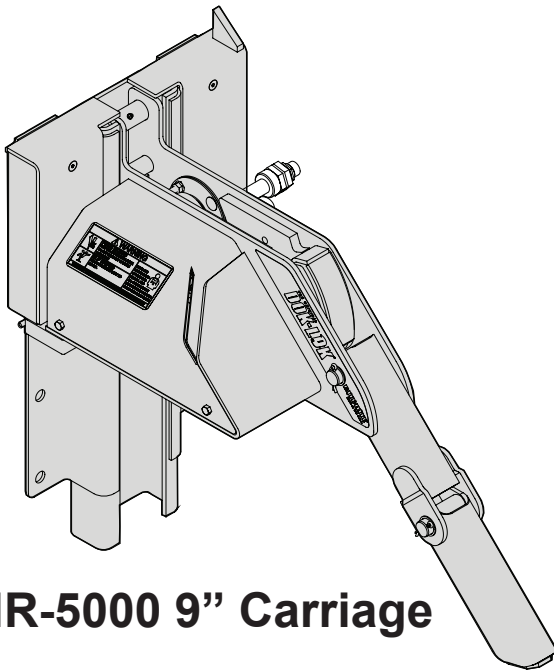
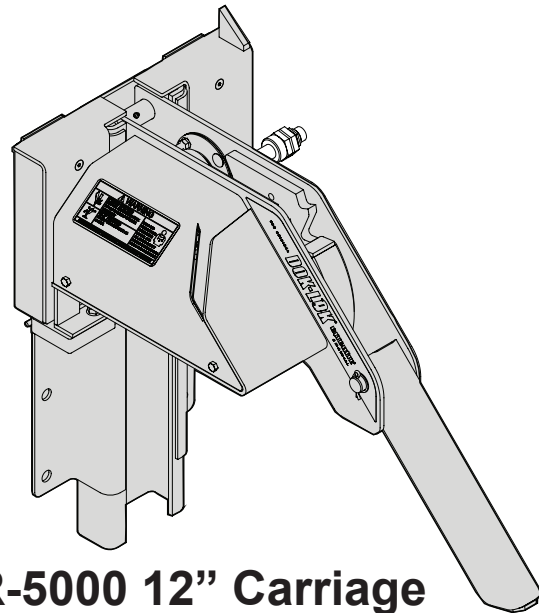




Vehicle Restraint Owner's Manual



SHR-5000 9" Carriage



SHR-5000 12" Carriage



This Manual Covers Restraints Built After Serial Numbers:
4487000001 and up

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INTRODUCTION

Read and understand this manual before attempting to install or operate any DOK-LOK vehicle restraint. For best results, have this product serviced by your authorized Rite-Hite® representative. The SHR DOK-LOK vehicle restraint by Rite-Hite® is intended to provide a safer workplace for workers in shipping and receiving dock areas. The SHR DOK-LOK vehicle restraint is an electro-mechanical restraint device that, when properly installed and operated, retains a secure connection between the truck and dock. Signal lights, warning horn and signs provide instructions to the truck driver and DOK-LOK vehicle restraint operator that a safe condition exists. The DOK-LOK vehicle restraint is operated by pressing push buttons on an inside control panel.

PRODUCT SPECIFIC WARRANTY

RITE-HITE Company, LLC and its affiliates (collectively "RITE-HITE") warrants to the owner ("Owner") that the SHR-5000 Dok-Lok® Vehicle Restraints by Rite-Hite® sold to the Owner will be free of defects in design, materials and workmanship (ordinary wear and tear excepted) for the periods set forth below ("Limited Warranty").

- Up to 5 year parts and 2 years labor warranty with purchase of Advanced Controls Package.
- Up to 5 year parts and 5 years labor warranty with purchase of Advanced Controls Package and a signed PMP (Preventative Maintenance Program) with an Authorized Rite-Hite representative.
- Standard 2 year parts and 1 year labor warranty with Base Controls Package.

IMPORTANT

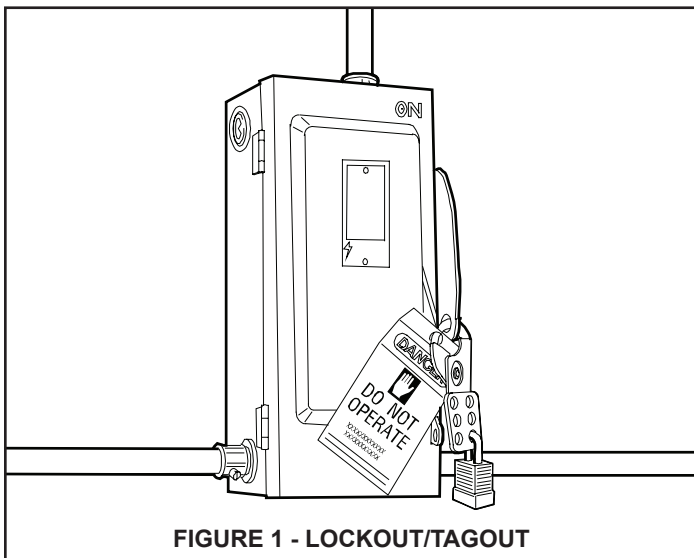
Read and understand contents of this manual prior to installation or operation of this equipment. For best results, have this product serviced by your authorized Rite-Hite® representative.

NOTICE TO USER

Your local Rite-Hite® representative provides a Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. Call your local representative or Rite-Hite® at 414-355-2600.

The Rite-Hite products in this manual are covered by one or more of the following U.S. patents: 5882167, 6065172, 6070283, 6085375, 6092970, 6106212, 6116839, 6190109, 6276016, 6311352, 6318947, 6322310, 6360394, 6368043, 6431819, 6488464, 6524053, 6726432, 6773221, 6832403, 6880301, 7032267, 7062814, 7213285, 7216391, 7363670, 7380305, 7503089, 7533431, 7546655, 7584517, 7681271, 7823239, 7841823, 7877831, 7914042, 8006811, 8065770, 8141189, 8191194, 8286757, 8287223, 8303235, 8307956, 8443474, 8464384, 8464846, 8465245, 8497761, 8499897, 8544130, 8547234, 8590087, 8590673, 8616826, 8657551, 8662535, 8678736, 8690087, 8905198, 9010501, 9096170, 9096397, 9126775, 9139384, 9145273, 9150367, 9174811, 9227799, 9230419 and pending U.S and foreign patent applications. RITE-HITE®, THINMAN™, SAFE-T-LIP®, HYDRACHEK®, WHEEL-LOK™, DOK-LOK®, DUAL-DOK®, SAFE-T-STRUT™, DOK-COMMANDER®, JUMBO™, HYDRA-RITE™, SAFE-T-GATE®, RITE-VU™ LIGHT COMMUNICATION SYSTEM and SMOOTH TRANSITION DOK SYSTEM™, are trademarks of Rite-Hite®.

SAFETY WARNINGS



WARNING

When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

LOCKOUT/TAGOUT PROCEDURES

The Occupational Safety and Health Administration requires that, in addition to posting safety warnings and barricading the work area, the power supply has been locked in the OFF position or disconnected. It is mandatory that an approved lockout device is utilized. An example of a lockout device is illustrated. The proper lockout procedure requires that the person responsible for the repairs is the only person who has the ability to remove the lockout device.

In addition to the lockout device, it is also a requirement to tag the power control in a manner that will clearly note that repairs are under way and state who is responsible for the lockout condition. Tagout devices have to be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or become unreadable.

RITE-HITE® Corporation does not recommend any particular lockout device, but recommends the utilization of an OSHA approved device (refer to OSHA regulation 1910.147). RITE-HITE® Corporation also recommends the review and implementation of an entire safety program for the Control of Hazardous Energy (Lockout/Tagout). These regulations are available through OSHA publication 3120.

DANGER

This is the highest level statement. Failure to follow the listed instructions will most likely result in severe injury or death.

CAUTION

The statements used with this level of warning deal with a safe operating procedure. If the procedure is ignored, the possibility of personal injury may exist.

WARNING

This is a statement of serious hazard. Failure to follow the listed instructions could place the individual at risk of serious injury or death.

IMPORTANT

IMPORTANT is used to draw attention to a procedure that needs to be followed to prevent machine or property damage.

FCC COMPLIANCE

FCC COMPLIANCE

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

NOTE: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

OWNER RESPONSIBILITY

1. The owner should recognize the inherent danger of the interface between dock and transport vehicle. The owner should, therefore, train and instruct operators in the safe use of dock equipment in accordance with the information provided below. The manufacturer shall publish, provide to the initial purchaser, and make the following information readily available to owners:
 - Installation instructions
 - Recommended initial and periodic inspections procedures
 - Maintenance procedures
 - Operating instructions
 - Descriptions or specifications for replaceable or repairable parts
 - Tables identifying the grade (slope) for all variations of length or configuration of the dock equipment, and
 - Information identifying the maximum uncontrolled drop encountered upon sudden removal of support while within the working range of the equipment.

It shall be the responsibility of the owner to verify that the material listed in this section has been received and that it is made available for the instruction and training of personnel entrusted with the use or maintenance of the dock equipment.
2. When a transport vehicle is parked at a loading dock, it is important that the vehicle is relatively perpendicular to the dock face and in close contact with at least one of the dock bumpers.
3. Nameplates, cautions, instructions, and posted warnings shall not be obscured from the view of operating or maintenance personnel for whom such warnings are intended.
4. Manufacturer's recommended periodic maintenance and inspection procedures in effect at date of shipment shall be followed, and written records of the performance of these procedures should be kept.
5. As with any piece of machinery, dock equipment requires routine maintenance, lubrication, and adjustments. Your local Rite-Hite representative offers owners the option of a Planned Maintenance Program (P.M.P.). As part of this service, your local Rite-Hite representative will do all routine maintenance, lubrication, and adjustments.
6. Dock equipment that is structurally damaged shall be removed from service, inspected by a manufacturer's authorized representative, and repaired as needed before being placed back in service.
7. The manufacturer shall make available replacement nameplates, caution/instruction labels, and operating/maintenance manuals upon request of the owner. The owner shall see that all nameplates, caution/instruction markings or labels are in place and legible, and that the appropriate operating/maintenance manuals are provided to users.
8. Modifications or alterations of dock equipment shall be made only with written permission of the original manufacturer. These changes shall also satisfy all safety recommendations of the original equipment manufacturer for the particular application of the dock equipment.
9. In order to be entitled to the benefits of the standard product warranty, the dock equipment must have been properly installed, maintained and operated within its rated capacities and/or specific design parameters, and not otherwise abused.
10. It is recommended that trailers equipped with air ride suspensions should remove the air from the suspension to minimize trailer bed drop, prior to loading or unloading.
11. When industrial trucks are driven on and off transport vehicles during the loading and unloading operation, the brakes on the transport vehicle shall be applied and wheel chocks or a positive restraining device shall be engaged.
12. It is recommended that an adequate stabilizing device or devices be employed at the front of the trailer in all cases where a trailer is being loaded or unloaded with the trailer resting on its support legs (landing gear) rather than a tractor fifth wheel or a converter dolly.
13. In selecting dock equipment, it is important to consider not only present requirements but also future plans or adverse environments.

DEFINITION AND FUNCTION

The SHR DOK-LOK vehicle restraint is an electromechanical, self-aligning restraint device used to secure semi-trailers with an intact Rear Impact Guard (R.I.G.) to the face of a loading dock. This is achieved by hooking the R.I.G. with an electrically powered steel hook. This prevents forward movement of the truck/trailer that may create an unsafe void between the face of the dock and the rear end of the truck/ trailer as a forklift travels from the loading dock onto the trailer; or to create an obstruction noticeable (via outside lights) to the truck driver, should the driver accidentally try to pull the truck/trailer away while it is being serviced.

The proper or improper activation of the hook is monitored by:

• VISUAL CONTROL

- One set of flashing green or red lights located at the inside of the building for the forklift operator, and one set located outside of the building for the truck driver. In addition to the lights, there are three instruction signs.

• AUDIO CONTROL

- A horn will sound at the inside of the building, warning the forklift operator if there is no R.I.G. present, or if the engagement is improper. In this case, the trailer must be secured by other means (wheel chocks, etc.) prior to servicing trailer.

Prerequisite for proper hook engagement is that the trailer is parked firmly against a 4" (trade standard) thick dock bumper. The activation/deactivation is solely controlled from the inside of the building by momentarily depressing either the LOCK (raise) button or the Unlock (lower) button.

The normal mode of the hook is in the lower stored position, showing a flashing red light (trailer not secured) at the inside of the building and a flashing green light (trailer free to move to or away from the loading dock) at the outside of the building.

Once the trailer is parked, the dock attendant will depress the LOCK button. This will raise the hook to engage the R.I.G. As soon as the R.I.G. is properly locked, there will be simultaneous light change — the inside will change from red to green flashing (trailer secured) and the outside will change from green to red flashing (do not move trailer). After the service is completed, the dock attendant will have to depress the Unlock button which then will return the hook to its lower stored position.

A proper hook engagement is achieved when the hook raises unobstructed to fully trap the horizontal cross member of the R.I.G. Assembly. An improper hook engagement is if the horizontal cross member of the R.I.G. is missing, obstructed, or it is bent or located so far toward the rear axle of the trailer that it will prevent the free passage of the hook. In either case, the lights will stay in a non-serviceable mode and a horn will sound. At this point, the trailer must be secured by other means (example: wheel chocks) in order to become serviceable.

FEATURES

Refer to Figure 2, page 8 for locations of these features:

R.I.G.

Acronym used for the Federally mandated rear impact guard located on the rear of over the road trailers to prevent accidental underride by automobiles.

ROLLER TRACK ASSEMBLY

Mounted to the loading dock wall to guide the carriage assembly in a vertical plane and transmit the creep or pull out force from a trailer to the loading dock wall.

CARRIAGE ROLLER ASSEMBLY

Comprised of a steel roller housing, a pre-lubricated needle bearing to allow easy movement of the carriage assembly.

CARRIAGE RETURN SPRINGS

Bias the carriage assembly to its upward stored position and to maintain contact with the R.I.G. while servicing a trailer.

LOWER SPRING BAR

Provides a connection between the carriage assembly and roller track assembly using carriage return springs.

CARRIAGE ASSEMBLY

Sloped front provides self-positioning by the R.I.G. and restrains the trailer once the hook has been activated by the dock attendant.

CARRIAGE ASSEMBLY SLOPE EXTENSION

Allows trailers with lower R.I.G.s to be serviced by the DOK-LOK vehicle restraint.

HOOK

Entraps R.I.G. to prevent trailer from rolling/creeping away from the dock.

MOTOR ASSEMBLY

Provides means of moving the hook between its stored and active positions.

SPRING COVERS WITH LIP GUIDE

Protect the springs and keep debris out of the roller track assembly. Right hand cover has an integral lip guide which is used to guide the lip past the roller track assembly in a below dock end load condition.

LIMIT SWITCHES, CONTROL HARNESS, CONTROL BOX, OUTSIDE LIGHT BOX, AND SIGNAGE

Combination of these components is used to control the RHR DOK-LOK vehicle restraint and provide audio/ visual communications to the dock attendant and trailer driver.

