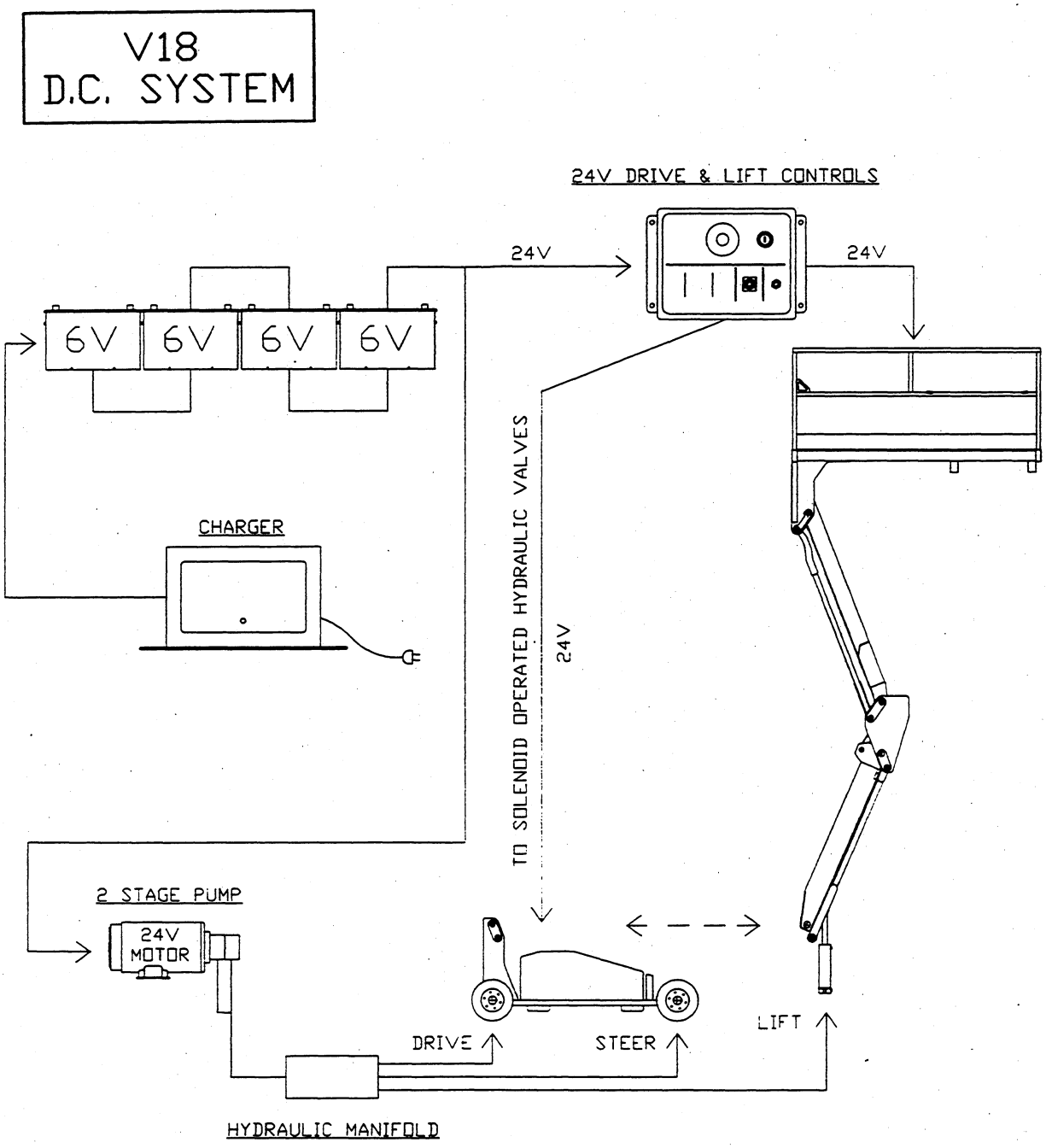
5.1 HYDRAULIC SCHEMATICS

1. Genie V-1832 & V-1854 Hydraulic Schematic

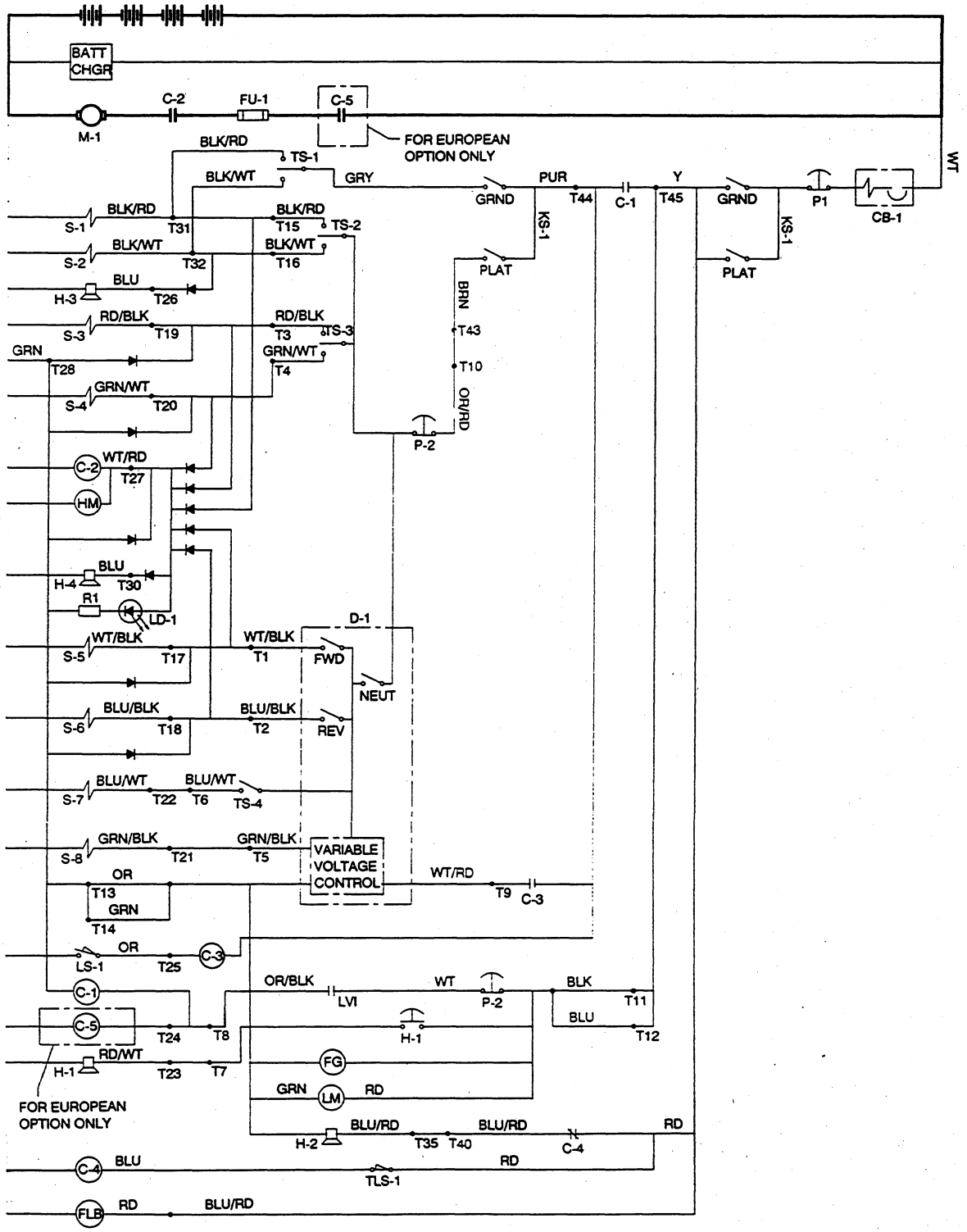


5.2 ELECTRICAL SCHEMATICS AND DIAGRAMS

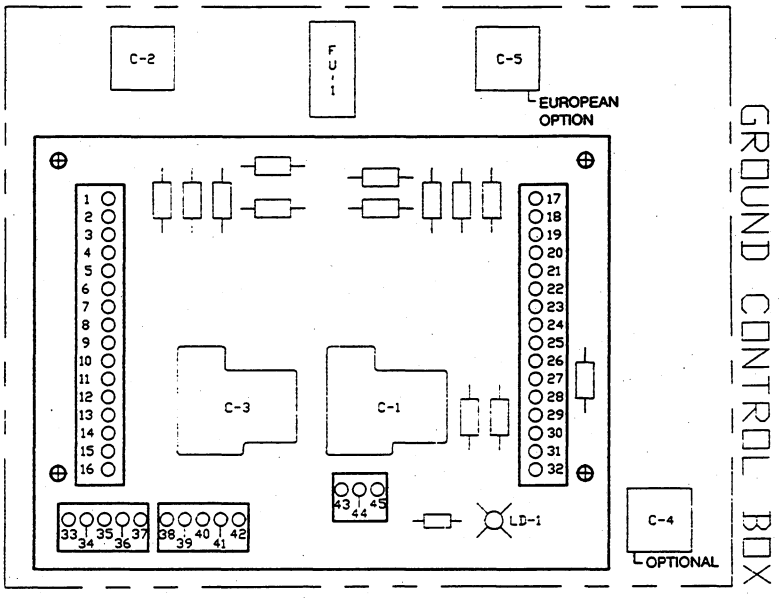
1. Genie V-1832 & V-1854 Electrical System Overview



2. Genie V-1832 & V-1854 Electrical Schematic

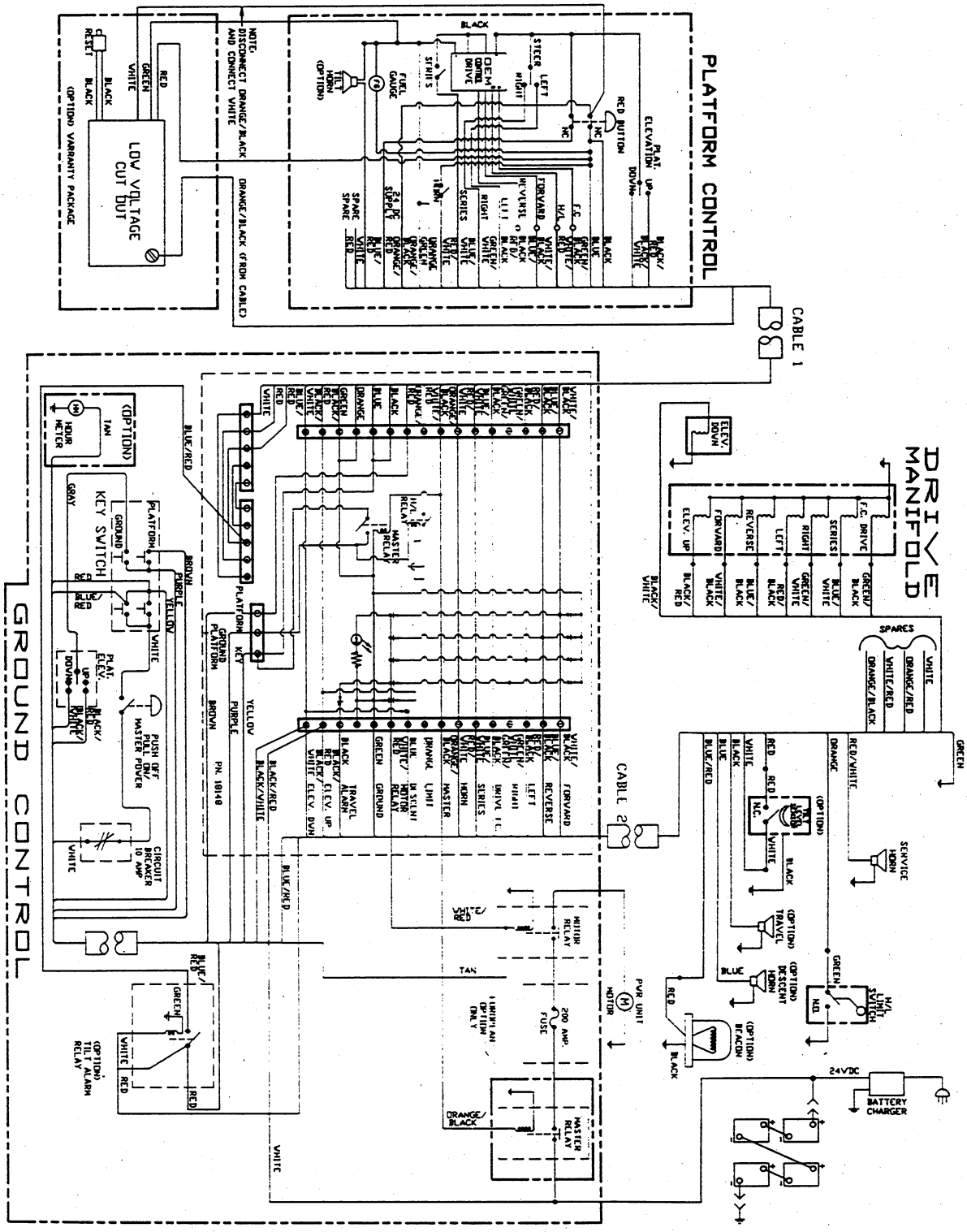


3. Genie V-1832 & V-1854 Electrical Schematic Legend

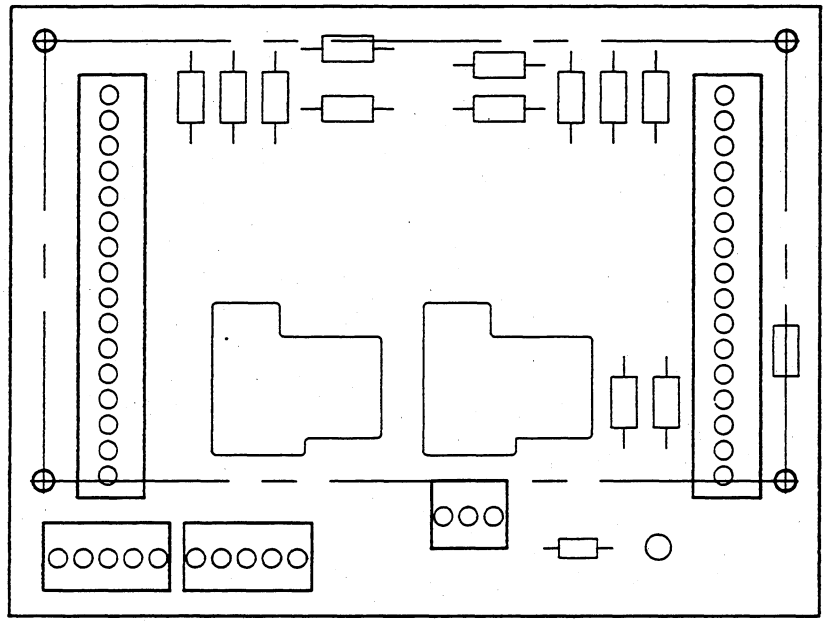


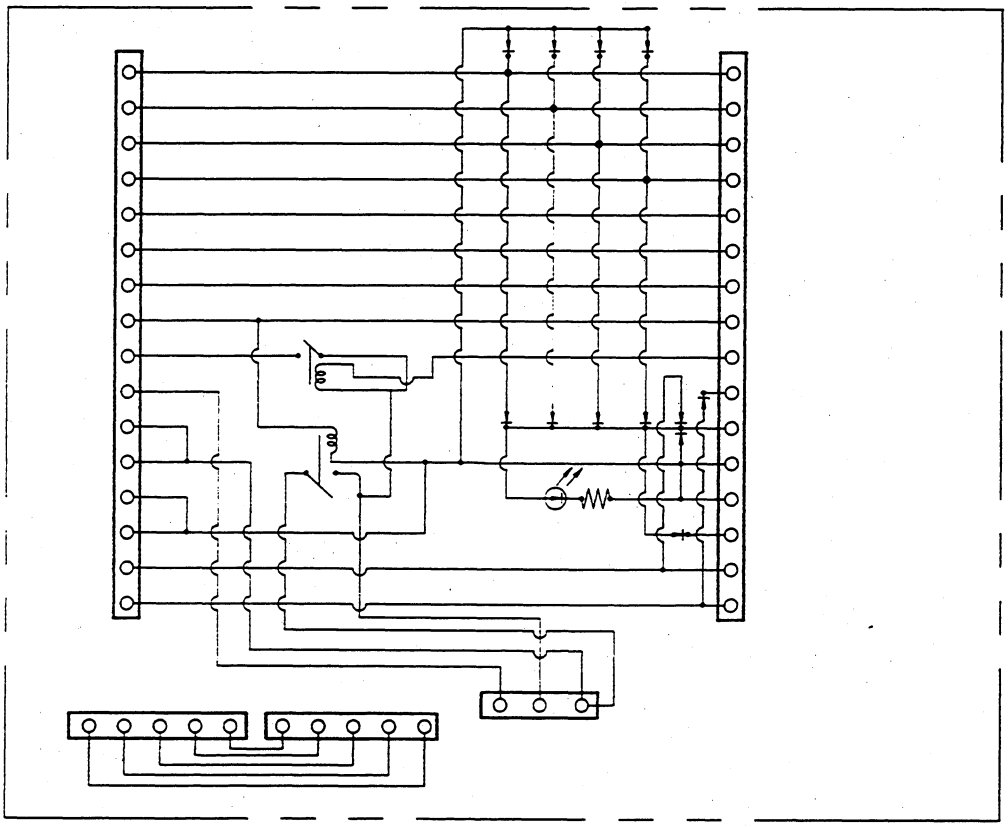
CB1	CONTROL CIRCUIT 10 AMP CIRCUIT BREAKER	GROUND CONTROL STATION
C1	24 VOLT CONTROL CIRCUIT MASTER RELAY	GROUND CONTROL STATION
C2	24 VOLT POWER CIRCUIT MASTER RELAY	GROUND CONTROL STATION
C3	24 VOLT HIGH/LOW SPEED RELAY	GROUND CONTROL STATION
C4	24 VOLT TILT LEVEL ALARM RELAY (NC)	GROUND CONTROL STATION
C5	24 VOLT MOTOR START RELAY (EUROPEAN MODELS ONLY)	GROUND CONTROL STATION
D1	DRIVE FORWARD/REVERSE PROPORTIONAL CONTROL JOYSTICK	PLATFORM CONTROL STATION
FG	FUEL GAUGE/BATTERY CHARGE INDICATOR	PLATFORM CONTROL STATION
FLB	OPERATING MACHINE FLASHING BEACON	CHASSIS
FU1	200 AMP POWER CIRCUIT FUSE	GROUND CONTROL STATION
H1	SERVICE HORN BUTTON AND INDICATOR	PLATFORM CONTROL STATION/CHASSIS
H2	TILT LEVEL INDICATOR	PLATFORM CONTROL STATION
H3	ELEVATE SYSTEM DESCENT INDICATOR	CHASSIS
H4	DRIVE SYSTEM TRAVEL INDICATOR	CHASSIS
HM	HOUR METER	GROUND CONTROL STATION
KS1	KEY SWITCH - SELECT GROUND OR PLATFORM CONTROLS	GROUND CONTROL STATION
LD1	CONTROL CIRCUIT LIGHT EMITTING DIODE	GROUND CONTROL STATION
LS1	DRIVE SPEED LIMIT SWITCH (SHOWN WITH PLATFORM UP)	CHASSIS
LVI	LOW VOLTAGE INTERRUPT SYSTEM	PLATFORM CONTROL STATION
M1	HYDRAULIC POWER UNIT MOTOR	CHASSIS
P1	POWER ON/OFF BUTTON	GROUND CONTROL STATION
P2	POWER ON/OFF BUTTON	PLATFORM CONTROL STATION
S1	ELEVATE UP DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S2	ELEVATE DOWN DIRECTIONAL CONTROL SOLENOID	ELEVATE CYLINDER
S3	STEER LEFT DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S4	STEER RIGHT DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S5	DRIVE FORWARD DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S6	DRIVE REVERSE DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S7	DRIVE SPEED HIGH/LOW CONTROL SOLENOID	HYDRAULIC MANIFOLD
S8	DRIVE PROPORTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
T1-T45	WIRING CONNECTION TERMINALS	GROUND CONTROL STATION
TLS1	TILT LEVEL SENSOR	CHASSIS
TS1	PLATFORM UP/DOWN TOGGLE SWITCH	GROUND CONTROL STATION
TS2	ELEVATE UP/DOWN TOGGLE SWITCH	PLATFORM CONTROL STATION
TS3	STEER LEFT/RIGHT TOGGLE SWITCH	PLATFORM CONTROL STATION
TS4	DRIVE SPEED HIGH/LOW TOGGLE SWITCH	PLATFORM CONTROL STATION

