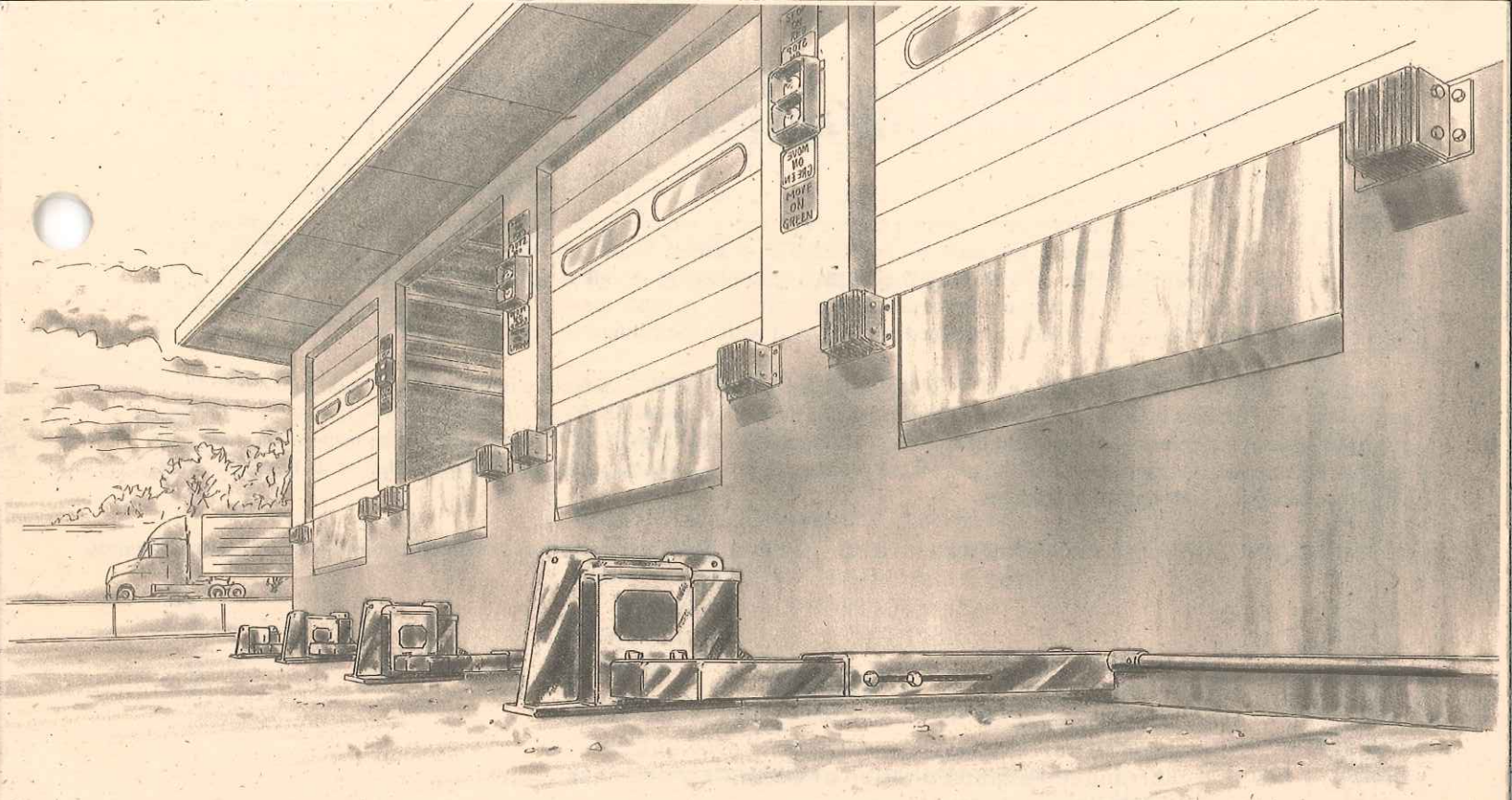


THE NOVA ANCHOR TRUCK LOCK™

INSTALLATION, PARTS & OWNERS MANUAL

NOVA TECHNOLOGY

Catalog No. TL99

WARRANTY

NOVA TECHNOLOGY, INC. warrants the NOVA ANCHOR TRUCK LOCK ™ AND TRUCK MONITOR™ to be free of defects in material or workmanship under normal use for a period of one year from the date of shipment. This warranty does not cover any failure to properly maintain the product. This warranty is the only one given by NOVA TECHNOLOGY, INC. and is in lieu of all guarantees and warranties expressed or implied by anyone other than NOVA TECHNOLOGY, INC. including those of fitness for a particular purpose and merchantability. In order for warranty claims to be honored the products must have been properly installed, maintained and operated within their intended function and not otherwise abused.

If your NOVA ANCHOR TRUCK LOCK™ AND TRUCK MONITOR™ is defective in material or workmanship and you notify NOVA TECHNOLOGY, INC. within one year of the date of shipment, NOVA TECHNOLOGY, INC.will, at its option, repair or replace the defective component(s) at no cost to you. NOVA TECHNOLOGY, INC. will not be responsible for or pay for loss of time, inconvenience, loss of the use of the product, or property damage caused by this product or its failure to work, or any incidental or consequential damages.

NOVA TECHNOLOGY, INC.reserves the right to change specifications or make product improvements without notice or obligation.

INDEX

INTRODUCTION

The Nova Technology Anchor Truck Lock ™ and Traffic Monitoring System, when properly installed and operated, offers the user substantially improved dock safety and efficiency. Its design is the result of many years of experience with loading dock operation.

It features an easy to read inside light system for the dock attendant, a simple "stop and go" outside light system for the truck driver, and a restraining device to discourage premature or unexpected truck departure. In addition, the optional Truck Monitor system alerts the dock supervisor to truck arrivals, departures and restraint use.

