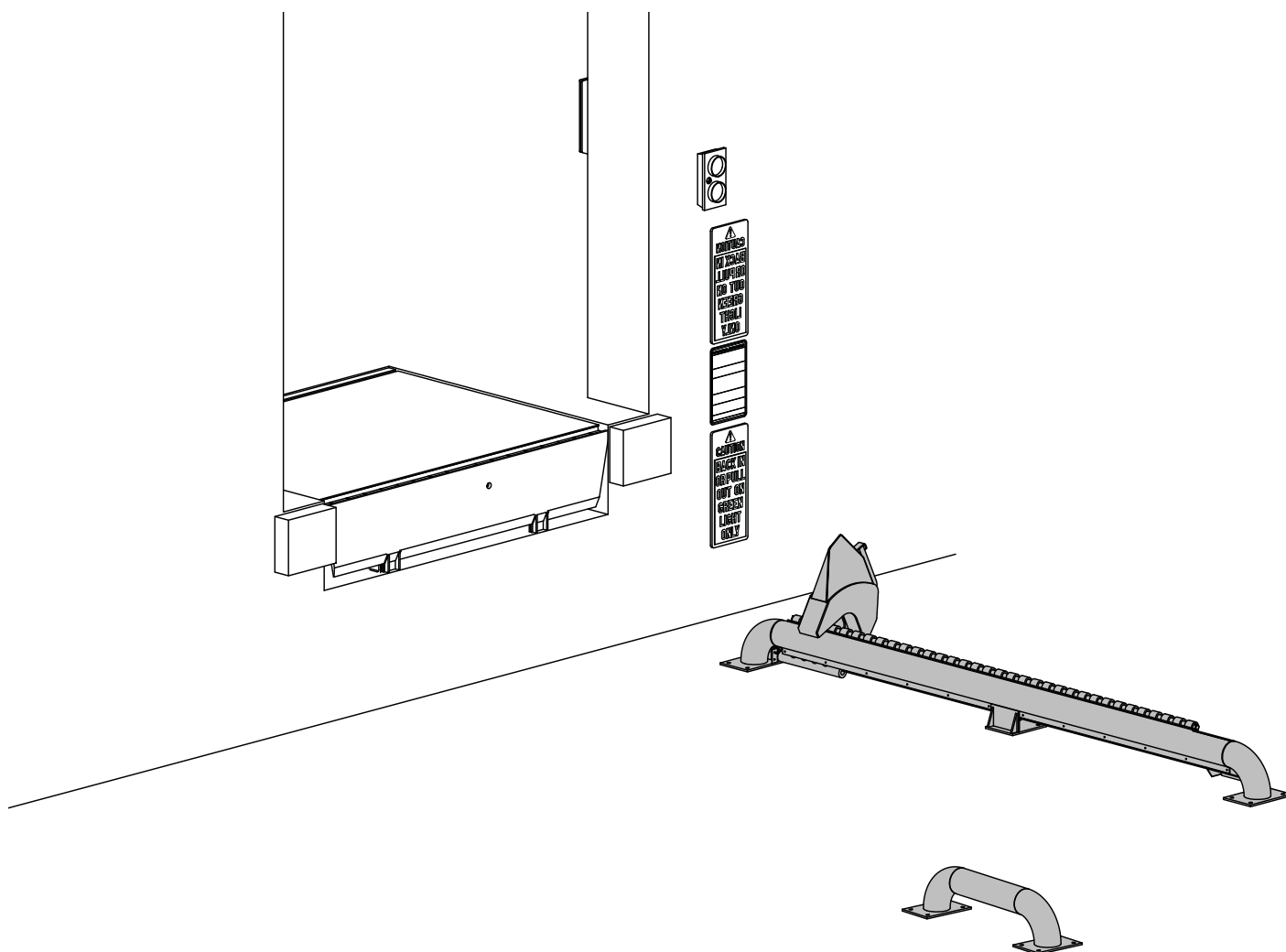


MWL-1300 *Wheel-Lok*™

Vehicle Restraint Owners Manual



RITE-HITE®
ALWAYS LOOKING AHEAD



This Manual Covers Restraints Built After Serial Numbers:
13KD900001M and up

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INTRODUCTION

Read and understand this manual before attempting to install or operate. For best results, have this product serviced by your authorized Rite-Hite® representative.

The MWL-1300 vehicle restraint by Rite-Hite® is intended to provide a safer workplace for workers in shipping and receiving dock areas. The MWL-1300 vehicle restraint is a restraint device that, when properly installed and operated, retains a secure connection between the truck and dock. Signal lights, warning horns and signs provide instructions to the truck driver and MWL vehicle restraint operator that a safe condition exists.

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: 5,546,623; 5,553,987; 5,582,498; 5,664,930; 5,702,223; 5,762,459 (RE: 37,570); 5,882,167; 6,065,172; 6,070,283; 6,085,375; 6,089,544; 6,092,970; 6,106,212; 6,116,839; 6,190,109; 6,276,016; 6,311,352; 6,318,947; 6,322,310; 6,360,394; 6,368,043; 6,431,819; 6,488,464; 6,499,169; 6,505,713; 6,520,472; 6,524,053; 6,634,049; 6,726,432; 6,773,221; 6,832,403; 6,880,301; 7,032,267; 7,062,814; 7,134,159; 7,213,285; 7,216,391; 7,363,670; 7,380,305; 7,503,089; 7,533,431; 7,546,655; 7,584,517; 7,681,271; 7,823,239; 7,841,823; 7,877,831; 7,914,042; 8,006,811; 8,065,770; 8,141,189; 8,191,194; 8,286,757; 8,287,223; 8,303,235; 8,307,956; 8,443,474; 8,464,384; 8,464,846; 8,465,245 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

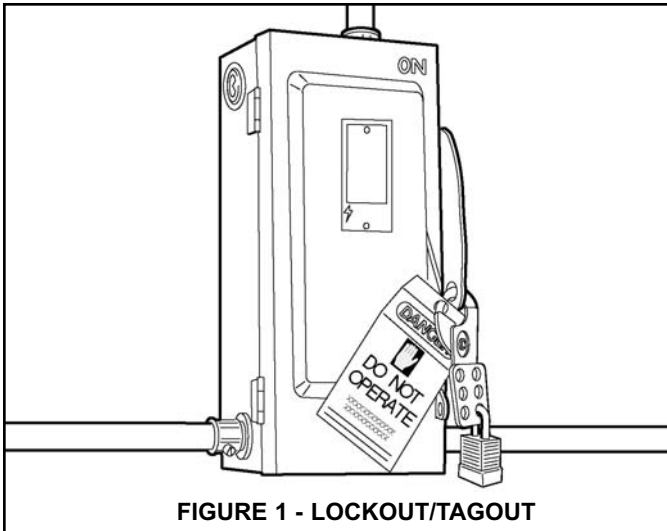


FIGURE 1 - LOCKOUT/TAGOUT

! 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.

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.

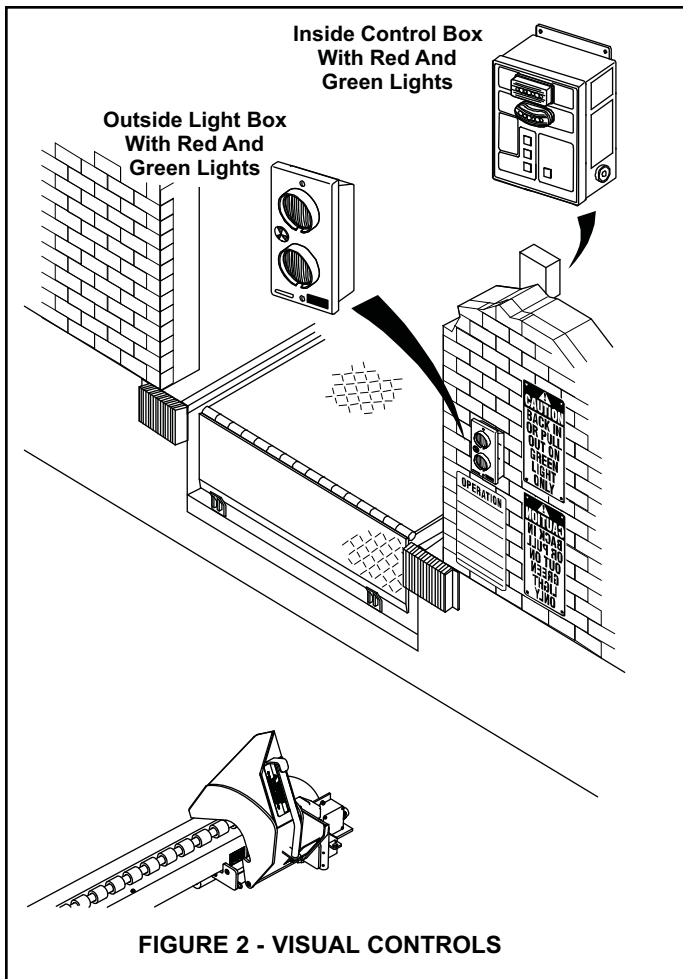
It shall be the responsibility of the owner to verify that the material listed in this section has been received and that it is made available for the instruction and training of personnel entrusted with the use or maintenance of the dock equipment.
2. When a transport vehicle is parked at a loading 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. In selecting dock equipment, it is important to consider not only present requirements but also future plans or adverse environments.

DEFINITION AND FUNCTION

The MWL-1300 vehicle restraint is a truck and trailer locking system used to help secure trucks and trailers to the face of a loading dock. The barrier is deployed in front of the tire after the trailer has been positioned against the dock bumpers.

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 the forklift travels from the loading dock onto the trailer; and creates 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.

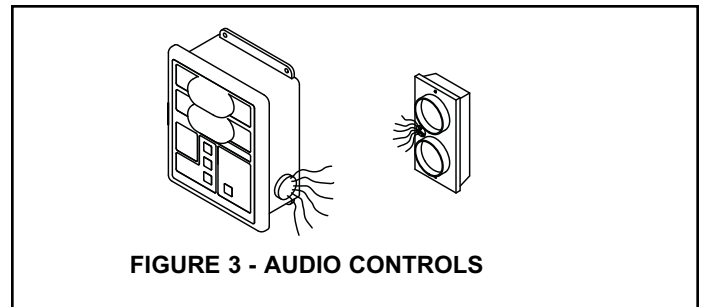
The normal mode of the restraint is the barrier assembly is stored at the near end (closest to the dock). Inside lights should be flashing red and outside lights should be flashing green.



The proper activation of the wheel restraint is monitored by:

• VISUAL CONTROL

- one set of flashing green and red lights located inside the building for the dock personnel, and one set located outside the building for the truck driver. See Figure 2.



• AUDIO CONTROL

- a horn sounds inside and outside the building, warning dock personnel when the locking mechanism is not properly activated. In this case, the truck or trailer must be secured by other means (wheel chocks etc.) prior to servicing the trailer. See Figure 3.

FEATURES

See Figure 4 for locations of these features.

WHEEL GUIDE

The main weldment which is bolted onto the approach. It aligns the truck to the dock and also holds the wheel restraint in a locked position.

BARRIER

Travels along the Wheel Guide and is then locked in front of a trailer tire.

BARRIER CARRIAGE

Carries the Barrier along the Wheel Guide.

LOCK SENSORS – SW1 (BARRIER LOCKED SENSOR AND PHOTO-EYE)

Communicate to the controls that the unit is locked. Both sensors need to be made to in order for the MWL-1300 to indicate a safe locked condition.

UNLOCK SENSORS – SW2 (BARRIER STORED SENSOR AND CARRIAGE STORED SENSOR)

Communicate to the controls that the unit is stored. Both sensors need to be made to indicate a stored condition.