4. Genie V-1832 & V-1854 Wiring Diagram

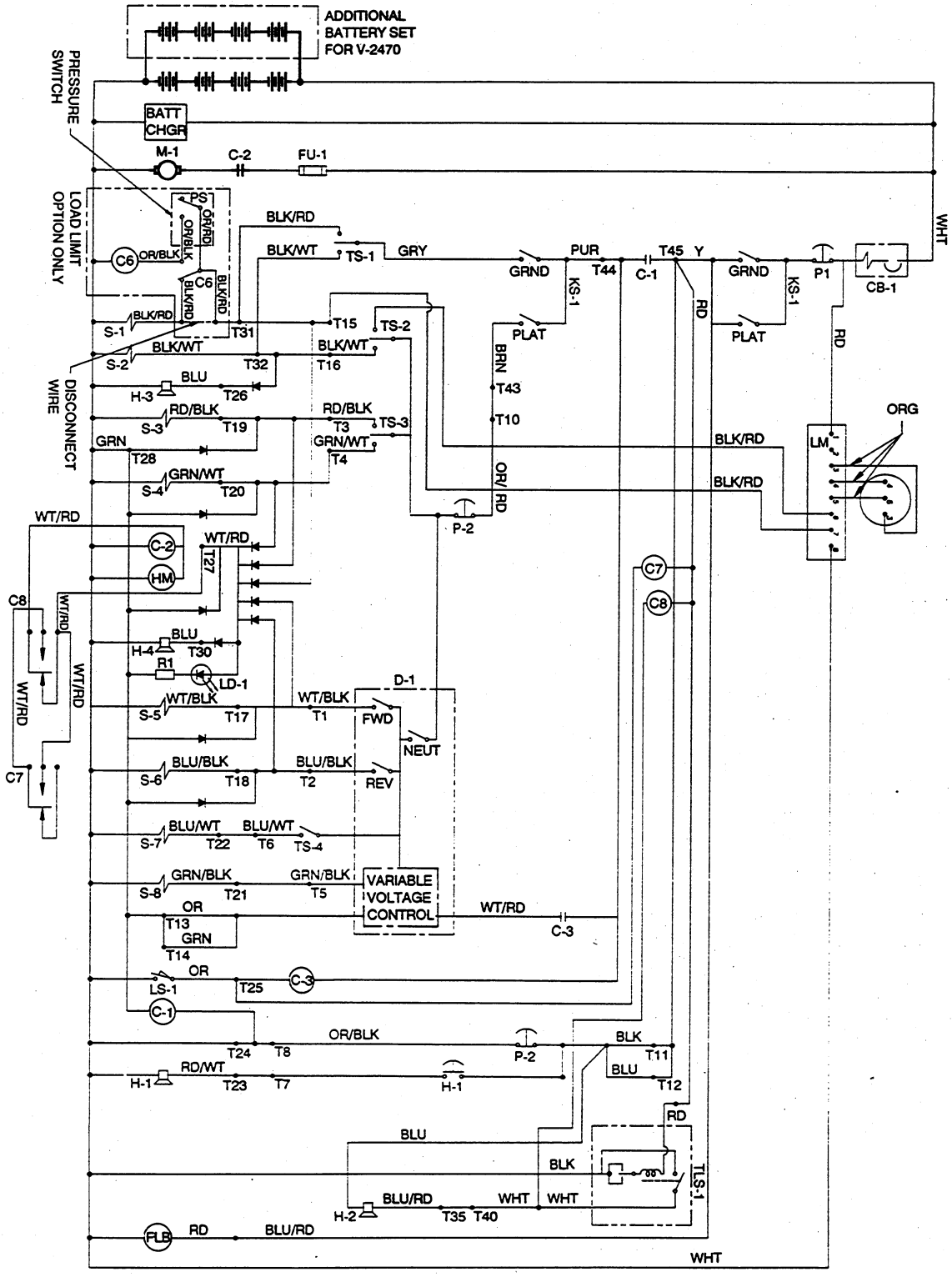


5. Genie V-1832 & V-1854 Printed Circuit Board Illustration & Diagram

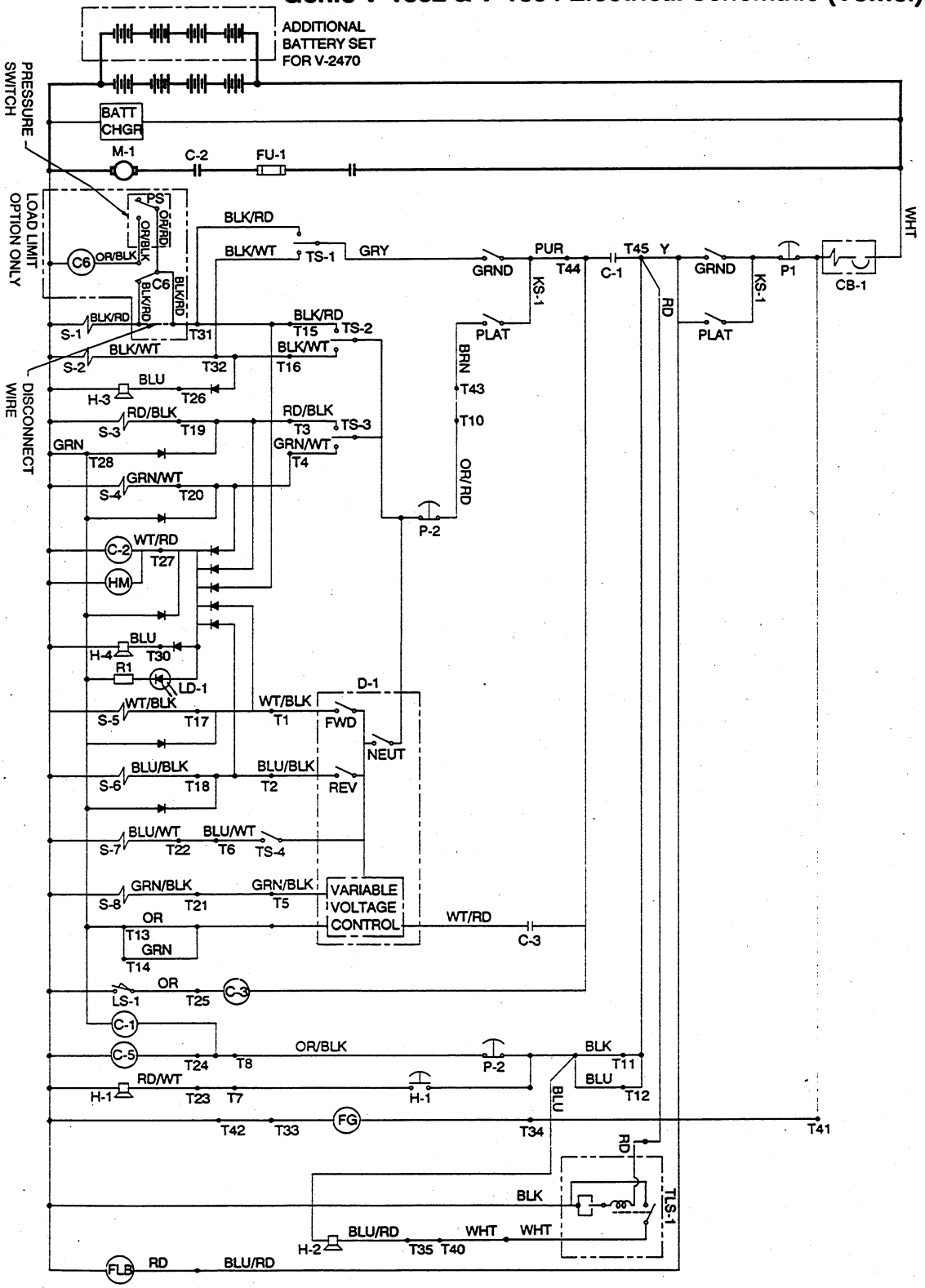




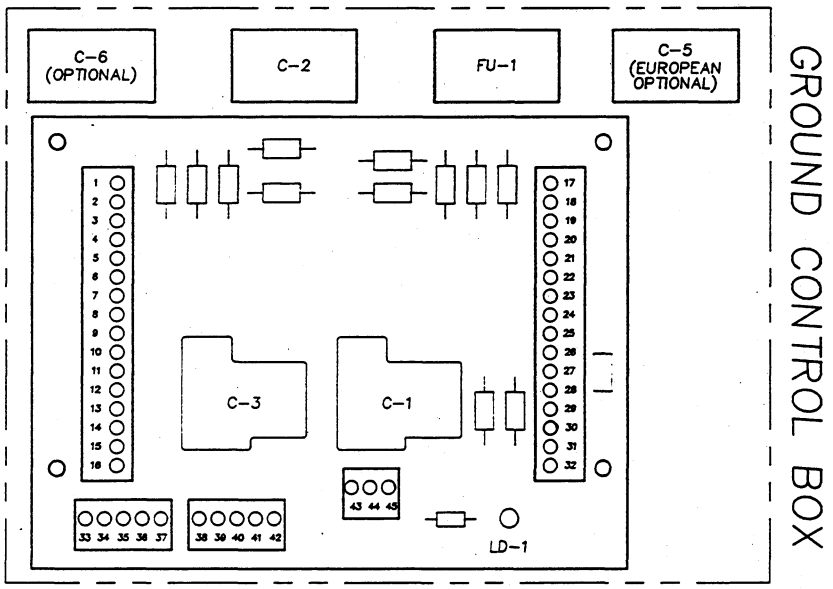
6. Genie V-1832 & V-1854 Electrical Schematic (Nishio)



Genie V-1832 & V-1854 Electrical Schematic (Tomei)

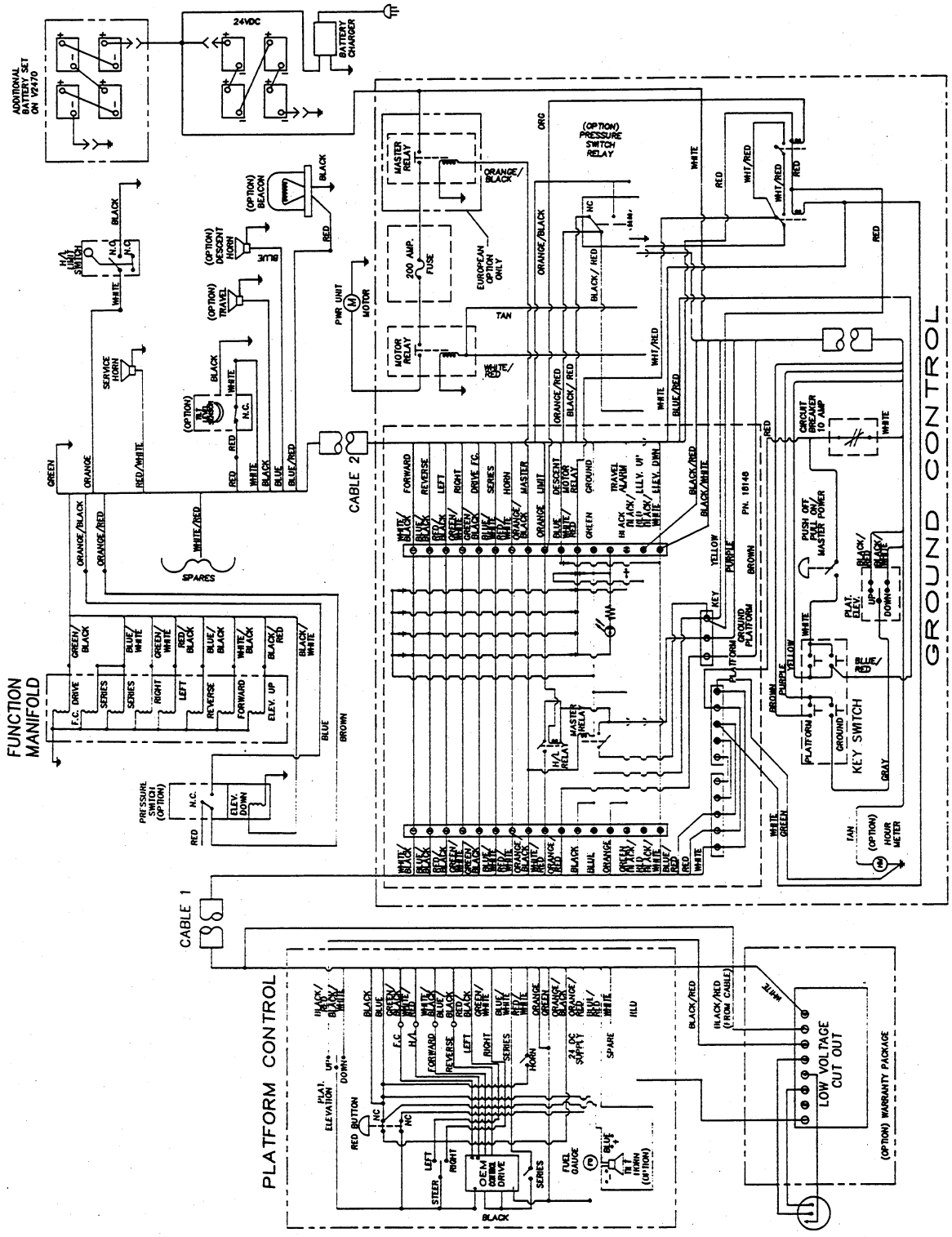


8. Genie V-1832 & V-1854 Electrical Schematic Legend (Nishio & Tomei)

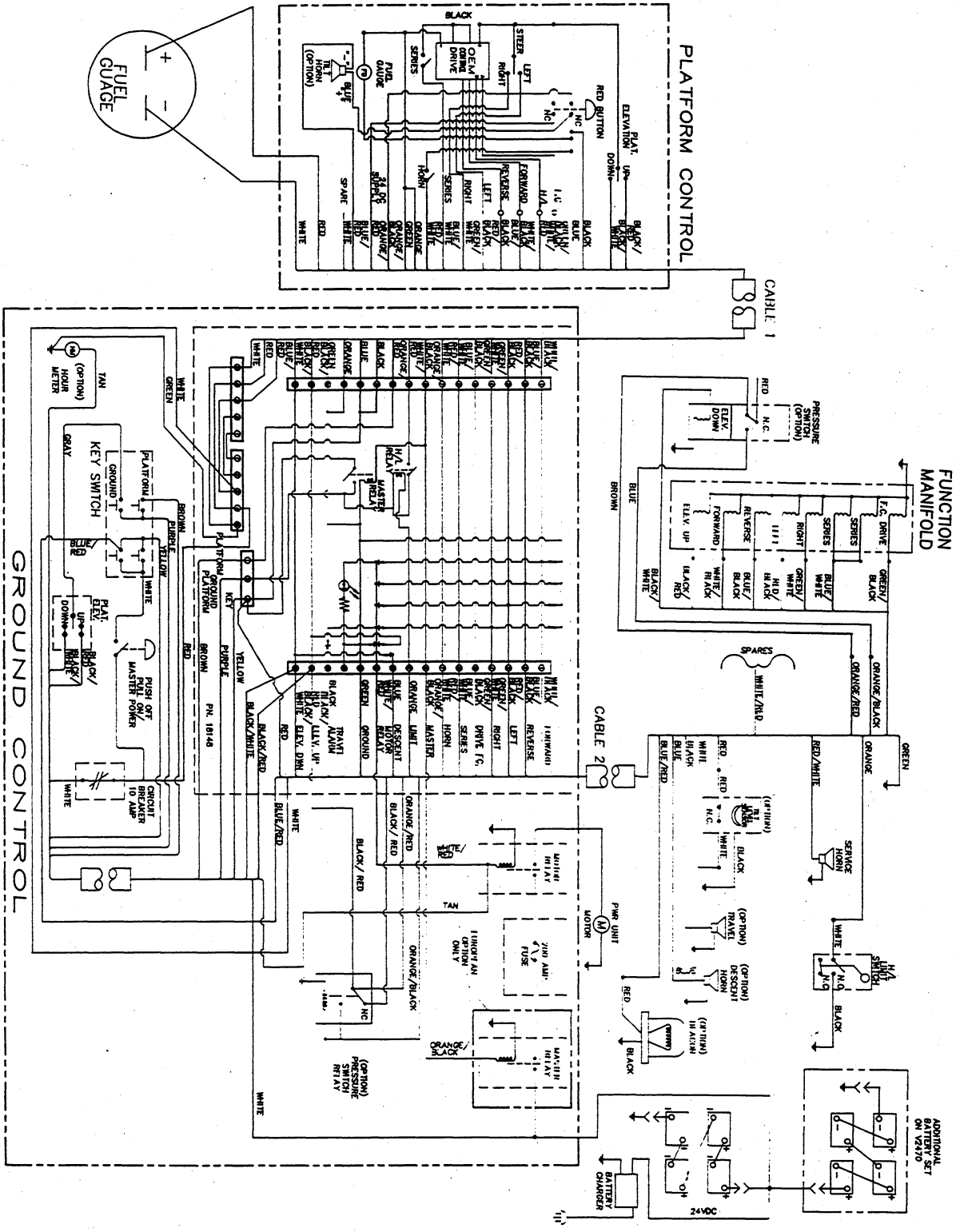


CB1	CONTROL CIRCUIT 10 AMP CIRCUIT BREAKER	GROUND CONTROL STATION
C1	24 VOLT CONTROL CIRCUIT MASTER RELAY	GROUND CONTROL STATION
C2	24 VOLT POWER CIRCUIT MASTER RELAY	GROUND CONTROL STATION
C3	24 VOLT HIGH/LOW SPEED RELAY	GROUND CONTROL STATION
C5	24 VOLT MOTOR START RELAY (EUROPEAN MODELS ONLY)	GROUND CONTROL STATION
C6	24 VOLT LOAD LIMIT RELAY (LOAD LIMIT OPTION ONLY)	GROUND CONTROL STATION
C7	RELAY, TILT ALARM DRIVE	GROUND CONTROL STATION
C8	RELAY, TILT ALARM	GROUND CONTROL STATION
D1	DRIVE FORWARD/REVERSE PROPORTIONAL CONTROL JOYSTICK	PLATFORM CONTROL STATION
FG	FUEL GAUGE/BATTERY CHARGE INDICATOR	PLATFORM CONTROL STATION
FLB	OPERATING MACHINE FLASHING BEACON	CHASSIS
FU1	200 AMP POWER CIRCUIT FUSE	GROUND CONTROL STATION
H1	SERVICE HORN BUTTON AND INDICATOR	PLATFORM CONTROL STATION/CHASSIS
H2	TILT LEVEL INDICATOR	PLATFORM CONTROL STATION
H3	ELEVATE SYSTEM DESCENT INDICATOR	CHASSIS
H4	DRIVE SYSTEM TRAVEL INDICATOR	CHASSIS
HM	HOUR METER	GROUND CONTROL STATION
KS1	KEY SWITCH-SELECT GROUND OR PLATFORM CONTROLS	GROUND CONTROL STATION
LD1	CONTROL CIRCUIT LIGHT EMITTING DIODE	GROUND CONTROL STATION
LS1	DRIVE SPEED LIMIT SWITCH (SHOWN WITH PLATFORM UP)	CHASSIS
LV1	LOW VOLTAGE INTERRUPT SYSTEM (CURTIS)	PLATFORM CONTROL STATION
M1	HYDRAULIC POWER UNIT MOTOR	CHASSIS
P1	POWER ON/OFF BUTTON	GROUND CONTROL STATION
P2	POWER ON/OFF BUTTON	PLATFORM CONTROL STATION
PS	PRESSURE SWITCH (NO) (LOAD LIMIT OPTION ONLY)	LIFT CYLINDER
S1	ELEVATE UP DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S2	ELEVATE DOWN DIRECTIONAL CONTROL SOLENOID	ELEVATE CYLINDER
S3	STEER LEFT DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S4	STEER RIGHT DIRECTONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S5	DRIVE FORWARD DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S6	DRIVE REVERSE DIRECTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
S7	DRIVE SPEED HIGH/LOW CONTROL SOLENOID	HYDRAULIC MANIFOLD
S8	DRIVE PROPORTIONAL CONTROL SOLENOID	HYDRAULIC MANIFOLD
T1-T45	WIRING CONNECTION TERMINALS	GROUND CONTROL STATION
TLS1	TILT LEVEL SENSOR	CHASSIS
TS1	PLATFORM UP/DOWN TOGGLE SWITCH	GROUND CONTROL STATION
TS2	ELEVATE UP/DOWN TOGGLE SWITCH	PLATFORM CONTROL STATION
TS3	STEER LEFT/RIGHT TOGGLE SWITCH	PLATFORM CONTROL STATION
TS4	DRIVE SPEED HIGH/LOW TOGGLE SWITCH	PLATFORM CONTROL STATION