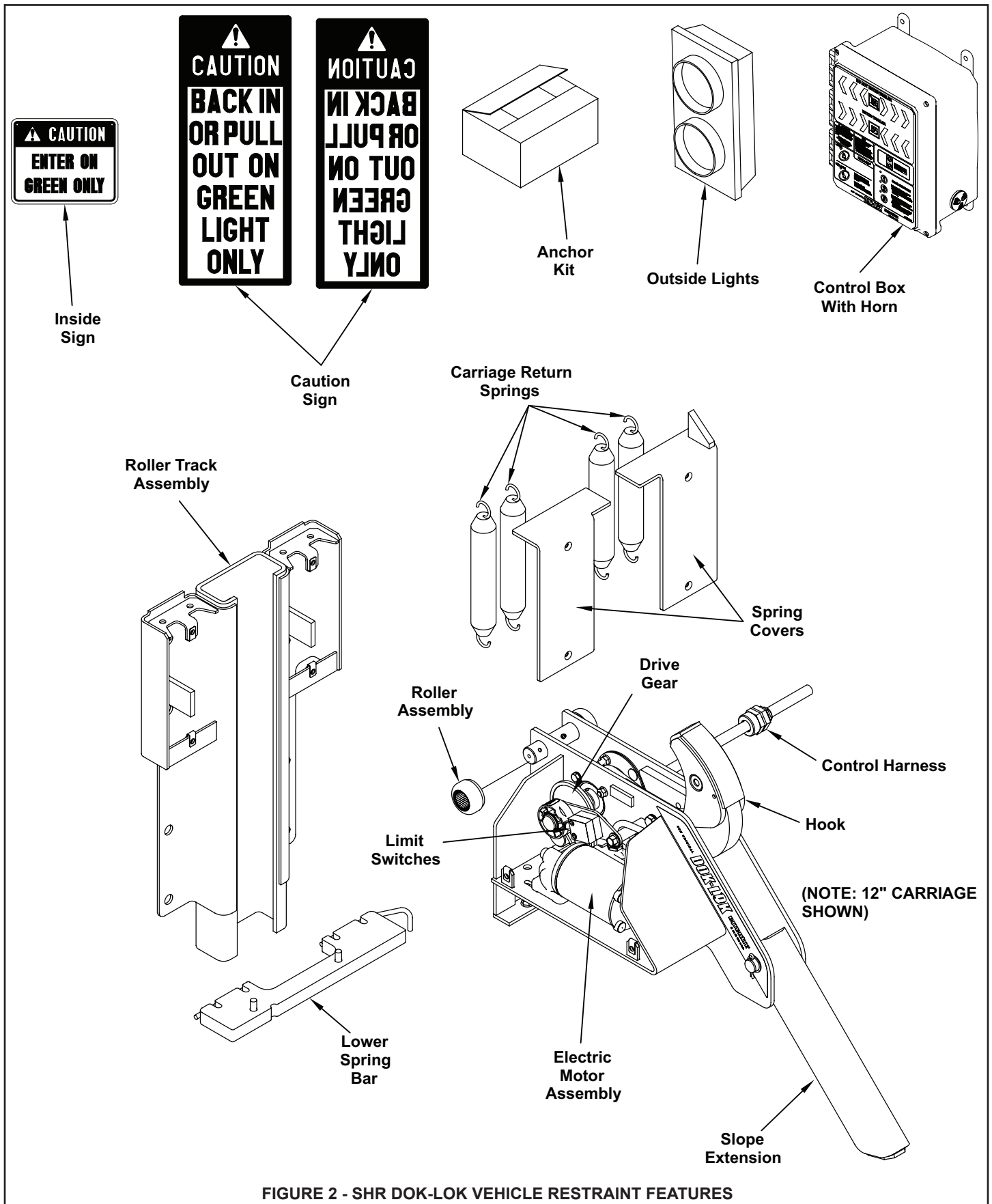


FIGURE 2 - SHR DOK-LOK VEHICLE RESTRAINT FEATURES

OPERATING PROCEDURES

WARNING

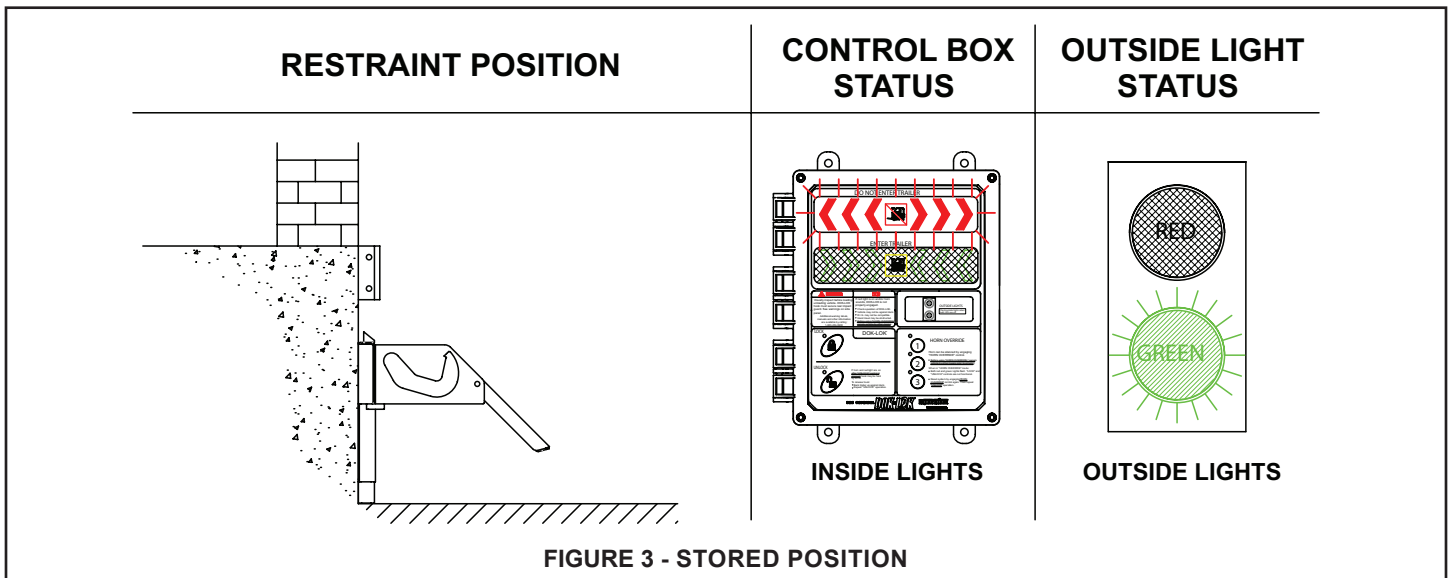
- Before loading or unloading a vehicle at your loading dock while using a DOK-LOK vehicle restraint, always visually inspect to be sure that the barrier blocks the R.I.G. assembly. If a condition occurs that cannot be remedied by backing the trailer firmly against the dock bumpers, secure the trailer by other means.
- Rear Impact Guards with cover plates should be secured using DOK-LOK® Shadow Hook.
- Always operate the DOK-LOK vehicle restraint from the top of the dock.
- Inspect all restraint lights daily to make certain they work properly.
- Perform maintenance on restraints in accordance with Maintenance on page 13 of this manual.
- DOK-LOK vehicle restraints should be operated only by authorized personnel who have read and understand the Owner's Manual.
- Call your local representative or Rite-Hite at (800) 456-0600 with any questions.

FAILURE TO FOLLOW THESE PROCEDURES COULD ALLOW UNEXPECTED TRAILER / LOADING DOCK SEPERATION RESULTING IN DEATH OR SERIOUS INJURY!

Stored Position / Restraint UNLOCKED

Hook is in the STORED position. Light Communication System should give the following signals:

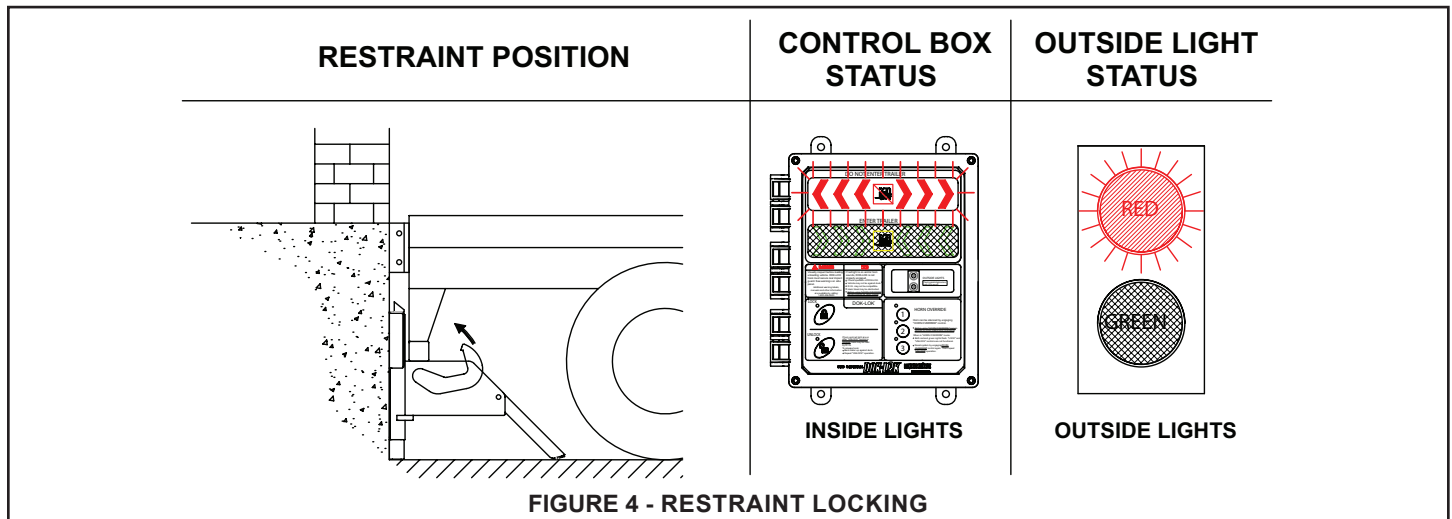
1. OUTSIDE light is GREEN, which indicates that a vehicle may pull into our out of the loading bay.
2. INSIDE light is RED, which indicates that loading or unloading is not permitted, since the truck is not



secured against the building. See Figure 3.

Restraint Locking, LOCK Button Pressed

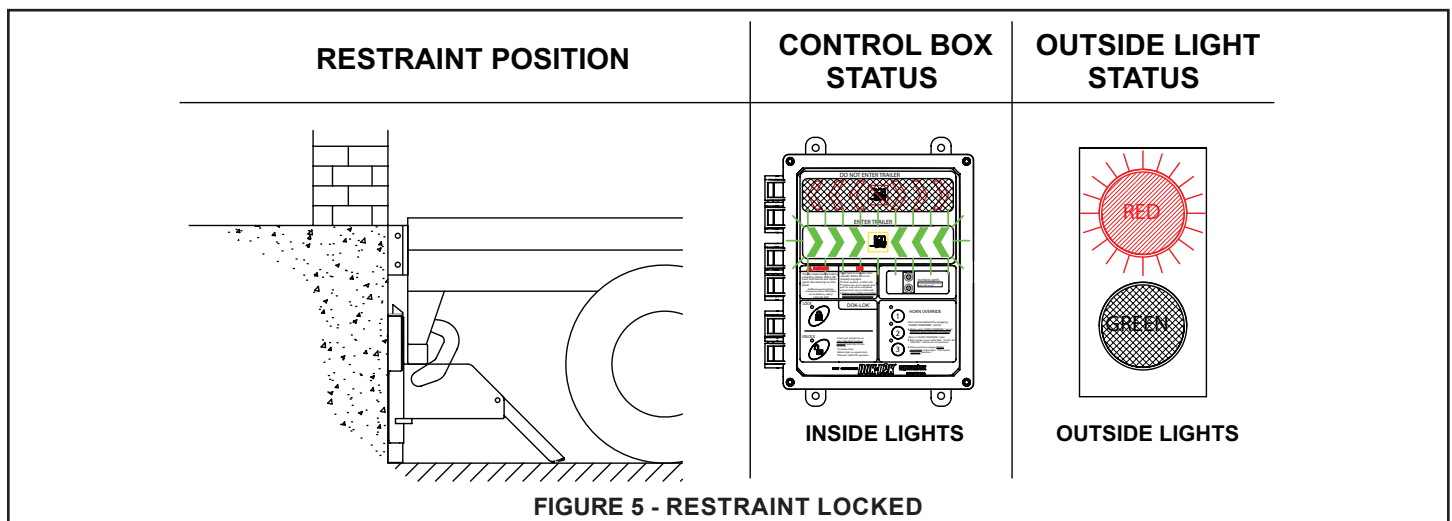
Trailer has backed into loading dock and is parked firmly against dock bumpers. Hook rotates from stored position to entrap R.I.G. Inside light is steady red alerting the operator that an unsafe condition exists and hook is in transit. Outside light is flashing red alerting truck driver not to move.



If horn sounds, go to FAULT, otherwise go to Restraint LOCKED.

Restraint LOCKED

Once the R.I.G. is entrapped by the hook, a LOCKED condition exists. Inside light is flashing green alerting the forklift operator a safe condition exists. Outside light is flashing red alerting truck driver not to move.



If during loading/unloading the inside light turns red and the horn sounds, press LOCK button to secure the R.I.G.

CAUTION

If trailer can not be restrained due to a lift gate or other obstruction that could become damaged, go to **VERRIDE** state.

WARNING

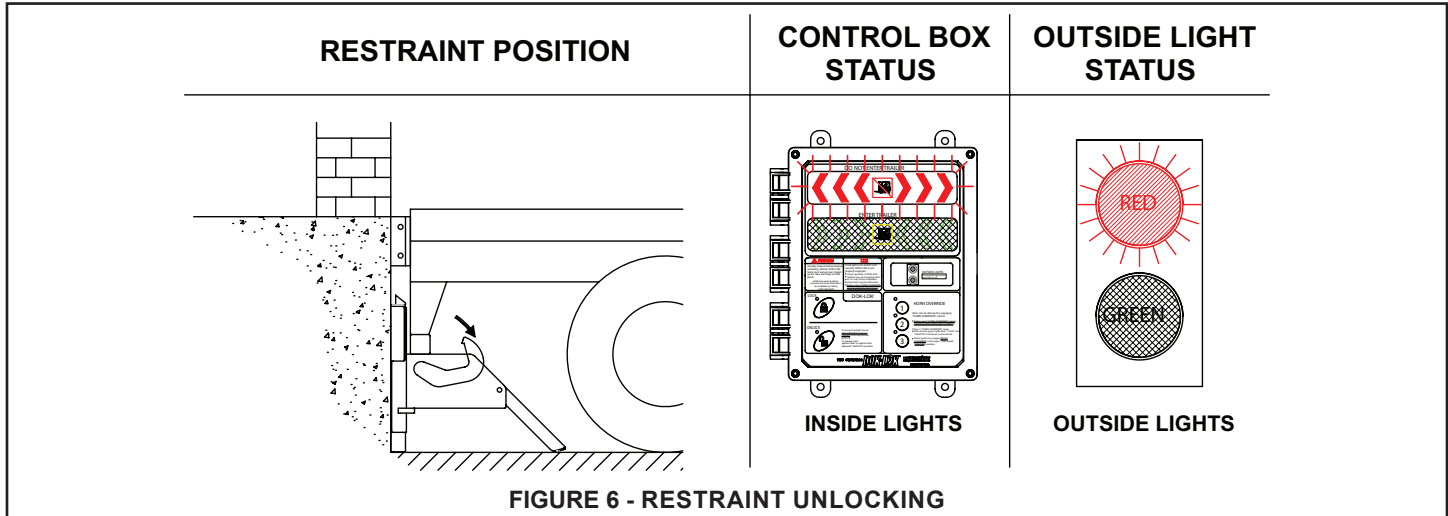
Visually inspect to ensure that the DOK-LOK vehicle restraint hook securely entraps the R.I.G. of the trailer being serviced before operating the dock leveler.