CONTROL BOX, OUTSIDE LIGHT BOX, AND SIGNAGE

The combination of these components is used to control the function of the MWL-1300 wheel restraint and provide audio/visual communication to the dock attendant and the trailer driver.

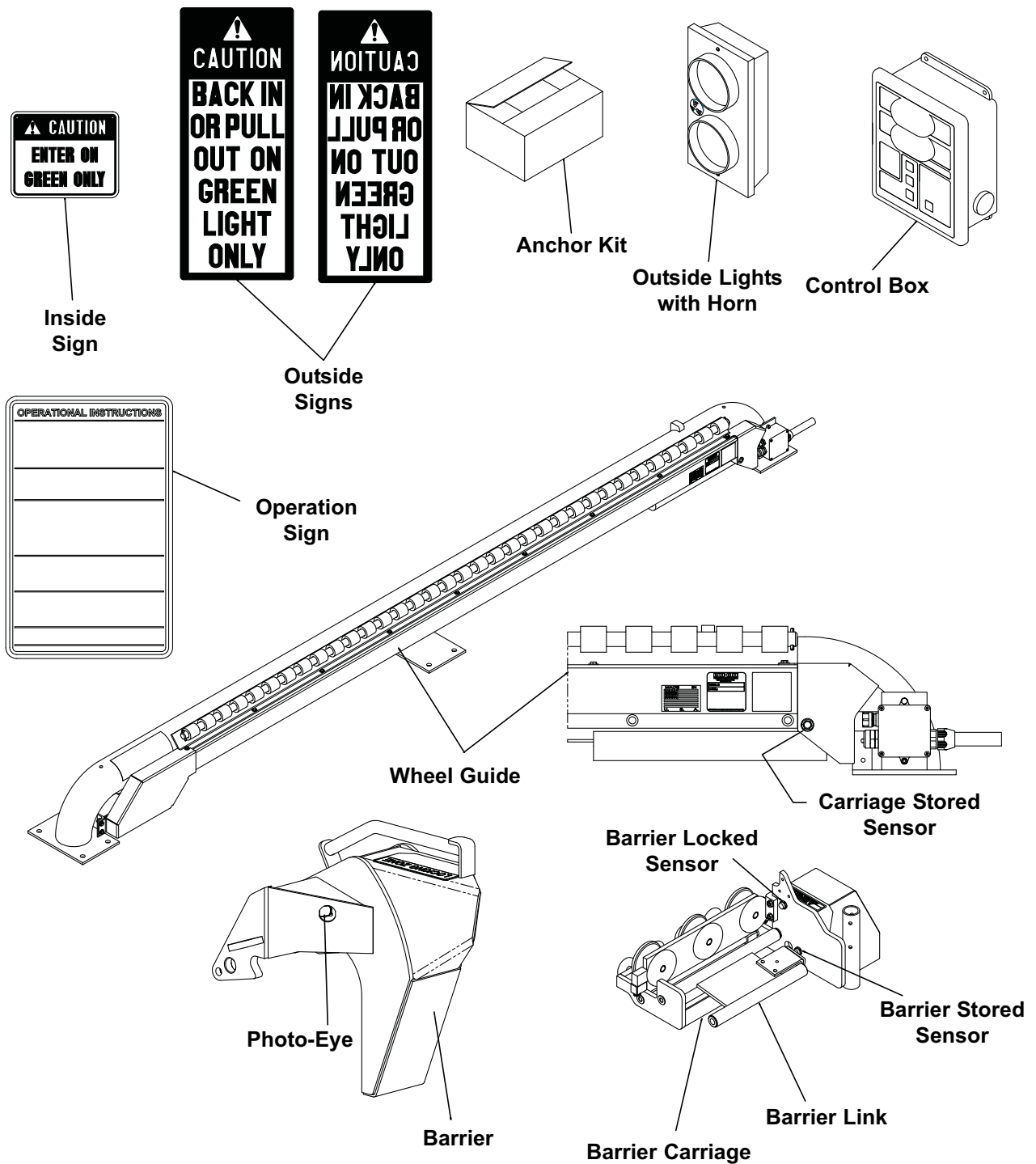


FIGURE 4 - FEATURES OF MWL-1300

OPERATING PROCEDURES

! WARNING

- Before loading or unloading a vehicle at your loading dock while using a vehicle restraint, always visually inspect to be sure that the barrier blocks blocks the trailer wheel. If a condition occurs that cannot be remedied by backing the trailer firmly against the dock bumpers, secure the trailer by other means.
- Inspect all restraint lights daily to make certain they work properly.
- Perform maintenance on restraints in accordance with Maintenance on page 11 of this manual.
- 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

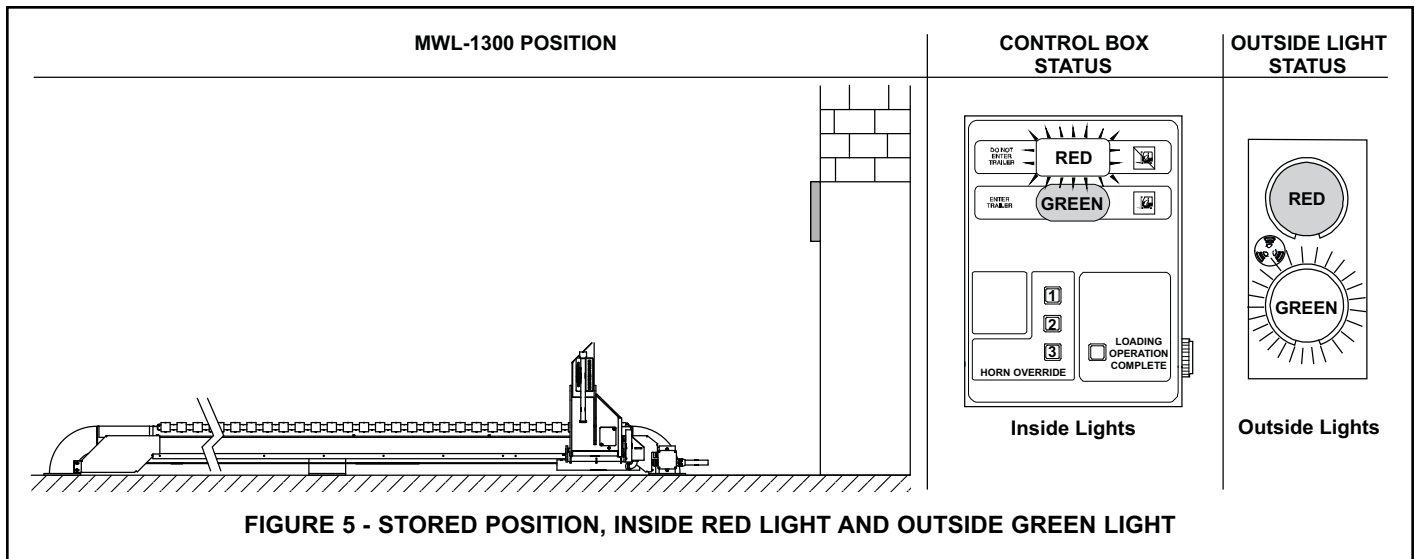
If the MWL-1300 vehicle restraint is in the UNLOCKED position (Barrier is up and stored all the way towards the dock face), the Light communication System should give the following signals:

1. OUTSIDE light flashing GREEN, which indicates that a vehicle may pull into our out of the loading bay.
2. INSIDE light flashing RED, which indicates that loading or unloading is not permitted, since the truck/trailer is not secured against the building. See Figure 5.

Restraint LOCKING, Position Barrier In Front Of Tire

It is assumed that the loading bay is empty (no truck). The outside GREEN light and the inside RED light are flashing, the Barrier is stored. A truck backs in. When the truck is parked firmly against the bumpers, the operator can now lock the vehicle.

To lock the vehicle, the operator deploys the Barrier in front of a tire. The inside light will now be flashing green. The truck may now be serviced. The light communication and truck position are shown in Figure 6.



Restraint LOCKED

If the MWL-1300 vehicle restraint is in the LOCKED position (Barrier is down in front the tire), the Light Communication System should give the following signals:

1. OUTSIDE light flashing RED, indicating that the truck driver is not permitted to leave.
2. INSIDE light flashing GREEN, indicating that the truck may now be loaded or unloaded. See Figure 6.

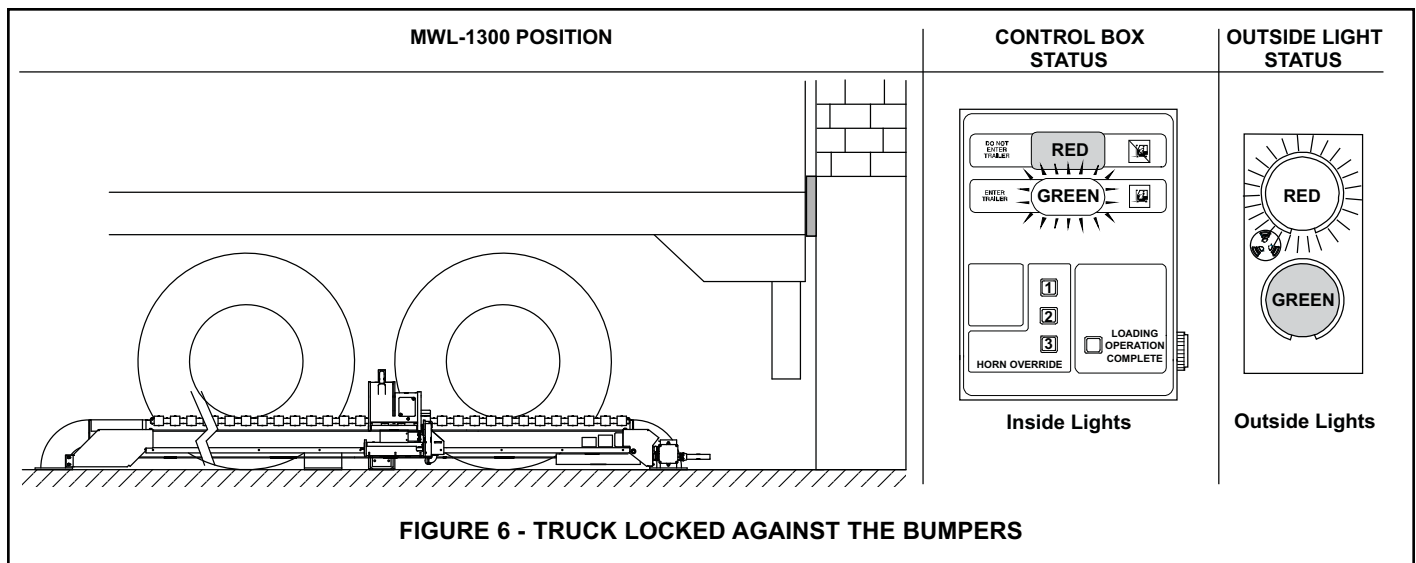
NOTE:

If testing without a trailer present, make sure to cover photo-eye so controls can signal a LOCKED condition.

Restraint UNLOCKING, LOADING

OPERATION COMPLETE Button Pressed

In order to release the truck after completion of the loading/unloading process, the operator must first press the LOADING OPERATION COMPLETE button on the control box. The inside lights will be flashing RED and the outside lights will be flashing simultaneous RED and GREEN signaling to the exterior that it is now safe to disengage the restraint and return the barrier to its stored position. Once the barrier gets placed in its stored position, the outside lights will automatically change to GREEN allowing the truck to depart.



FAULT State From LOCKING State

In case the Barrier does not engage properly or if it does not sense a tire, the alarm will sound. The outside and inside lights will show flashing RED. The light communication, alarm and truck position are shown in Figure 7.