9. Genie V-1832 & V-1854 Wiring Diagram (Nishio)



10. Genie V-1832 & V-1854 Wiring Diagram (Tomei)



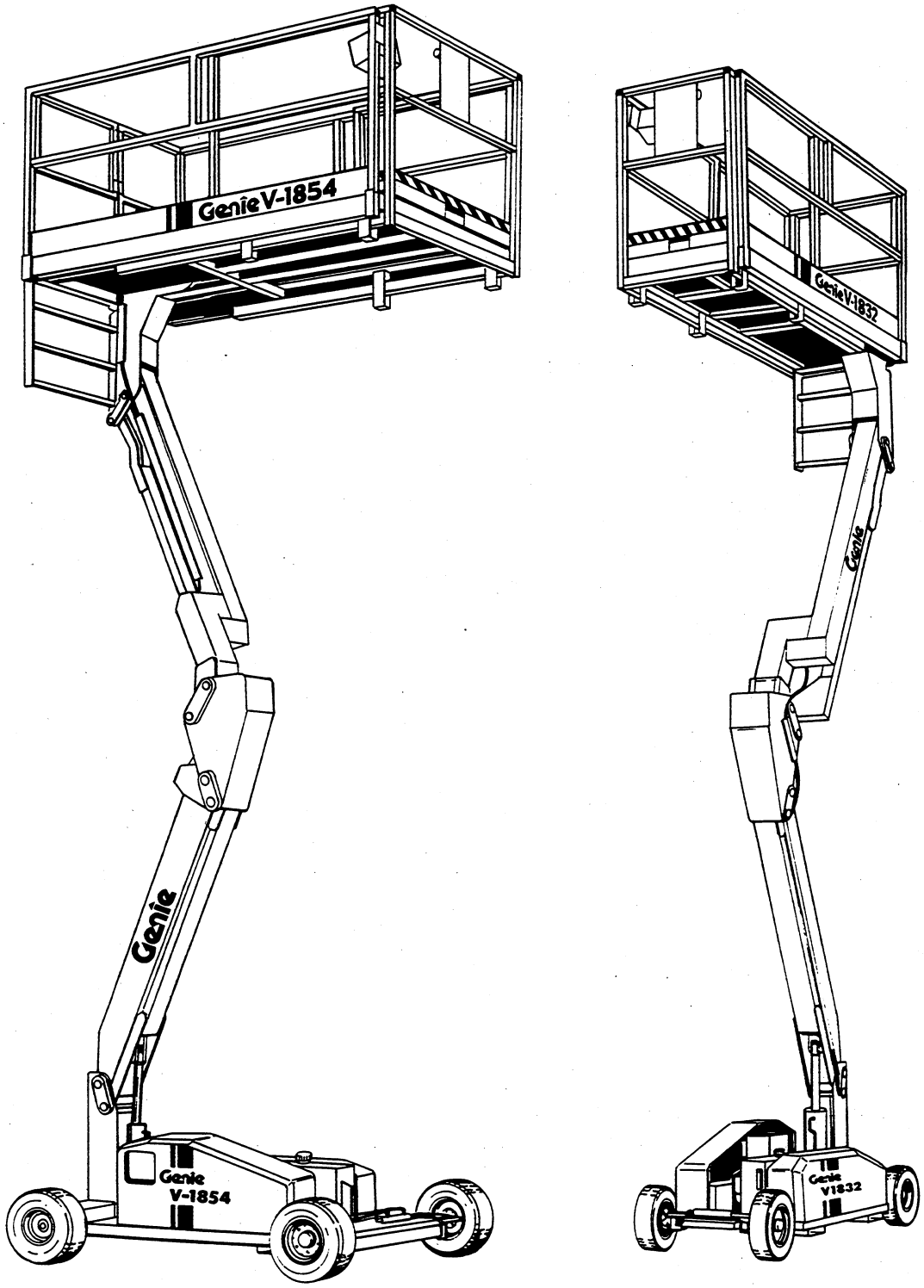
5.3 PARTS REFERENCE GUIDE

Refer to insert on following page for Genie V-1832 and V-1854 Parts Reference guide.

Genie VERTICAL LIFT

Models V-1832 and V-1854

PARTS REFERENCE GUIDE



Genie V-1832 & V-1854 PARTS REFERENCE GUIDE

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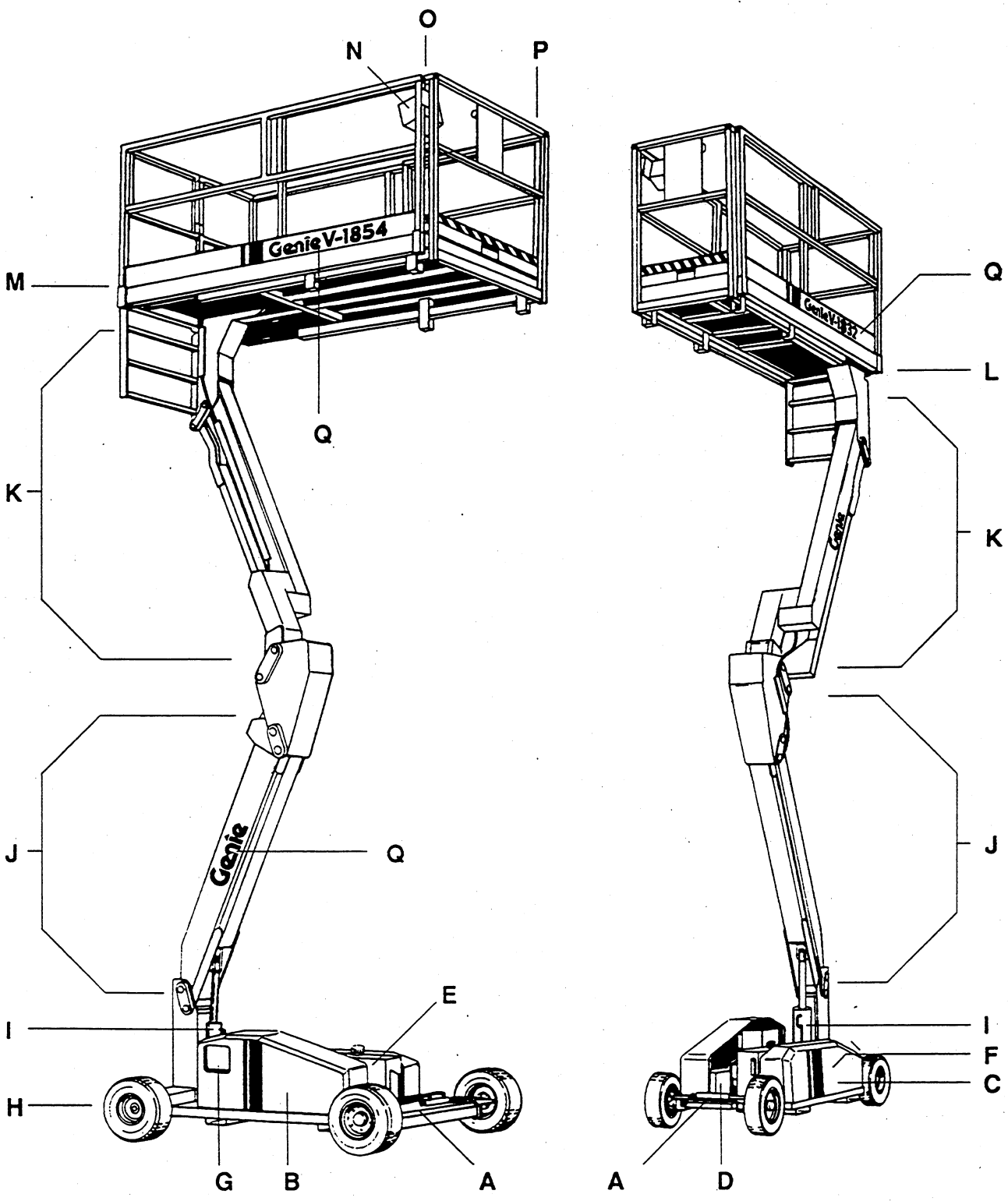

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FORWARD

This parts reference guide contains 17 illustrations with corresponding parts lists, and two appendices. Use the table of contents on page iv, to determine which illustration or appendix will serve you best.

Index Numbering System

An index numbering system is used to correlate drawn parts in each illustration with the appropriate description on the corresponding parts list. This index numbering system is based on the decimal system, so you can quickly identify part groupings. A group of parts marked {3.1, 3.2, 3.3} are all parts that are included in a parent assembly marked (3). Furthermore part numbers {3.1.1, 3.1.2, 3.1.3} would denote parts in parent assembly (3.1). Parts that have an index number designation such as 3.0 (a decimal followed by a zero), are parts that do not belong to a special part grouping.

Item Descriptions

The abbreviations used in many of the item descriptions are spelled out in the Glossary located on the inside of both the front and back cover.

Bulk Items

We have included "Bulk" items in this Parts Reference Guide that are not stocked in pre-cut lengths (abbreviated BK for "Bulk"). To order, call your authorized Genie distributor, specify the Part Number and the length that the item should be cut to.

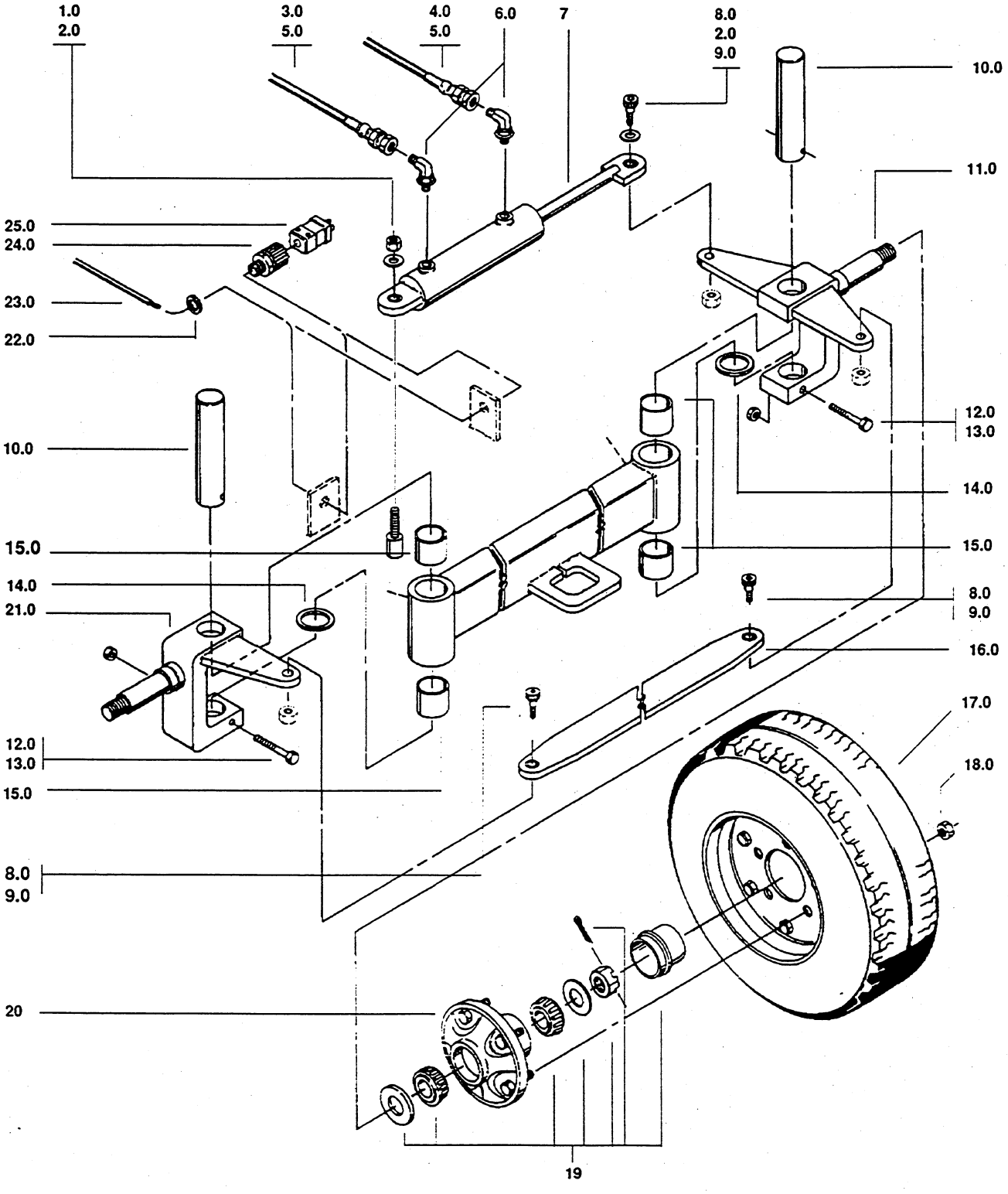
Ordering Parts

To obtain the quickest possible service when ordering replacement parts for your Genie Vertical Lift, be prepared with the following information:

1. Machine Model Number
2. Machine Serial Number
3. Genie Part Number

Now you are ready to contact the authorized Genie distributor in your area. Look for their name, address and telephone number on the back of this publication. If there isn't an authorized Genie distributor in your area, please contact Genie directly. Call toll free, 800-426-8089 (in Washington state (206) 881-1800).

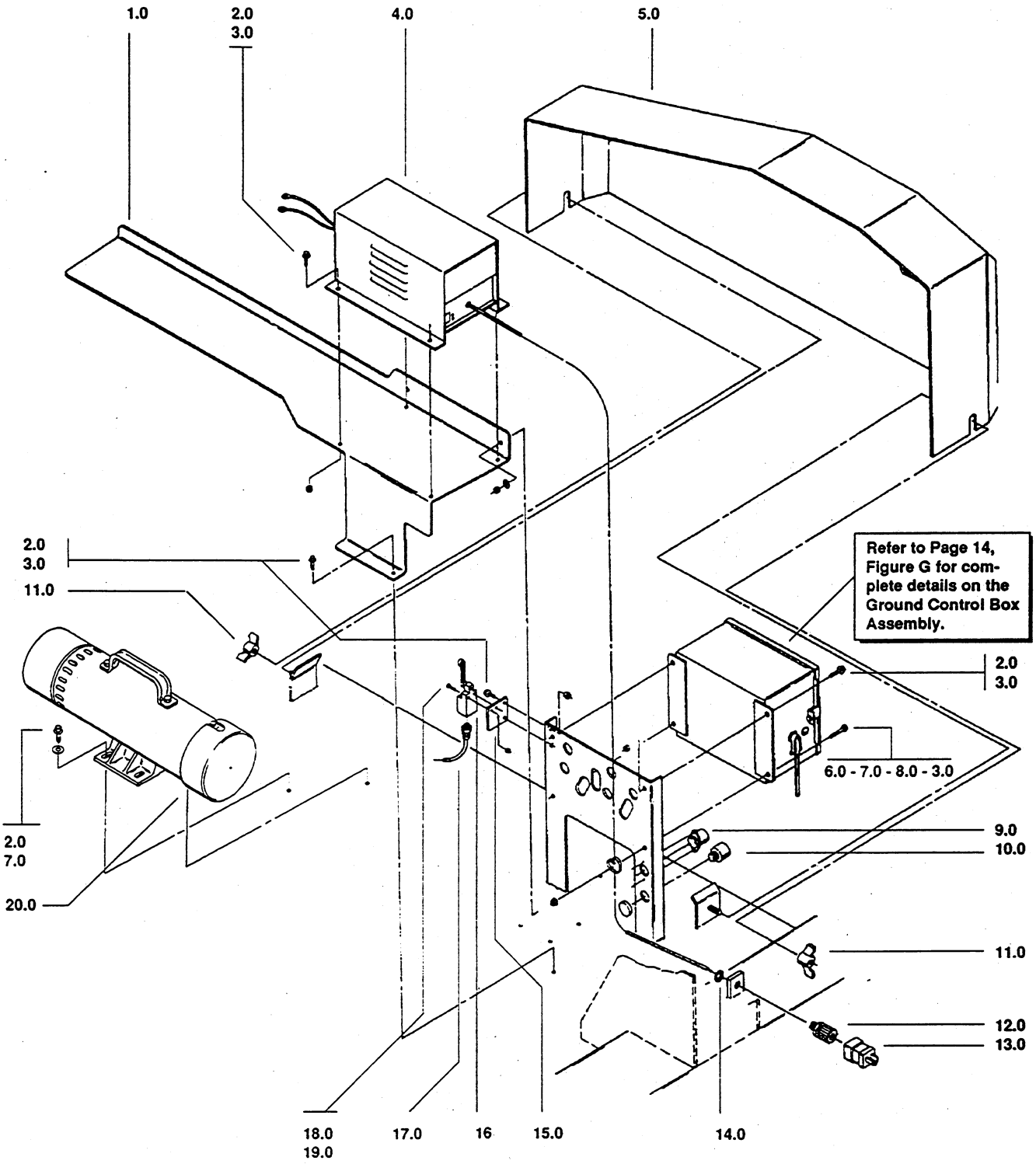
FIGURE: A STEERING ASSEMBLY



STEERING ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
A	1.0	6198	NUT, NYLOCK - .5-13 PLTD	1
A	2.0	13066	WASHER, FLAT - .5 in.	2
A	3.0	18620	HOSE - FNCT MNFLD TO STR CYL 58.5 in. - V-1854	1
A	4.0	18619	HOSE - FNCT MNFLD TO STR CYL 53.5 in. - V-1854	1
A	5.0	18599	HOSE - FNCT MNFLD TO STR CYL - V-1832	2
A	6.0	45355	FITTING, ELBOW - 90 DEG	2
A	7	18142	CYL, HYDR - 1.5 in. BORE x 5 in. STK	1
A	7.1	18927	SEAL KIT - (CYL P/N 18142)	1
A	8.0	11335	BOLT, SHLD - 3/8-16 x .5 in., .5 in. SOC-HEAD	3
A	9.0	7713	NUT, NYLOCK - LOW PROFILE - 3/8-16 PLTD	3
A	10.0	18357	PIN, KING	2
A	11.0	399722	YOKE WELDMENT - LH	1
A	12.0	8178	BOLT - 3/8-16 x 2.5 in. HHCS PLTD GR-5	2
A	13.0	4828	NUT, NYLOCK - 3/8-16 PLTD	2
A	14.0	18382	BEARING - THRUST 1.5 x 2 x .125 in.	2
A	15.0	45072	BEARING - 1.5 in. ID x 1.5 in. LONG	4
A	16.0	18378P	TIE ROD - PNTD - V-1832	1
A	16.0	18377P	TIE ROD - PNTD - V-1854	1
A	17.0	925321	TIRE & WHEEL ASSY - 4 x 8 x 3.75 RIM - STANDARD	2
A	17.0	924984	TIRE & WHEEL ASSY - (FOAM FILLED OPTION) - V-1854	2
A		18367P	ADAPTER, WHEEL - PNTD - (FF OPTION)	2
A		18555	STUD, WHEEL - .5-20 x 1.31 LONG - (FF OPTION)	10
A		46717	NUT, LUG - (FF OPTION)	10
A	18.0	13047	NUT, LUG - .5 (82 DEG x .562 RHT) - STANDARD	10
A	19	18928	HUB, SEAL & BEARING KIT	2
A	19.1	927627	CAP, DUST	1
A	19.2		NUT, SLOTTED	1
A	19.3		PIN, COTTER	1
A	19.4		WASHER, FLAT	1
A	19.5		BEARING, CONE	2
A	19.6		SEAL, GREASE	1
A	20	925054	HUB - (NOT INCLUDED WITH KIT P/N 18928)	2
A	20.1	20486	STUD, FRONT WHEEL	5
A	21.0	399723	YOKE WELDMENT - RH	1
A	22.0	6935	NUT, LOCK - ELECTRIC .5 in.	1
A	23.0	6993	CORD, ELEC SJO 14-3 - (BK ITEM - ORDER 432 in.)	
A	24.0	7056	CONNECTOR (SQUEEZE), CABLE - SMALL	1
A	25.0	6595	PLUG, ELECTRICAL - DOMESTIC	1
A	25.0	12153	PLUG - 16 AMP, 3 PIN - (U.K.)	1