Restraint UNLOCKING, UNLOCK Button Pressed

Hook travels from the LOCKED position to the STORED position. Inside light is steady red alerting the operator that an unsafe condition exists and hook is in transit. Outside light is flashing red alerting truck driver not to move. If horn sounds go to FAULT state, otherwise go to STORED.

CAUTION

If trailer can not be restrained due to a lift gate or other obstruction that could become damaged, go to **VERRIDE** state.



FAULT State From LOCKING State

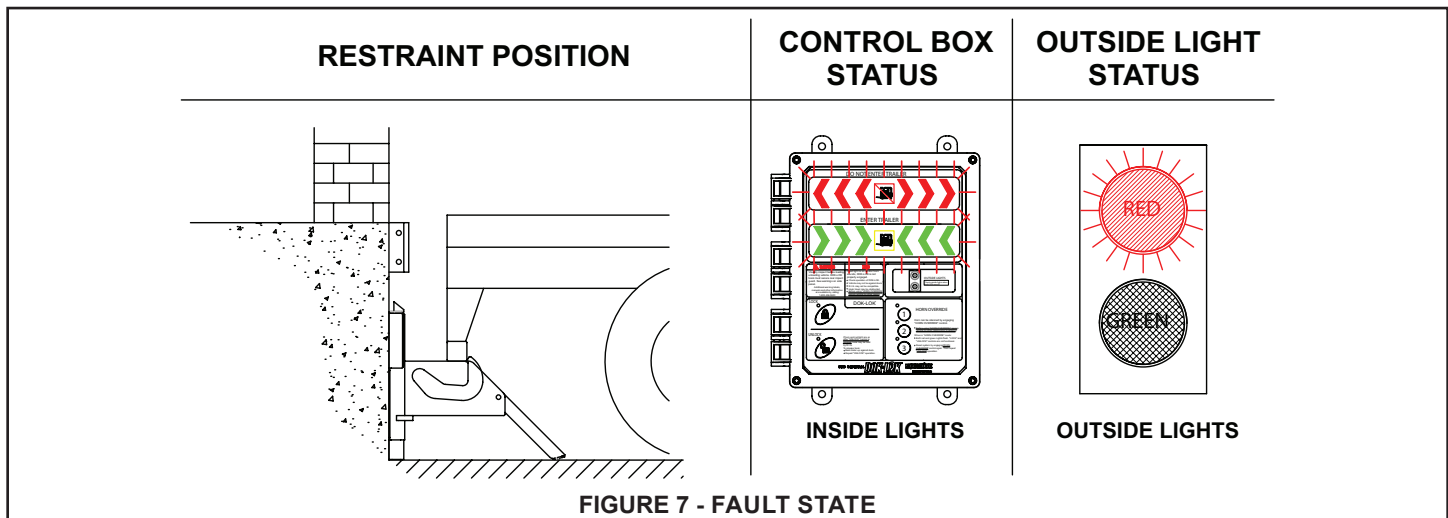
Hook cannot entrap the R.I.G. This could be due to a R.I.G. that is located too far toward the rear axle, bent, obstructed or missing. Inside light is flashing red and horn is pulsing, alerting the forklift operator that the trailer is not locked. Outside light is flashing red alerting the truck driver not to move.

If the trailer is parked firmly against the dock bumpers go to HORN OVERRIDE state. If not, press UNLOCK to clear the fault, have trailer back up and repeat Restraint LOCKING.

FAULT State From UNLOCKING State

Hook cannot rotate to the STORED position. The hook could be caught on the R.I.G. or another part of the trailer. Inside light is flashing red and horn is pulsing, alerting the forklift operator that the trailer is not locked. Outside light is flashing red alerting the truck driver not to move.

Make sure trailer is parked firmly against the dock bumpers. If not, have trailer back up and repeat Restraint UNLOCKING.



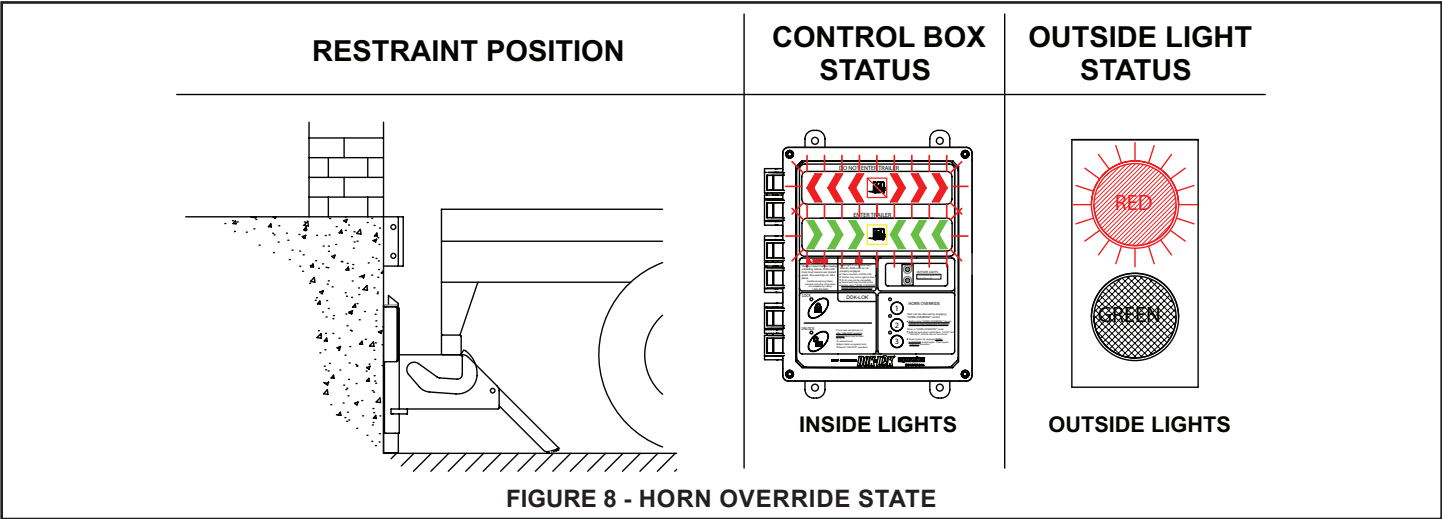
HORN OVERRIDE State, HORN OVERRIDE Code Entered or HORN OVERRIDE Button Pressed after Securing Trailer by Alternate Means

An alternate means of securing the truck must be used if the hook can not capture the rear impact guard.(i.e. wheel chocks). Inside lights are flashing red and green alerting the forklift operator the trailer is secured by other means. Outside light is flashing red alerting the truck driver not to move.

To return to STORED, enter HORN OVERRIDE Code or press the HORN OVERRIDE button followed by the UNLOCK button.

**DANGER**

Before operating “HORN OVERRIDE”, secure trailer by other means.



MAINTENANCE

DANGER

When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

DANGER

Post safety warnings and barricade work area, at dock level and at ground level, to prevent unauthorized use of the dock position.

WARNING

A safe work place requires all lights and the horn to be working properly. DO NOT use DOK-LOK vehicle restraint if parts are broken or missing.

CAUTION

When lifting carriage (approx. 110 lbs.) use lifting device (ex. crane, jack). Lifting by hand may cause back injury.

IMPORTANT

Maintenance may be required more frequently at loading docks exposed to harsh environments (extreme climates, corrosive chemicals, frequency of usage, etc.). Consult Rite-Hite if these conditions exist for accelerated maintenance requirements.

NOTE: If a leveler is installed at the SHR DOK-LOK vehicle restraint location, it may be necessary to raise the leveler before performing maintenance. Raise the leveler, insert and secure the SAFE-T-STRUT, and LOCKOUT/TAGOUT the power source.

NOTE: Your local Rite-Hite representative provides a Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. Call your local representative.

DAILY

1. Remove dirt, snow, ice and debris around DOK-LOK vehicle restraint.
2. Verify inside, outside lights and horn are working.
3. Replace damaged or missing light bulbs and lenses.
4. Repair, remount, or replace outside and inside signs as required.
5. Inspect dock bumpers. Missing bumpers must be replaced.

180 Days

1. Perform all Daily maintenance.
2. Grease rollers at fittings located on the top and bottom axle. Use Mobilith SHC220 No. 2 grease (or equivalent temperature range lithium based grease). Seven (7) to eight (8) pumps should be used for first 180 Day maintenance. Two (2) to three (3) pumps at subsequent 180 Day maintenance intervals.
3. Verify clutch torque is greater than 500 in-lbs at the hook shaft.
4. Inspect outside junction and light box. They should be rigidly mounted. If loose or damaged, inspect all wires and wire connections.
5. Check that all concrete anchor bolts are torqued to 60 ft-lbs.
6. Inspect flexible electrical harness from DOK-LOK vehicle restraint to junction box. Look for kinks, crushed areas, etc.
7. Verify hook is centered between stop plates.
8. Perform operational test after all maintenance repairs and adjustments are complete.
9. Inspect dock bumpers. Four inches (4") of protection is required. Worn, torn, loose or missing bumpers must be replaced.

360 Days

1. Perform all Daily and 180 Day maintenance.
2. Check and tighten, if necessary, motor drive chain. To tighten see Figure 9, page 14.
3. Spray lube chain using spray grease (Zep 2000 recommended).

DRIVE CHAIN ADJUSTMENT



When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

Periodically inspect the drive chain for dirt and chain slack. Open the motor enclosure for inspection. Clean the chain with solvent. After cleaning, spray the chain with a good quality chain spray type lubricant.

The drive chain should not have more than 1/4" slack. Refer to Figure 9. To tighten chain:

1. Open motor enclosure and loosen the four (4) motor mounting bolts.
2. Pry the motor assembly forward, in the slotted holes, until the chain is tight with proper alignment between sprockets. Hold in this position and tighten the four (4) motor mounting bolts to 105 in-lbs in increments of 10 in-lbs. Tighten in pattern shown. See Figure 9.
3. Test for proper chain alignment.
4. Close the motor enclosure.

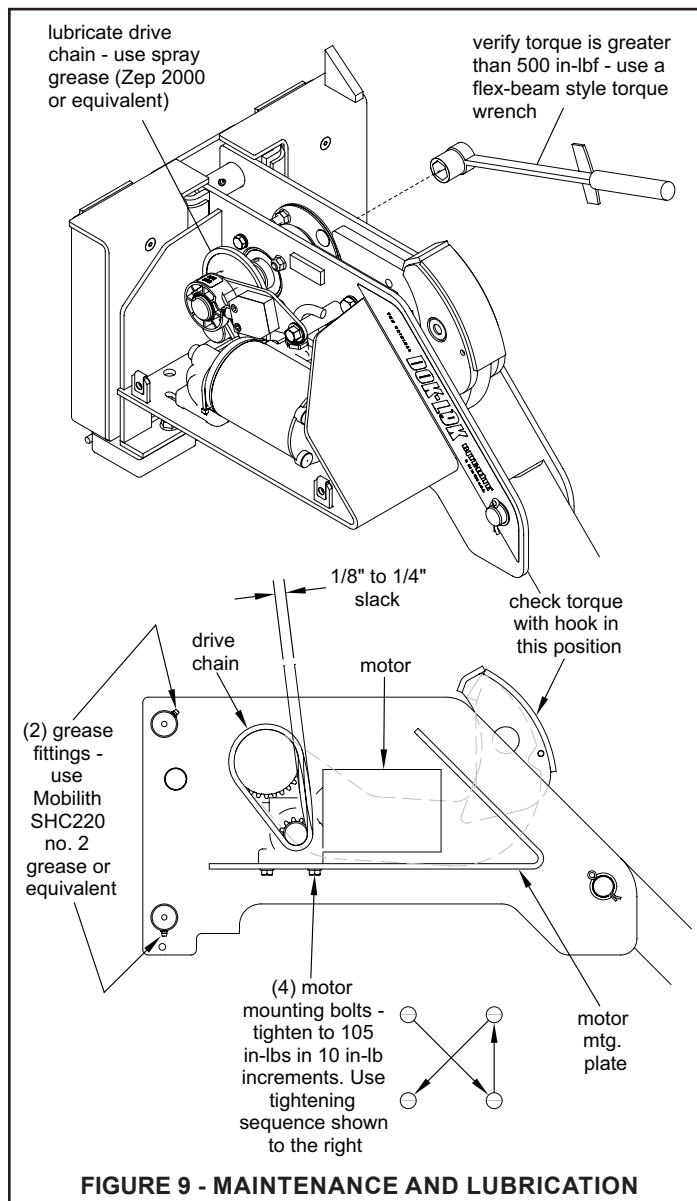


FIGURE 9 - MAINTENANCE AND LUBRICATION

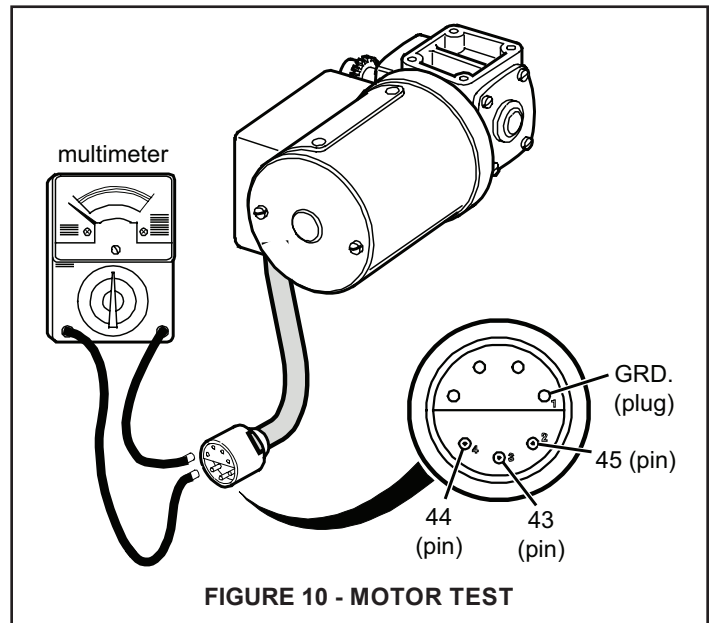
COMPONENT TESTING

Vehicle Restraint Motor Test Procedure

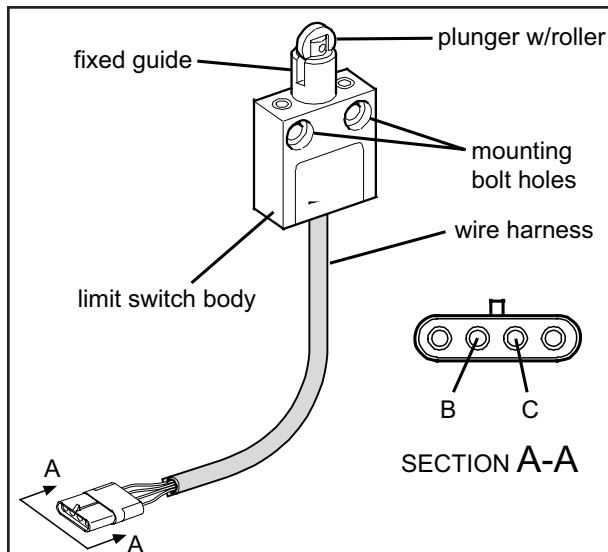
1. **BAD O/L:** Little or infinite ohm reading (no needle movement) between pins 43 and 44, 43 and 45. Set multimeter to ohms. Std. readings: Between pins 44 and 45 = 11 ohms: Between pins 44 or 45 and 43 = 5.5 ohms.
2. **OPEN WINDING:** Infinite ohms (no needle movement) between pins 44 and 45. Check between pins 44 and 43 or 45 and 43 to determine which winding is open.
3. **MECHANICAL BINDING:** Motor hums. Motor leads show continuity between all windings. Shaft does not move. Reads 6.5 amps at pin 43 on both rotations.