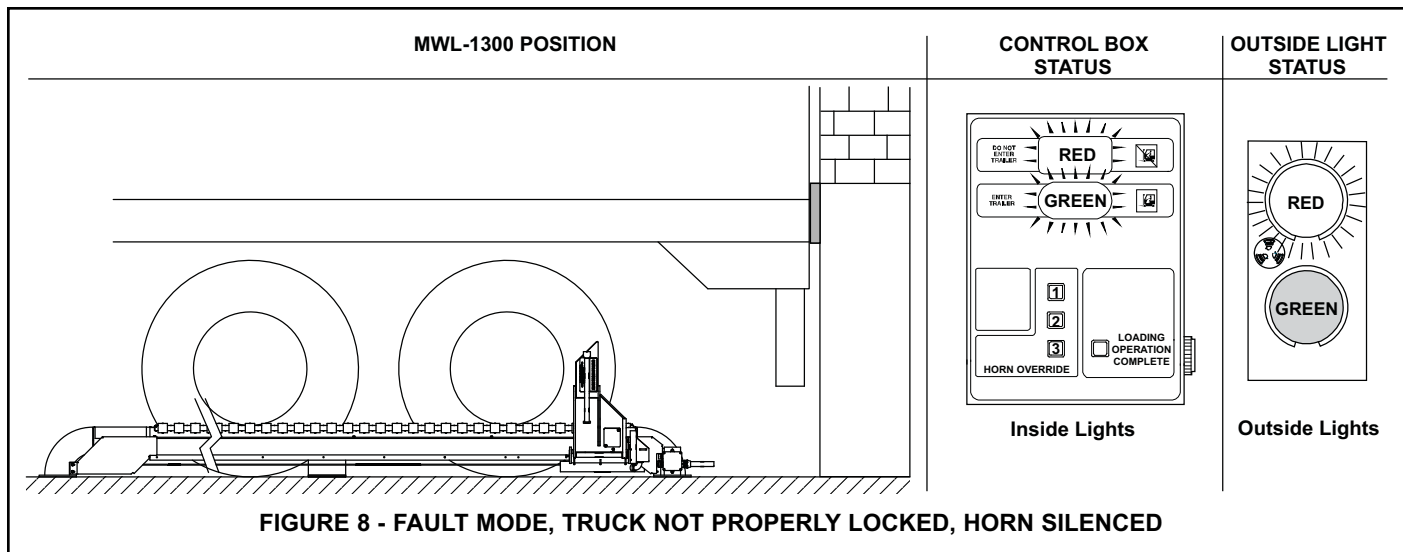
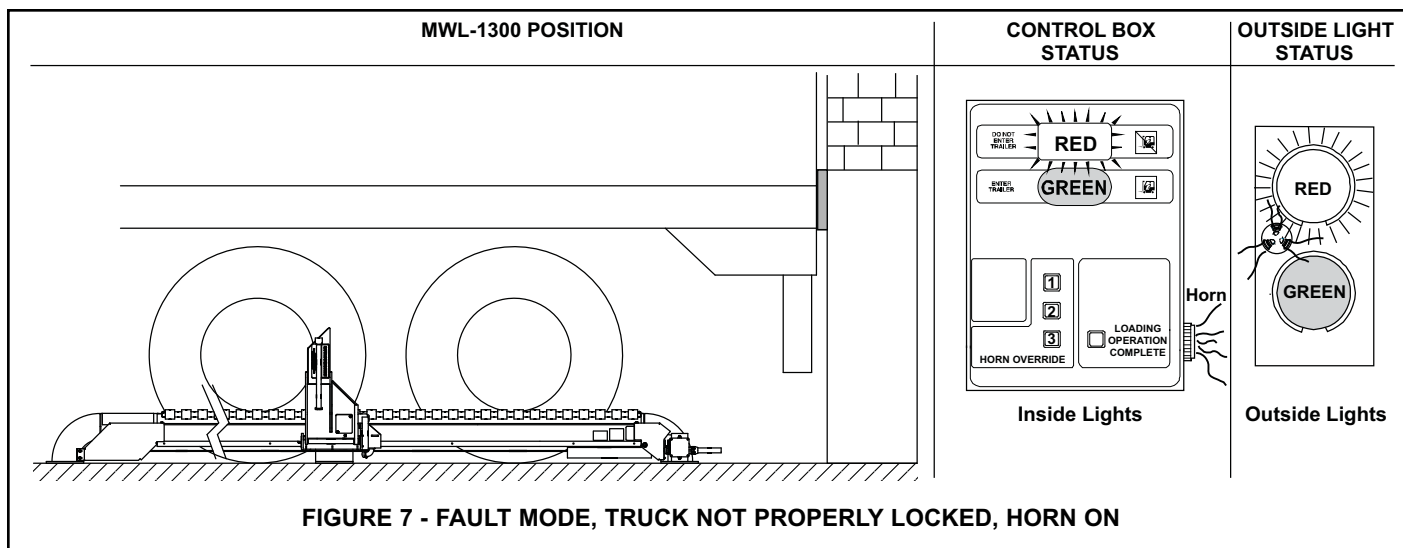
HORN OVERRIDE State, HORN OVERRIDE Code Entered after Securing Trailer by Alternate Means



Before operating "HORN OVERRIDE", secure trailer by other means.

An alternate means of securing the truck must be used if the Barrier cannot capture a tire (i.e. wheel chocks) before the horn over-ride code is entered. After entering the horn over-ride code, 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, (barrier must be in its STORED position) enter the HORN OVERRIDE CODE followed by the LOADING OPERATION COMPLETE button.



MAINTENANCE

(BASED ON TYPICAL APPLICATIONS OF 8 TRUCKS PER DAY)

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 MWL-1300 vehicle restraint if parts are broken or missing.

IMPORTANT

Maintenance may be required more frequently at loading docks exposed to harsh environments (extreme climates, corrosive chemicals, frequency of usage exceeding 8 trucks per day, etc.). Consult RITE-HITE if these conditions exist for accelerated maintenance requirements.

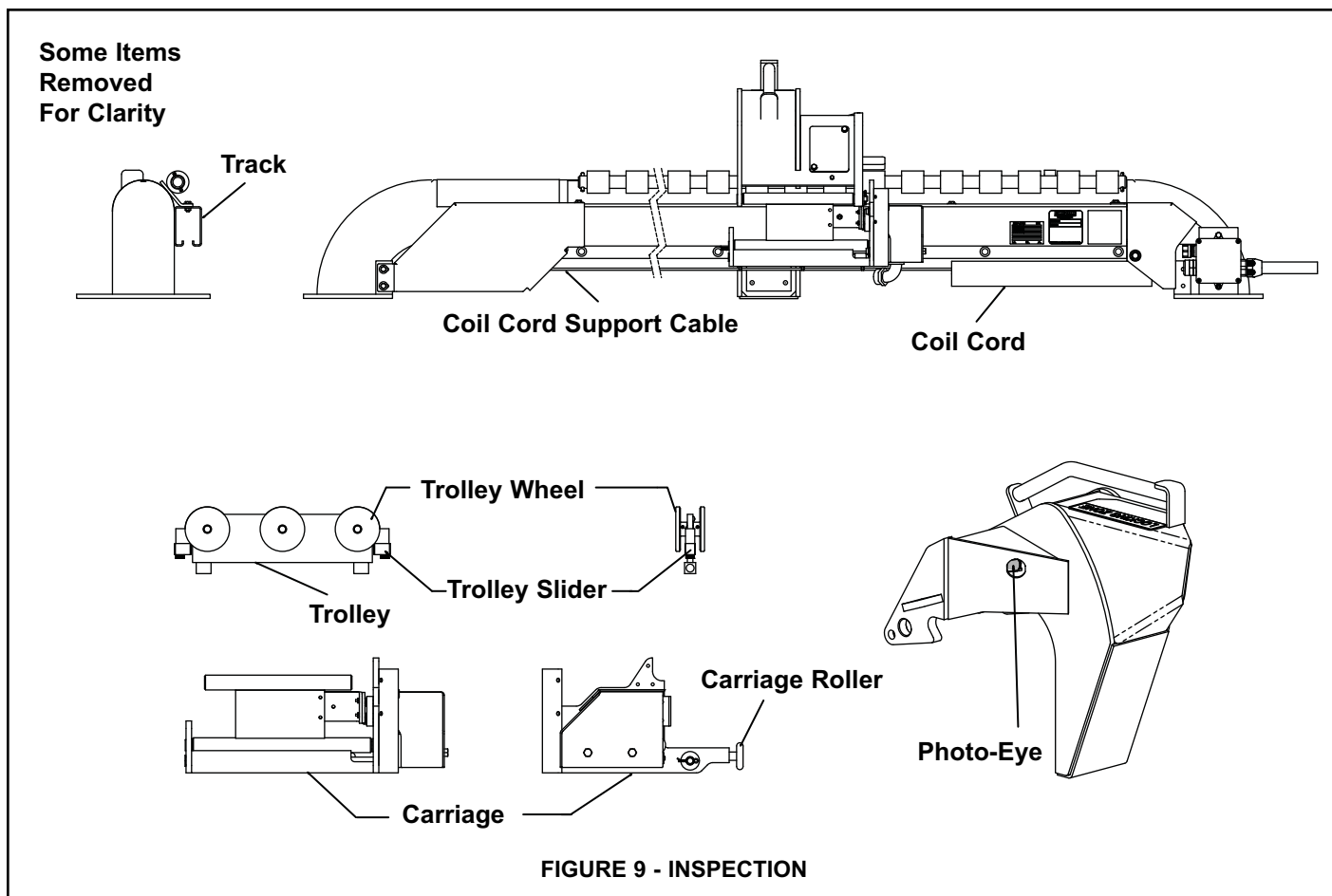
DAILY

1. Remove dirt, snow, ice and debris around MWL-1300 vehicle restraint.
2. Verify inside, outside lights and horns 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.
6. Clean and remove any debris in front of the photo eye on the Wheel Barrier (see figure 9).

180 DAYS

1. Perform all Daily maintenance.
2. Inspect and clean the Trolley Track. Replace if necessary.
3. Inspect the Carriage Rollers. Replace if necessary.
4. Inspect trolley sliders for wear. Replace if necessary.
4. Inspect the Coil Cord support Cable. If necessary, remove any slack by tightening the adjustment nut.
5. Perform operational test after all maintenance repairs are complete.
6. Verify decals are present and legible, replace as required.

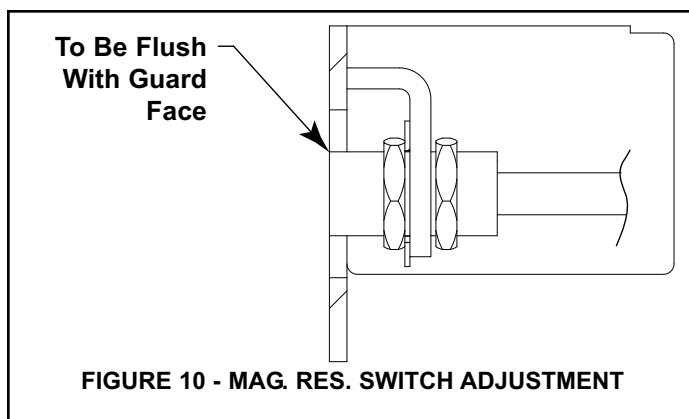
NOTE: Your local Rite-Hite representative provides a Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. Call your local representative.



ELECTRICAL COMPONENT TESTING

Unlocked:

1. Place restraint in its stored position, Barrier stored and carriage all the way towards dock. SW2 should be ON and SW1 should be OFF. See **LED Status Chart** page 15.
2. If SW2 is off, check switch adjustment and adjust if necessary. See Figure 10.
3. If switch is adjusted properly, verify switch operation. See Switch Testing Procedure.
4. If all switches are working properly, verify all wiring per electrical schematic.