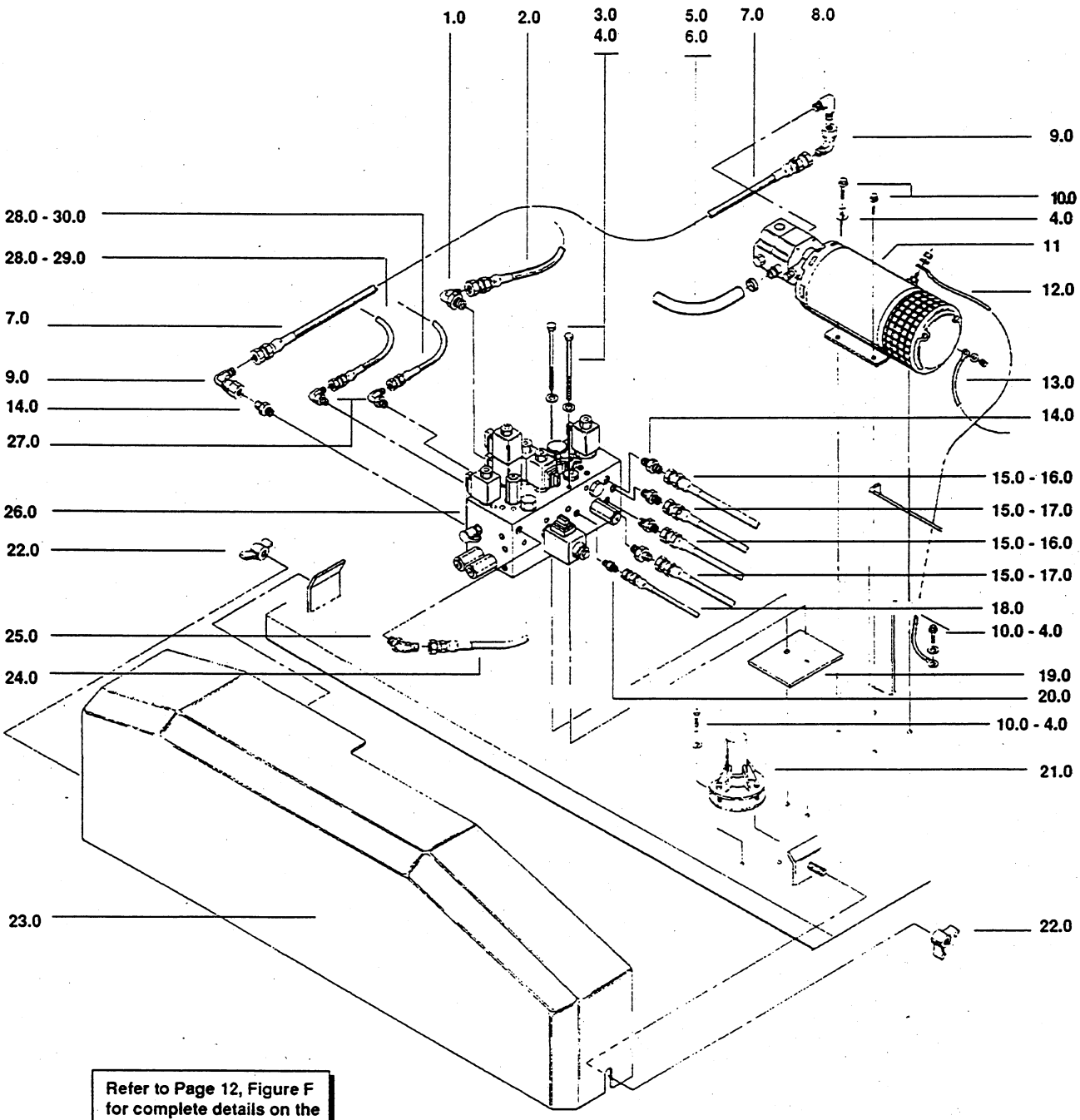
FIGURE: B BASE ASSEMBLY - RIGHT SIDE



BASE ASSEMBLY - RIGHT SIDE Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
B	1.0	18569P	COVER, HYDR POWER UNIT - PNTD	1
B	2.0	18507	SCREW - LG FLNG LKNG HEAD .25-20 X .75 in.	10
B	3.0	6091	NUT, NYLOCK - .25-20 PLTD	11
B	4	**23136**	CHARGER - 24V DC, 40 AMP, 110V AC - STANDARD	1
B	4	**23206**	CHARGER - 24V DC, 40 AMP, 100V-50HZ	1
B	4	**23206**	CHARGER - 24V DC, 40 AMP, 220V-50HZ	1
B	4	**23136**	CHARGER - 24V DC, 40 AMP, 100V-60HZ	1
B	4.1	20487	DIODE ASSY - (ALL BATTERY CHARGERS)	1
B	4.2	20488	CAPACITOR - (ALL BATTERY CHARGERS)	1
B	4.3	20489	PRINTED CIRCUIT BOARD - (ALL BATTERY CHARGERS)	1
B	5.0	19337	CHASSIS COVER ASSY - RS W/ DECALS - V-1832	1
B	5.0	19338	CHASSIS COVER ASSY - RS W/ DECALS - V-1854	1
B	6.0	6888	BOLT - .25-20 x 1 in. HHCS PLTD GR-5	1
B	7.0	18504	NUT, LOCK - LG FLANGE .25-20	1
B	8.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	3
B	9.0	45462	ALARM, DESCENT - CHIME BELL - (OPTION)	1
B	10.0	18963	ALARM, TRAVEL - 24V DC INTERMITTENT TONE - (OPTION)	1
B	11.0	14634	NUT, WING - .5-13 INJECT MOLDED	2
B	12.0	7056	CONNECTOR (SQUEEZE), CABLE - SMALL	1
B	13.0	6595	PLUG, ELECTRICAL - DOMESTIC	1
B	14.0	6935	NUT, LOCK - ELECTRIC .5 in.	1
B	15.0	18725	LIMIT SWITCH PLATE MOUNT	1
B	16	18715	LIMIT SWITCH	1
B	16.1	19344	LIMIT SWITCH ARM	1
B	16.2	19491	CONTACT - (LIMIT SWITCH P/N 18715)	1
B	17.0	1505	CORD, ELEC SJO 16-2 - (BK ITEM - ORDER 48 in.)	
B	18.0	6179	SCREW - 10-32 x 1.25 in. RHMS PLTD	2
B	19.0	6178	NUT, NYLOCK - 10-32 PLTD	2
B	20.0	18668	INVERTER - 24V DC, 120V AC, 60HZ (OPTION)	1

FIGURE: C BASE ASSEMBLY - LEFT SIDE

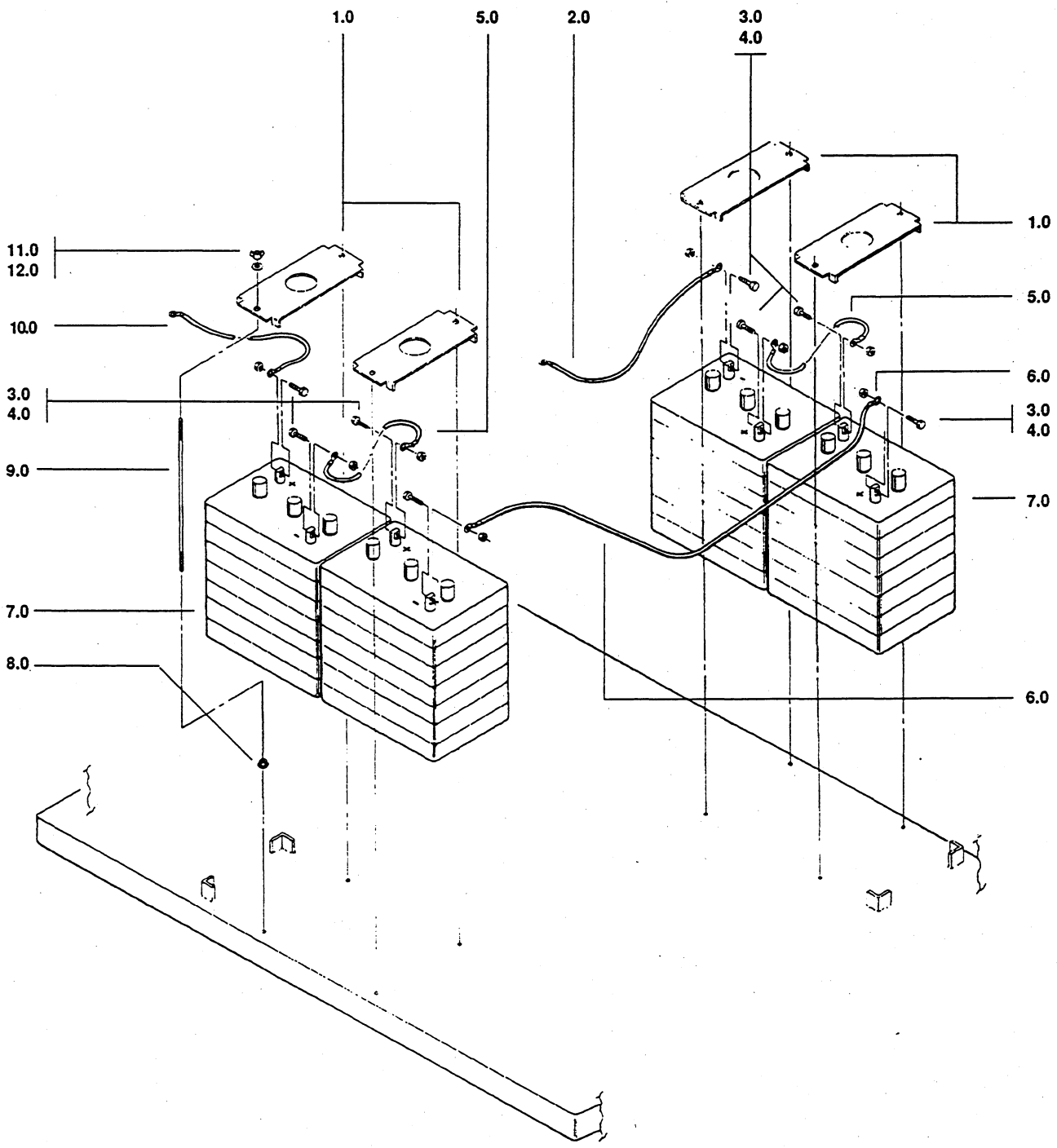


Refer to Page 12, Figure F for complete details on the Manifold Assembly.

BASE ASSEMBLY - LEFT SIDE Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
C	1.0	45349	FITTING, ELBOW - 45 DEG	1
C	2.0	18603	HOSE - FNCT MNFLD TO HYDR RSVR	1
C	3.0	10744	BOLT - .25-20 x 5 in. HHCS PLTD GR-5	2
C	4.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	3
C	5.0	1701	HOSE - (BK ITEM - ORDER 9.5 in.)	
C	6.0	45171	CLAMP, HOSE	1
C	7.0	18603	HOSE - HYDR PWR UNIT TO FNCT MNFLD	1
C	7.0	20841	HOSE - HYDR PWR UNIT TO FNCT MNFLD - W/ 90 DEG	1
C	8.0	45357	FITTING, ELBOW - 90 DEG	1
C	9.0	45702	FITTING, ELBOW - 90 DEG	2
C	10.0	18507	SCREW - LG FLNG LKNG HEAD .25-20 X .75 in.	4
C	11	18146	POWER UNIT, HYDRAULIC - 24V DC	1
C	11.1	18814	MOTOR, 24V DC - (HYDR PWR UNIT P/N 18146)	1
C	11.1.1	**22829**	BRUSH SET (8 PCS) - (MOTOR P/N 18814)	1
C	11.1.2	19455	SPRING SET (8 PCS) - (MOTOR P/N 18814)	1
C	11.2	18815	PUMP, HYDR - (HYDR PWR UNIT P/N 18146)	1
C	11.2.1	**19151**	SEAL KIT - (PUMP P/N 18815)	1
C	11.2.2	19457	VALVE, UNLOADER - (PUMP P/N 18815)	1
C	11.2.3	19458	VALVE, CHECK - (PUMP P/N 18815)	1
C	12.0	18625	CABLE - PUMP MOTOR TO GROUND	1
C	13.0	19242	CABLE, RELAY TO PUMP MOTOR & BATTERY TO FUSE 24in.	1
C	14.0	18687	FITTING, ADAPTER - ST	5
C	15.0	18598	HOSE - FNCT MNFLD TO DRIVE MOTOR - V-1832	4
C	16.0	18733	HOSE - FNCT MNFLD TO L DRIVE MOTOR - V-1854	2
C	17.0	18618	HOSE - FNCT MNFLD TO R DRIVE MOTOR - V-1854	2
C	18.0	18600	HOSE - FNCT MNFLD TO DRIVE BRAKE "T" FITTING	1
C	19.0	19265	PAD - MANIFOLD MOUNT	1
C	20.0	13755	FITTING, CONNECTOR - ST	2
C	21.0	45136	LEVEL SENSOR	1
C	22.0	14634	NUT, WING - .5-13 INJECT MOLDED	2
C	23.0	19336	CHASSIS COVER ASSY - LS W/ DECALS V-1832	1
C	23.0	19339	CHASSIS COVER ASSY - LS W/ DECALS V-1854	1
C	24.0	18601	HOSE - FNCT MNFLD TO LIFT CYL	1
C	25.0	45411	FITTING, ELBOW - 45 DEG	1
C	26.0	18140	MANIFOLD ASSEMBLY, MAIN COMPLETE	1
C	27.0	45355	FITTING, ELBOW - 90 DEG	2
C	28.0	18599	HOSE - FNCT MNFLD TO STR CYL - V-1832	2
C	29.0	18620	HOSE - FNCT MNFLD TO STR CYL 58.5 in. - V-1854	1
C	30.0	18619	HOSE - FNCT MNFLD TO STR CYL 53.5 in. - V-1854	1

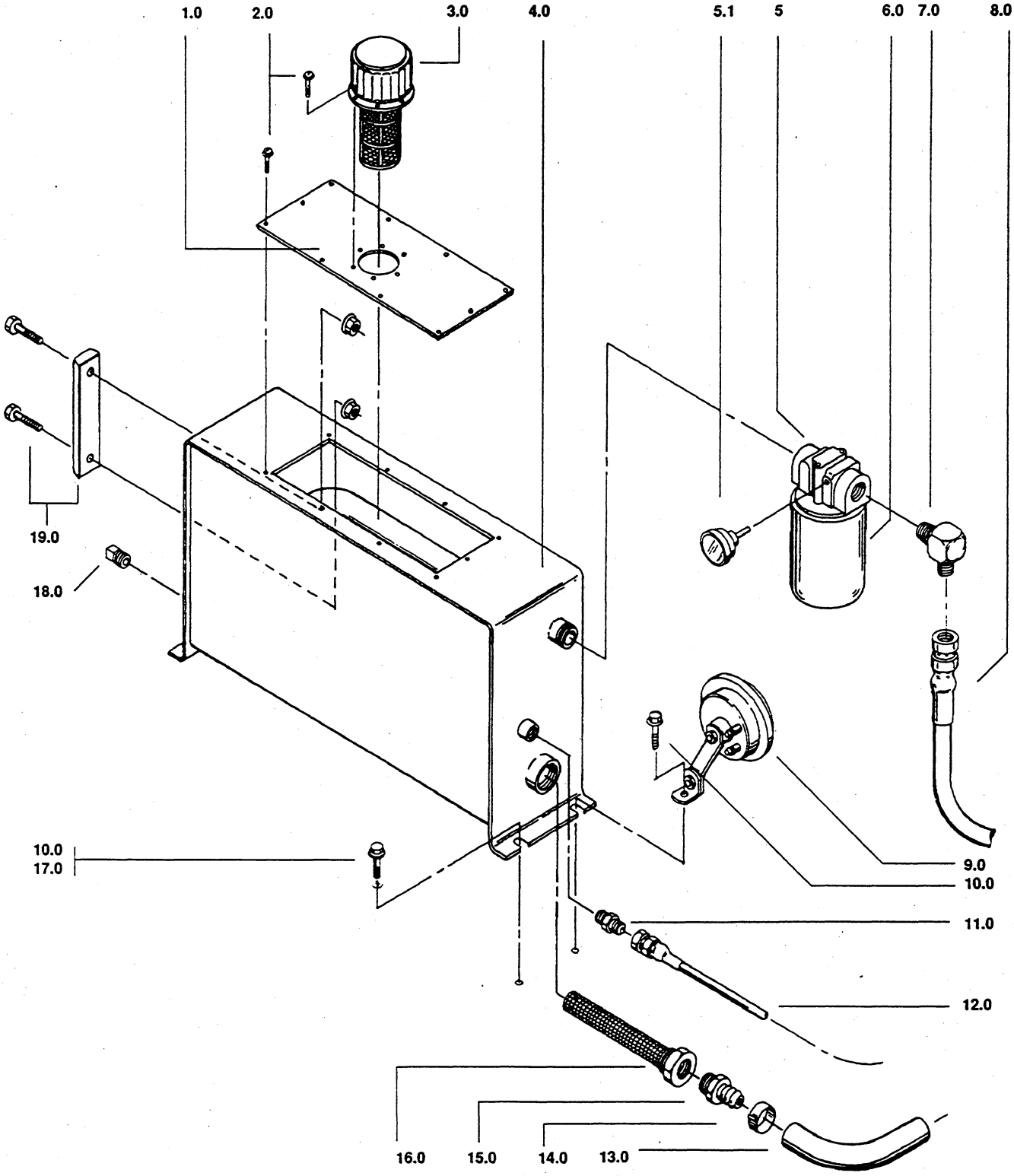
FIGURE: D BATTERY ASSEMBLY



BATTERY ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
D	1.0	18386P	BRACKET, BATTERY HOLD DOWN - PNTD	4
D	2.0	18626	CABLE ASSY, BATTERY - 21.25 in.	1
D	3.0	13002	BOLT - 5/16-18 x 1 in. HHCS PLTD GR-5	8
D	4.0	6037	NUT, HEX - 5/16-18 PLTD	8
D	5.0	18623	CABLE ASSY, BATTERY - 6.25 in.	2
D	6.0	18627	CABLE ASSY, BATTERY - 42 in.	1
D	7.0	15916	BATTERY - 255 AMP HR W/SPILL PRF CAPS	4
D	7.0	18494	BATTERY - SEALED - 6V DC - 220 AMP HR - (OPTION)	4
D	8.0	18504	NUT, LOCK - LG FLANGE .25-20	8
D	9.0	18385	THREADED ROD - .25-20 x 12 in.	8
D	10.0	18625	CABLE ASSY, BATTERY - 14 in.	1
D	11.0	8170	NUT, WING - .25-20 PLTD	8
D	12.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	8

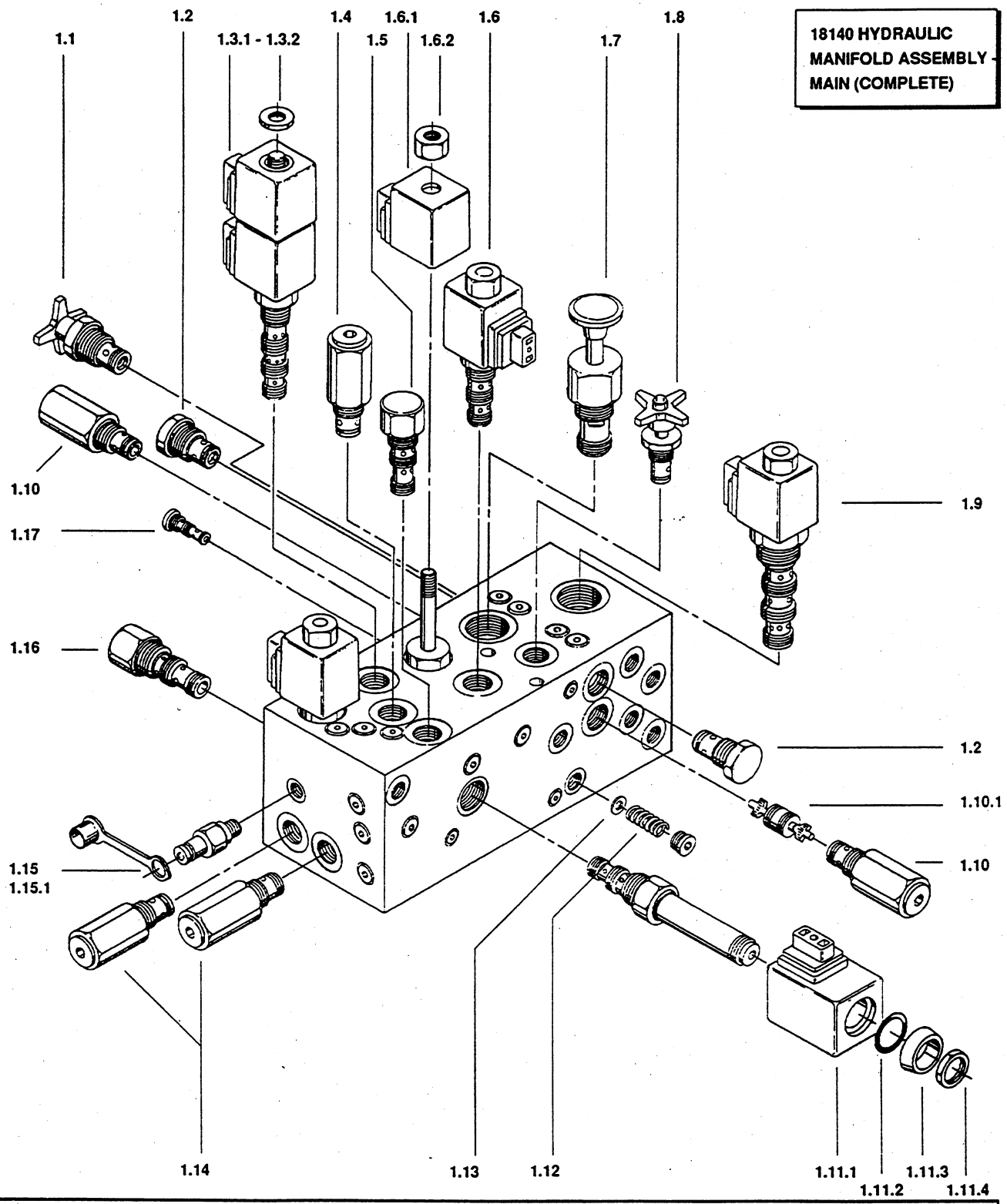
FIGURE: E RESERVOIR ASSEMBLY



RESERVOIR ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
E	1.0	27935P	COVER, HYDRAULIC RESERVOIR - PNTD	1
E	2.0	45183	SCREW, SELF-TAP SL-HX-HEAD - 10-32 x .375 in.	16
E	3.0	45157	CAP, FILLER AND BREATHER	1
E	4.0	27935P	RESERVOIR, HYDRAULIC - PNTD	1
E	5	19538	FILTER HEAD - W/ INDICATOR	1
E	5.1	45764	INDICATOR, PSI	1
E	6.0	45087	FILTER, RETURN - 10 MICRON	1
E	7.0	45169	FITTING, ELBOW - 90 DEG	1
E	8.0	18603	HOSE - FNCT MNFLD TO HYDR RSVR	1
E	9.0	45212	HORN KIT - 24V DC	1
E	10.0	18507	SCREW - LG FLNG LKNG HEAD .25-20 X .75 in.	2
E	11.0	19504	FITTING, ADAPTER - ST	1
E	12.0	18602	HOSE - LIFT CYL TO HYDR RESERVOIR	1
E	13.0	1701	HOSE - (BK ITEM - ORDER 9.5 in.)	
E	14.0	45171	CLAMP, HOSE	1
E	15.0	45167	FITTING, COUPLER - ST BARBED	1
E	16.0	45162	STRAINER	1
E	17.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	1
E	18.0	6974	FITTING, PIPE PLUG	1
E	19.0	45158	INDICATOR, FLUID LEVEL - W/THERM	1