Limit Switch Test Procedure

1. Set multimeter to "RX1" scale for "Continuity Test".
2. Attach multimeter leads to pins "B" and "C" of limit switch connector. You should have:
 - plunger released - no meter reading.
 - plunger depressed - a "Full Scale" meter reading.



NOTE: The green (ground) wire of the limit switch does not have to be tested. A continuity test lamp may be used instead of a multimeter.



Hook Position	LS1 Position	LS2 Position	Inside Light	Outside Light	Horn
1. Stored	Closed Depressed	Open Released	Red	Green	Off
2. No Hook (Lower Pos.)	Closed Depressed	Closed Depressed	Red	Red	On
3. Hooked (90°)	Open Released	Closed Depressed	Green	Red	Off
4. No Hook (Upper Pos.)	Closed Depressed	Closed Depressed	Red	Red	On

FIGURE 11 - LIMIT SWITCH AND HOOK POSITION CHART

LED STATUS CHART

SHR-5000 SHADOW HOOK RESTRAINT	MICRO CONTROL BOARD															POWER BOARD				
	INPUTS			OUTPUTS												OUTPUTS				
	FIELD			PUSH BUTTONS			12VDC									RELAY		115/230VAC		
	DOK-LOK LIMIT SWITCH 1 [SW1]	DOK-LOK LIMIT SWITCH 2 [SW2]	UNLOCK INTERLOCK [UNLK ITL]	LOCK PUSH BUTTON	UNLOCK PUSH BUTTON	HORN SILENCE PUSH BUTTONS (1/2/3)	INSIDE RED LIGHT [ISR]	INSIDE GREEN LIGHT [ISG]	CORNER-VU RED LIGHT [CVU RD]	CORNER-VU GREEN LIGHT [CVU GRN]	LEVELER-VU RED LIGHT [LVU RD]	LEVELER-VU GREEN LIGHT [LVU GRN]	OUTSIDE RED LIGHT [OSR]	OUTSIDE GREEN LIGHT [OSG]	DOK-LOK HORN [HORN]	RESTRAINT OVERLOAD LED [YELLOW]	K1 - GREEN LIGHT INTERLOCK	K2 - SECURITY SYSTEM INTERFACE [IF EQUIPPED]	MOTOR OUTPUT #1 [M1/LOCK]	MOTOR OUTPUT #2 [M2/UNLOCK]
TERMINAL BLOCK NO.	J13.1	J13.2	J14.3			J7.16	J7.17	J12.1	J12.2	J12.3	J12.4	J11.2	J11.1	J7.19	N/A	J9.3	J10.3	J5.4	J5.3	J2.1-6
POWER BOARD LEDs	-	-	-	-	MEMBRANE	-	-	-	-	-	-	-	-	-	-	-	-	LD2	LD1	LD7
MICRO CONTROL BOARD LEDs	LD20	LD23	LD30		LD52	LD17	LD19	LD11	LD13	LD18	LD12	LD49	LD48	LD15	LD50	LD9	LD10	LD1	LD3	-
01.01.00 LOCKED STATE	F	T	?	-	-	F	P	F	P	F	P	P	F	F	F	T	T	F	F	T
01.01.01 LOCKING SEQUENCE	T	T	?	M	-	T	F	P	F	P	F	P	F	F	F	F	T	T	F	T
01.02.00 UNLOCKED STATE	T	F	?	-	-	P	F	P	F	P	F	F	P	F	F	F	T	F	F	T
01.02.01 UNLOCKING SEQUENCE	T	T	ITL	-	M	T	F	P	F	P	F	P	F	F	F	F	T	*	T	T
01.04.00 FAULT STATE	T	T	?	-	-	P	F	P	F	P	F	P	F	P	F	F	F	F	F	T
01.04.01 FAULT SILENCED STATE	T	T	?	-	-	M	A	A	A	A	A	P	F	F	F	T	T	F	F	T
01.05.00 L/S FAULT STATE LOCK	F	F	?	-	-	D	F	D	F	D	F	P	F	D	F	F	F	F	F	T
01.11.00 OVERLOAD FAULT STATE	?	?	?	-	-	P	F	P	F	P	F	P	F	F	K	T	F	F	F	T
NO.	STATE / SEQUENCE NO.																			
KEY																				
? - VARYS DEPENDING ON OPERATION																				
* - ON FOR 1.5SEC BEFORE M2 ENERGIZES																				
A - ALTERNATING																				
D - DOUBLE FAST PULSING / FLASHING																				
F - OFF																				
T - STEADY ON																				
MOTOR OVERLOAD RESET PROCEDURE																				
If Yellow LED LD50 is illuminated and the Dok-Lok Horn is Chirping, system is in an Overload Fault State.																				
To reset the motor overload:																				
1) Press and Hold Horn Silence Button (3-Button System) / Horn Silence #2 Button (5-Button System) until Horn Chirps (Approximately 5 Seconds). OR																				
2) Press and Release Restraint O/L Button on Micro Controller Board																				
When the motor overload has been reset, the Yellow LD50 LED will turn off and normal operation resumes																				
Dok-Lok motor still does not run after resetting the overload, check Motor Fuse 10FU1																				

HORN OVERRIDE CODE AND DIAGNOSTICS

SETTING HORN OVERRIDE CODE

1. *Press and hold DIAGNOSTIC button until the horn chirps (approximately five seconds).
2. Enter the factory preset HORN OVERRIDE code: 1223. (horn will chirp)
3. Enter the new HORN OVERRIDE code. The code can be one to four numbers in length.
4. Once the new code has been entered, press the LOCK button.
5. Controls reset with new HORN OVERRIDE code enabled.

If code has been forgotten, follow the above procedure and enter a new code.

***NOTE:** To change code or enter diagnostic modes without opening the control box cover, press and hold the "1" and "3" buttons on the cover until the horn chirps.

DIAGNOSTICS

Diagnostic mode may be entered while the restraint is in any state. To enter diagnostic mode:

1. *Press and hold DIAGNOSTIC button until the horn chirps (approximately five seconds).
2. Press LOCK button.
3. Press UNLOCK button.
4. The horn chirps and the outside light is flashing RED. The controls are in the first step of diagnostic mode.

NOTE: The outside red light will remain flashing at all times except Step 10.

5. Start at Step 1 in the Diagnostic Table. If the equipment Outputs do not match the table, use the Troubleshooting section.

If no buttons are pressed within a five minute period, the controls will automatically exit to power up. To exit the diagnostic mode at any time, press the DIAGNOSTIC button.

SHR-5000 DIAGNOSTIC I/O WALK THRU SEQUENCE [IF EQUIPPED]		BASE MICRO CONTROLLER BOARD																POWER BOARD			
		OUTPUTS																OUTPUTS			
		12VDC														RELAY		115/230VAC			
		INSIDE RED LIGHT [ISR]	INSIDE GREEN LIGHT [ISG]	CORNER-VU RED LIGHT [CVU RD]	CORNER-VU GREEN LIGHT [CVU GRN]	LEVELER-VU RED LIGHT [LVU RD]	LEVELER-VU GREEN LIGHT [LVU GRN]	PEDESTRIAN-VU AMBER [PVU LT]	PEDESTRIAN-VU ALARM [PVU ALM]	OUTSIDE RED LIGHT [OSR]	OUTSIDE GREEN LIGHT [OSG]	DOK-LOK HORN [HORN]	MWL ACTUATOR [MWL ACTR]	OUTSIDE ALARM [MWL ALM]	UNIDOX ITC [UD ITC OUT]	GREEN LIGH INTERLOCK [GLT ITL]	K1 - GREEN LIGHT INTERLOCK	K2 - SECURITY SYSTEM INTERFACE [IF EQUIPPED]	MOTOR OUPUT #1 [M1/LOCK]	MOTOR OUPUT #2 [M2/UNLOCK]	12VDC POWER SUPPLY OK
STEP	TERMINAL BLOCK NO. POWER BOARD LEDs MICRO CONTROL BOARD LEDs	J7.16	J7.17	J12.1	J12.2	J12.3	J12.4	J12.5	J11.2	J11.1	J7.19	J15.2	J15.3	J15.4	J15.5	J9.3	J10.3	J5.4	J5.3	J2.1-6	
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	LD2	LD1	LD7
		LD17	LD19	LD11	LD13	LD18	LD12	LD16	LD14	LD49	LD48	LD15	LD37	LD40	LD20	LD39	LD9	LD10	LD1	LD3	-
1	DIAGNOSTICS ENTERED	F	F	F	F	F	F	F	F	P	F	C	F	F	F	F	F	F	F	F	T
2	CHECK INSIDE RED	T	F	F	F	F	F	F	F	P	F	F	F	F	F	F	F	F	F	F	T
3	CHECK INSIDE GREEN	F	T	F	F	F	F	F	F	P	F	F	F	F	F	F	F	F	F	F	T
4	CHECK CORNER-VU RED	F	F	T	F	F	F	F	F	P	F	F	F	F	F	F	F	F	F	F	T
5	CHECK CORNER-VU GREEN	F	F	F	T	F	F	F	F	P	F	F	F	F	F	F	F	F	F	F	T
6	CHECK LEVELER-VU RED	F	F	F	F	T	F	F	F	P	F	F	F	F	F	F	F	F	F	F	T
7	CHECK LEVELER-VU GREEN	F	F	F	F	F	T	F	F	P	F	F	F	F	F	F	F	F	F	F	T
8	CHECK PEDESTRIAN-VU AMBER	F	F	F	F	F	F	T	F	P	F	F	F	F	F	F	F	F	F	F	T
9	CHECK PEDESTRIAN-VU ALARM	F	F	F	F	F	F	F	T	P	F	F	F	F	F	F	F	F	F	F	T
10	CHECK OUTSIDE RED LIGHT	F	F	F	F	F	F	F	F	T	F	F	F	F	F	F	F	F	F	F	T
11	CHECK OUTSIDE GREEN LIGHT	F	F	F	F	F	F	F	F	P	T	F	F	F	F	F	F	F	F	F	T
12	CHECK DOK-LOK HORN	F	F	F	F	F	F	F	F	P	F	T	F	F	T	F	F	F	F	F	T
13	CHECK MWL ACTUATOR AND UNIDOX OUTPUTS	F	F	F	F	F	F	F	F	P	F	F	T	F	T	F	F	F	F	F	T
14	CHECK GREEN LIGHT INTERLOCK OUTPUTS	F	F	F	F	F	F	F	F	P	F	F	F	F	F	T	T	F	F	F	T
15	CHECK K2 RELAY	F	F	F	F	F	F	F	F	P	F	F	F	F	F	F	F	T	F	F	T
16	HORN CHIRPS SIGNALING END OF SEQUENCE	F	F	F	F	F	F	F	F	P	F	C	F	F	F	F	F	F	F	F	T
PRESS LOCK TO ADVANCE, UNLOCK TO REVERSE (REFER TO TROUBLESHOOTING GUIDE IF OUTPUT DOESN'T MATCH)																					

TROUBLESHOOTING GUIDE	
STEPS	ACTIONS
2-3, 12	CHECK POWER SUPPLY LED & POWER SUPPLY FUSE ON POWER CIRCUIT BOARD
	CHECK CONTROL HARNESS CONNECTION AT CHEVRON AND MICRO CONTROLLER BOARDS
4-11	CHECK POWER SUPPLY LED & POWER SUPPLY FUSE ON POWER CIRCUIT BOARD
	CHECK LIGHT BULB, WIRING AND TERMINAL BLOCK CONNECTIONS
13-15	CHECK POWER SUPPLY LED & POWER SUPPLY FUSE ON POWER CIRCUIT BOARD
	CHECK TERMINAL BLOCK CONNECTIONS

KEY	
C	- HORN CHIRP
F	- OFF
P	- PULSING / FLASHING
T	- STEADY ON

Steps 17-21 are used to test the mechanical Inputs and Outputs of the lock (ie. motor, limit switches, ect.). The horn will chirp when the controls enter Steps 17-21 to alert the operator to check the hook position. If the hook does not move to the correct position, the horn will double pulse and the inside red light will be ON (see Troubleshooting tips).

SHR-5000 DIAGNOSTIC MOTOR WALK THRU [IF EQUIPPED]		MICRO CONTROL BOARD											POWER BOARD		
		INPUTS		OUTPUTS									OUTPUTS		
		FIELD		12VDC									115/230VAC		
		DOK-LOK LIMIT SWITCH 1 [SW1]	DOK-LOK LIMIT SWITCH 2 [SW2]	INSIDE RED LIGHT [ISR]	INSIDE GREEN LIGHT [ISG]	CORNER-VU RED LIGHT [CVU RD]	CORNER-VU GREEN LIGHT [CVU GRN]	LEVELER-VU RED LIGHT [LVU RD]	LEVELER-VU GREEN LIGHT [L-VU GRN]	OUTSIDE RED LIGHT [OSR]	OUTSIDE GREEN LIGHT [OSG]	DOK-LOK HORN [HORN]	MOTOR OUPUT #1 [M1/LOCK]	MOTOR OUPUT #2 [M2/UNLOCK]	12VDC POWER SUPPLY OK
STEP	TERMINAL BLOCK NO.	J13.1	J13.2	J7.16	J7.17	J12.1	J12.2	J12.3	J12.4	J11.2	J11.1	J7.19	J5.4	J5.3	J2.1-6
	POWER BOARD LEDs	-	-	-	-	-	-	-	-	-	-	-	LD2	LD1	LD7
	MICRO CONTROL BOARD LEDs	LD20	LD23	LD17	LD19	LD11	LD13	LD18	LD12	LD49	LD48	LD15	LD1	LD3	-
17	HORN CHIRPS SIGNALING ENTRANCE INTO MOTOR SEQUENCE	?	?	T	F	T	F	T	F	P	F	C	F	F	T
18a	HOOK STORES IF NOT ALREADY STORED	T	F	T	F	T	F	T	F	P	F	C	F	T	T
18b	HOOK RUNS TO LOWER FAULT POSITION	T	T	T	F	T	F	T	F	P	F	C	T	F	T
19	HOOK RUNS TO LOCKED POSITION	F	T	T	F	T	F	T	F	P	F	C	T	F	T
20	HOOK RUNS TO UPPER FAULT POSITION	T	T	T	F	T	F	T	F	P	F	C	T	F	T
21	HOOK STORES AND SYSTEM EXITS DIAGNOSTICS	T	F	T	F	T	F	T	F	P	F	C	F	T	T
FAULT	DIAG GENERAL FAULT STATE	?	?	T	F	T	F	T	F	P	F	D	F	F	T
PRESS LOCK TO ADVANCE, UNLOCK TO REVERSE (REFER TO TROUBLESHOOTING GUIDE IF OUTPUT DOESN'T MATCH)															