Locked:

1. Place restraint in LOCKED position, barrier in vehicle tire path and engaging locking pin. Photo-eye will need to be covered if vehicle tire not present. SW1 should be ON and SW2 should be OFF. See **LED Status Chart** page 15.
2. If SW1 is off, verify operation of Barrier Locked switch and Photo-Eye. See Switch Testing Procedure.
3. If all switches are working properly, verify all wiring per electrical schematic.

Sensing Switch Test Procedure

Mag Res. Sensor:

1. Locate sensor wires and disconnect.
2. Set multi-meter to Continuity setting.
3. Attach leads to switch wires and place a magnet in front of switch:
 - a. Magnet Present – Continuity through switch
 - b. Magnet Not Present – No continuity through switch
4. If there is no continuity when a magnet is present, replace switch.

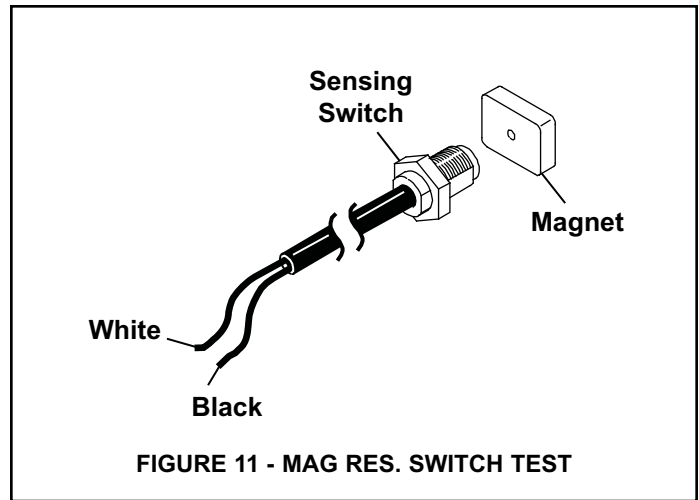
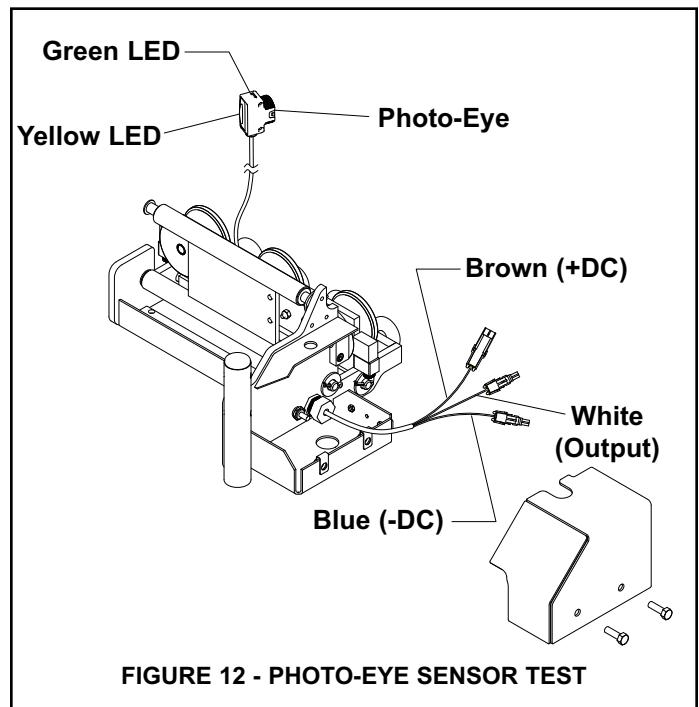


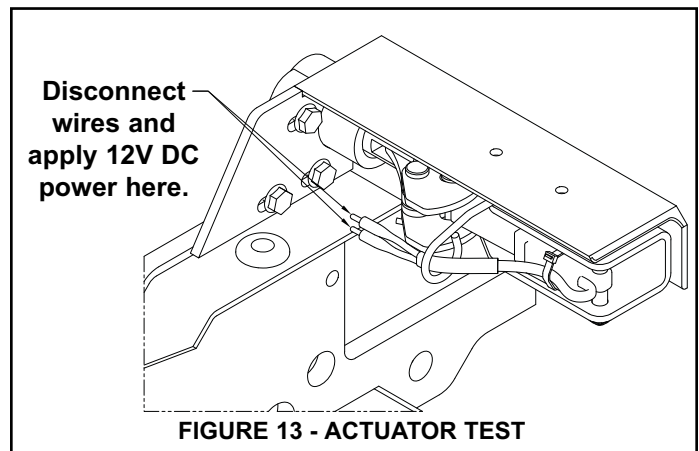
Photo-Eye Sensor:

1. Switch must be installed to test.
2. Remove sensor cover with sensor installed from barrier.
3. Ensure restraint is powered up.
4. Green LED on top of sensor indicates power to sensor. If LED is not on and restraint is powered, check all electrical connections and verify wiring per electrical schematic.
5. Green LED on, place obstruction in front of photo-eye lens. Yellow LED should turn on.



Latch Actuator Testing Procedure (if equipped):

1. Disconnect actuator from harness.
2. Using an external 12 Volt DC power source, apply power to actuator leads. Actuator should extend or retract. NOTE: Reversing leads will reverse the direction of travel.
3. Test both directions of travel.
4. If actuator works during testing but fails to work during normal operation, check all electrical connections and verify wiring per electrical schematic.



HORN OVERRIDE CODE

SETTING HORN OVERRIDE CODE

1. Press and hold DIAGNOSTIC button until horn chirps (approximately three seconds).
2. Enter the factory preset HORN OVERRIDE code: **1223**.
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 no buttons are pressed within a five minute period, the controls will automatically retain the previous code. To exit the HORN OVERRIDE code set mode at any time, press the DIAGNOSTIC button.

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

LED STATUS CHART

LED Inputs						LED Outputs										
	SW1	SW2		UNLOCK PB	PB1,2 & 3		ISR	ISG	OSR	OSG	HORNS		SOL1	CR1	CR2	CR3
STORED (UNLOCKED)	F	T		-	-		P	F	F	P	F		T	F	*	T
LOCKING	F	F		-	-		P	F	P	F	F		T	F	*	T
LOCKED	T	F		-	-		F	P	P	F	F		F	T	*	T
STORING (UNLOCKED)	F	F		M	-		T	F	P	P	F		T	F	*	T
HORN SILENCED	?	?		-	M		P	P	P	F	F		T	T	*	T

SW1 = MAG RES 1 (LOCK)

SW2 = MAG RES 2 (STORED)

UNLOCK PB = Unlock Push Button

PB1, 2, & 3 = Horn Silence Code Push Button

FAULT = SW1 did not sense a safe LOCK/UNLOCK

ISR = Inside Red Light

ISG = Inside Green Light

OSR = Outside Green Light

OSG = Outside Green Light

HORNS = Alarm Horn - Inside and Outside

SOL1 = Lock Actuator Relay

CR1 = Green Light Interlock Output

CR2 = Unidox Output

CR3 = Security System Output

T = Steady On

D = Double Pulse

F = Off

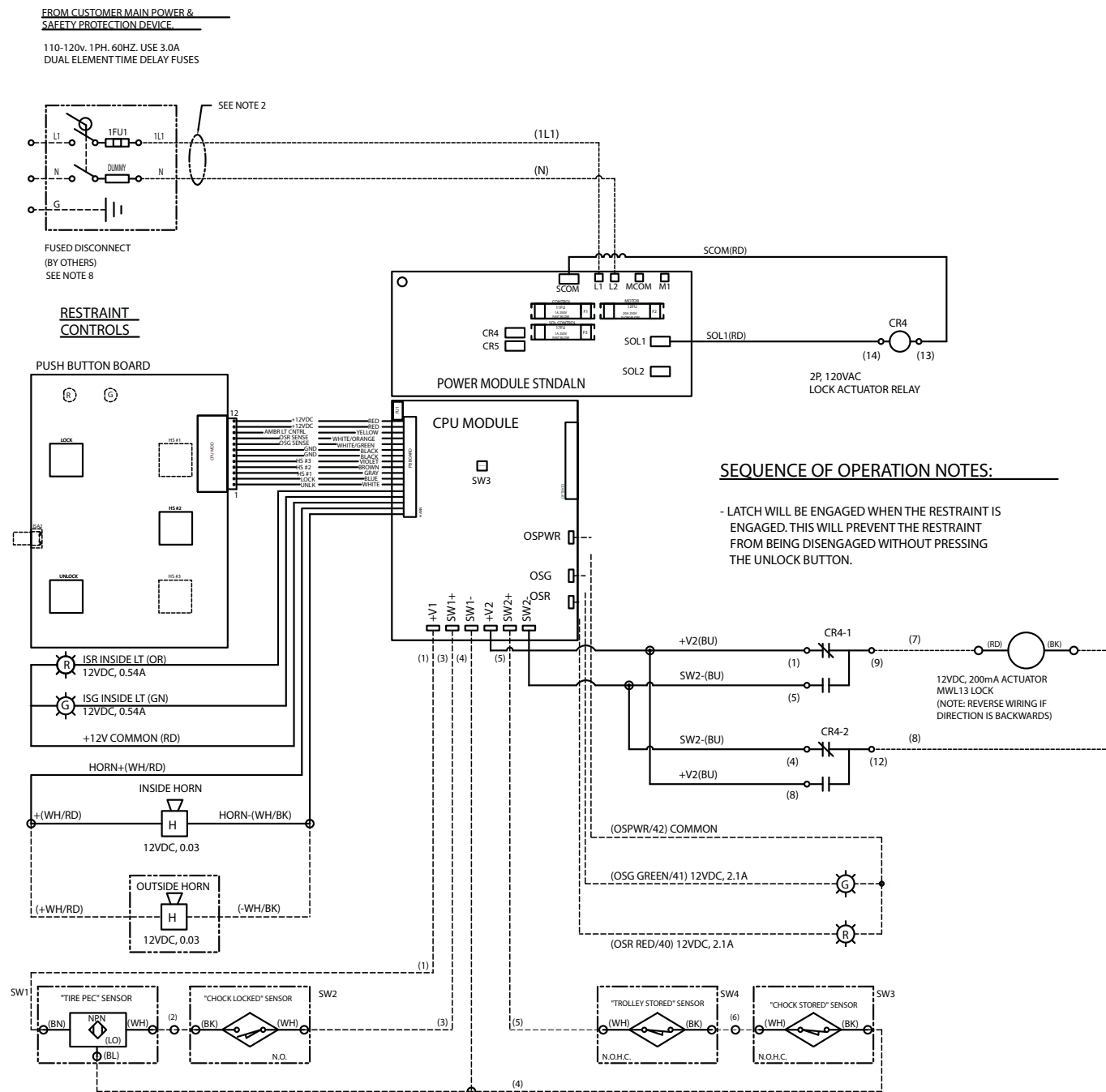
P = Pulsing/Flashing

* = True when Unidox is enabled

? = Varies depending on operation

FIGURE 13 - LED STATUS CHART

ELECTRICAL SCHEMATIC (STANDARD)



NOTES:

1. Refer all installation and service to qualified personnel.
2. Refer to equipment owners manual for complete discription.
3. Power supply disconnect or protection device supplied at installation.
4. All field wiring to be minimum #14GA. 60°/75°C copper wire only, insulated sufficiently for incoming voltage.
5. All internal control box wiring to be #16GA. minimum 90°C copper wire, insulated sufficiently for incoming voltage.
NOTE: This does not include control harness.
6. Class 1 control circuit.
7. Use insulated 1/4" female spade connectors.
8. Torque requirements:
Contactor: 8.9-22 LB-IN (MIN-MAX)
Overload Relay: 16 LB-IN
Ground Terminal: 35 LB-IN
Terminal Block: 5.0-5.6 LB-IN (MIN-MAX)
Solid State Relay Terminal: 35 LB-IN

FIGURE 14 - ELECTRICAL SCHEMATIC (STANDARD)

ELECTRICAL SCHEMATIC (OPTIONS MODULE)

NOTE: The standard wiring is not shown in this drawing to better show the option module wiring.
For information on standard wiring, see previous page.