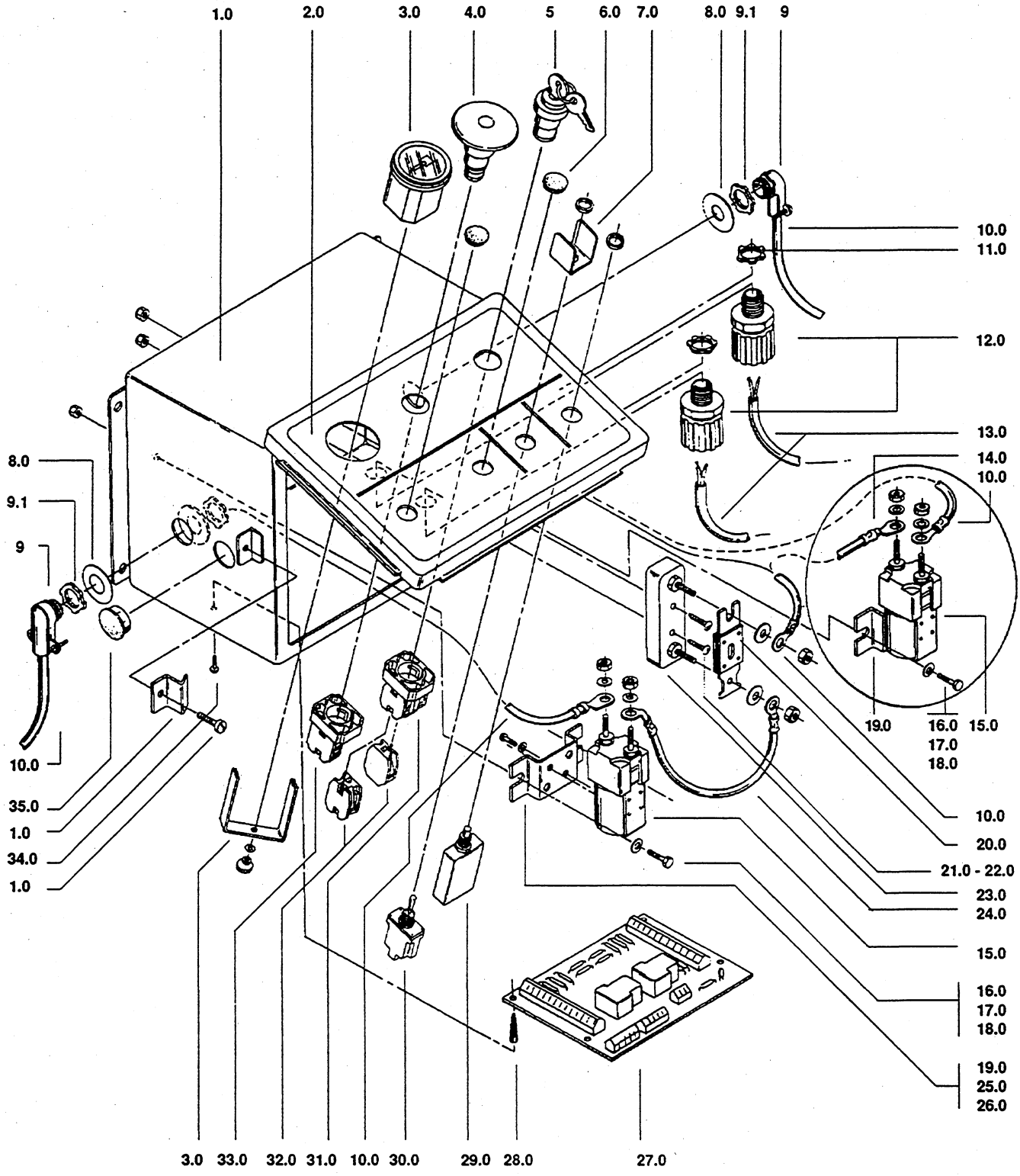
FIGURE: F MANIFOLD ASSEMBLY



MANIFOLD ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
F	1	18140	MANIFOLD ASSEMBLY, HYDRAULIC - MAIN COMPLETE	1
F	1.1	18918	VALVE, NEEDLE	1
F	1.2	45481	VALVE, CHECK	2
F	1.3	18914	VALVE, SOLENOID - 3-PSN 4 WAY	1
F	1.3.1	45911	COIL - 20V DC - (SOLENOID P/N 18914)	2
F	1.3.2	19792	NUT - (SOLENOID P/N 18914)	1
F	1.4	45485	VALVE, RELIEF - 750 PSI	1
F	1.5	18912	VALVE, FLOW REGULATOR	1
F	1.6	45490	VALVE, SOLENOID - 2 PSN 3 WAY	3
F	1.6.1	45911	COIL - 20V DC - (SOLENOID P/N 45490)	1
F	1.6.2	45912	NUT - (SOLENOID P/N 45490)	3
F	1.7	19345	HAND PUMP	1
F	1.8	18919	VALVE, NEEDLE	1
F	1.9	18913	VALVE, SOLENOID - 2-PSN 4 WAY	1
F	1.9.1	45911	COIL - 20V DC - (SOLENOID P/N 18913)	1
F	1.9.2	45912	NUT - (SOLENOID P/N 18913)	1
F	1.10	18910	VALVE, RELIEF - 1500 PSI	2
F	1.10.1	19540	PISTON - (RELIEF VALVE)	2
F	1.11	18916	VALVE, SOLENOID - N-C PROPORTIONAL	1
F	1.11.1	45919	COIL - 24V DC - (N-C PROPRT SOLENOID P/N 18916)	1
F	1.11.2	45920	O-RING - (N-C PROPRT SOLENOID P/N 18916)	1
F	1.11.3	45921	SPACER - (N-C PROPRT SOLENOID P/N 18916)	1
F	1.11.4	45922	NUT - (N-C PROPRT SOLENOID P/N 18916)	1
F	1.12	18920	SPRING - (ORIFICE)	1
F	1.13	18921	ORIFICE	1
F	1.14	18911	VALVE, RELIEF - 3000 PSI	2
F	1.15	45642	DIAGNOSTIC NIPPLE	1
F	1.15.1	45643	CAP, DIAGNOSTIC NIPPLE	1
F	1.16	18917	VALVE, DIFFERENTIAL SENSING	1
F	1.17	45483	VALVE, MINI SHUTTLE	1

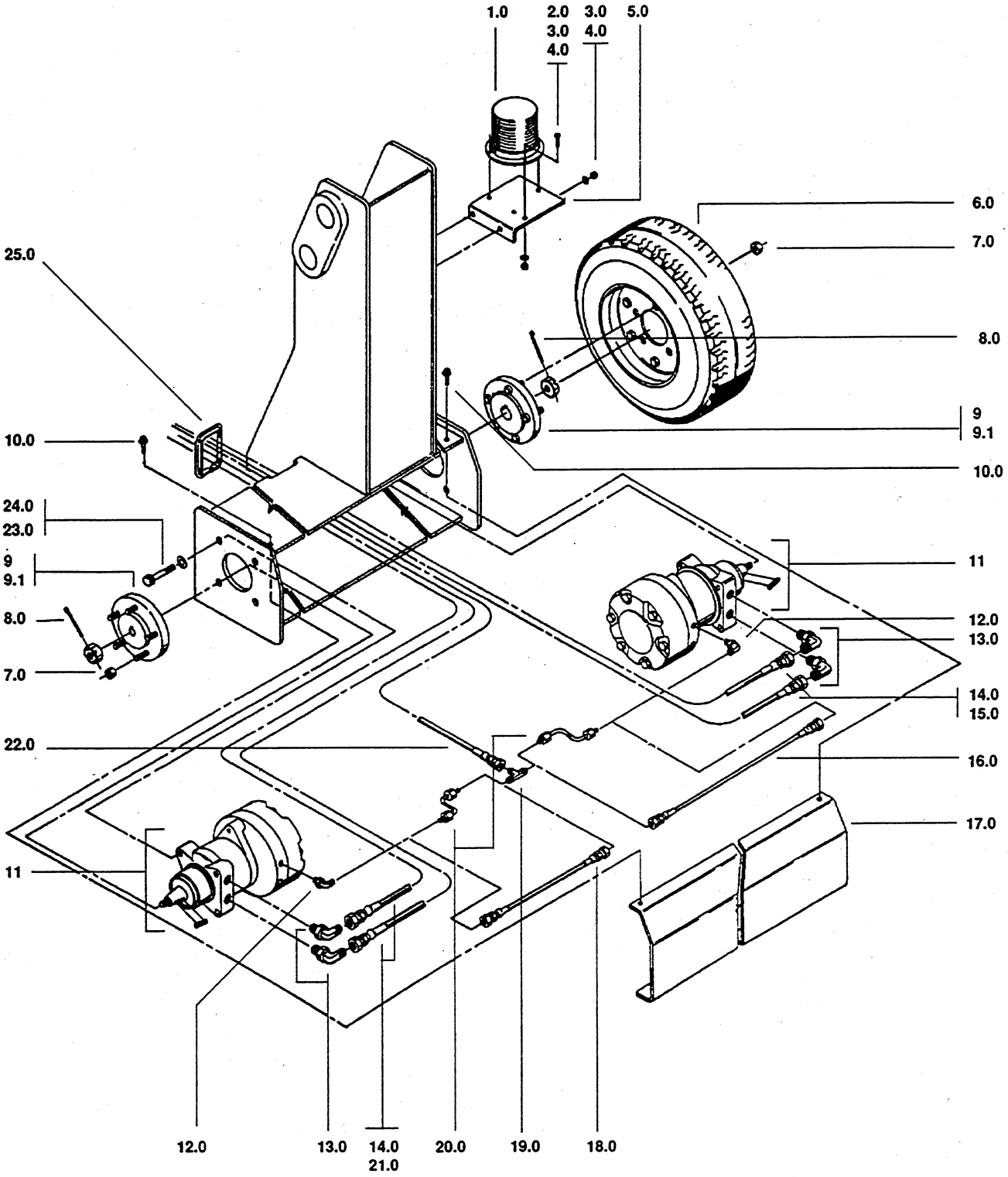
FIGURE: G GROUND CONTROL ASSEMBLY



GROUND CONTROL ASSEMBLY Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
G	1.0	24471P	CONTROL BOX - GROUND	1
G	2.0	18533	DECAL - GROUND CONTROL BOX	1
G	3.0	13687	HOUR METER - 24V DC - (OPTION)	1
G	4.0	45078	SWITCH, STOP - PUSH BUTTON	1
G	5	33574	SWITCH, KEY - GRND STATION	1
G	5.1	21982	KEY	1
G	6.0	45384	PLUG - .5 in. DIA BLACK	2
G	7.0	45105	SWITCH GUARD, TOGGLE - ZINC	4
G	8.0	11855	WASHER, SHIM SSTL - .825 X 1.25 X .015 in.	2
G	9	14539	CONNECTOR - .5 in. GRND 90 DEG SMALL	2
G	9.1	6935	NUT, LOCK - ELECTRIC .5 in.	2
G	10.0	19242	CABLE, RELAY TO PUMP MOTOR & BATTERY TO FUSE 24 in	2
G	11.0	14041	NUT, LOCK - ELECTRIC - 3/4 in.	2
G	12.0	12960	CONNECTOR (SQUEEZE), CABLE - XTRA-LARGE	2
G	13.0	1635	WIRE CABLE, #18 GA/19 COND - (BK ITEM - ORDER 61in. OR 420 in.)	
G	14.0	19243	CABLE, RELAY TO FUSE (2nd RELAY OPTION) 2.5 in.	1
G	15.0	19549	RELAY - 24V DC, 80 AMP NOMINAL	1
G	16.0	6090	BOLT - .25-20 x .75 in. HHCS PLTD GR-5	4
G	17.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	2
G	18.0	6091	NUT, NYLOCK - .25-20 PLTD	4
G	19.0	19815	BRACKET - CONTACTOR MOUNT	1
G	20.0	18576	FUSE - 200 AMP	1
G	21.0	6873	SCREW - 10-32 x 1 in. FHMS PLTD	2
G	22.0	6178	NUT, NYLOCK - 10-32 PLTD	2
G	23.0	13105	FUSE HOLDER	1
G	24.0	19839	CABLE, FUSE TO RELAY - 6.5 in.	1
G	25.0	19816	SCREW - 4 x 0.7 x 7 mm RHMS	2
G	26.0	19817	WASHER, LOCK - SPLIT HELICAL	2
G	27.0	18148	CIRCUIT BOARD	1
G	28.0	45409	STAND-OFF	4
G	29.0	375785	CIRCUIT BREAKER - 10 AMP	1
G	30.0	13037	SWITCH, TOGGLE - SPDT MOMENTARY	3
G	31.0	45084	CONTACT - 2 N-O W/BASE	1
G	32.0	45081	CONTACT - N-O	2
G	33.0	45083	CONTACT - N-C W/BASE	1
G	34.0	10153	SCREW, SELF-TAP PAN HEAD - 6 x .375 in.	4
G	35.0	15243	PLUG, CAP - NYLON - .787, BLACK	2

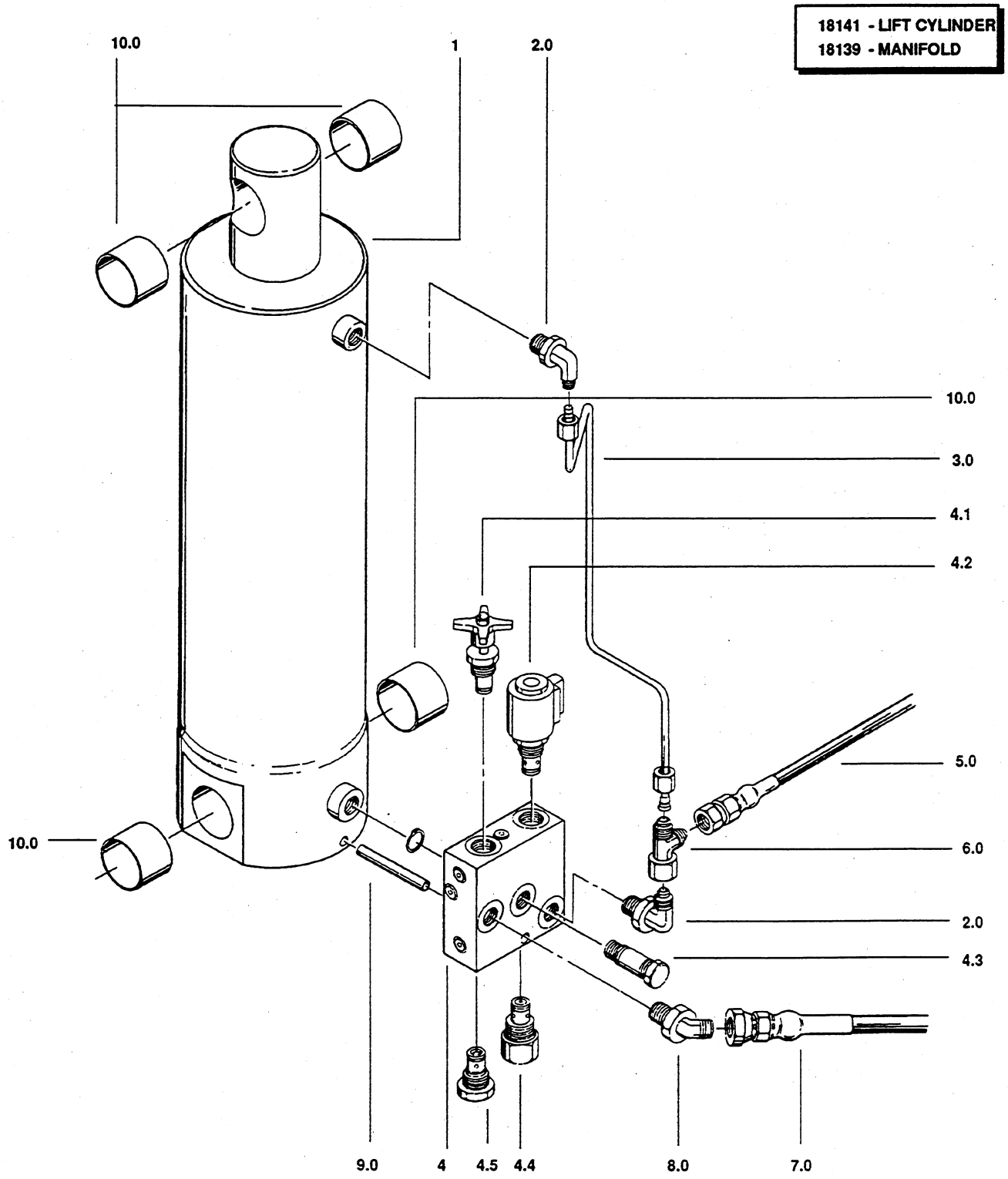
FIGURE: H DRIVE ASSEMBLY



DRIVE ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
H	1.0	**20189**	BEACON - FLASHING - 24V DC, AMBER - (OPTION)	1
H	2.0	18507	SCREW - LG FLNG LKNG HEAD .25-20 X .75 in.	3
H	3.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	5
H	4.0	6091	NUT, NYLOCK - .25-20 PLTD	5
H	5.0	18729P	BRACKET - BEACON MOUNT - PNTD	1
H	6.0	925321	TIRE & WHEEL ASSY - 4 x 8 x 3.75 RIM - STANDARD	2
H	6.0	924984	TIRE & WHEEL ASSY - (FOAM FILLED OPTION) - V-1854	2
H		18367P	ADAPTER, WHEEL - PNTD - (FF OPTION)	2
H		18555	STUD, WHEEL - .5-20 x 1.31 LONG - (FF OPTION)	10
H		**22968**	NUT, LUG - (FF OPTION)	10
H	7.0	13047	NUT, LUG - .5 (82 DEG x .562 RHT) - STANDARD	10
H	8.0	5361	PIN, COTTER - .125 x 1.5 in. PLTD	2
H	9	18365P	HUB, REAR WHEEL - PNTD	2
H	9.1	18526	STUD, REAR WHEEL	5
H	10.0	18506	SCREW - LG FLNG LKNG HEAD 5/16-18 x .75 in.	4
H	11	18145P	WHEEL DRIVE MOTOR & DRIVE BRAKE ASSY - PNTD	2
H	11.1	19452	WHEEL DRIVE MOTOR	1
H	11.1.1	19453	SEAL KIT - (MOTOR P/N 19452)	2
H	11.2	19451	WHEEL DRIVE BRAKE	2
H	11.2.1	**20485**	O-RING KIT - (BRAKE P/N 19451)	1
H	11.2.2	20484	STACK KIT - (BRAKE P/N 19451)	1
H	11.2.3	**20483**	GASKET KIT - (BRAKE P/N 19451)	1
H	11.3		KEY - 5/16 x 1 in.	2
H	12.0	45355	FITTING, ELBOW - 90 DEG	2
H	13.0	45354	FITTING, ELBOW - 90 DEG	4
H	14.0	18598	HOSE - FNCT MNFLD TO DRIVE MOTOR - V-1832	4
H	15.0	18618	HOSE - FNCT MNFLD TO R DRIVE MOTOR - V-1854	2
H	16.0	18621	HOSE - BRAKE "T" TO R DRIVE BRAKE 15.5 in.- V-1854	1
H	17.0	18376P	COVER, DRIVE AXLE - PNTD - V-1832	1
H	17.0	18375P	COVER, DRIVE AXLE - PNTD - V-1854	1
H	18.0	18622	HOSE - BRAKE "T" TO L DRIVE BRAKE 10.5 in.- V-1854	1
H	19.0	8342	FITTING, UNION "T" - MALE ST	1
H	20.0	18547	TUBE, BRAKE LINE "T" TO DRIVE BRAKES - V-1832	2
H	21.0	18733	HOSE - FNCT MNFLD TO L DRIVE MOTOR - V-1854	2
H	22.0	18600	HOSE - FNCT MNFLD TO DRIVE BRAKE "T" FITTING	1
H	23.0	45066	SCREW, SOC-HEAD CAP - 5/8-11 x 2.25 in.	8
H	24.0	13064	WASHER, FLAT - 5/8 in.	8
H	25.0	1698	TRIM, EDGE - (BK ITEM - ORDER 17.8 in.)	