TROUBLESHOOTING GUIDE	
STEPS	ACTIONS
FAULT	CHECK POWER SUPPLY LED & POWER SUPPLY FUSE ON POWER CIRCUIT BOARD
	CHECK MOTOR AND VERIFY WIRING
	CHECK SW1 AND SW2 AND VERIFY WIRING
	CHECK MOTOR FUSE ON POWER CIRCUIT BOARD
	CHECK VOLTAGE ON M1 AND M2 TERMINALS TO NEUTRAL

KEY	
C	- HORN CHIRP
F	- OFF
P	- PULSING / FLASHING
T	- STEADY ON

CONTROL HARNESS

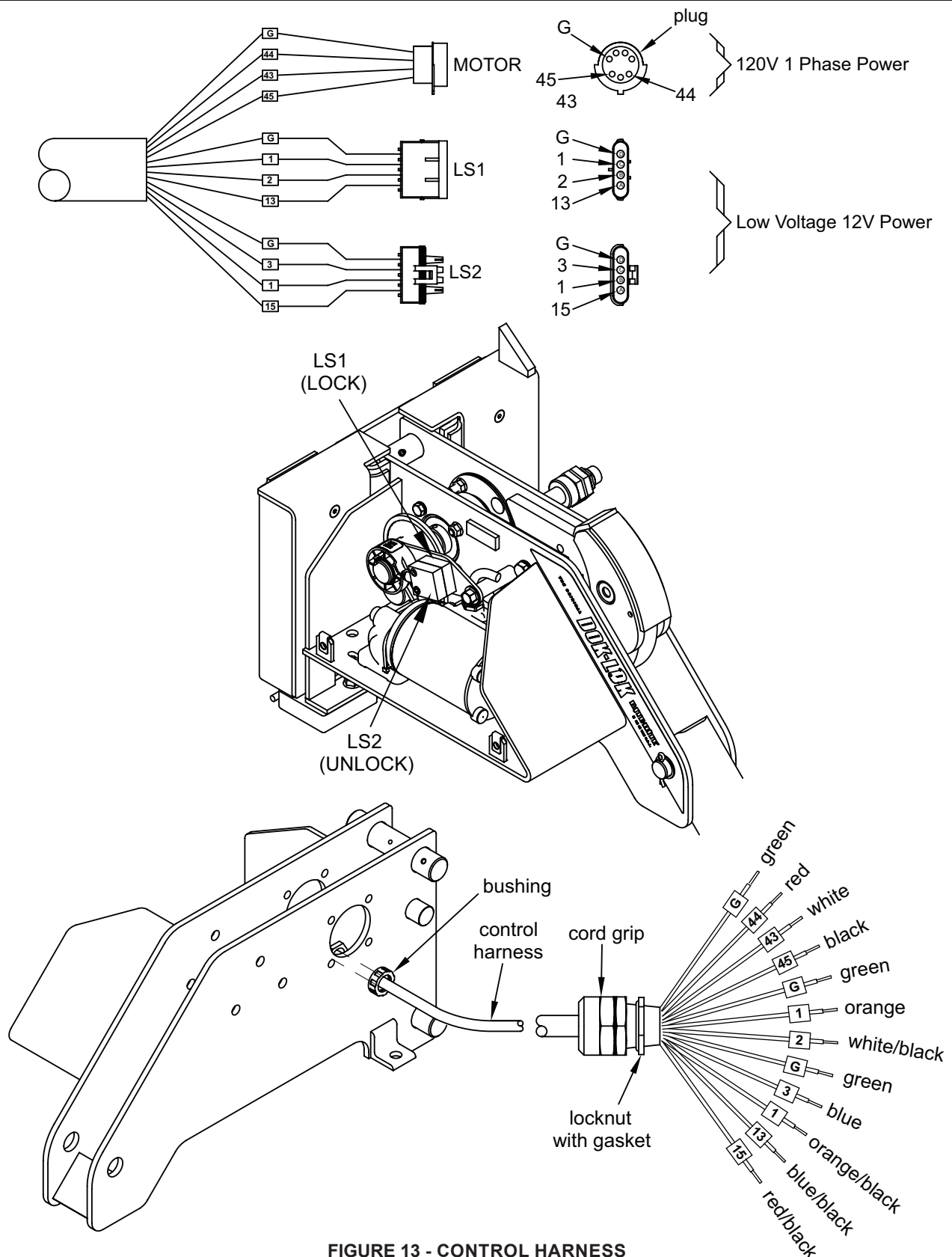


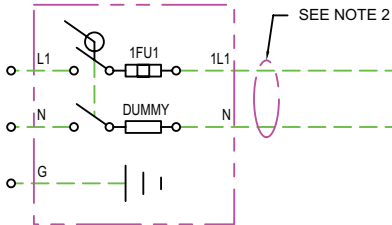
FIGURE 13 - CONTROL HARNESS

ELECTRICAL SCHEMATIC

FROM CUSTOMER MAIN POWER & SAFETY
PROTECTION DEVICE.

110-120v. 1PH. 60HZ./208-240v. 1PH. 50HZ.

USE 10.0A/5.0A DUAL ELEMENT TIME DELAY FUSE



FUSED DISCONNECT
(BY OTHERS)
SEE NOTE 7

POWER CIRCUIT BOARD

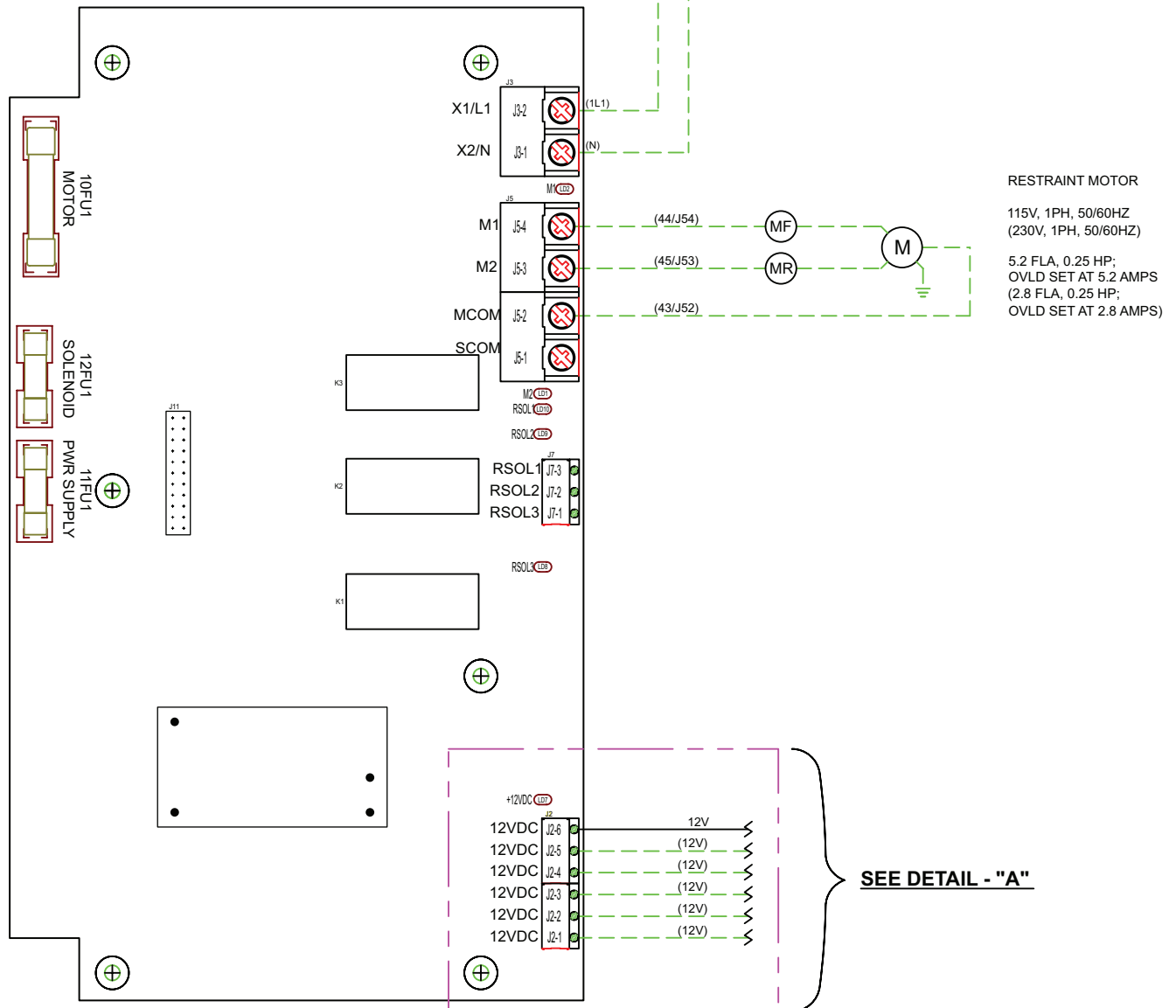


FIGURE 13 - ELECTRICAL SCHEMATIC - SECTION 1

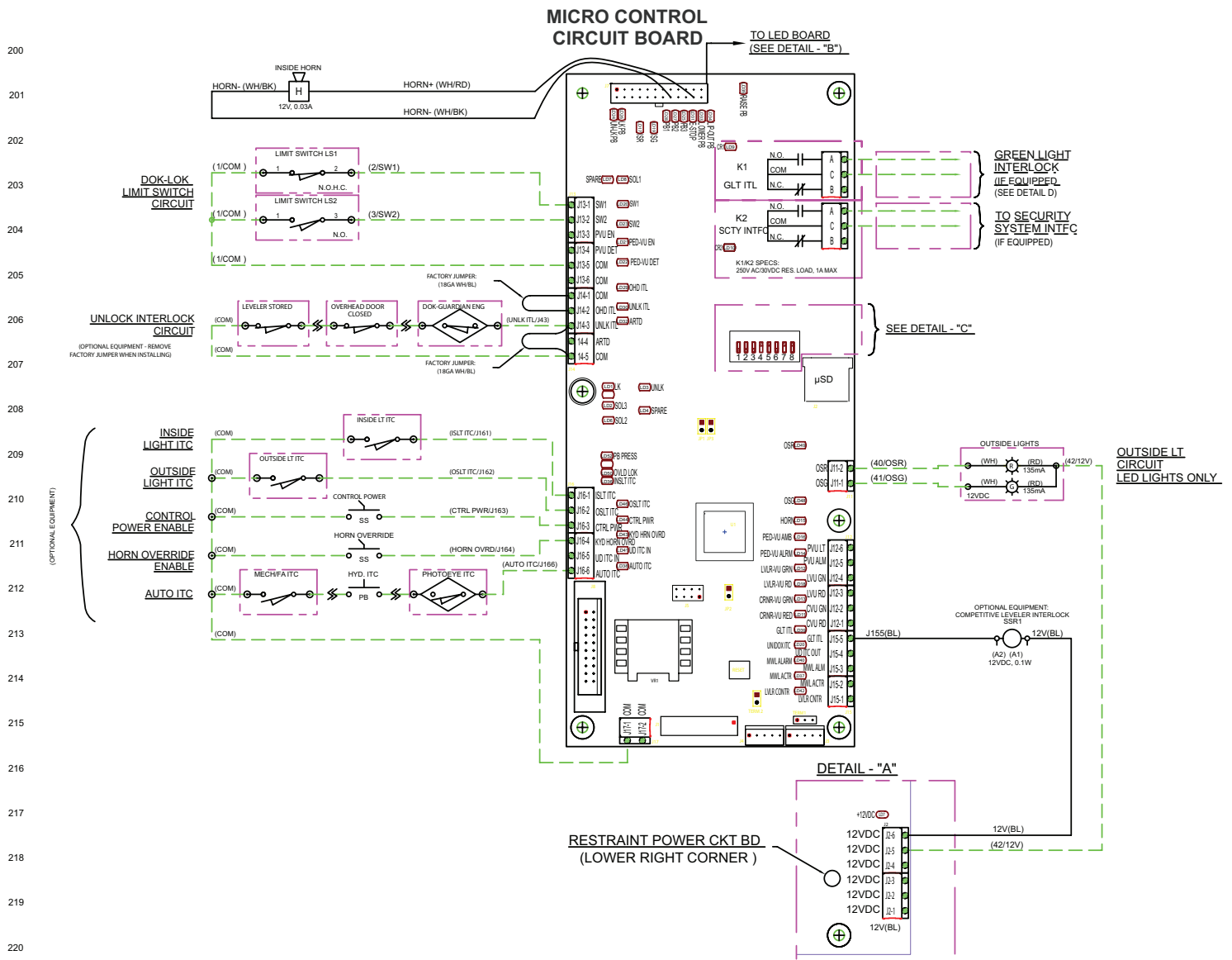
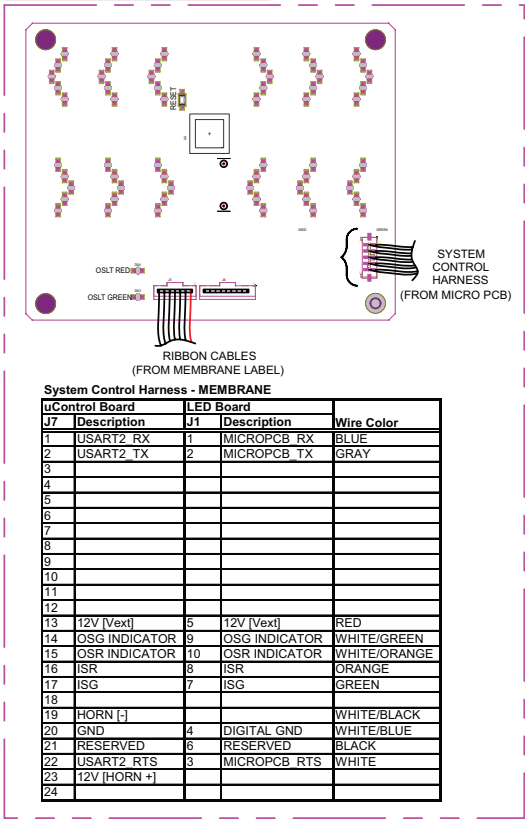
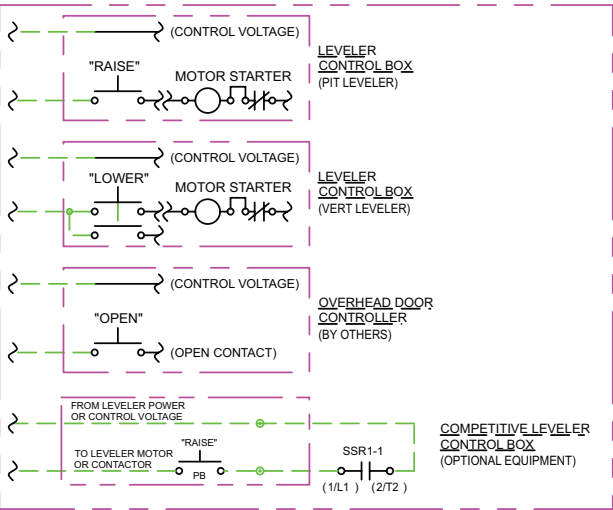