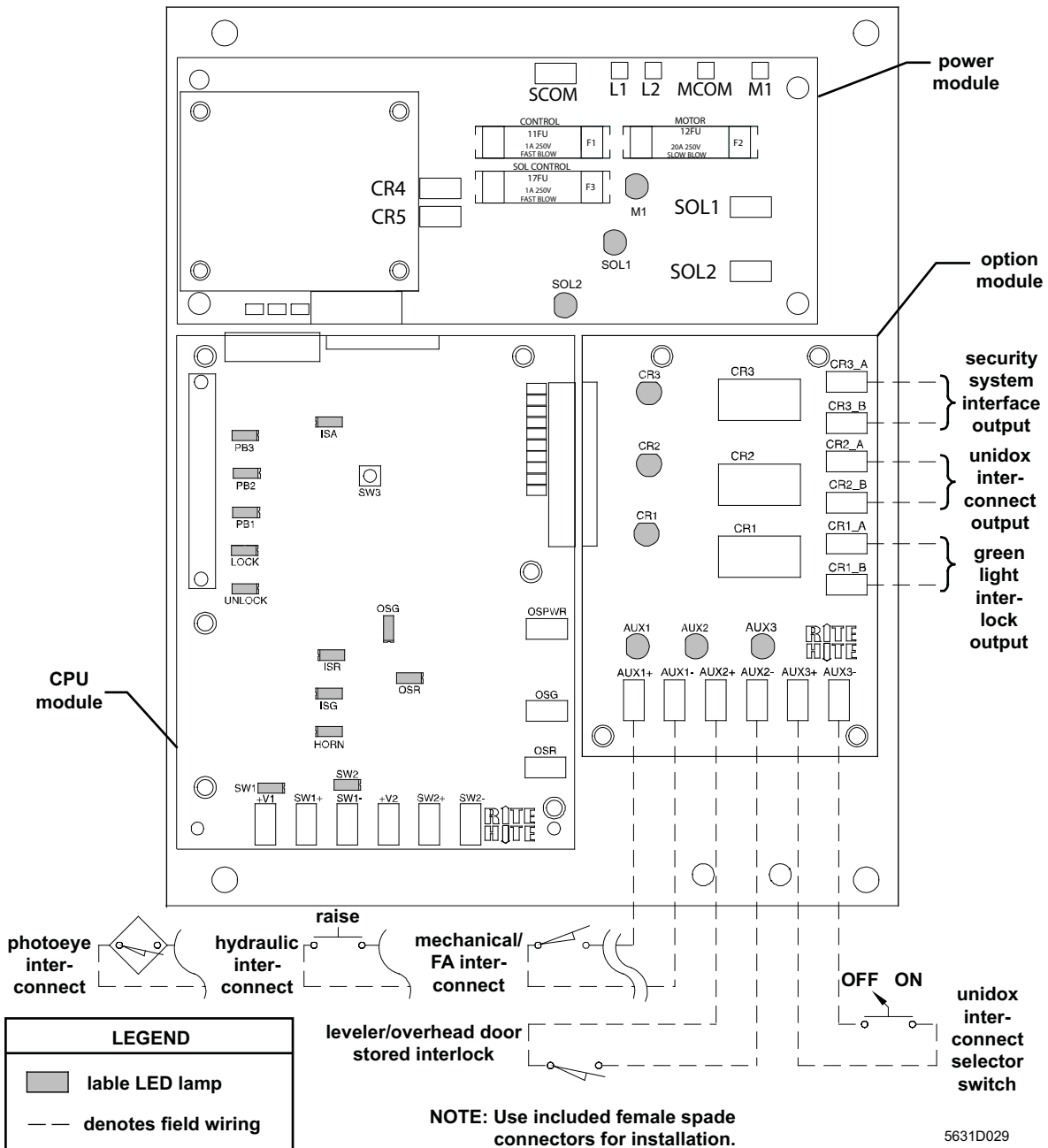


FIGURE 15 - ELECTRICAL SCHEMATIC (OPTIONAL)

OUTSIDE LIGHT BOX WIRING

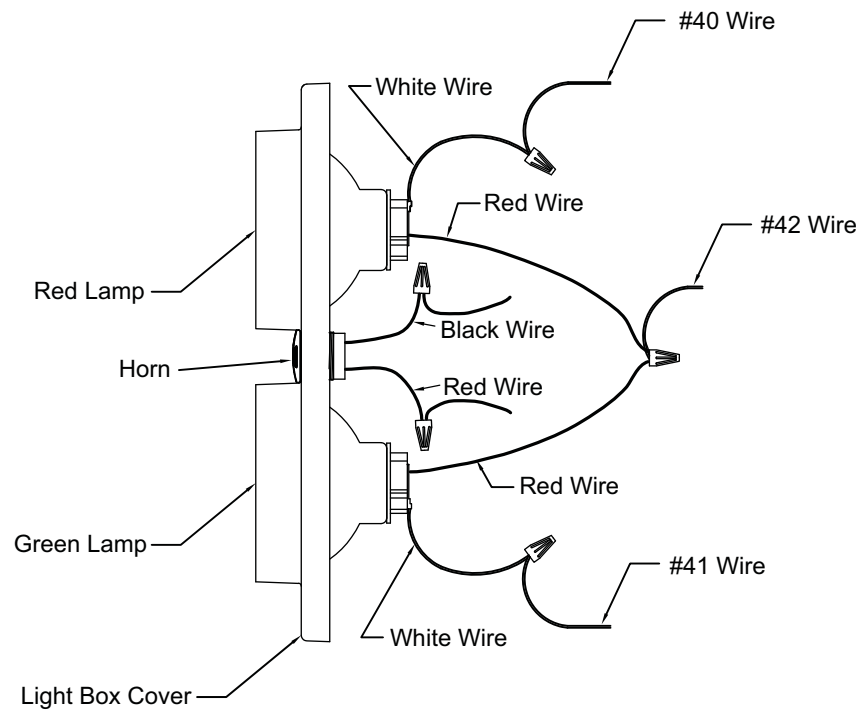
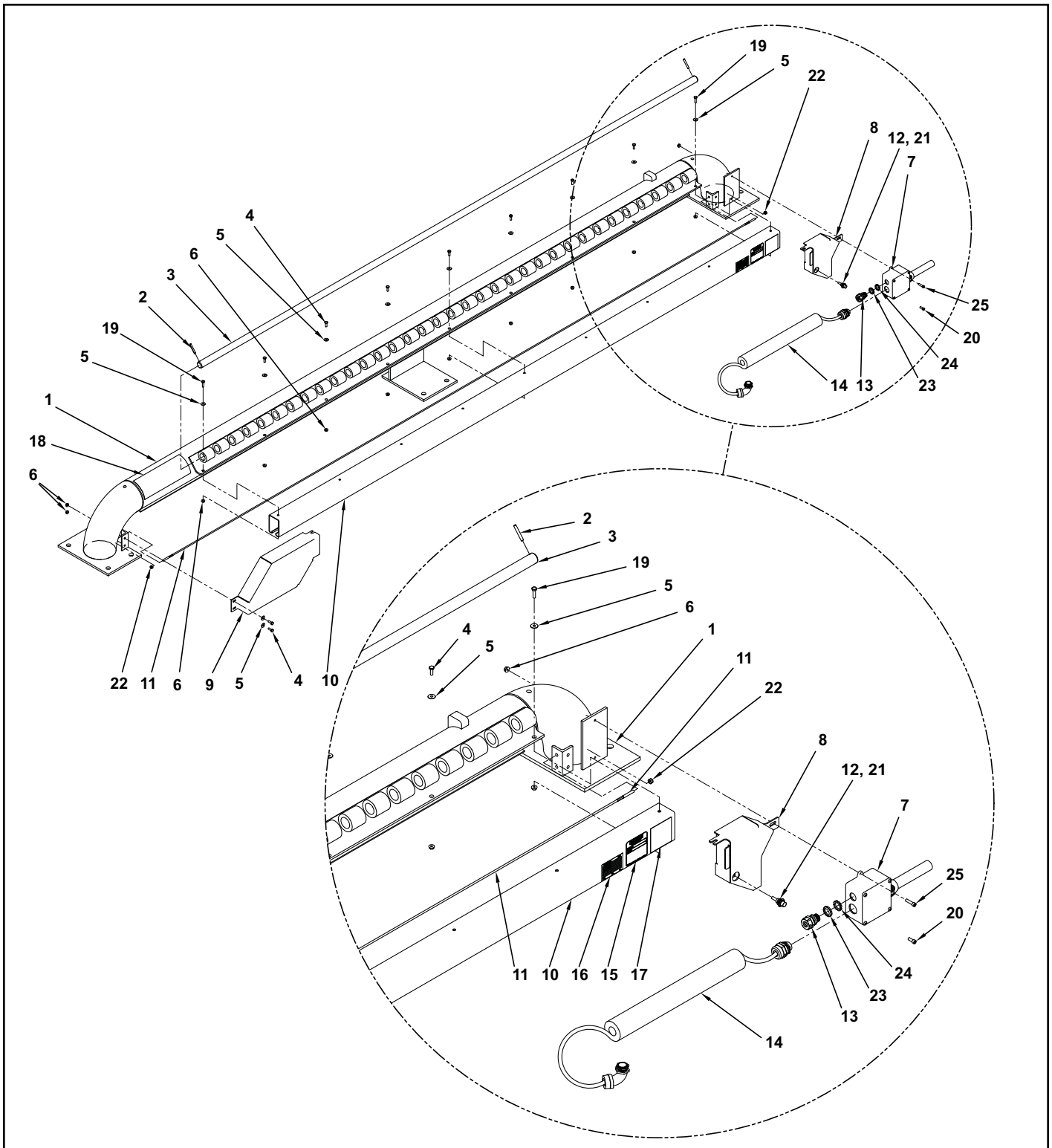