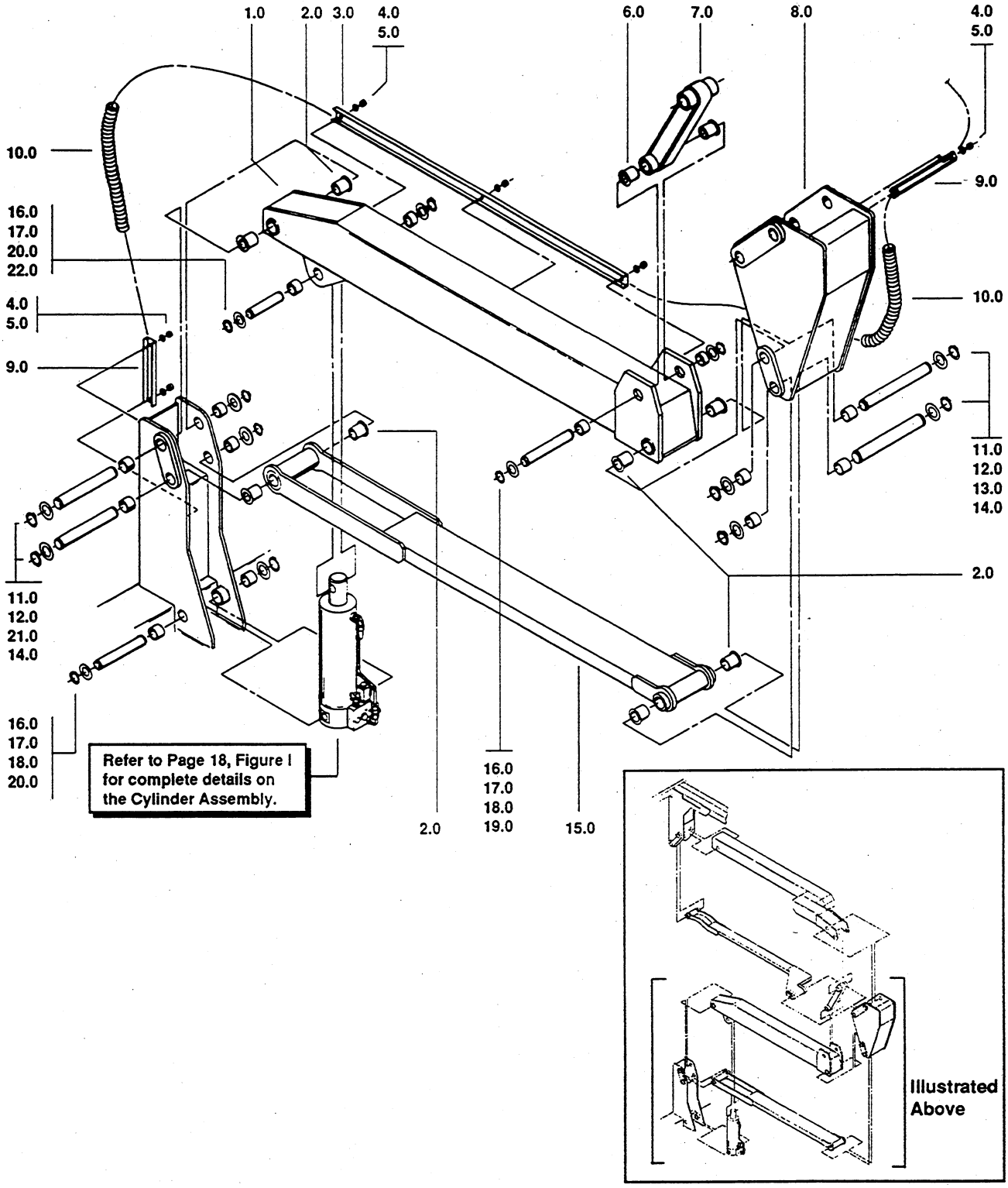
FIGURE: I LIFT CYLINDER ASSEMBLY



LIFT CYLINDER ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
I	1	18141	CYL, HYDR - 4.5 in. BORE x 12.5 in. STK	1
I	1.1	19351	SEAL KIT - (CYL P/N 18141)	1
I	2.0	12340	FITTING, ELBOW - 90 DEG	2
I	3.0	18582	TUBE, LIFT RETURN	1
I	4	18139	MANIFOLD, HYDRAULIC - LIFT CYL	1
I	4.1	45651	VALVE, NEEDLE	1
I	4.2	45544	VALVE, SOLENOID - N-C	1
I	4.2.1	19253	COIL - 20V DC - (SOLENOID P/N 45544)	1
I	4.2.2	19792	NUT - (SOLENOID P/N 45544)	1
I	4.3	19652	BOLT, BANJO - W/ O-RINGS - (CYL MNFLD P/N 18139)	1
I	4.4	19470	VALVE, FLOW REGULATOR	1
I	4.5	45543	VALVE, CHECK	1
I	5.0	18602	HOSE - LIFT CYL TO HYDR RESERVOIR	1
I	6.0	13757	FITTING, "T" - SWIVEL RUN	1
I	7.0	18601	HOSE - FNCT MNFLD TO LIFT CYL	1
I	8.0	45411	FITTING, ELBOW - 45 DEG	1
I	9.0	18617	PIN, ROLL - 5/16 x 2.5 in.	1
I	10.0	18240	BEARING - 1.5 in. ID x 1.25 in. LONG	4

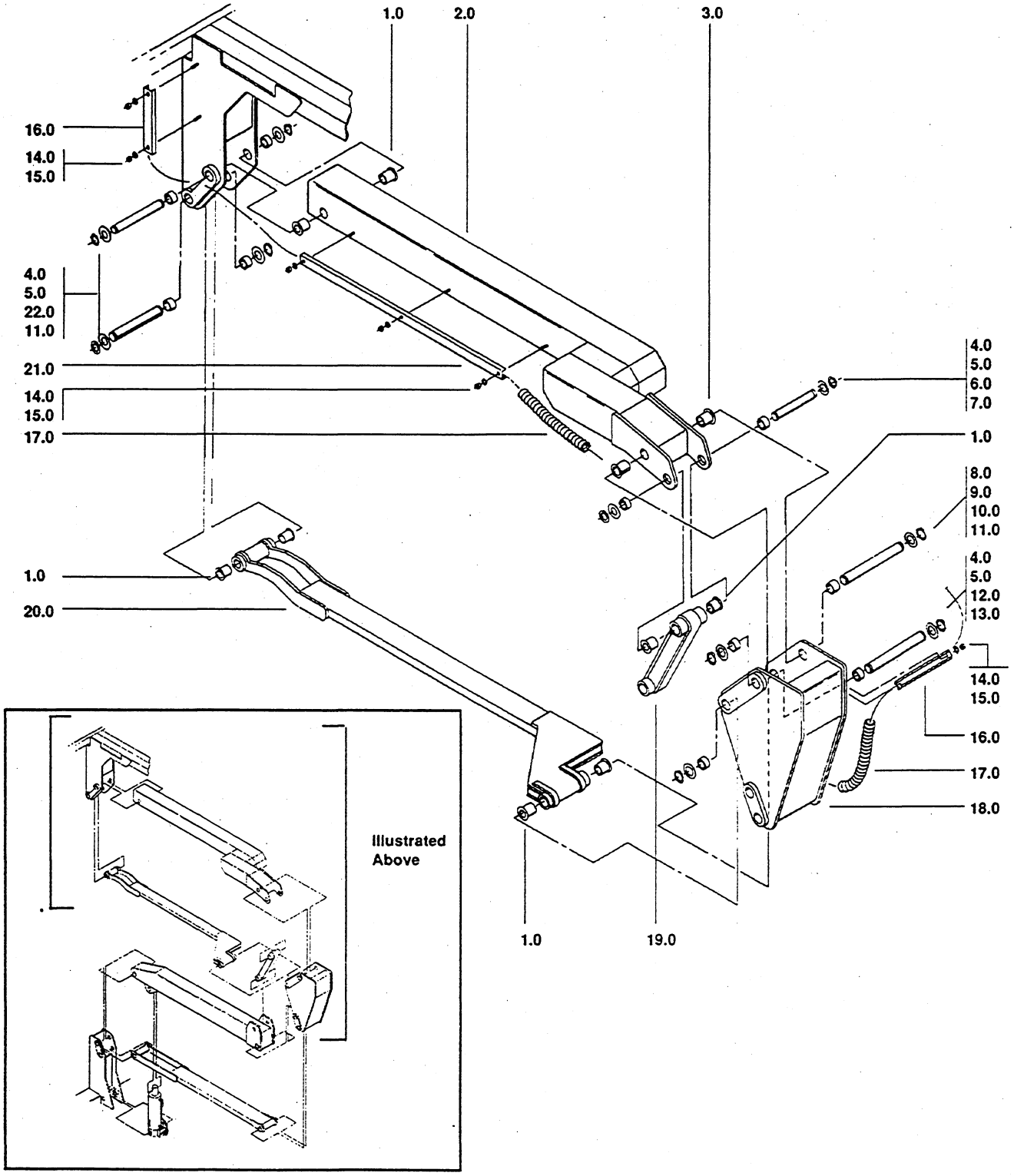
FIGURE: J LOWER ELEVATE ASSEMBLY



LOWER ELEVATE ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
J	1.0	18284P	LOWER ARM WELDMENT - PNTD	1
J	2.0	18239	BEARING - 1.75 in. ID x 2 in. LONG	8
J	3.0	18592P	COVER, CABLE - LOWER ARM - PNTD	1
J	4.0	18504	NUT, LOCK - LG FLANGE .25-20	7
J	5.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	7
J	6.0	18238	BEARING - 1.5 in. ID x 2 in. LONG	2
J	7.0	22728	CONNECTING LINK WELDMENT - PNTD	1
J	8.0	18215P	MIDPIVOT WELDMENT - PNTD	1
J	9.0	18593P	COVER, CABLE - BASE AND MDPVT - PNTD	2
J	10.0	45540	PROTECTIVE COIL SLEEVE (BK ITEM - ORDER 83 in.)	
J	11.0	18384	RING, EXTERNAL SNAP - 1.75 in. DIA	8
J	12.0	18595	WASHER, FLAT - 1.78 x 2.75 x .057 in.	8
J	13.0	18361	PIN, PIVOT - 1.75 in X 12.50 in.	2
J	14.0	18241	BEARING - 1.75 in. ID x 1.25 in. LONG	8
J	15.0	18209	LOWER LEVELING, ARM WLDMT - PNTD	1
J	16.0	18383	RING, EXTERNAL SNAP - 1.5 in. DIA	6
J	17.0	18596	WASHER, FLAT - 1.56 x 2.5 x .061 in.	6
J	18.0	18360	PIN, PIVOT - 1.50 in. X 8.63 in.	2
J	19.0	18396	BEARING - 1.5 in. ID x 1 in. LONG	2
J	20.0	18240	BEARING - 1.5 in. ID x 1.25 in. LONG	4
J	21.0	18362	PIN, PIVOT - 1.75 in. X 10.63 in.	2
J	22.0	18363	PIN, PIVOT - 1.50 in. X 5.75 in.	1

FIGURE: K UPPER ELEVATE ASSEMBLY



UPPER ELEVATE ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
K	1.0	18238	BEARING - 1.5 in. ID x 2 in. LONG	8
K	2.0	18263P	UPPER ARM WELDMENT - PNTD	1
K	3.0	18239	BEARING - 1.75 in. ID x 2 in. LONG	2
K	4.0	18383	RING, EXTERNAL SNAP - 1.5 in. DIA	8
K	5.0	18596	WASHER, FLAT - 1.56 x 2.5 x .061 in.	8
K	6.0	18360	PIN, PIVOT - 1.50 in. X 8.63 in.	1
K	7.0	18396	BEARING - 1.5 in. ID x 1 in. LONG	2
K	8.0	18384	RING, EXTERNAL SNAP - 1.75 in. DIA	2
K	9.0	18595	WASHER, FLAT - 1.78 x 2.75 x .057 in.	2
K	10.0	18361	PIN, PIVOT - 1.75 in. X 12.50 in.	1
K	11.0	**18240**	BEARING - 1.75 in. ID x 1.25 in. LONG	6
K	12.0	18359	PIN, PIVOT - 1.50 in. X 12.50 in.	1
K	13.0	18240	BEARING - 1.5 in. ID x 1.25 in. LONG	2
K	14.0	18504	NUT, LOCK - LG FLANGE .25-20	7
K	15.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	7
K	16.0	18593P	COVER. CABLE - BASE AND MDPVT - PNTD	2
K	17.0	45540	PROTECTIVE COIL SLEEVE (BK ITEM - ORDER 83 in.)	
K	18.0	18215P	MIDPIVOT WELDMENT - PNTD	1
K	19.0	**22728**	CONNECTING LINK WELDMENT - PNTD	1
K	20.0	**20629**	UPPER LEVELING ARM WLDMT - PNTD	1
K	21.0	18590P	COVER. CABLE - UPPER ARM - PNTD	1
K	22.0	18358	PIN, PIVOT - 1.50 in. X 10.63 in.	2

FIGURE: L PLATFORM ASSEMBLY V-1832

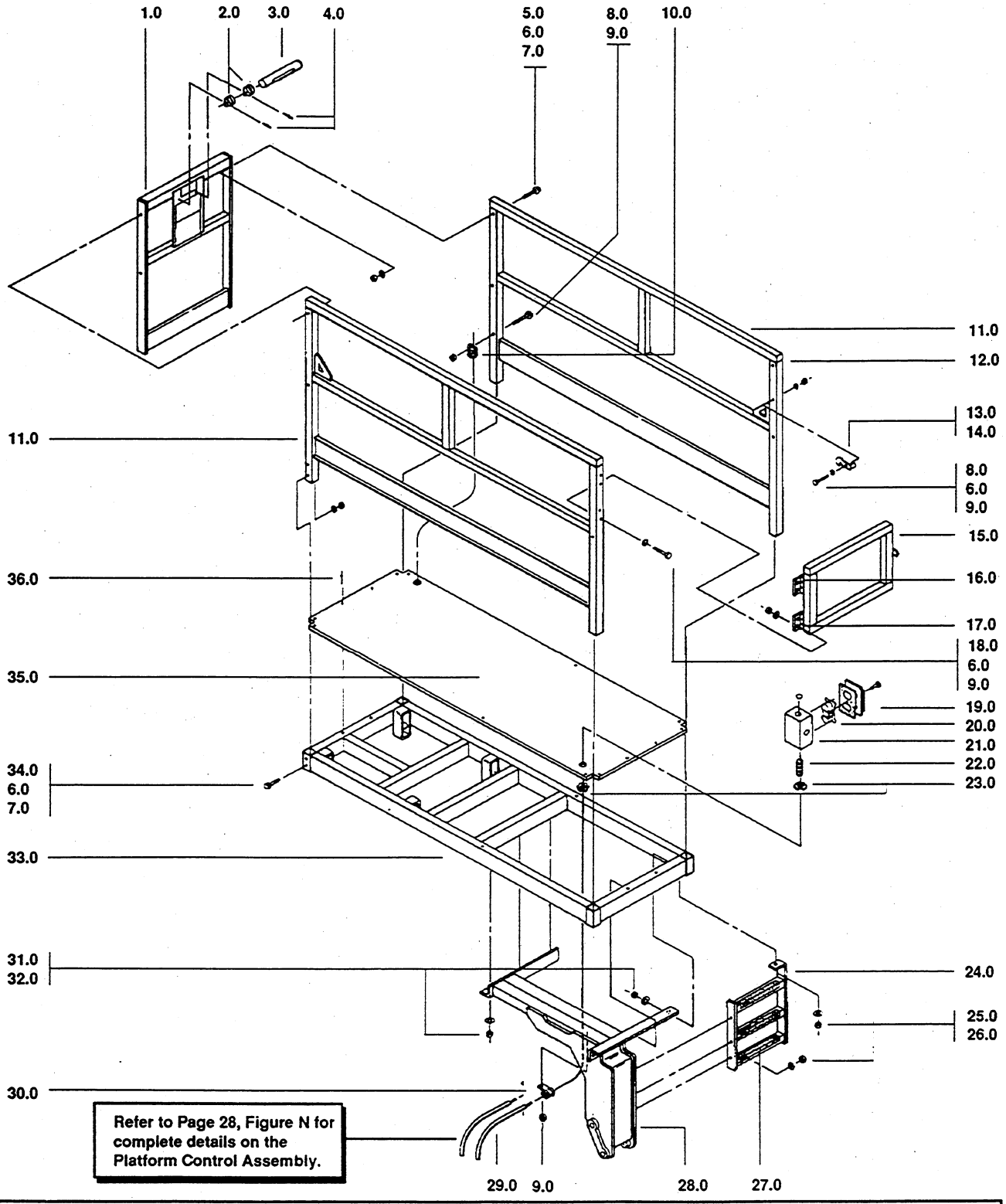
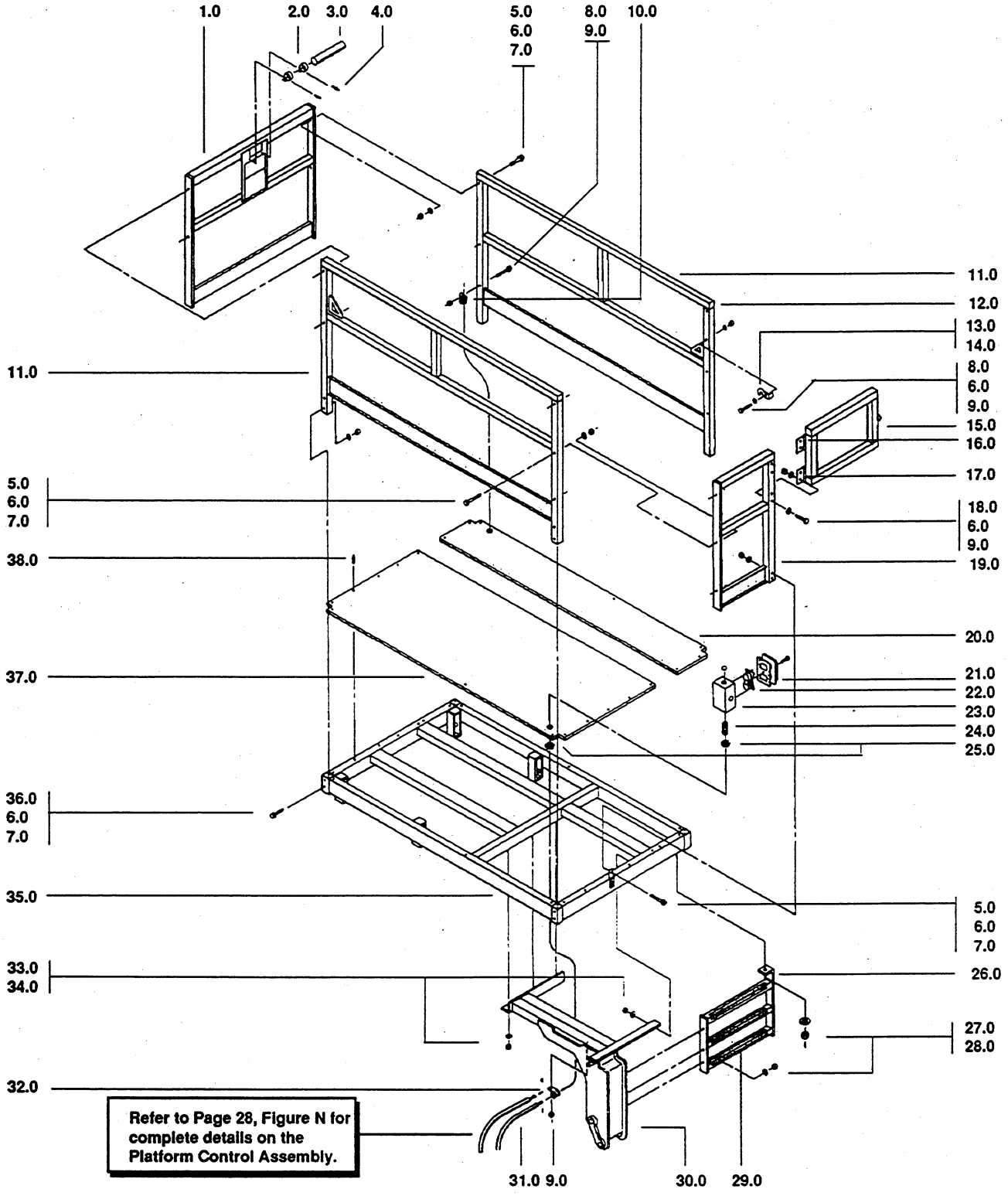