FIGURE 13 - ELECTRICAL SCHEMATIC - SECTION 2

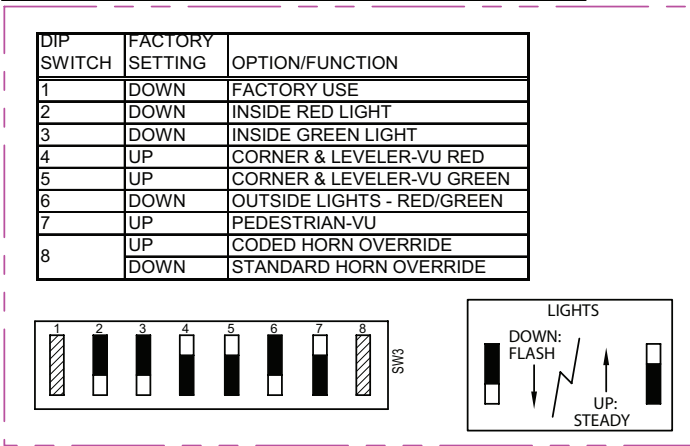
DETAIL B - BACK OF COVER



DETAIL - "D" GREEN LIGHT INTERLOCK VARIATIONS



DETAIL - "C" MICRO CONTROL BOARD DIP SWITCH SETTINGS

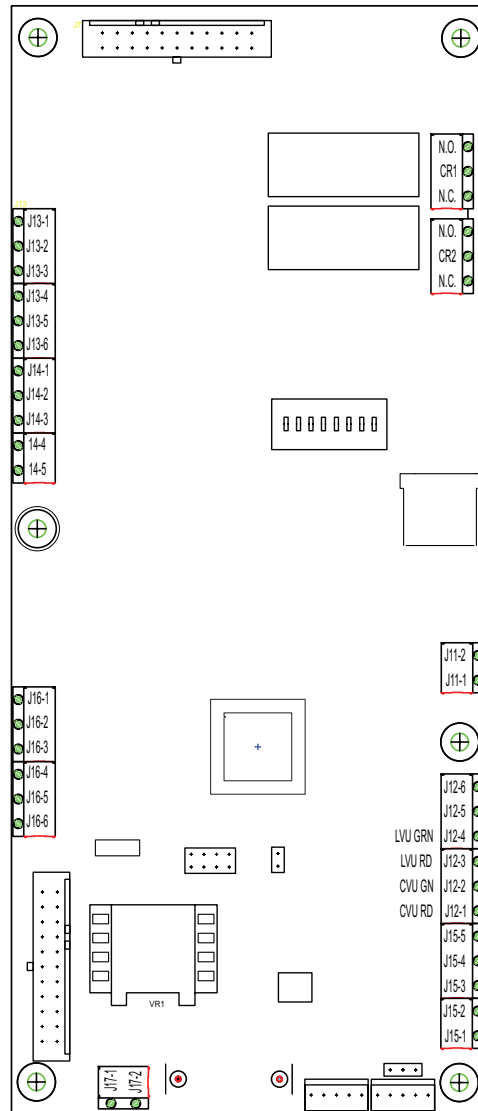


1. INSTALL PER LOCAL ELECTRICAL CODES. REFER ALL INSTALLATION AND SERVICE TO QUALIFIED PERSONNEL.
 2. ALL INCOMING POWER (FROM DISCONNECT TO CONTROL BOX) AND MOTOR FIELD WIRINGS TO BE MINIMUM #14GA. 60°/75°C COPPER WIRE, INSULATED SUFFICIENTLY FOR INCOMING VOLTAGE.
 3. ALL CONTROL FIELD WIRING TO BE MINIMUM #14GA. 60°/75°C COPPER WIRE ONLY, INSULATED SUFFICIENTLY FOR INCOMING VOLTAGE.
 4. ALL INTERNAL WIRING TO BE #14GA. MINIMUM FOR POWER CIRCUITS AND CIRCUIT BOARD POWER. #16GA MINIMUM FOR CONTROL CIRCUITS, 90°C, RED COPPER WIRE UNLESS OTHERWISE NOTED, INSULATED SUFFICIENTLY FOR INCOMING VOLTAGE.
 5. TORQUE REQUIREMENTS:
 - PCB TERMINAL BLOCK POWER (J3/J5): 7.0 LB-IN
 - PCB TERMINAL BLOCK ALL OTHER: 4.0 LB-IN
 6. GROUND TERMINAL: 35 LB-IN
 7. FUSED DISCONNECT NOTES:
 - FUSED DISCONNECT IS NOT PROVIDED BY RITE-HITE WITH VEHICLE RESTRAINT.
 - OTHER FIELD DEVICES ARE OPTIONAL. SEE SPECIFIC ELECTRICAL SCHEMATIC.
 8. CLASS 1 CONTROL CIRCUIT.
- LEGEND:
- DENOTES WIRE CONNECTIONS THRU TERMINAL BLOCK.
 - DENOTES FIELD WIRES.
 - DENOTES WIRE NUT CONNECTION.
 - ↔ DENOTES MALE/FEMALE PLUG CONNECTOR.

FIGURE 13 - ELECTRICAL SCHEMATIC - SECTION 3

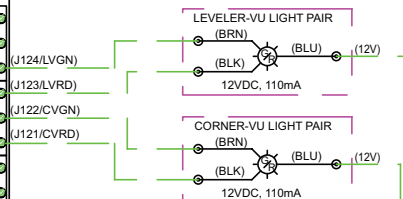
CORNER/LEVELER-VU WIRING

MICRO CONTROL CIRCUIT BOARD



RITE-VU WIRE LABELS

ORIGINAL RELEASE	PLUG & PLAY VERSION
12V	12V
IN3	PVDT
OUT0	CVRD
OUT1	CVGN
OUT2	PVLT
OUT3	LVRD
OUT4	LVGN
OUT5	PVAL
GND	COM



RESTRAINT POWER CB

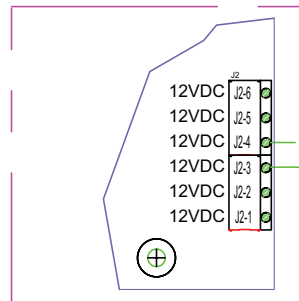
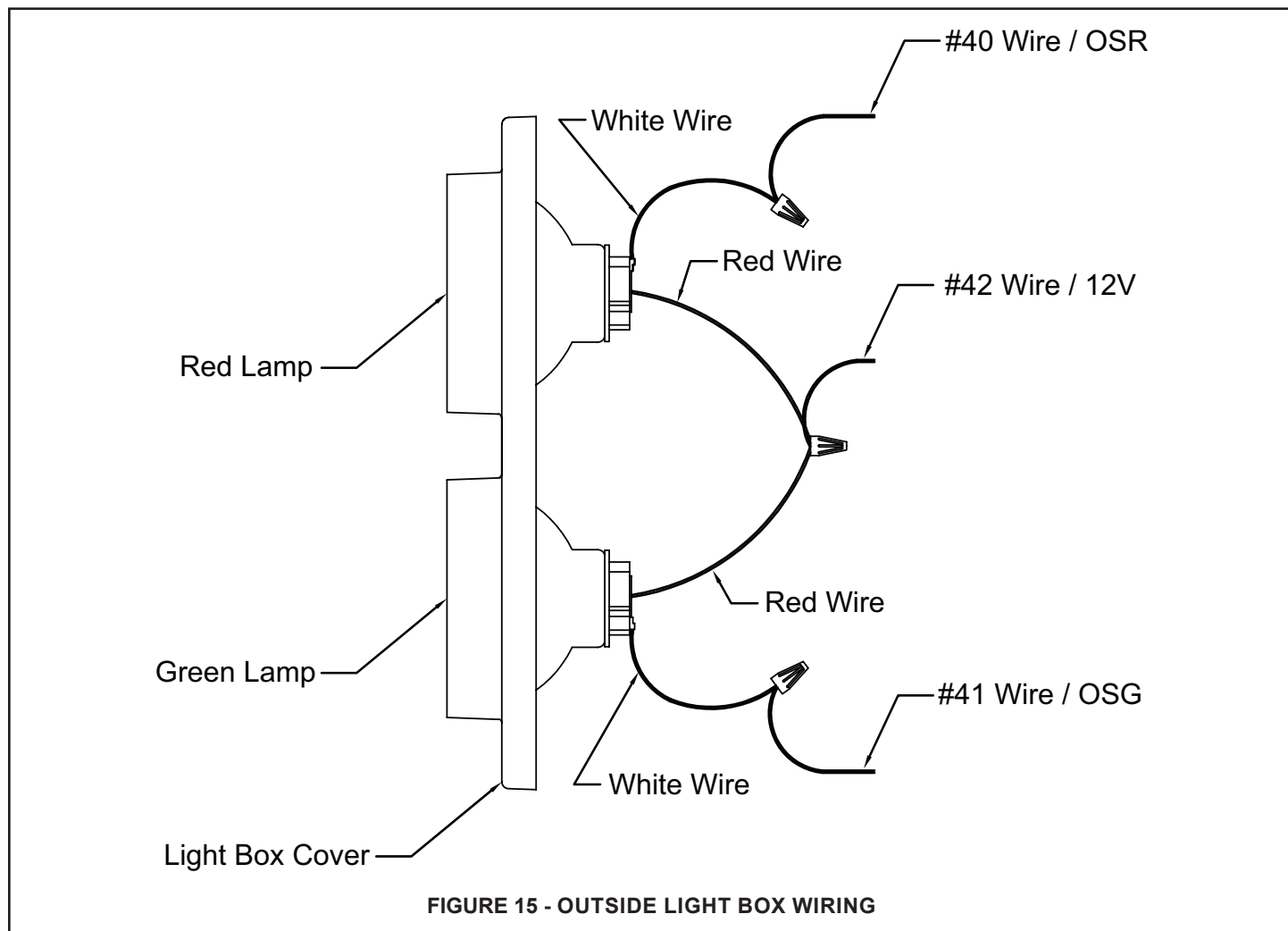


FIGURE 13 - ELECTRICAL SCHEMATIC - SECTION 4

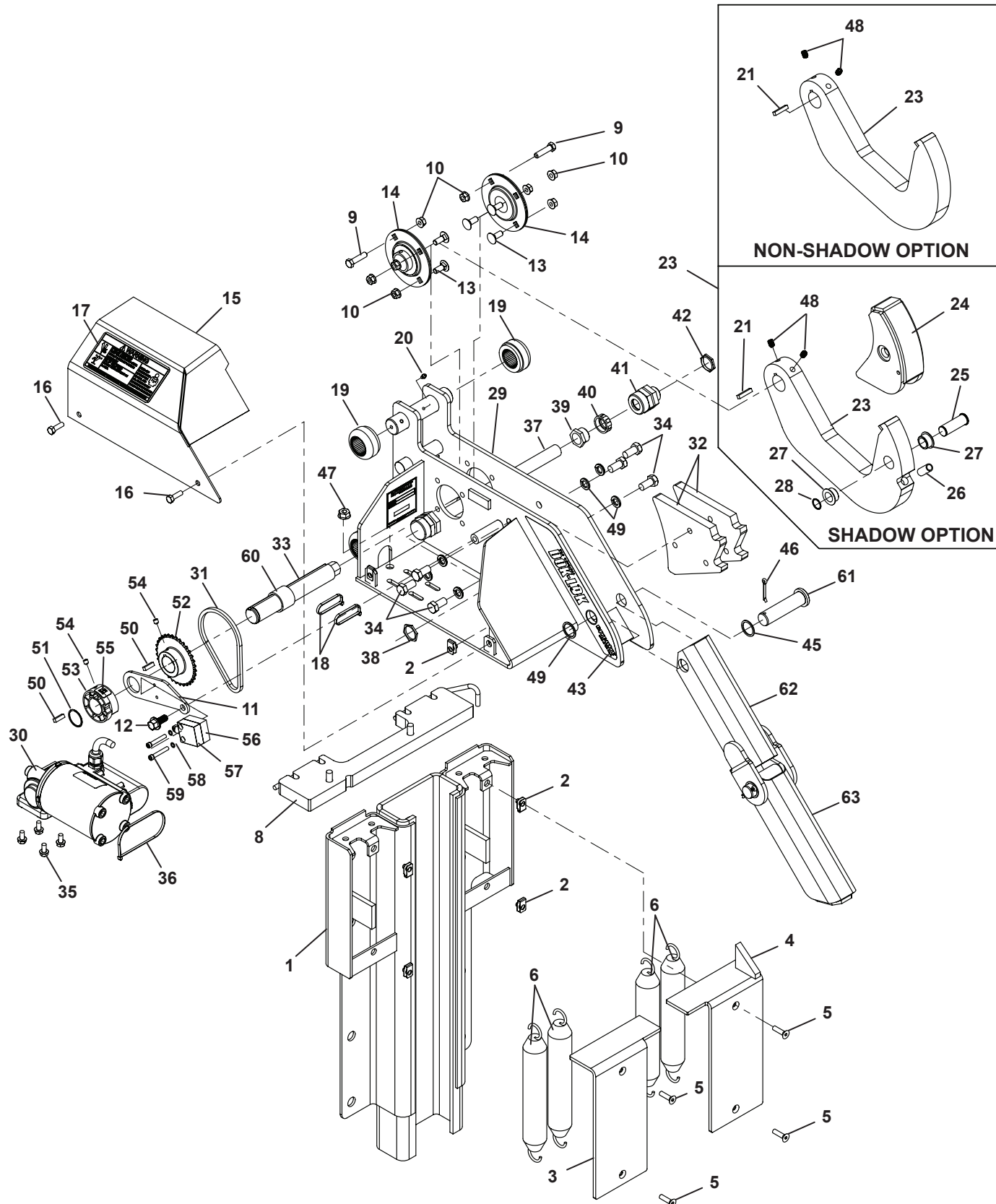
OUTSIDE LIGHT BOX WIRING



NOTE: Must use LED Outside Lights.