FIGURE 13 - OUTSIDE LIGHT BOX WIRING

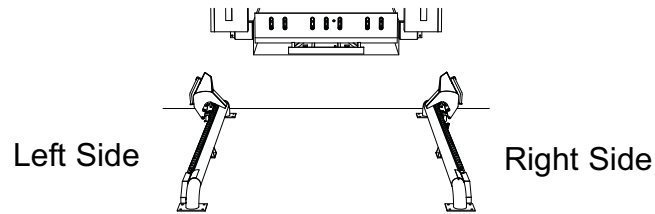
NOTES

WHEEL GUIDE REPLACEMENT PARTS



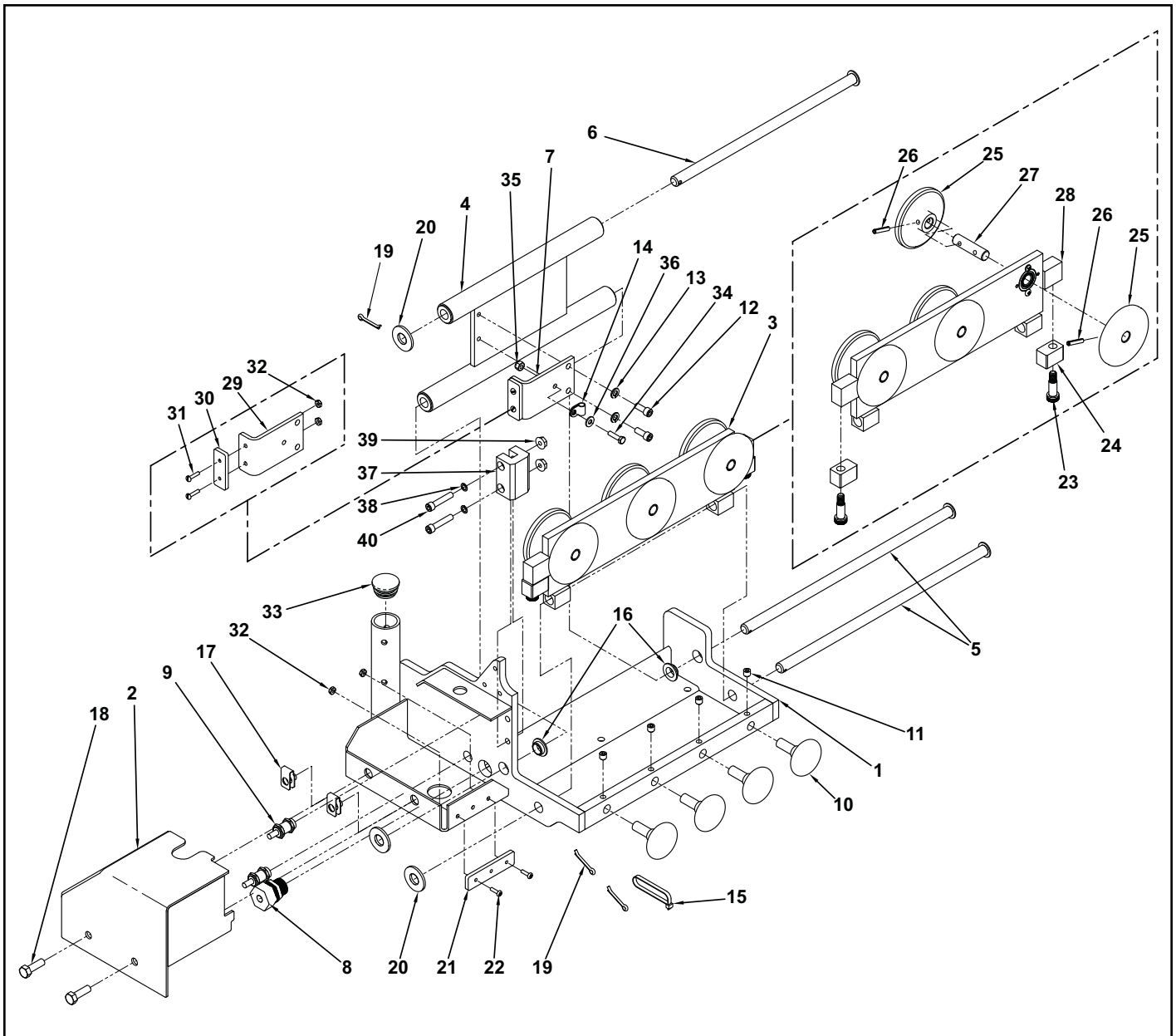
WHEEL GUIDE ASSEMBLY PARTS LIST

Order Parts for the restraint that matches your loading dock.



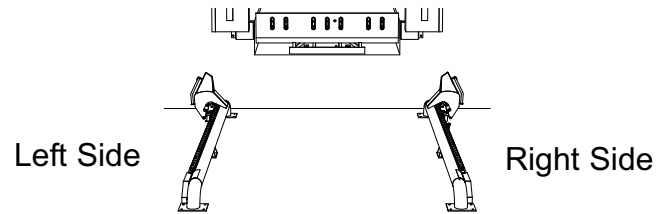
Item	Qty	Description	Part Number	
			Left	Right
1	1	WHEEL GUIDE WELDMENT 156"L	135625	134763
2	2	PIN, SPRING ROLL 1/4" X 1-3/4" LONG	123960	123960
3	1	LOCK PIN	134812	134812
4	9	SCREW, HEX HEAD 1/4-20 X 3/4"	51648	51648
5	11	WASHER, FLAT 1/4" ZP USS	51737	51737
6	12	FLANGE NUT, HEX 1/4-20	51552	51552
7	1	JUNCTION BOX ASSEMBLY	141681	141681
8	1	REAR TRACK COVER	142516	142513
9	1	FRONT TRACK COVER	135624	134826
10	1	TRACK	134815	134815
11	1	SUPPORT CABLE	134858	134858
12	1	SWITCH, MAG RES.	135786	135786
13	1	CORD GRIP - .375-.437 .50NPT X .188-.25 CORD	57693	57693
14	1	COIL CORD ASSEMBLY	141564	141564
15	1	DECAL - SERIAL NUMBER/MODEL	134820	134820
16	1	DECAL - MADE IN USA	120750	120750
17	1	DECAL - PATENT	18391	18391
18	1	DECAL - OPERATION / WARNING	134821	134821
19	2	SCREW - HEX HEAD 1/4-20 X 1" LONG	58077	58077
20	1	SCREW - SOCKET HEAD 1/4-20 X 5/8L	118182	118182
21	1	WASHER 1/2 LK INTERNAL TOOTH	51808	51808
22	2	NUT 1/4-20 NYLK MACH PLN ZP	51595	51595
23	1	GASKET SEAL WASHER 1/2HUB	55524	55524
24	1	LOCK RING 1/2	55715	55715
25	1	SCREW SOCKET HEAD 1/4-20 X 1L ZP	58151	58151

CARRIAGE REPLACEMENT PARTS



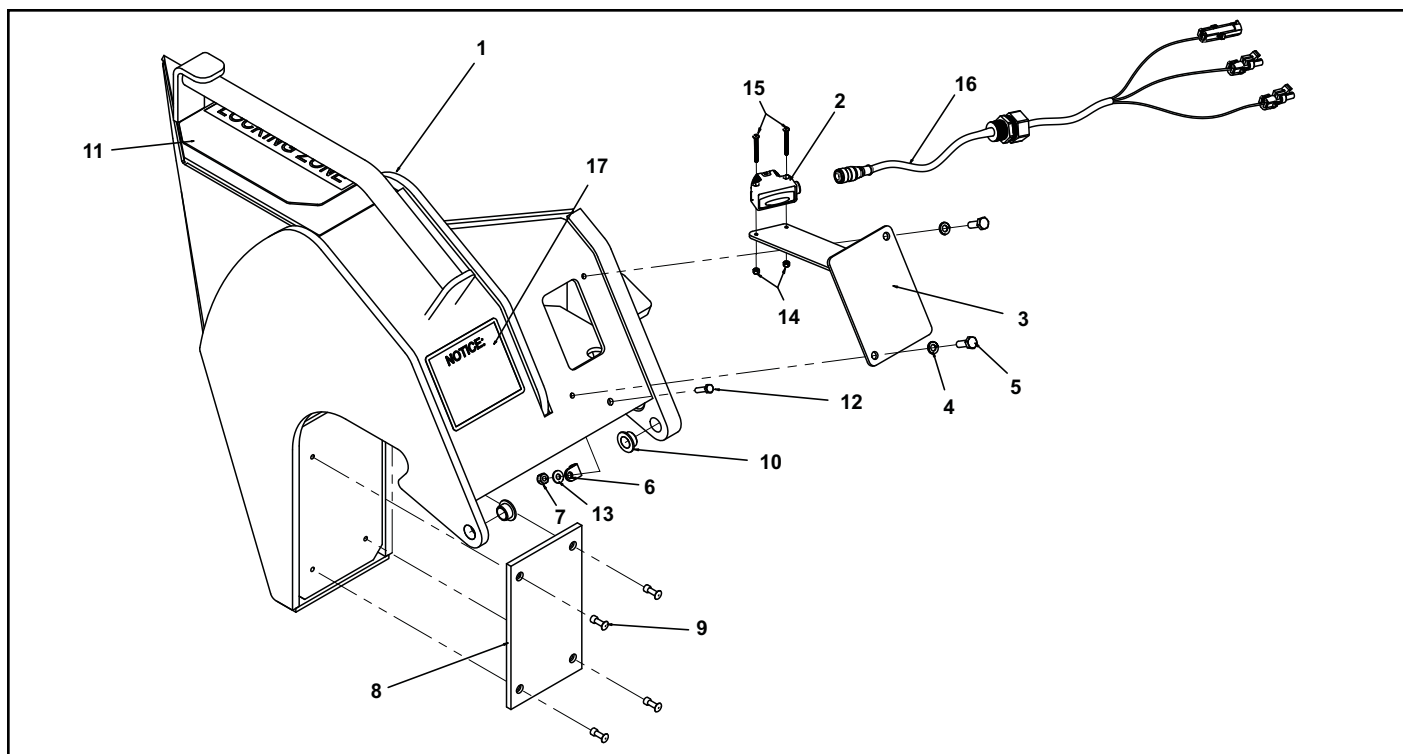
TROLLEY ASSEMBLY PARTS LIST

Order Parts for the restraint that matches your loading dock.

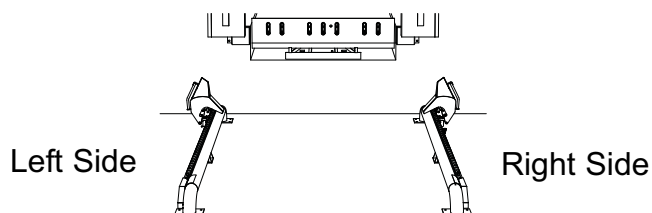


Item	Qty	Description	Part Number	
			Left	Right
	1	CARRIAGE ASSEMBLY (INCLUDES ITEMS: 1, 3, 5, 10, 11, 16, 17, 19, 20)	142012	141811
1	1	CARRIAGE	142005	141794
2	1	CARRIAGE JUNCTION BOX COVER	142006	141797
3	1	TROLLEY ASSY (INCLUDES ITEMS: 23, 24, 25, 26, 27, 28)	135101	135101
4	1	LINKAGE ASSY	142452	142452
5	2	PIN CLV .5 X 13.38L HOLE HD YZP	134850	134850
6	1	CLEVIS PIN 11.688L	134813	134813
7	1	LIMIT SWITCH FLAG ASSY (INCLUDES ITEMS: 29, 30, 31, 32)	135853	135853
8	1	PHOTO-EYE HARNESS	134726	134726
9	2	MAG. RES SENSOR, 2WIRE	134707	134707
10	4	CARRIAGE ROLLER, 2IN DIA.	134848	134848
11	4	SET SCREW .313-18X.313 KNURLED	56525	56525
12	2	CAP SCREW .25-20UNC X .625LONG ZP	118182	118182
13	2	LOCK WASHER, .25IN	51800	51800
14	1	CABLE CLAMP, .25IN NYLON	135011	135011
15	4	WIRE TIE	55892	55892
16	2	BUSHING, FLANGED	134862	134862
17	1	PALNUT, .313-18	56540	005640
18	1	SCREW, HEX HEAD .31-18 X 1L	51627	51627
19	3	COTTER PIN, .125 X 1L	51901	51901
20	3	WASHER, .5 FLAT	51706	51706
21	1	MAGNET, STORED	107121	107121
22	2	SCREW, 6-32 X .5L	109552	109552
23	2	SHOULDER SCREW, .38 X .75 .31-18UNC SST	134841	134841
24	2	UHMW SLIDER	134840	134840
25	6	TROLLEY WHEEL, 3IN OD	134846	134846
26	6	ROLL PIN, .19 X 1L	135302	135302
27	3	TROLLEY AXLE	134847	134847
28	1	TROLLEY WELDMENT	134842	134842
29	1	FORMED ANGLE	135729	135729
30	1	MAGNET, BARRIER POSITION	117680	117680
31	2	SCREW, 6-32 X .625L	109130	109130
32	2	NUT SST, 6-32 NYLOCK	58814	58814
33	1	CAP PLASTIC	136037	136037
34	1	BOLT HEX 10-32UNF .75LONG ZP	136673	136673
35	1	NUT NYLOCK 10-32	58803	58803
36	1	WASHER #10 FLAT	51733	51733
37	1	GUIDE BLOCK	142421	142421
38	2	WASHER .25 LOCK HIGH COLLAR	51802	51802
39	2	NUT .25-20 HEX FLANGED	51552	51552
40	2	SOCKET HEAD SCREW .250-20 X 1.25	58113	58113