Figure	Index Number	Part Number	Description	Qty. Per Assy.
L	1.0	18420	END RAIL WELDMENT - V-1832	1
L	2.0	6653	CLAMP, PLASTIC TUBE	2
L	3.0	6600	TUBE, INSTRUCTION - 1.75 X 11.5 in. W/ CAPS	1
L	4.0	12037	RIVET, STEEL - .25 x .5 in.	2
L	5.0	18505	SCREW - LG FLNG LKNG HEAD 5/16-18 x 2.25 in.	8
L	6.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	22
L	7.0	6782	NUT, NYLOCK - 5/16-18 PLTD	16
L	8.0	6884	BOLT - .25-20 X 2.5 in. HHCS PLTD GR-5	2
L	9.0	6091	NUT, NYLOCK - .25-20 PLTD	6
L	10.0	18666	CLAMP - 1 in. RUBBER CUSHIONED	2
L	11.0	18401	SIDE RAIL WELDMENT	2
L	12.0	18556	PLUG, CAP - 1.5 SQ x 16 GAUGE, BLACK	4
L	13.0	20036	LATCH - GATE WELDMENT	1
L	14.0	20048	LATCH SPACER	1
L	15.0	18777	GATE WELDMENT	1
L	15.0	20202	GATE WELDMENT - (TALL)	1
L	16.0	18775	HINGE - 4 x 4 in.	1
L	17.0	18776	HINGE, CLOSING - 4 x 4 in.	1
L	18.0	4266	BOLT - .25-20 x 2 in. HHCS PLTD GR-5	1
L	19.0	10776	POWER OUTLET, DUPLEX - COVER	1
L	20.0	10778	POWER OUTLET, DUPLEX - 15 AMP, 125V AC	1
L	20.0	19975	POWER OUTLET - 220V AC - (U.K.)	1
L	21.0	10775	T-BOX - 2.75 x 4.5 x 2 in.	1
L	22.0	19087	FITTING, NIPPLE	1
L	23.0	6935	NUT, LOCK - ELECTRIC .5 in.	2
L	24.0	**35260**	LADDER WELDMENT - V-1832	1
L	25.0	6097	WASHER, FLAT - 3/8 x 1 x .08 in. PLTD	4
L	26.0	4828	NUT, NYLOCK - 3/8-16 PLTD	4
L	27.0	1259	TAPE, NON-SKID - (BK ITEM - ORDER 2 x 50 in.)	
L	28.0	18329P	PLATFORM PIVOT WELDMENT - V-1832 - PNTD	1
L	29.0	6993	CORD, ELEC SJO 14-3 - (BK ITEM - ORDER 432 in.)	
L	30.0	6833	CLAMP - .5 in. RUBBER CUSHIONED	2
L	31.0	13066	WASHER, FLAT - .5 in.	6
L	32.0	6198	NUT, NYLOCK - .5-13 PLTD	6
L	33.0	18346	PLATFORM WELDMENT - V-1832	1
L	34.0	18506	SCREW - LG FLNG LKNG HEAD 5/16-18 x .75 in.	8
L	35.0	18407	PLATFORM DECK - V-1832	1
L	36.0	20395	SCREW - #10 X 1.5 - PHTS SQ. DRIVE	10

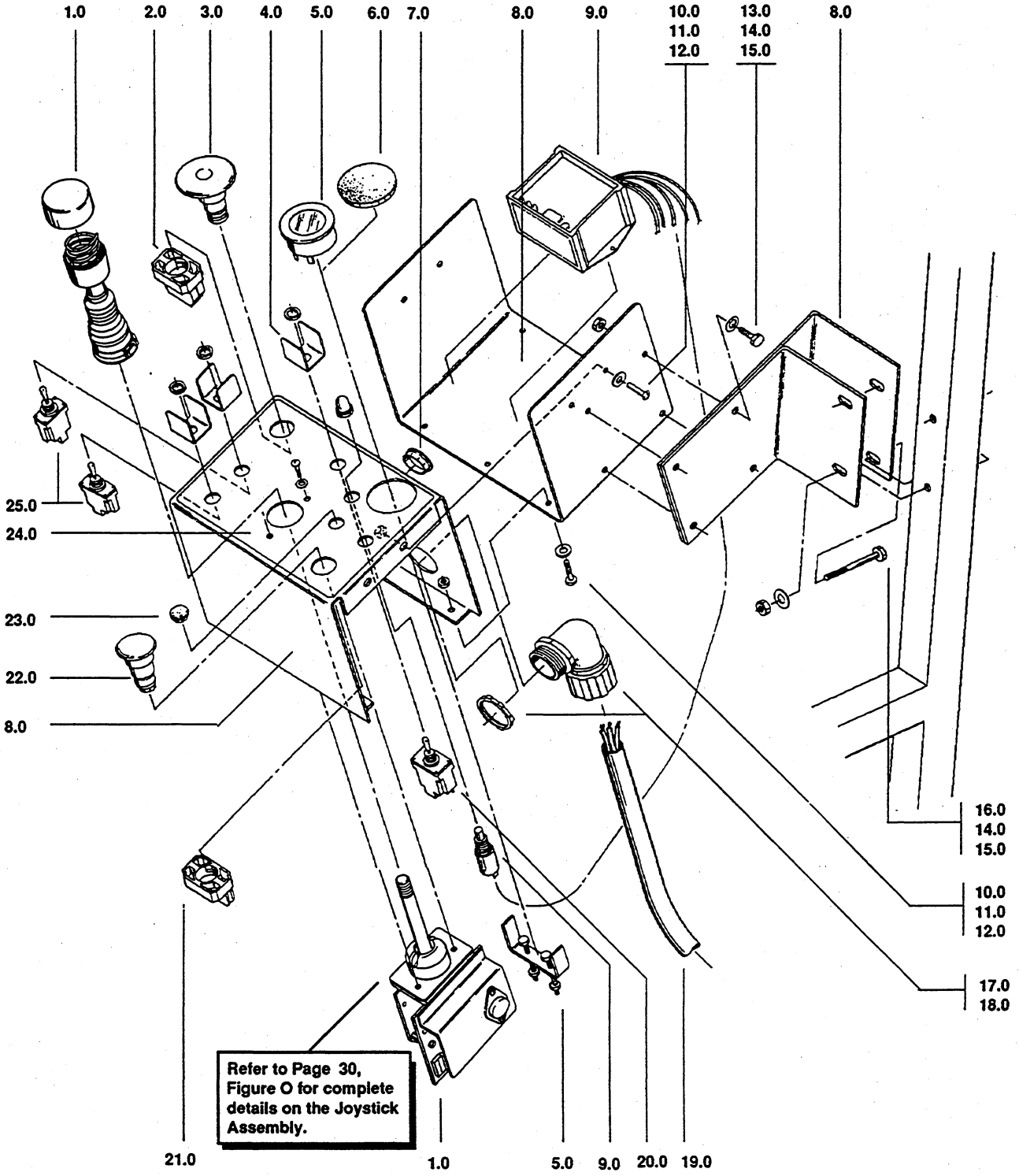
FIGURE: M PLATFORM ASSEMBLY V-1854



PLATFORM ASSEMBLY V-1854 Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
M	1.0	18419	END RAIL WELDMENT, FRONT - V-1854	1
M	2.0	6600	TUBE, INSTRUCTION - 1.75 x 11.5 in. W/ CAPS	1
M	3.0	6653	CLAMP, PLASTIC TUBE	2
M	4.0	12037	RIVET, STEEL - .25 x .5 in.	2
M	5.0	18505	SCREW - LG FLNG LKNG HEAD 5/16-18 x 2.25 in.	12
M	6.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	26
M	7.0	6782	NUT, NYLOCK - 5/16-18 PLTD	14
M	8.0	6884	BOLT - .25-20 X 2.5 in. HHCS PLTD GR-5	2
M	9.0	6091	NUT, NYLOCK - .25-20 PLTD	6
M	10.0	18666	CLAMP - 1 in. RUBBER CUSHIONED	2
M	11.0	18401	SIDE RAIL WELDMENT	2
M	12.0	18556	PLUG, CAP - 1.5 SQ x 16 GAUGE, BLACK	4
M	13.0	20036	LATCH - GATE WELDMENT	1
M	14.0	20048	LATCH SPACER	1
M	15.0	18777	GATE WELDMENT	1
M	15.0	20202	GATE WELDMENT - (TALL)	1
M	16.0	18775	HINGE - 4 x 4 in.	1
M	17.0	18776	HINGE, CLOSING - 4 x 4 in.	1
M	18.0	4266	BOLT - .25-20 x 2 in. HHCS PLTD GR-5	4
M	19.0	18247	END RAIL WELDMENT, REAR - V-1854	1
M	20.0	18408	PLATFORM DECK - RH - V-1854	1
M	21.0	10776	POWER OUTLET, DUPLEX - COVER	1
M	22.0	10778	POWER OUTLET, DUPLEX - 15 AMP, 125V AC	1
M	22.0	19975	POWER OUTLET - 220V AC - (U.K.)	1
M	23.0	10775	T-BOX - 2.75 x 4.5 x 2 in.	1
M	24.0	19087	FITTING, NIPPLE	1
M	25.0	6935	NUT, LOCK - ELECTRIC .5 in.	2
M	26.0	18405	LADDER WELDMENT - V-1854	1
M	27.0	6097	WASHER, FLAT - 3/8 x 1 x .08 in. PLTD	4
M	28.0	4828	NUT, NYLOCK - 3/8-16 PLTD	4
M	29.0	1259	TAPE, NON-SKID - (BK ITEM - ORDER 2 x 78 in.)	
M	30.0	18516P	PLATFORM PIVOT WELDMENT - V-1854 - PNTD	1
M	31.0	6993	CORD, ELEC SJO 14-3 - (BK ITEM - ORDER 432 in.)	
M	32.0	6833	CLAMP - .5 in. RUBBER CUSHIONED	2
M	33.0	6198	NUT, NYLOCK - .5-13 PLTD	6
M	34.0	13066	WASHER, FLAT - .5 in.	6
M	35.0	18230	PLATFORM WELDMENT - V-1854	1
M	36.0	18506	SCREW - LG FLNG LKNG HEAD 5/16-18 x .75 in.	8
M	37.0	18409	PLATFORM DECK - LH - V-1854	1
M	38.0	20395	SCREW - #10 X 1.5 - PHTS SQ. DRIVE	20

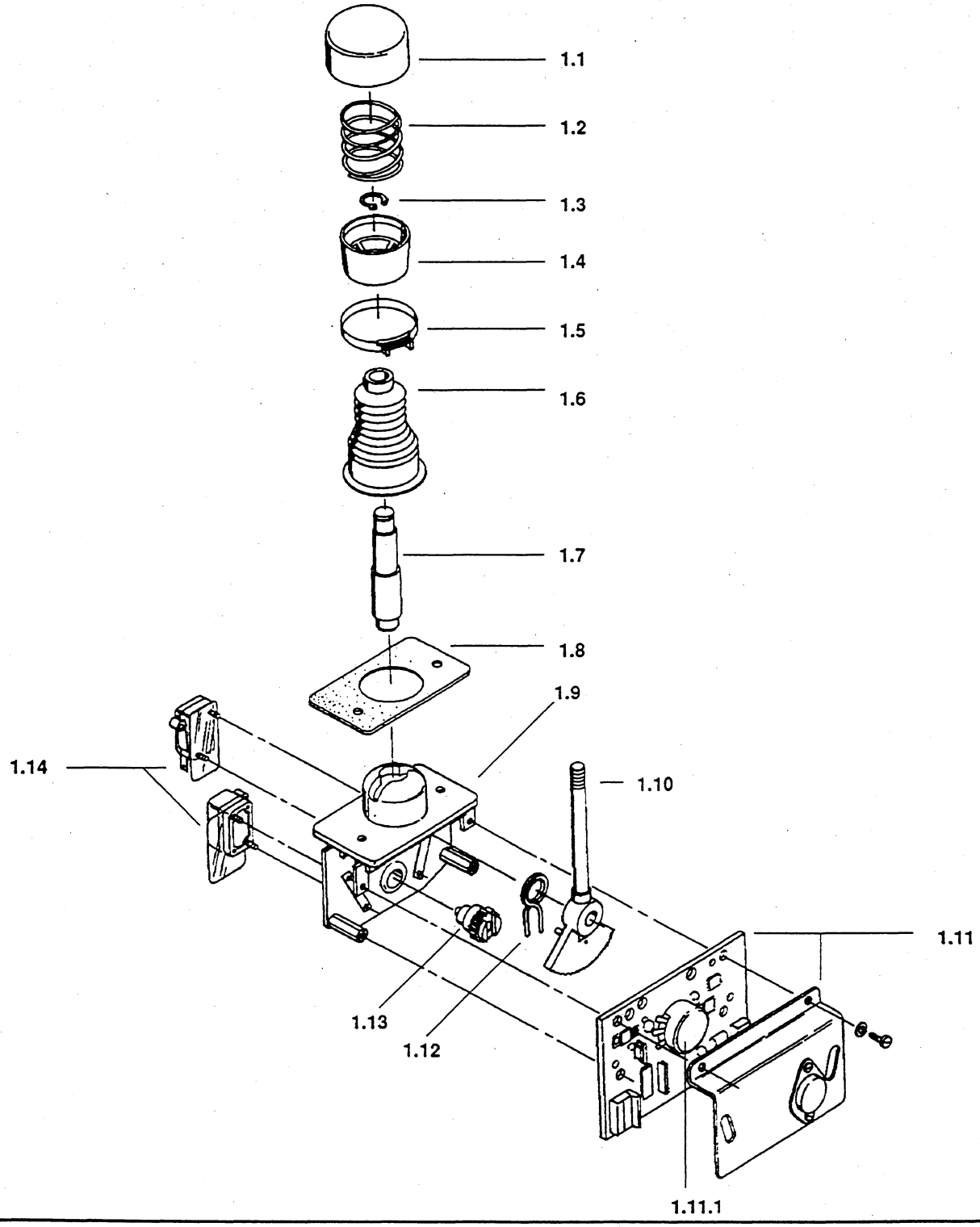
FIGURE: N PLATFORM CONTROL ASSEMBLY



PLATFORM CONTROL ASSEMBLY Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
N	1.0	18144	CONTROLLER - JOYSTICK	1
N	2.0	45085	CONTACT - 2 N-C W/ BASE	1
N	3.0	45078	SWITCH, STOP - PUSH BUTTON	1
N	4.0	45105	SWITCH GUARD, TOGGLE - ZINC	3
N	5.0	45210	INDICATOR, FUEL LEVEL - 22V DC - (OPTION)	1
N	6.0	45840	PLUG, CAP - DOMED - 2 in.	1
N	7.0	45385	PLUG - 1.12 in. DIA BLACK	1
N	8.0	**23872P**	CONTROL BOX - PLATFORM - PNTD	1
N	9.0	45211	LOW VOLTAGE INTERRUPT, W/IND - 22V DC - (OPTION)	1
N	10.0	45645	SCREW - RHMS 8-32 x .75 in.	10
N	11.0	6146	WASHER, FLAT - #10 x .5 x .05 in. PLTD	10
N	12.0	45644	NUT, BLIND - 8-32	10
N	13.0	6090	BOLT - .25-20 x .75 in. HHCS PLTD GR-5	4
N	14.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	4
N	15.0	6091	NUT, NYLOCK - .25-20 PLTD	4
N	16.0	8179	BOLT - .25-20 x 2.25 in. HHCS PLTD GR-5	2
N	17.0	18667	CONNECTOR (SQUEEZE), CABLE - 90 DEG 1 in.	1
N	18.0	18665	NUT, LOCK - ELECTRIC 1 in.	1
N	19.0	**35934**	WIRE CABLE, #18 GA/19 COND - (BK ITEM - ORDER 61 in. OR 420 in.)	
N	20.0	13091	SWITCH, TOGGLE - DPST MAINTAINED	1
N	21	45082	CONTACT - N-O W/ BASE	1
N	21.1	45081	CONTACT - N-O	1
N	22.0	45080	SWITCH, HORN - PUSH BUTTON	1
N	23.0	45384	PLUG - .5 in. DIA BLACK	3
N	24.0	**20410**	DECAL - CONTROL BOX	1
N	25.0	13037	SWITCH, TOGGLE - SPDT MOMENTARY	2

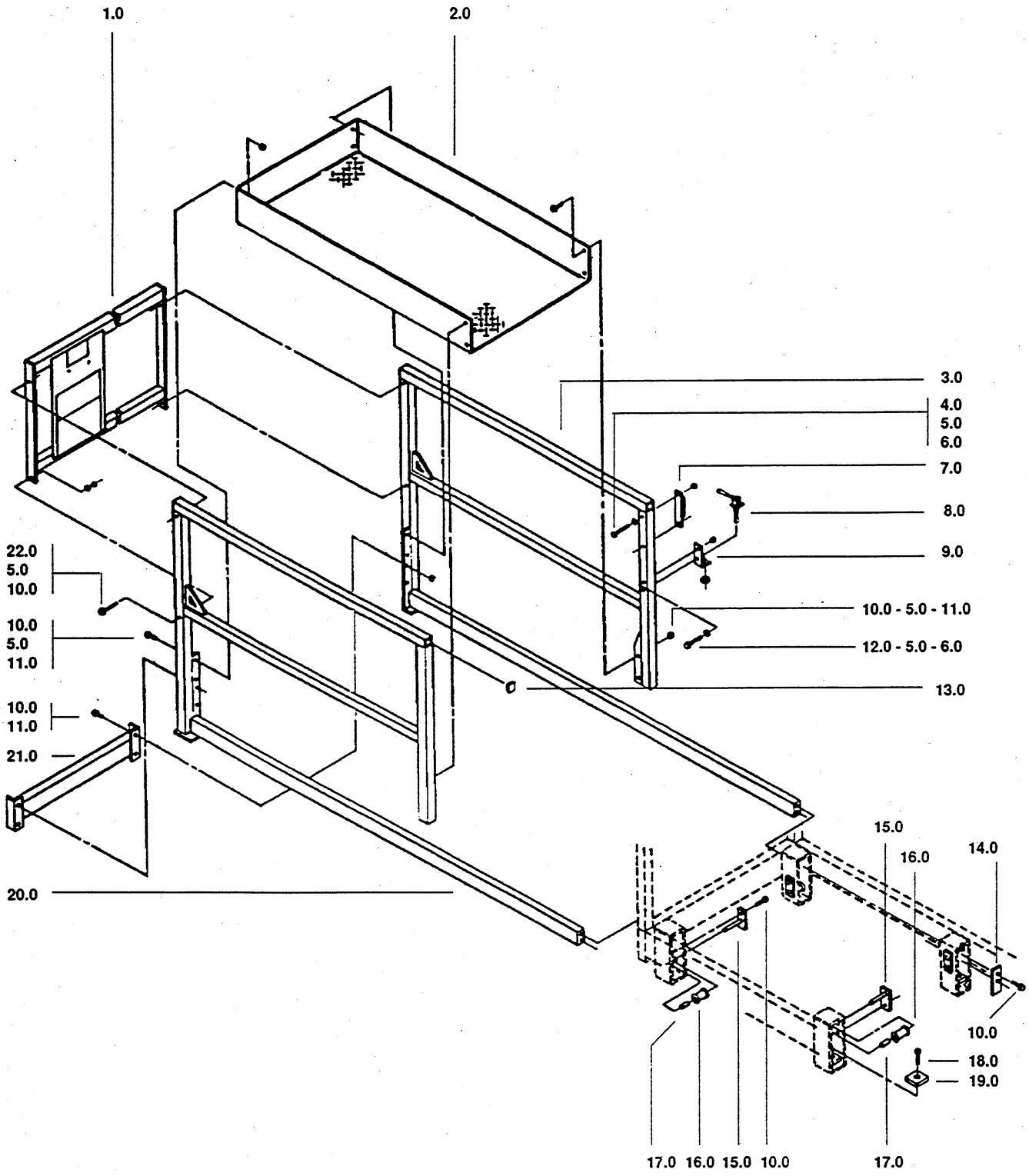
FIGURE: O JOYSTICK ASSEMBLY



JOYSTICK ASSEMBLY — Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
O	1	18144	CONTROLLER - JOYSTICK	1
O	1.1	21424	HANDLE - UPPER CAP	1
O	1.2	21425	HANDLE - SPRING	1
O	1.3	21429	CLIP - RETAINING	1
O	1.4	21426	HANDLE - LOWER	1
O	1.5	21428	CLAMP - BOOT	1
O	1.6	21427	HANDLE - BOOT	1
O	1.7	21430	HANDLE - INTERLOCK TUBE	1
O	1.8	21431	GASKET - BASE	1
O	1.9	**19720**	BASE, CASTING - (JOYSTICK)	1
O	1.10	21433	SHAFT AND GEAR	1
O	1.11	21436	P.C. BOARD ASSY	1
O	1.11.1	19718	POTENTIOMETER	1
O	1.12	21434	SPRING - RETURN	1
O	1.13	21435	GEAR - SLAVE	1
O	1.14	**19731**	SWITCH - MICRO	2