NOTES

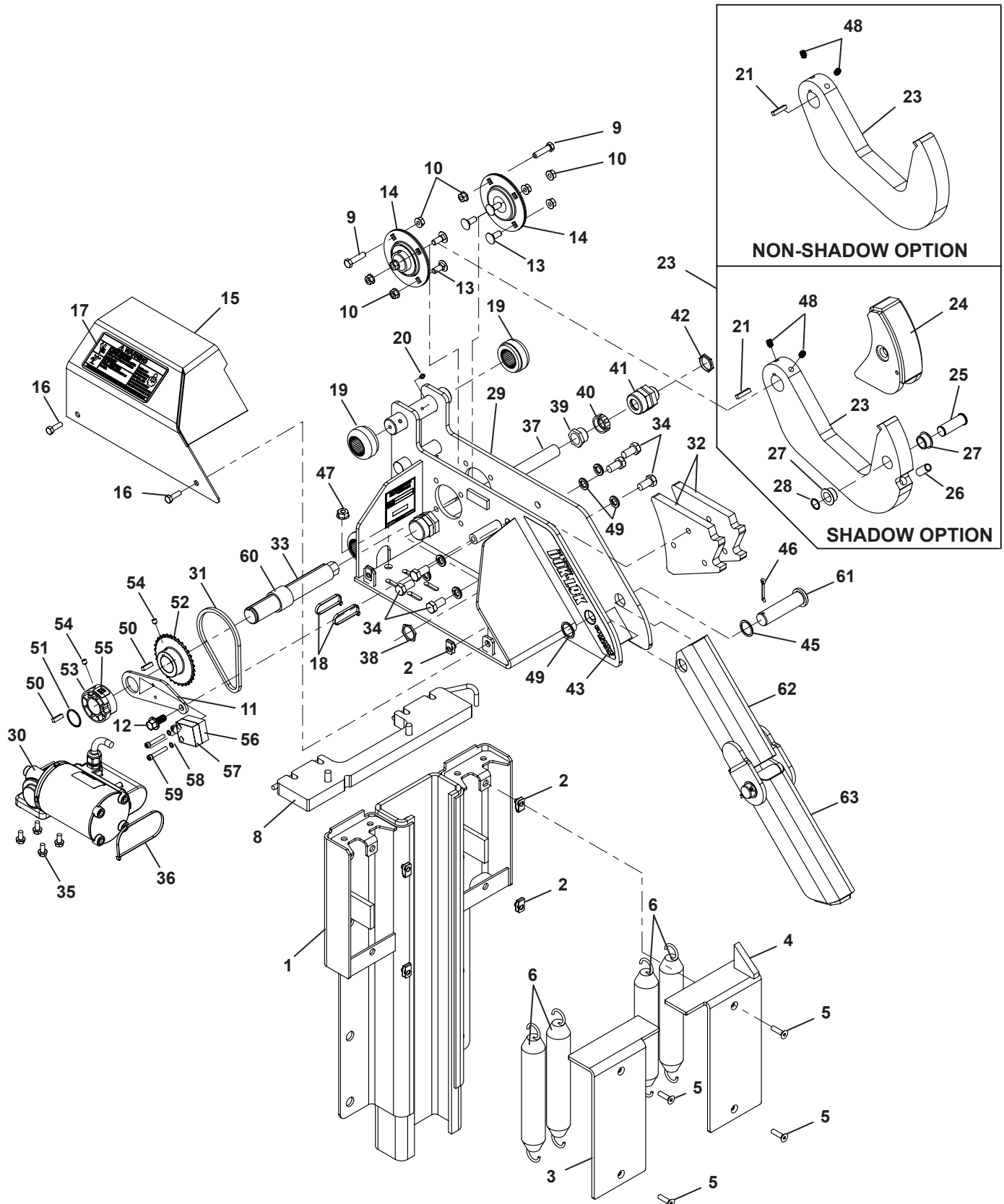
9" CARRIAGE & TRACK



9" CARRIAGE & TRACK PARTS LIST

Item	Qty	Description	Part Number	
			Shadow	Non-Shadow
1	1	Roller Track	139912	139912
2	6	Cage Nut	56540	56540
3	1	Spring Cover, Left (facing dock)	139919	139919
4	1	Spring Cover, Right (facing dock)	139918	139918
5	4	Mounting Screw (5/16 - 18 x 1"L) flat head socket	18210	18210
6	4	Extension Spring	146443	146443
7	15	Concrete Anchor, 5/8" dia. X 4"L (Powers #6942 or equivalent)	53150	53150
8	1	Spring Bar	139915	139915
9	2	Bolt, hook stop	68207	68207
10	8	Nut, serrated flange (3/8" - 16)	51564	51564
11	1	Switch Mount	140343	140343
12	1	Serrated Flange Bolt 7/16"-14 x 1" Long	140346	140346
13	6	Carriage Bolt, 3/8" - 16 x 1" Long	58022	58022
14	2	Bearing	6085	6085
15	1	Motor Cover	140044	140044
16	2	Bolt, 5/16" - 18 x 1" Long Hex	51627	51627
17	1	Decal, "Warning"	141990	141990
18	2	Wire Tie, .18 x 6.75" Long	55592	55592
19	4	Carriage Roller	15782	15782
20	2	Zerk Fitting	51169	51169
21	1	Hook Key (1/4" x 1/4" x 1-1/4" Long)	54818	54818
22	1	Barrier Assembly (includes items 25 - 29)	136784	N/A
23	1	Hook	136794	139761
24	1	Barrier Support	136785	N/A
25	1	Clevis Pin, 3/4" Dia x 2-1/8" Long, Stainless Steel	136797	N/A
26	1	Spring	137215	N/A
27	2	Flanged Bushing	136796	N/A
28	1	Retaining Ring Spiral	137218	N/A
29	1	Carriage	140046	140046
30	1	Motor	138158	138158
31	1	Chain	140063	140063
32	2	Hook Stop Plate	136775	136775
33	1	Hook Shaft	54987	54987
34	6	Hex Bolt 1/2"-13 x 1" Long	125347	125347
35	4	Bolt, 5/16"-18 x 5/8" Long	58069	58069
36	1	Wire Tie, 13 1/2" Long	55892	55892
37	1	Control Harness (item 39 is locknut for harness)	115921-01	115921-01
38	1	Lock Nut	55791	55791
39	1	Conduit Nipple	18204	18204
40	1	Conduit Bushing	57978	57978

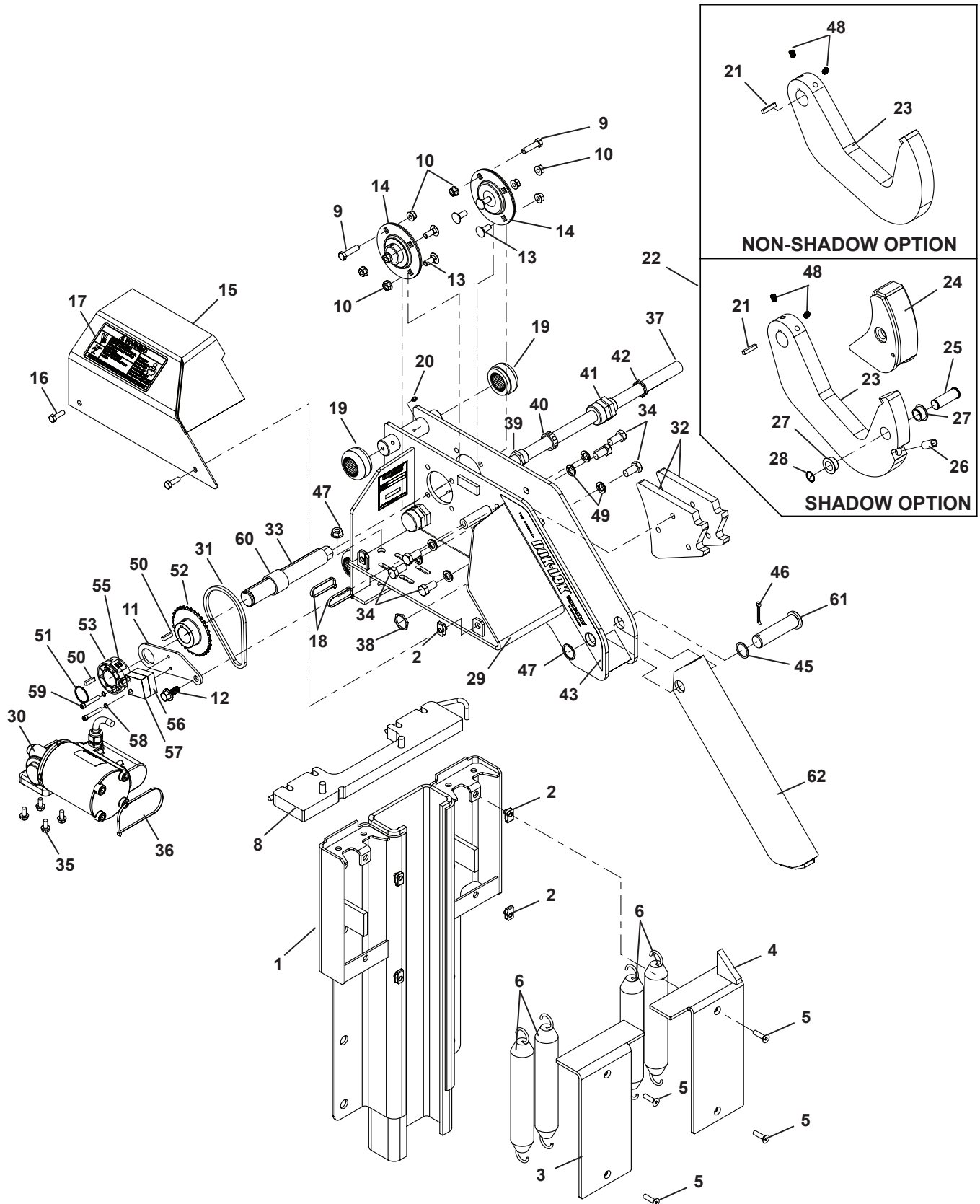
9" CARRIAGE & TRACK - CONTINUED



9" CARRIAGE & TRACK PARTS LIST - CONTINUED

Item	Qty	Description	Part Number	
			Shadow	Non-Shadow
41	1	Harness Cord Grip	66082	66082
42	1	Harness Lock Nut w/Gasket	55877	55877
43	1	Carriage Decal, Left (facing dock)	140207	140207
44	1	Carriage Decal, Right (facing dock)	140208	140208
45	1	Machinery Bushing, .06" Thk x 1.015" I.D.	51745	51745
46	2	Cotter Pin, .16"Dia x 1.5" Long	105865	105865
47	2	Nut, Serrated Flange (7/16"-14)	51549	51549
48	2	Set Screw, 3/8"-16 Knurled	139428	139428
49	6	1/2" Lockwasher	51831	51831
50	2	Key 1/4" x 1/4" x 7/8" Long	54864	54864
51	1	Retaining Ring, Spiral	56526	56526
52	1	Sprocket #35-32 Tooth	140340	140340
53	1	Cam	140344	140344
54	2	Set Screw, 5/16"-18 Knurled	56525	56525
55	1	Decal, Cam	18213	18213
56	1	LS1 Limit Switch	18211	18211
57	1	LS2 Limit Switch	18212	18212
58	2	Hi-Collar Lockwasher 1/4"	51802	51802
59	2	Socket Head Screw 1/4"-20 x 1 1/2" Long	51636	51636
60	1	Sprocket Spacer	147472	147472
61	1	Slope Extension Clevis Pin, 1"Dia x 3-1/2" Long	105495	105495
62	1	Slope Extension, Upper	140051	140051
63	1	Slope Extension, Lower	140052	140052

12" CARRIAGE & TRACK



12" CARRIAGE & TRACK PARTS LIST

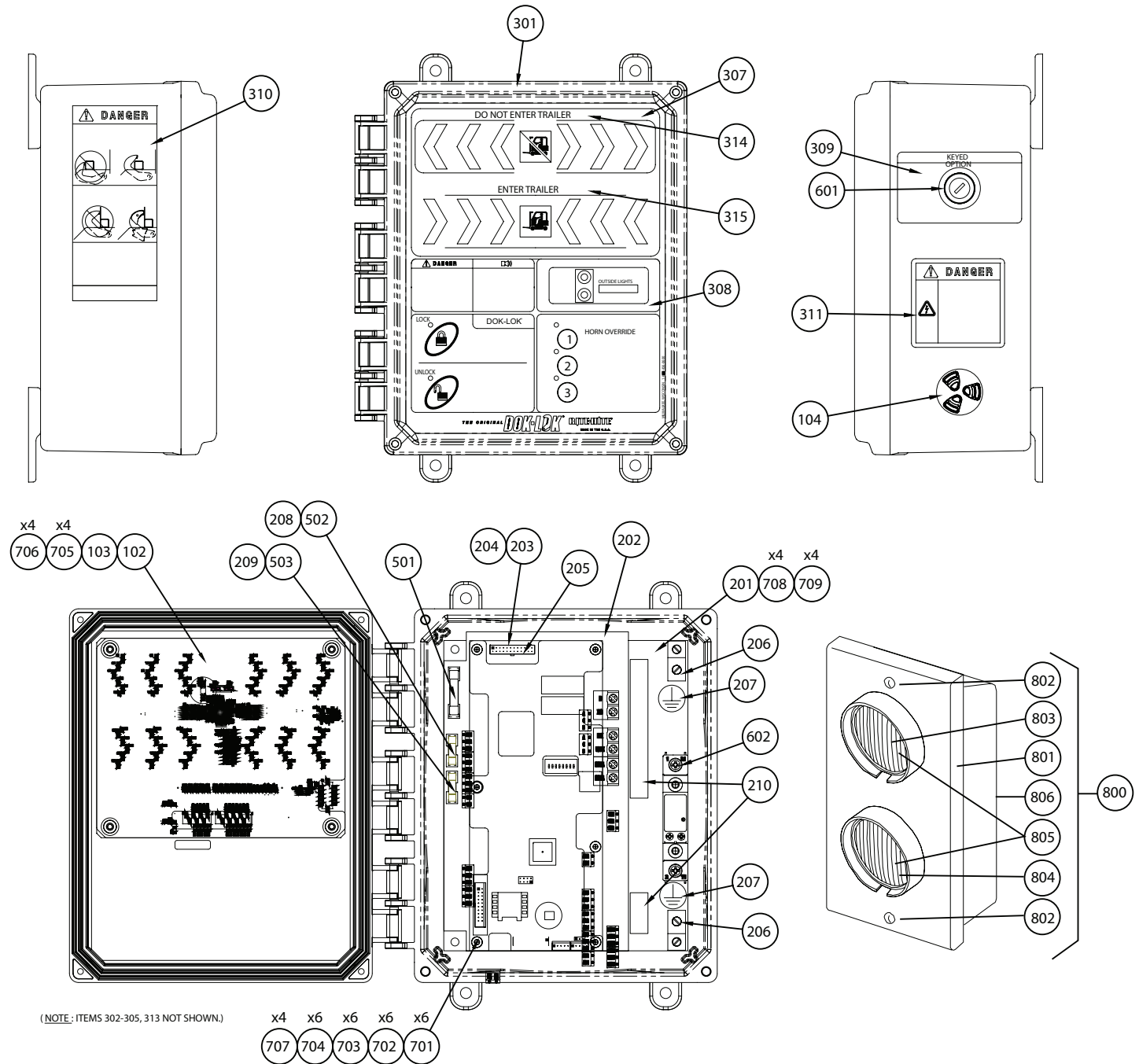
Item	Qty	Description	Part Number	
			Shadow	Non-Shadow
1	1	Roller Track	139912	139912
2	6	Cage Nut	56540	56540
3	1	Spring Cover, Left (facing dock)	139919	139919
4	1	Spring Cover, Right (facing dock)	139918	139918
5	4	Mounting Screw (5/16 - 18 x 1"L) flat head socket	18210	18210
6	4	Extension Spring	146443	146443
7	15	Concrete Anchor, 5/8" dia. X 4"L (Powers #6942 or equivalent)	53150	53150
8	1	Spring Bar	139915	139915
9	2	Bolt, hook stop	68207	68207
10	8	Nut, serrated flange (3/8" - 16)	51564	51564
11	1	Switch Mount	140343	140343
12	1	Serrated Flange Bolt 7/16"-14 x 1" Long	140346	140346
13	6	Carriage Bolt, 3/8" - 16 x 1" Long	58022	58022
14	2	Bearing	6085	6085
15	1	Motor Cover	140044	140044
16	2	Bolt, 5/16" - 18 x 1" Long Hex	51627	51627
17	1	Decal, "Warning"	141990	141990
18	2	Wire Tie, .18 x 6.75" Long	55592	55592
19	4	Carriage Roller	15782	15782
20	2	Zerk Fitting	51169	51169
21	1	Hook Key (1/4" x 1/4" x 1-1/4" Long)	54818	N/A
22	1	Barrier Assembly (includes items 25 - 28)	136784	N/A
23	1	Hook	136794	139760
24	1	Barrier Support	136785	N/A
25	1	Clevis Pin, 3/4" Dia x 2-1/8" Long, Stainless Steel	136797	N/A
26	1	Spring	137215	N/A
27	2	Flanged Bushing	136796	N/A
28	1	Retaining Ring Spiral	137218	N/A
29	1	Carriage	140050	140050
30	1	Motor	138158	138158
31	1	Chain	140063	140063
32	2	Hook Stop Plate	136775	136775
33	1	Hook Shaft	54987	54987
34	6	Hex Bolt 1/2"-13 x 1" Long	125347	125347
35	4	Bolt, 5/16"-18 x 5/8" Long	58069	58069
36	1	Wire Tie, 13 1/2" Long	55892	55892
37	1	Control Harness (item 38 is locknut for harness)	115921-01	115921-01
38	1	Lock Nut	55791	55791
39	1	Conduit Nipple	18204	18204
40	1	Conduit Bushing	57978	57978