BARRIER REPLACEMENT PARTS

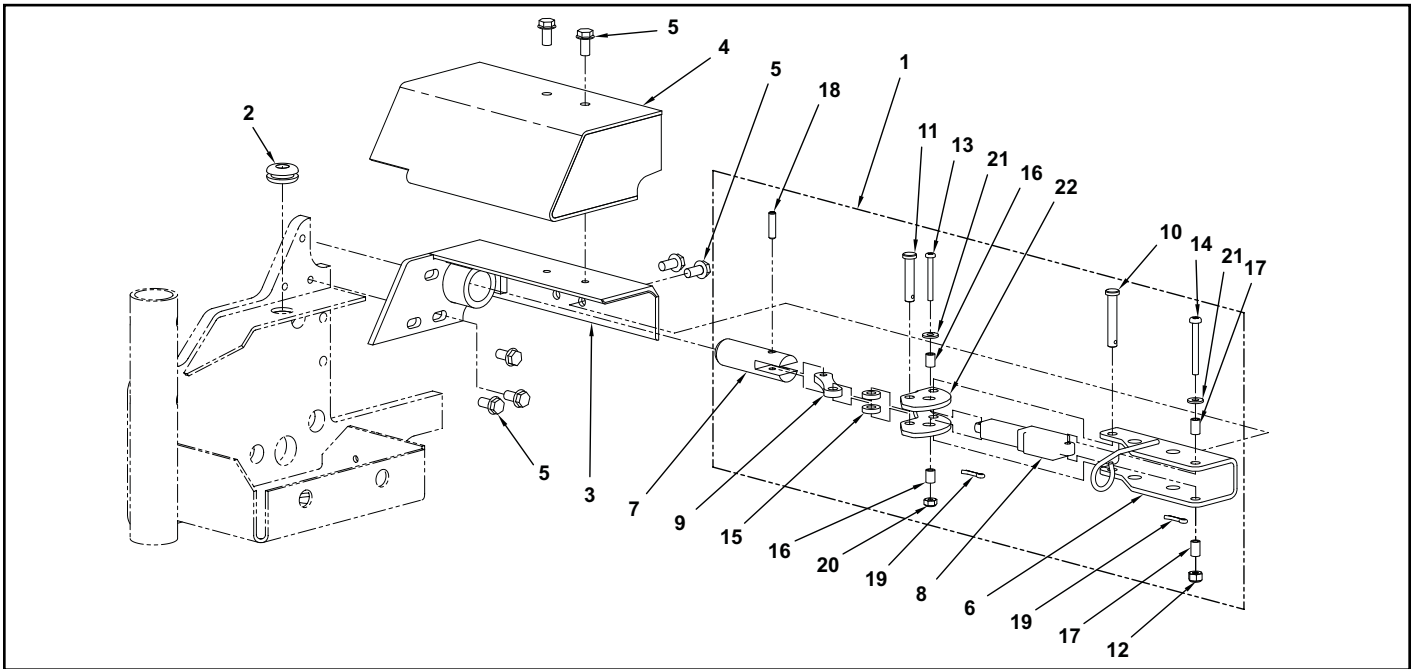


Order Parts for the restraint that matches your loading dock.

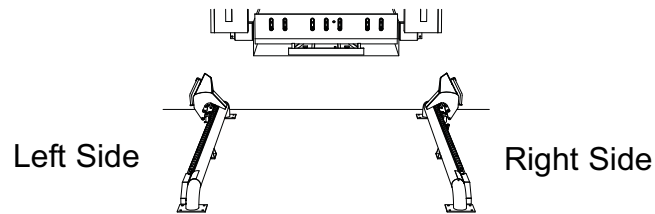


Item	Qty	Description	Part Number	
			Left	Right
1	1	BARRIER	142107	142105
2	1	PHOTO-EYE SENSOR (Items 14 & 15 must be ordered with this)	134808	134808
3	1	SENSOR MOUNT	135617	134805
4	2	LOCKWASHER 1/4"	51800	51800
5	2	HEX CAP SCREW 1/4-20 X 3/4" LONG	51648	51648
6	1	WIRE CLIP	135011	135011
7	1	NUT, NYLOCK 1/4-20	51595	51595
8	1	WEAR PAD	134819	134819
9	4	POP RIVET 3/16" X 1/2" LONG SST	135860	135860
10	2	FLANGED BUSHING	134814	134814
11	1	LOCKING ZONE DECAL	134818	134818
12	1	BOLT HEX 10-32UNF .75LONG ZP	136673	136673
13	1	WASHER #10 FLAT	51733	51733
14	2	NUT, NYLOCK M3 X 0.5	145045	145045
15	2	SCREW, PAN HEAD, M3 X 30MM	145046	145046
16	1	PHOTO-EYE CABLE ASSEMBLY	134726	134726
17	1	BARRIER REMOVAL DECAL	142855	142855

LATCH ASSEMBLY PARTS

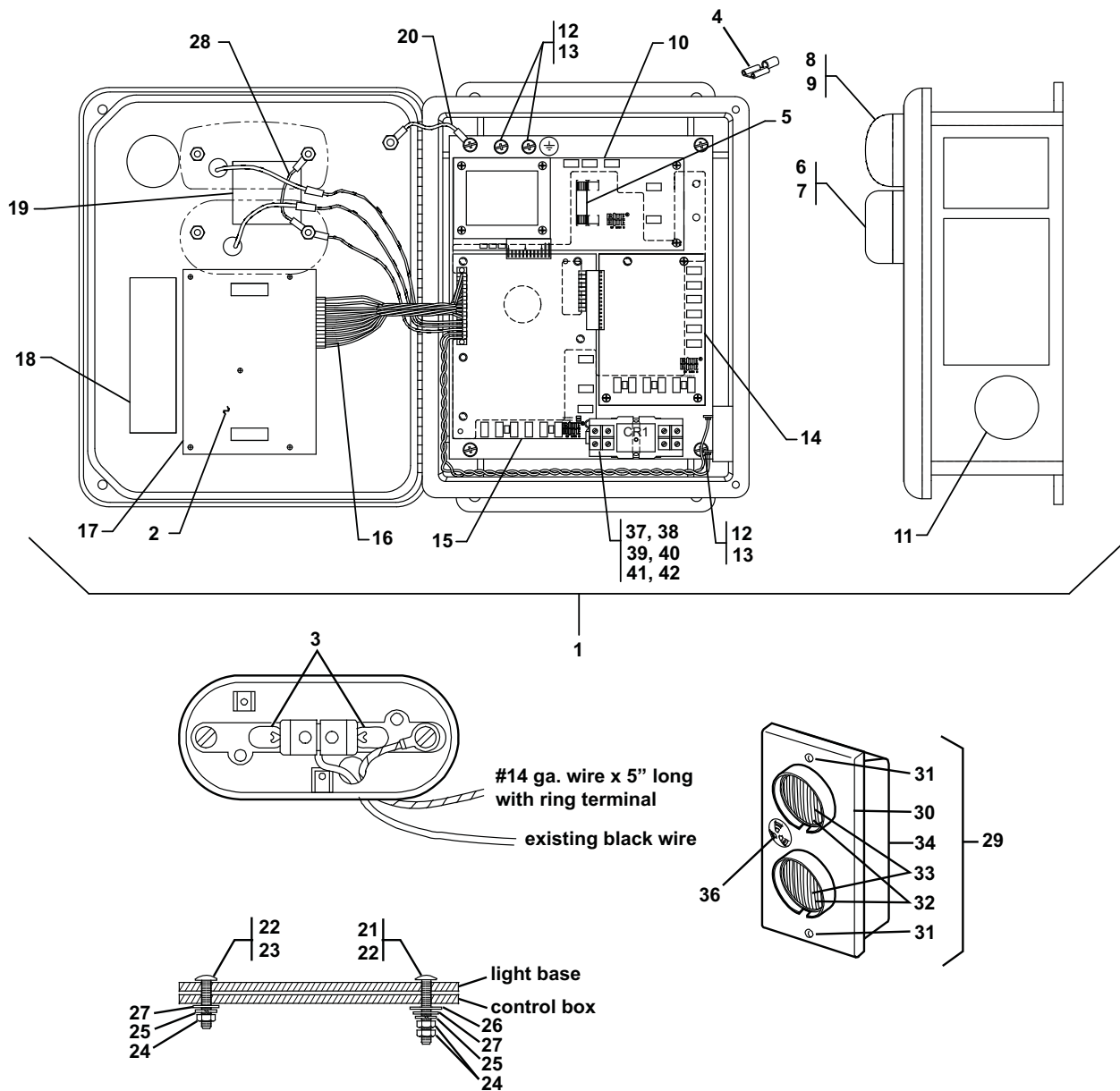


Order Parts for the restraint that matches your loading dock.



Item	Qty	Description	Part Number	
			Left	Right
1	1	LATCH ACTUATOR ASSY	142240	142240
2	1	GROMMET .63OD .38ID .41THK	139986	139986
3	1	LATCH MOUNT	142244	142236
4	1	LATCH COVER	142246	142238
5	7	BOLT .25-20 X .5 SERR FLG HEX G5 ZP	58074	58074
6	1	BASE WELDMENT - LATCH	142241	142241
7	1	PIN .75 X 2.563L HOLE SLOT CHAM	142253	142253
8	1	ACTUATOR	141566	141566
9	1	LINK BAR - ACTUATOR	142243	142243
10	1	PIN CLV .25 X 1.5L HOLE HD ZP	142250	142250
11	1	PIN CLV .25 X 1.25L HOLE HD ZP	142249	142249
12	1	NUT #8-32 NYLK ZP	141611	141611
13	1	SCR #6-32X1.250 MACH PAN PHLP ZP	141644	141644
14	1	SCR #8-32X1.500 MACH PAN PHLP ZP	141645	141645
15	2	SPACER .500OD .252ID .25L ZP	141646	141646
16	2	SPACER .250OD .166ID .344L	141648	141648
17	2	SPACER .250OD .166ID .406L	142248	142248
18	1	PIN TORSION .188 X .75 ZP	141603	141603
19	2	PIN COTTER .094 X .5L ZP	141612	141612
20	1	NUT #6-32 NYLK ZP	140997	140997
21	1	WASHER FLAT #8 ZP	51736	51736
22	1	LINK - FORMED - ACTUATOR	142242	142242
23	1	WASHER FLAT #6 ZP	103217	103217