FIGURE: P PLATFORM EXTENSION ASSEMBLY



PLATFORM EXTENSION ASSEMBLY Genie V-1832 & V-1854

Figure	Index Number	Part Number	Description	Qty. Per Assy.
P	1.0	19676	GUARD RAIL, END - PLAT EXT - V-1832	1
P	1.0	19675	GUARD RAIL, END - PLAT EXT - V-1854	1
P	2.0	18468	PAN - PLATFORM EXTENSION - V-1832	1
P	2.0	18462	PAN - PLATFORM EXTENSION - V-1854	1
P	3.0	19673	GUARD RAIL - RH PLAT EXT	1
P	4.0	4266	BOLT - .25-20 x 2 in. HHCS PLTD GR-5	2
P	5.0	6638	WASHER, FLAT - .25 x .75 x .062 in.	13
P	6.0	6091	NUT, NYLOCK - .25-20 PLTD	4
P	7.0	18651	HANDLE WELDMENT - PLATFORM	1
P	8.0	926048	CLAMP, TOGGLE	1
P	9.0	18461P	ANGLE - LOCK PIN MOUNT - PNTD	1
P	10.0	18506	SCREW - LG FLNG LKNG HEAD 5/16-18 x .75 in.	20
P	11.0	6782	NUT, NYLOCK - 5/16-18 PLTD	14
P	12.0	6637	BOLT - .25-20 x 1.75 in. HHCS PLTD GR-5	2
P	13.0	18556	PLUG, CAP - 1.5 SQ x 16 GAUGE, BLACK	4
P	14.0	18466P	STOP, PLATFORM EXT - PNTD	2
P	15.0	18469	RETAINER WELDMENT - PLATFORM EXT	4
P	16.0	18465	ROLLER, PLATFORM	4
P	17.0	18529	BEARING - BRZ .625 x 5 x 1 in.	8
P	18.0	18544	SCREW, SOC-HEAD CAP - 5/16-18 x .5 in.	2
P	19.0	18467	PAD, SKID - PLATFORM EXTENSION	2
P	20.0	19672	GUARD RAIL - LH PLAT EXT	1
P	21.0	19677	GUARD RAIL SUPPORT - PLAT EXT - V-1832	1
P	21.0	19674	GUARD RAIL SUPPORT - PLAT EXT - V-1854	1
P	22.0	18505	SCREW - LG FLNG LKNG HEAD 5/16-18 x 2.25 in.	4
P		18734	BUTTON, WEAR - SLIDE DECK	4
P		12037	RIVET, STEEL - .25 x .5 in.	4

FIGURE: Q DECALS

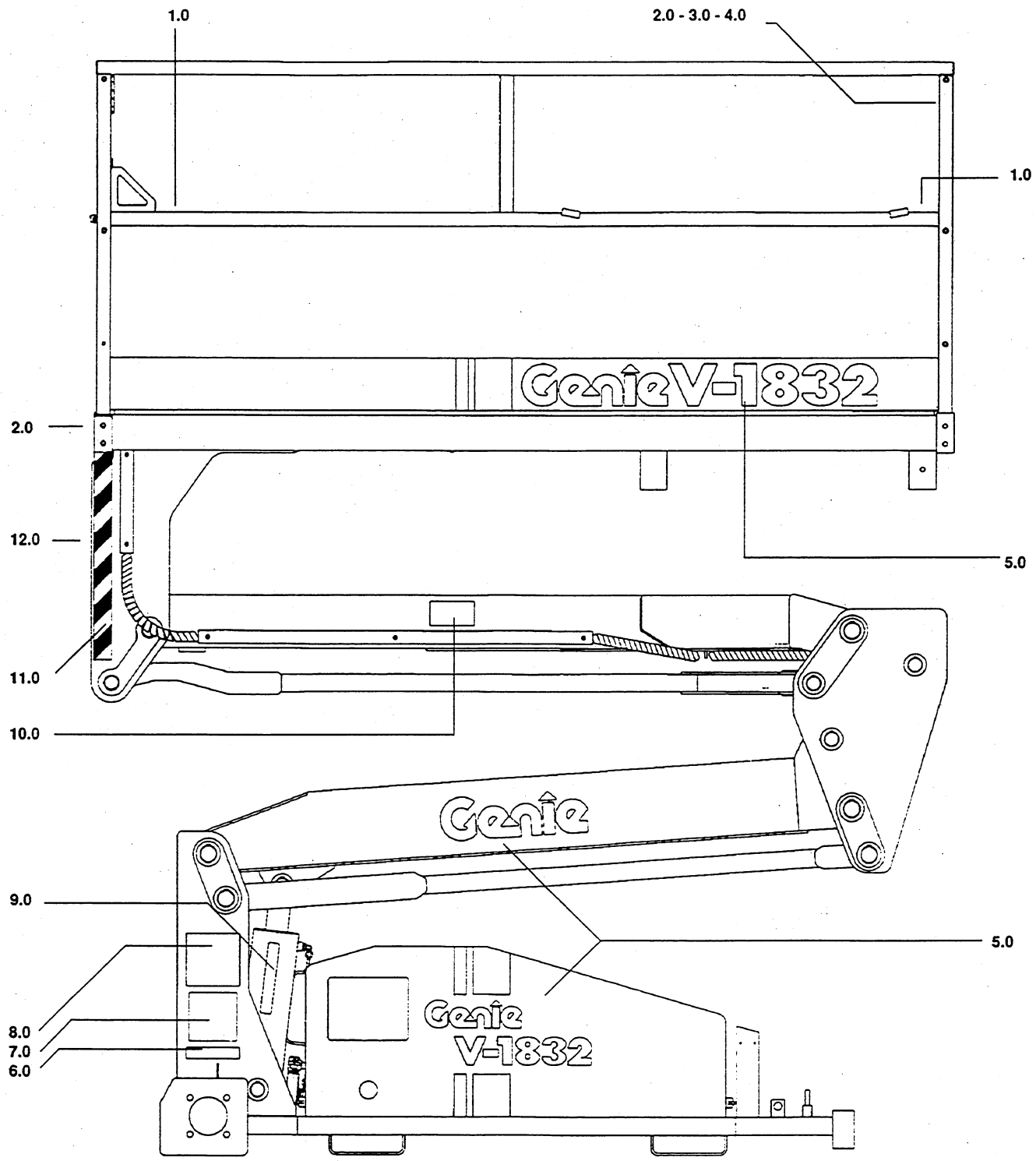


FIGURE: Q DECALS

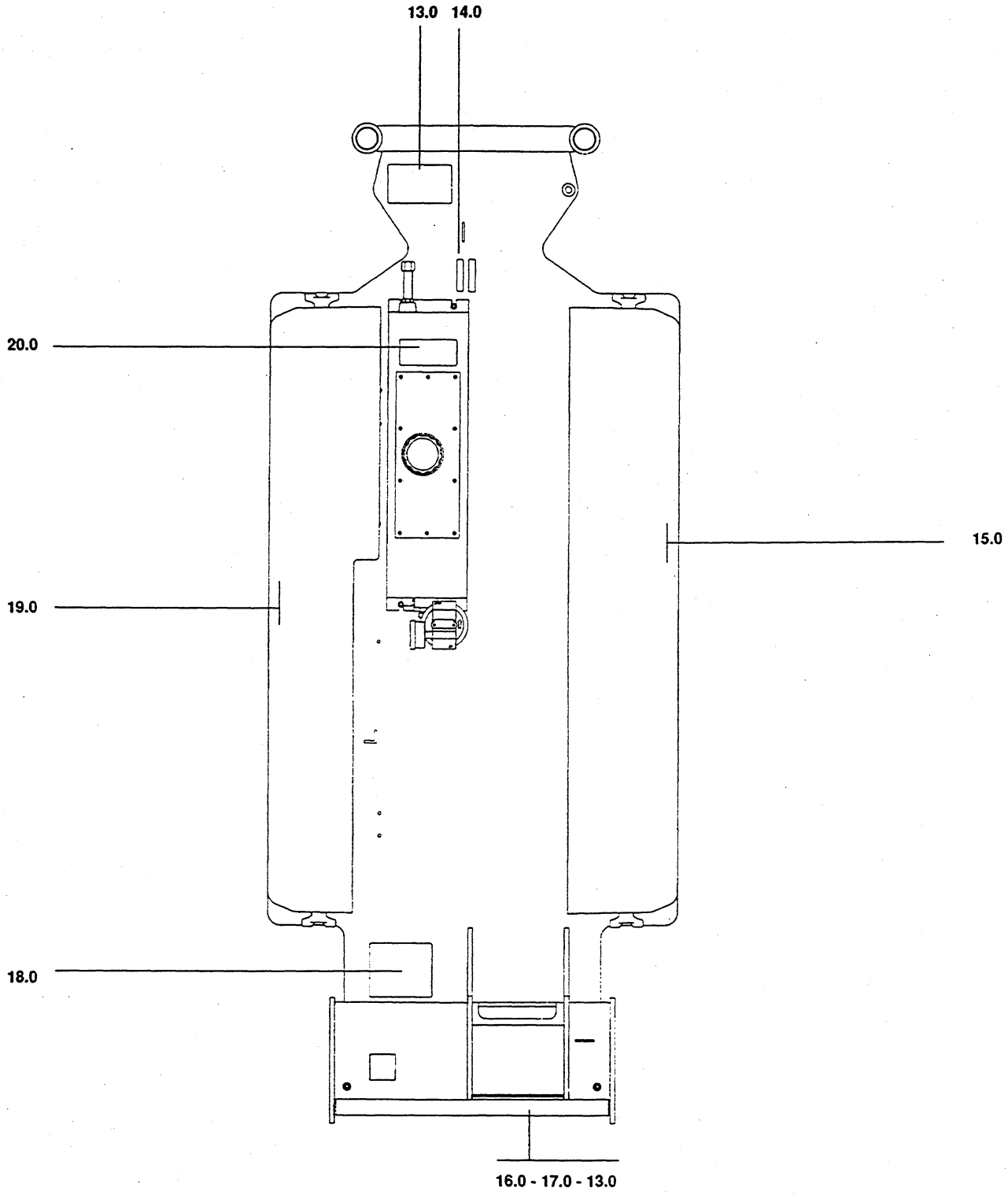


Figure	Index Number	Part Number	Description	Qty. Per Assy.
			INDICATED ON PAGE 34	
Q	1.0	916260	DECAL - SAFETY BELT ANCHOR	2
Q	2.0	916276	DECAL - WARNING 750 lb - V-1832	2
Q	2.0	923094	DECAL - WARNING 1000 lb - V-1854	2
Q	3.0	18633	DECAL - OPERATING INSTRUCTIONS	1
Q	4.0	916300	DECAL - WARNING BEFORE OPERATING	1
Q	5.0	18702	DECAL KIT - (AESTHETIC) - V-1832	1
Q	5.0	18703	DECAL KIT - (AESTHETIC) - V-1854	1
Q	6.0	916241	DECAL - CHARGE AFTER EACH SHIFT	1
Q	7.0	18634	DECAL - GROUND CONTROL PRE-START	1
Q	8.0		SERIAL PLATE (SPECIAL ORDER FROM FACTORY)	1
Q	9.0	916251	DECAL - MANUAL LOWER VALVE	1
Q	10.0	927864	DECAL - STAY CLEAR	2
Q	11.0	1699	TAPE, WARNING BLK & YELLOW - (BK ITEM-ORDER 134 in.)	
Q	12.0	1259	TAPE, NON-SKID - (BK ITEM - ORDER 2 x 78 in.)	
			INDICATED ON PAGE 35	
Q	13.0	916245	DECAL - WARNING FOR TIRES	2
Q	14.0	916240	DECAL - 120V AC, 15 AMP	1
Q	15.0	18967	DECAL - ELEC SCHEMATIC	1
Q	16.0	18523	DECAL - MAINTENANCE	1
Q	17.0	916965	DECAL - WARNING SECURE AS SHOWN	1
Q	18.0	18524	DECAL - BRAKE RELEASE LEVER	1
Q	19.0	18968	DECAL - HYDR SCHEMATIC	1
Q	20.0	916237	DECAL - HYDRAULIC OIL ONLY	1
Q		21048	DECAL KIT - (SAFETY/INSTRUCTIONAL) - V-1832	1
Q		21049	DECAL KIT - (SAFETY/INSTRUCTIONAL) - V-1854	1

GLOSSARY

AC	Alternating Current
ADP	Adapter
AH	Ampere Hour
AL-MAN	Aluminum Mandrel
ALT	Alternate
ALU	Aluminum
AMP	Ampere
ANSI	American National Standard Institute
ASSY	Assembly
BK	Bulk
BLK	Black
BRK	Brake
BRZ	Bronze
COND	Conductor
CONN	Connector
CTRL	Control
CYL	Cylinder
DC	Direct Current
DEG	Degree
DIA	Diameter
DIFF	Differential
DPDT	Double Pole Double Throw
DPST	Double Pole Single Throw
DRV	Drive
ELEC	Electric
EXT	Extension
FAB	Fabricated
FEM	Female
FF	Foam Filled
FHMS	Flat Head Machine Screw
FHSS	Flat Head Socket Screw
FLNG	Flange
FNCT	Function
GA	Gauge
GR	Grade
GRND	Ground
HD	Head
HHCS	Hex Head Cap Screw
HR	Hour
HX	Hex
HYDR	Hydraulic
HZ	Hertz
ID	Inside Diameter
In.	Inch
INCL	Included
IND	Indicator
INJECT	Injection
INSTALL	Installation
JIC	Joint Industrial Counsel
L	Left
lb	Pound
LG	Large
LH	Left Hand
LKNG	Locking
LP	Liquid Propane
LS	Left Side
LVL	Leveling
MDPVT	Mid-Pivot
MISC.	Miscellaneous
mm	Millimeter
MNFLD	Manifold
MPT	Machine Pipe Thread
N-C	Normally Closed
N-O	Normally Open
NEG	Negative
NPTF	National Pipe Thread Female
NPTM	National Pipe Thread Male
NS	Not Shown
OBS	Obsolete
OD	Outside Diameter
OPER	Operation
OPT	Option
ORN	Orange
P/N	Part Number
PC	Printed Circuit
PCS	Pieces
PHTS	Pan Head Tap Screw
PLAT	Platform
PLTD	Plated
PNTD	Painted
POS	Positive
PRF	Proof
PROPRT	Porportional
PSI	Pounds Per Square Inch
PSN	Position
PWR	Power
QTY	Quantity
R	Right
REF	Reference
RH	Right Hand
RHMS	Round Head Machine Screw
RHT	Right Hand Thread
RS	Right Side
RSVR	Reservoir
RT	Rough Terrain
RTN	Return
SAE	Society of Automotive Engineers
SELF-TAP	Self-Tapping
SHCS	Socket Head Cap Screw
SHLD	Shoulder
SHT	Sheet
SHT-MTL	Sheet Metal
SJO	Small Diameter, Oil Resistant
SL	Slotted
SL-HX	Slotted Hex
SM	Small
SOC	Socket
SOC-HEAD	Socket Head
SOL	Solenoid
SPDT	Single Pole-Double Throw
SPST	Single Pole - Single Throw
SQ	Square
SQ-HD	Square Head
SSTL	Stainless Steel
ST	Straight
ST-ADP	Straight Adapter
ST-THR	Straight Through
STAT	Station
STK	Stroke
STL	Steel
STL-SQ-H	Steel Square Head
STR	Steering
SW	Swivel
SYST	System
TELEM	Telemecanique
TERM	Terminal
THERM	Thermometer
THR	Through
THWN	Underwriter Laboratory Specification
TPI	Threads Per Inch
U.K.	United Kingdom
UNC	Unified National Course
UNF	Unified National Fine
V	Volt or Volts
V AC	Volts-Alternating Current
V DC	Volts-Direct Current
W	Watt or Watts
W/	With
WHL	Wheel
WLDMT	Weldment
XTRA	Extra
YR	Year

APPENDICES

6.1 GENIE V-1832 & V-1854 COMPONENT LIST

This section will provide you with a brief description of the major Genie Vertical Lift V-18 series components.

DRIVE SYSTEM

Component	Description
Drive brake	Spring-applied hydraulically released brake
Drive hydraulic motor	16.2 cu. in. (265 cm^3)(Internally Generated Rotor)
Wheel/tire	16 x 4 x 8 in. (406 x 102 x 203 mm) solid rubber
Steering cylinder	1.5 in. (38 mm) bore x 5 in. (127 mm) stroke

ELEVATING SYSTEM

Component	Description
Elevate cylinder	4.5 in. (114 mm) bore x 12.5 in. (318 mm) stroke
Manifold assembly cylinder	Elevate cylinder control valve, cylinder mounted
Pivot bearings	Teflon filled glass composite (self-lubricating)
Pivot pins	Hard chrome plated and ground, high strength steel

HYDRAULIC SYSTEM

Component	Description
Control valves	24 volts DC, solenoid operated
Hydraulic hose	SAE-100R7 (thermal plastic)
Manifold assembly	Integrated hydraulic module
Hydraulic pump	2-stage unloading, 5 gpm, 3000 psi (18.9 liters per minute, 20684 kPa)
Oil filter	Full flow 10 micron return line filter

ELECTRICAL SYSTEM

Component	Description
Drive controller	Pulse-width modulation, variable current, 130HZ joystick
System logic board	Printed circuit board with diode and relay logic, and LED diagnostics
Elevate and steer function switches	Single pole double throw toggle, hermetically sealed
Key and master power switches	Single switch and contact block actuator power assemblies, positive opening contact system
Control cable	Dual 19 conductor 18 AWG vinyl jacketed U.V. protected
Battery charger	115 volts AC 15 amp. input, 24 volts DC 35 amp. output, auto on/off
Batteries	Four (4) 6 volt deep draw batteries per pack, case size GC2H, 250 amp. hr.

ELECTRICAL SYSTEM Continued

Component	Description
Limit switches	Roller arm, sealed housing
Low voltage interrupt	Voltage sensing interrupt with reset button and LED diagnostics.
Electric motor	24 volts DC with replaceable brushes.

Low Voltage Interrupt - STRUCTURED INTERFACE

The Low Voltage Interrupt (LVI) senses the machine's electrical system operating voltage. Three light emitting diodes (LED) are used to indicate the mode of the LVI.

LED Diagnostic Troubleshooting Guide

1. **Green Light** - Operating voltage is at/or above 22.2 volts DC.
2. **Green and Yellow Lights** - Operating voltage is from 22.0 volts DC to 21.0 volts DC. LVI is in timed mode and will interrupt in approximately five minutes.
3. **Yellow and Red Lights** - Operating voltage is from 22.0 volts DC to 21.0 volts DC. LVI has interrupted and needs to be manually reset.
4. **Red Light** - Operating voltage is below 21.0 volts DC. LVI has interrupted and will automatically reset when batteries are recharged and the operating voltage is brought up to 24.6 volts DC.