12" CARRIAGE & TRACK PARTS LIST - CONTINUED

Item	Qty	Description	Part Number	
			Shadow	Non-Shadow
41	1	Harness Cord Grip	66082	66082
42	1	Harness Lock Nut w/Gasket	55877	55877
43	1	Carriage Decal, Left (facing dock)	138250	138250
44	1	Carriage Decal, Right (facing dock)	138249	138249
45	1	Machinery Bushing, .06" Thk x 1.015" I.D.	51745	51745
46	2	Cotter Pin, .16"Dia x 1.5" Long	105865	105865
47	2	Nut, Serrated Flange (7/16"-14)	51549	51549
48	2	Set Screw, 3/8"-16 Knurled	139428	139428
49	6	1/2" Lockwasher	51831	51831
50	2	Key 1/4" x 1/4" x 7/8" Long	54864	54864
51	1	Retaining Ring, Spiral	56526	56526
52	1	Sprocket #35-32 Tooth	140340	140340
53	1	Cam	140344	140344
54	2	Set Screw, 5/16-18 Knurled	56525	56525
55	1	Decal, Cam	18213	18213
56	1	LS1 Limit Switch	18211	18211
57	1	LS2 Limit Switch	18212	18212
58	2	Hi-Collar Lockwasher	51802	51802
59	2	Sock Head Screw 1/4-20 x 1 1/2" Long	51636	51636
60	1	Sprocket Spacer	147472	147472
61	1	Slope Extension Clevis Pin, 1"Dia x 3-1/2" Long	105495	105495
62	1	Slope Extension	140053	140053

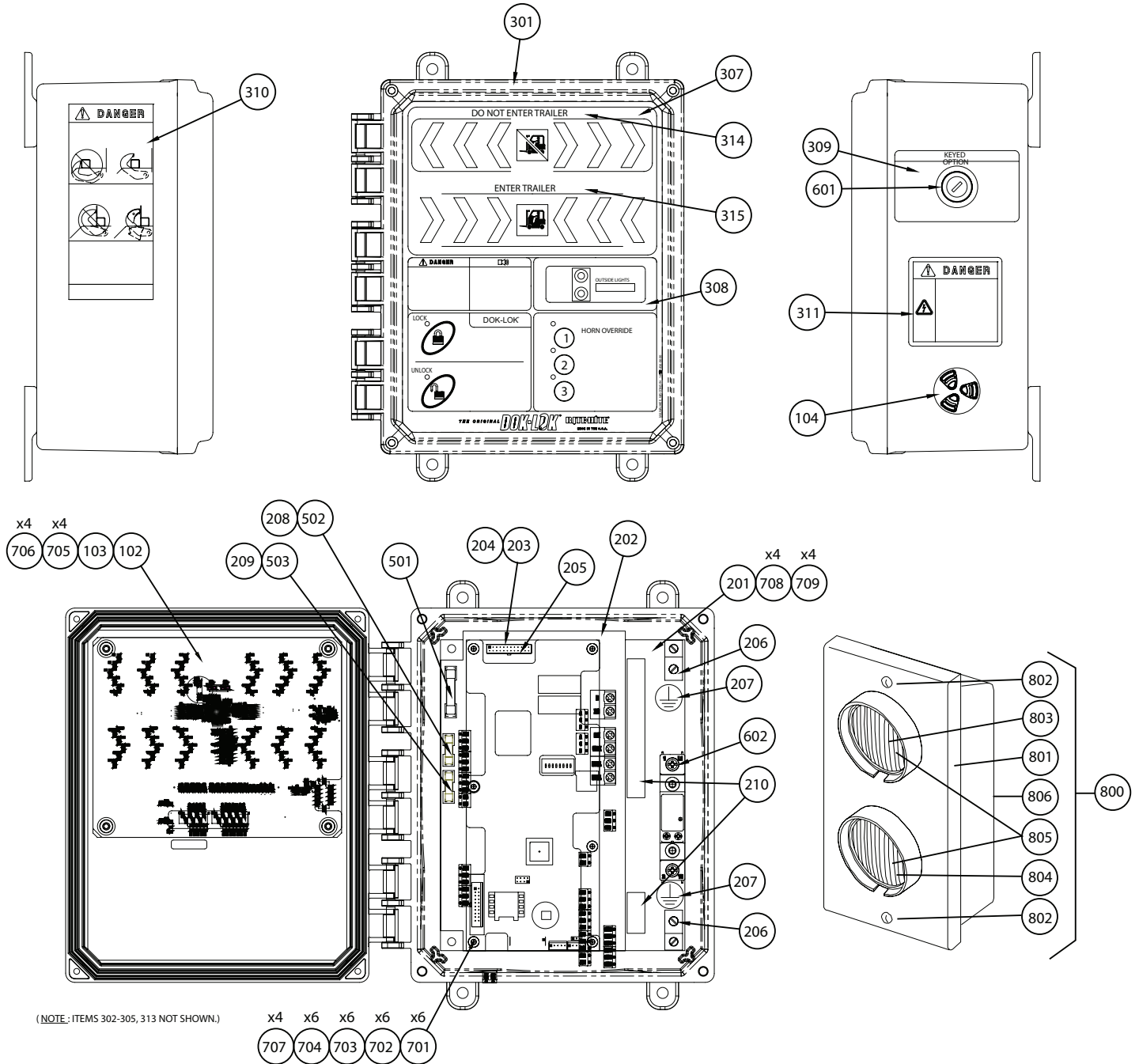
ELECTRICAL PARTS



ELECTRICAL PARTS LIST

Item	Qty	Description	Part Number
1	1	Control box assembly, Complete (Consult Rite-Hite for specific part number)	863.xxx
102	1	LED chevron/outside light monitor circuit board	141579
103	1	LED chevron/outside light monitor circuit board cover	144835
104	1	Horn, 12VDC, N4X	141573
201	1	Pre-drilled control box sub panel	144757
202	1	Power circuit board, Blank	141580
		Power circuit board, Including Fuses (115 Volt Power)	142126-04
		Power circuit board, Including Fuses (230 Volt Power)	142126-05
203	1	Standard Micro Control Board, Less Advanced Controls	141578-861D100
		Standard Micro Control Board, Including Advanced Controls	141578-861D102
204	1	Micro Control Board with Program Options (Consult Rite-Hite for specific part number)	141578-xxx
		Micro circuit board cover	144802
205	1	Control wiring harness	144864-01
206	2	Ground lug	55902
207	2	Ground lug decal	105454
208	1	Fuse cover, 5mm x 20mm	144544
209	1	Fuse cover, 5mm x 20mm	144544
210	1	Panel decals	146324
301	1	Standard Enclosure with decals, English, Less Advanced Controls	865.100
		Standard Enclosure with decals, English, Including Advanced Controls	865.102
		Enclosure with decals other than above (Consult Rite-Hite for specific part number)	865.xxx
	1	Enclosure Mounting Feet, Includes 4 Feet [Not needed if ordering new enclosure]	147845
302	1	Electrical schematic decal (Consult Rite-Hite for specific part number)	870.xxx
303	1	Fuse replacement decal	144849
304	1	Full load amperage and voltage/phase decal (Consult Rite-Hite for specific part number)	872.xxx
305	1	Program configuration decal (Consult Rite-Hite for specific part number)	862.xxx
307	1	Cover decal with membrane push buttons	141499
308	1	DOK-LOK inlay decal, 5 button coded horn override (Advanced Control Package)	141502
		DOK-LOK inlay decal, 3button horn override (Less Advanced Control Package)	144803
309	1	Horn override enable decal (If equipped)	144831
		Control power ON/OFF decal (If equipped)	144829
		Unlock enable decal (If equipped)	144830
310	1	Danger/warning decal for SHR5	144774
311	1	Lockout/tagout/multiple disconnect warning decal	114331
313	1	Circuit board UL rating decal	144859
501	1	5A fuse, 0.25" x 1.25" (115V control box)	57419
		2.5A fuse, 0.25" x 1.25" (230V control box)	126964
502	1	1A fuse, 5mm x 20mm (115V control box)	142092
		0.5A fuse, 5mm x 20mm (230V control box)	145216
503	1	0.5A fuse, 5mm x 20mm	145216

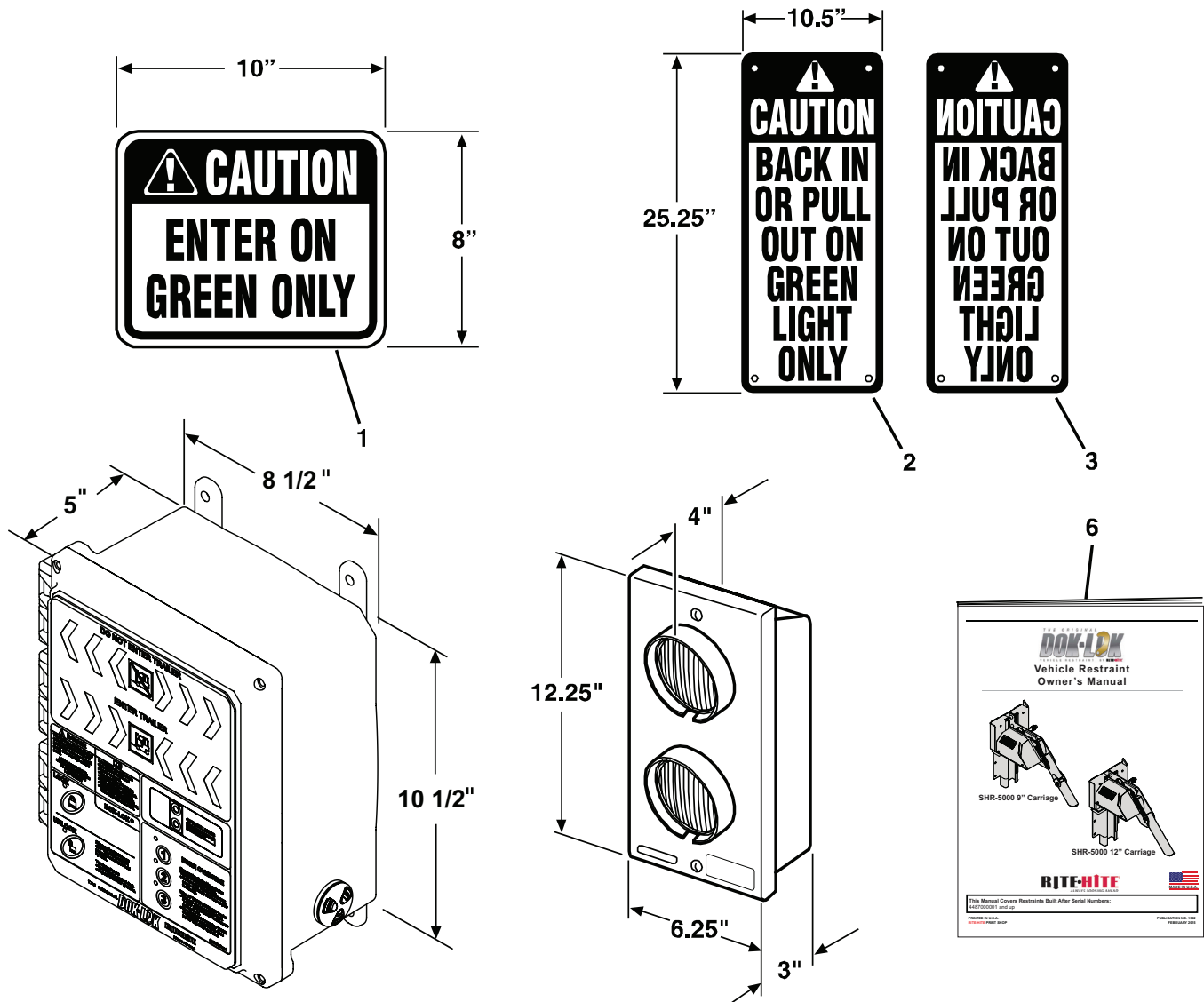
ELECTRICAL PARTS - CONTINUED



ELECTRICAL PARTS LIST - CONTINUED

Item	Qty	Description	Part Number
601	1	Selector switch, keyed (If equipped)	125194
602	1	Solid state relay, 12VDC, 75A, with hardware (If equipped)	144877
701	6	Standoff, Male/Female, #6-32, 0.75" length	142100
702	6	Standoff, Male/Female, #6-32, 1.625" length	142101
703	6	Screw, round head, #6-32, 0.25" length	133366
704	6	Lock washer, #6	51826
705	4	Rubber grommet	142102
706	4	Screw, black trim washer, #8-32, 0.5" length	146031
707	4	Standoff, Male/Female, #6-32, 0.875" length	115871
708	4	Screw, Round Head, #10-32, 0.5" length	51628
709	4	Lock Washer, #10	51762
800	1	LED Outside Light Assembly, Complete	115798
801	1	LED Outside Light Assembly, Doesn't Include Base	128458
802	2	Screw, round head #6-32, 0.75" length	18364
803	1	LED Outside Light Bulb, Red	128448
804	1	LED Outside Light Bulb, Green	128449
805	2	LED Light Socket	116894
806	1	Outside Light Enclosure Base	18277

MISC PARTS



Item	Qty	Description	Part Number
1	1	Interior Warning Sign	56095
2	1	Narrow Sign (normal letters)	56112
3	1	Narrow Sign (mirror letters)	56113
4	1	RHR Warning Decal	140722
5	1	Loackout/Tagout Warning Decal	105430
6	1	SHR5000 Owners Manual	Pub. 1362

12" CARRIAGE & TRACK PARTS LIST

RITE-HITE STANDARD WARRANTY

Rite-Hite warrants that its products will be free from defects in design, materials, and workmanship for a period of 365 days from the date of shipment. All claims for breach of this warranty must be made within 30 days after the defect is or can, with reasonable care, be detected and in no event no more than 30 days after the warranty has expired. In order to be entitled to the benefits of this warranty, the products must have been properly installed, maintained, and operated within their rated capacities and/or specified design parameters, and not otherwise abused. Periodic lubrication and adjustment is the sole responsibility of the owner. This warranty is Rite-Hite's® exclusive warranty. RITE-HITE EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. Non-standard warranties, if any, must be specified by Rite-Hite in writing.

In the event of any defects covered by this warranty, Rite-Hite will remedy such defects by repairing or replacing any defective equipment or parts, bearing all the costs for parts, labor, and transportation. This shall be the exclusive remedy for all claims whether based on contract, negligence, or strict liability.

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RITE-HITE SHALL NOT IN ANY EVENT BE LIABLE FOR ANY LOSS OF USE OF ANY EQUIPMENT OR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER FOR BREACH OF WARRANTY, NEGLIGENCE, OR STRICT LIABILITY.



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