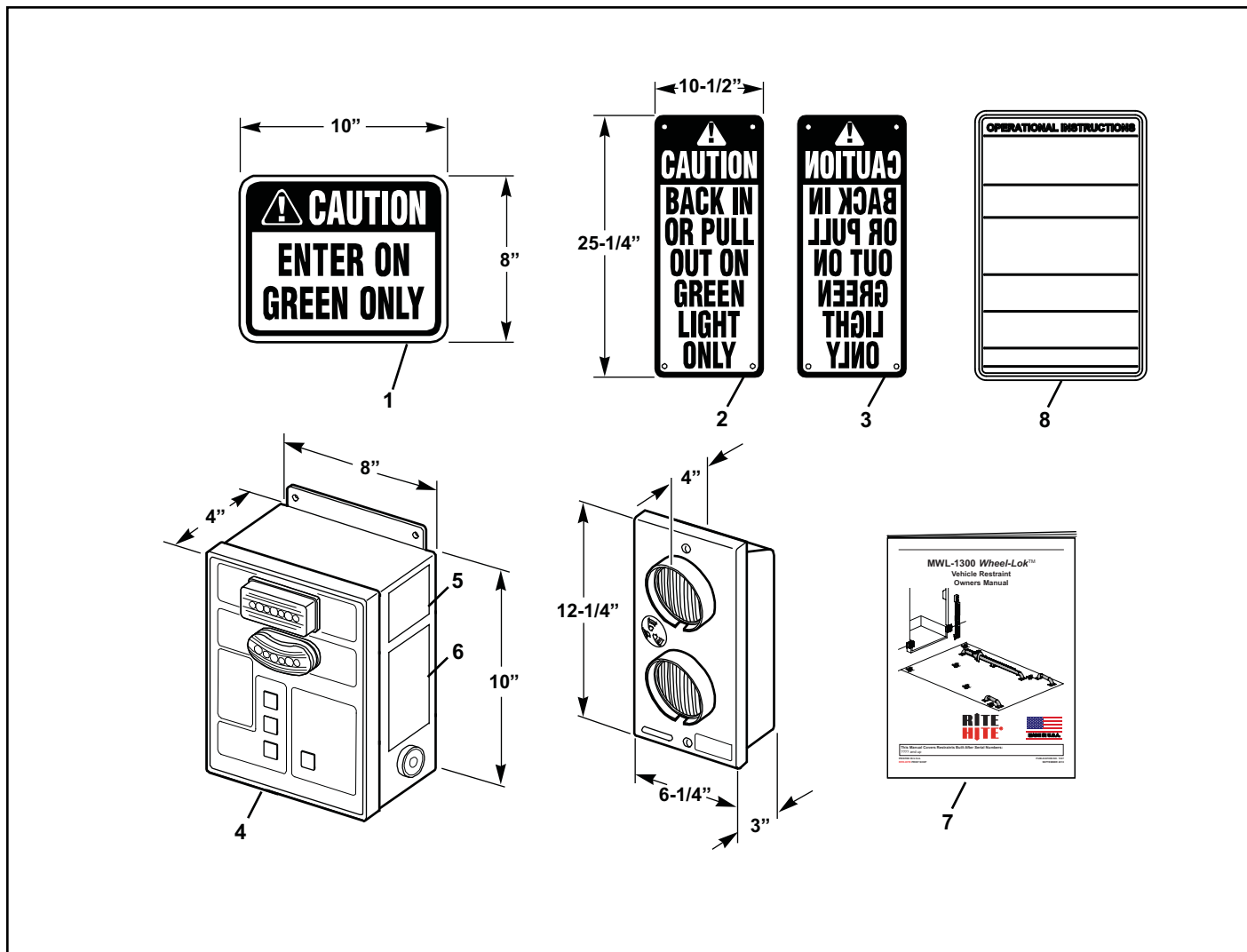
ELECTRICAL REPLACEMENT PARTS



ELECTRICAL REPLACEMENT PARTS LIST

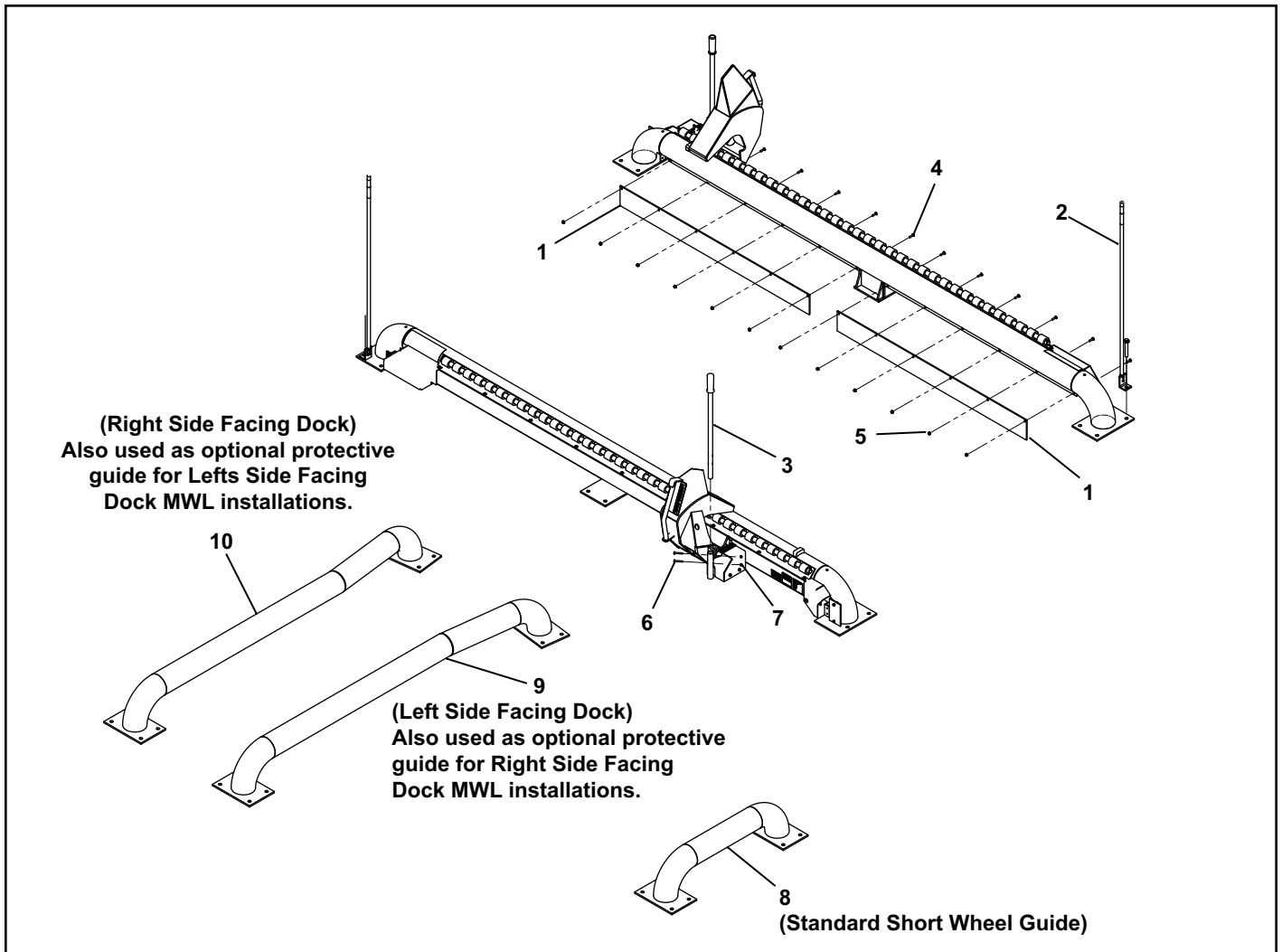
Item	Qty	Description	Part Number
1	1	CONTROL BOX ASSM., COMP. (CONSULT RITE-HITE FOR SPECIFIC PART)	103.XXX
2	1	ELECTRICAL SCHEMATIC DECAL (CONSULT RITE-HITE FOR SPECIFIC PART)	108.XXX
3	4	LIGHT BULB (#194-INCADESCENT)	55768
	2	INSIDE RED LED	116363
	2	INSIDE GREEN LED	116364
4	1	INSULATED FEMALE TERMINAL 1/4", 14-16 AWG (PACK OF 16)	55726
5	1	FUSE, 1AMP 250VOLT FAST BLO	107571
6	1	INSIDE SIGNAL LIGHT, GREEN ASSEMBLY	55742
7	1	INSIDE SIGNAL LIGHT, GREEN LENS	55812
8	1	INSIDE SIGNAL LIGHT, RED ASSEMBLY	57803
9	1	INSIDE SIGNAL LIGHT, RED LENS	57840
10	1	POWER MOD W/CIRCUIT BREAKER - INCLUDES SUBPLATE & HARDWARE	105444
11	1	HORN, 12VDC	57383
12	4	SCREW, PANHEAD #10-32 X 1/4"	105455
13	4	LOCK WASHER, INTERNAL TOOTH #10	51828
14	1	OPTIONS MODULE, NOT INCLUDED IN STANDARD CB ASSEMBLY	105448
15	1	CPU MODULE - INCLUDES MOUNTING HARDWARE	136900
16	1	WIRING HARNESS	105460
17	1	PUSH BUTTON MODULE, 5 BUTTON - INCLUDES MOUNTING HARDWARE	105436
18	1	PROGRAM CONFIG DECAL (CONSULT RITE-HITE FOR SPECIFIC PART)	107.XXX
19	1	FLA AND VOLT DECAL (CONSULT RITE-HITE FOR SPECIFIC PART)	110.XXX
20	1	GROUNDING HARNESS	105456
21	1	SCREW, ROUND HEAD #8-32 X 1" (RED LIGHT ONLY)	51656
22	2	SCREW, ROUND HEAD #8-32 X 3/4"	51672
23	1	SCREW, ROUND HEAD #8-32 X 1/2" (GREEN LIGHT ONLY)	51645
24	6	NUT, HEX #8-32	51538
25	4	LOCK WASHER, EXTERNAL TOOTH #8	51760
26	2	WASHER, NYLON 0.26ID X 3/4" OD X 0.10 THICK	53164
27	4	BUSHING, NYLON	53147
28	1	COMMON WIRE, LIGHT ASSEMBLY	108179
29	1	OUTSIDE LIGHT BOX, COMPLETE LED	134985
30	1	OUTSIDE LIGHT BOX COVER, WITH LAMPS & LENSES	134983
31	2	SCREW, ROUND HEAD #6-32 X 3/4" LONG	18364
32	2	LIGHT BULB (GE #1156-INCADESCENT)	57187
	1	OUTSIDE RED LED BULB	128448
	1	OUTSIDE GREEN LED BULB	128449
33	2	LAMP SOCKET ASSEMBLY	57186
34	1	OUTSIDE LIGHT BOX, NEMA 3R, (WITHOUT COVER)	18277
35	1	FUSE, 4 AMP	119018
36	1	HORN EXT., 12V	134981
37	1	BASE RELAY 2 POLE	55945
38	1	RELAY 2 POLE 120VAC	57077
39	1	RAIL DIN MOUNT 1" LONG	109339
40	1	SCREW #8-32 HEX ZP	51699
41	1	WASHER #8 LOCK EXT. TOOTH	51760
42	1	NUT #8-32 HEX ZP	51538

MISCELLANEOUS REPLACEMENT PARTS



Item	Qty	Description	Part Number
1	1	INTERIOR WARNING SIGN	56095
2	1	NARROW SIGN (NORMAL LETTERS)	56112
3	1	NARROW SIGN (REVERSE LETTERS)	56113
4	1	COVER DECAL - 4 BUTTON	134586
5	1	LOCKOUT/TAGOUT WARNING DECAL	105430
6	1	DECAL WARNING MWL13	113909
7	1	OWNER'S MANUAL	PUB. NO. 1307
8	1	OPERATION SIGN	135019

OPTIONAL EQUIPMENT REPLACEMENT PARTS



Item	Qty	Description	Part Number
1	2	GRD DEBRIS .25 X 5.5 X 61L 6HOLE RBR	135454
2	1	CMPNTS/DWG POLE ASSY MKR	135688
3	1	CMPNTS/DWG HNDL POSN CRG	135701
4	12	SCREW, FLAT HEAD CSINK	18210
5	12	NUT, .31-18 NYLOCK	131171
6	2	BOLT, .25-20 X 2L ZP (INCLUDED W/ ITEM 3)	51647
7	2	NUT, .25-20 NYLOCK (INCLUDED W/ ITEM 3)	51595
8	1	WHEEL GUIDE, SHORT (SHORT)	102461
9	1	WHEEL GUIDE (LONG), LEFT SIDE	110073
10	1	WHEEL GUIDE (LONG), RIGHT SIDE	100263

NOTES

NOTES

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.

LIMITATION OF LIABILITY

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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