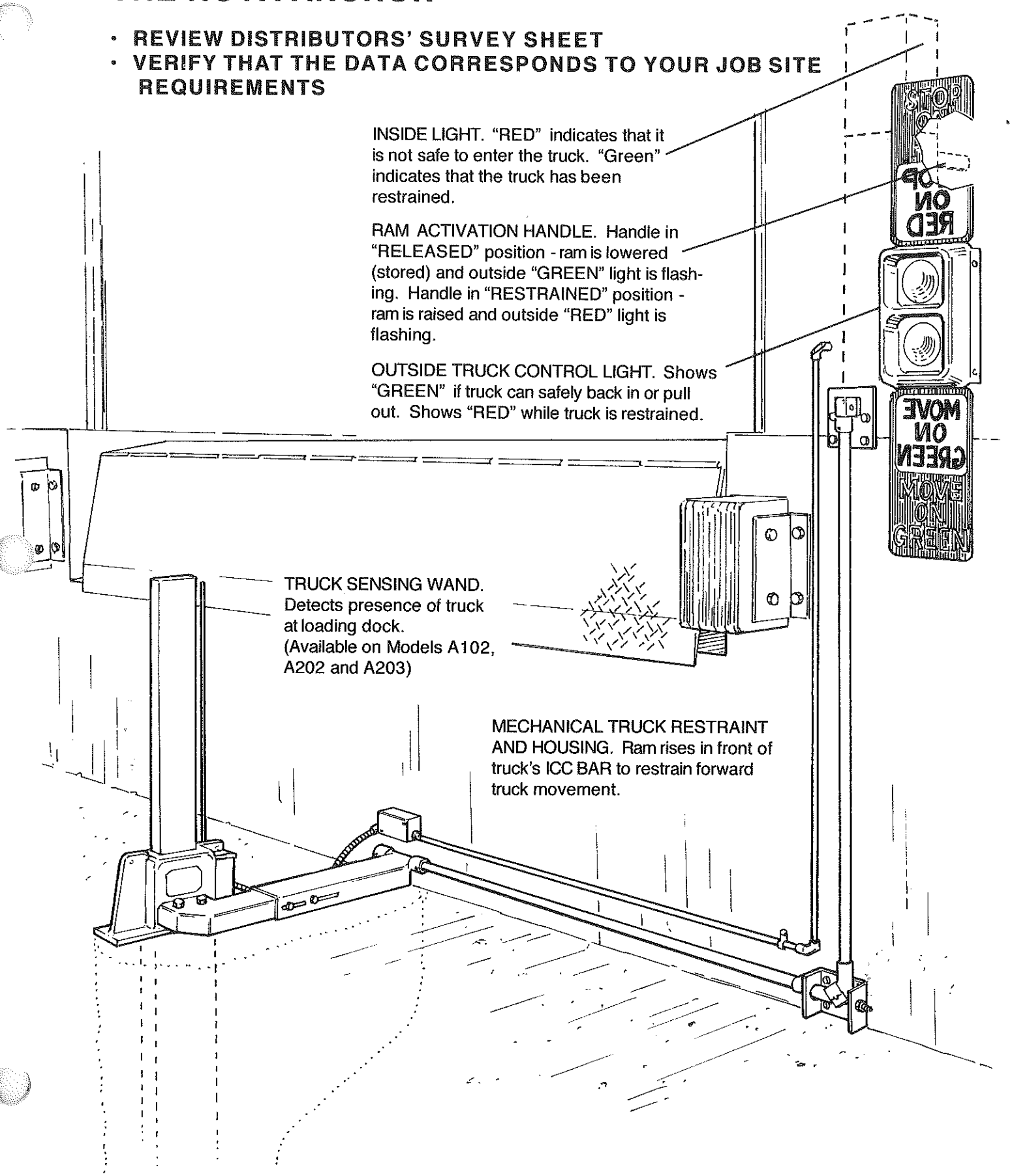
Read and follow all installation and operating instructions. Be certain to read and understand all caution statements in this booklet as well as all warning labels on the equipment. Be sure all dock attendants are properly trained in the system's function and operation.

Perform periodic inspection to insure there are no worn or damaged parts which could result in equipment failure and/or personal injury.

CAUTION: BE SURE THAT INSTALLATION IS PERFORMED ONLY BY QUALIFIED PERSONNEL AND THAT ELECTRICAL HOOK-UP IS PERFORMED BY A QUALIFIED ELECTRICIAN.

THIS VIEW SHOWS TYPICAL ARRANGEMENTS & FUNCTIONS OF MAJOR COMPONENTS FOR THE NOVA ANCHOR™

- **REVIEW DISTRIBUTORS' SURVEY SHEET**
- **VERIFY THAT THE DATA CORRESPONDS TO YOUR JOB SITE REQUIREMENTS**



INSIDE LIGHT. "RED" indicates that it is not safe to enter the truck. "Green" indicates that the truck has been restrained.

RAM ACTIVATION HANDLE. Handle in "RELEASED" position - ram is lowered (stored) and outside "GREEN" light is flashing. Handle in "RESTRAINED" position - ram is raised and outside "RED" light is flashing.

OUTSIDE TRUCK CONTROL LIGHT. Shows "GREEN" if truck can safely back in or pull out. Shows "RED" while truck is restrained.

TRUCK SENSING WAND. Detects presence of truck at loading dock. (Available on Models A102, A202 and A203)

MECHANICAL TRUCK RESTRAINT AND HOUSING. Ram rises in front of truck's ICC BAR to restrain forward truck movement.

INSTALLATION INSTRUCTIONS

EVERY INSTALLATION SHOULD BE A SHOW PIECE & POTENTIAL CUSTOMER REFERENCE. PLEASE FOLLOW THESE INSTRUCTIONS AND THE INFO ON THE SURVEY SHEET.

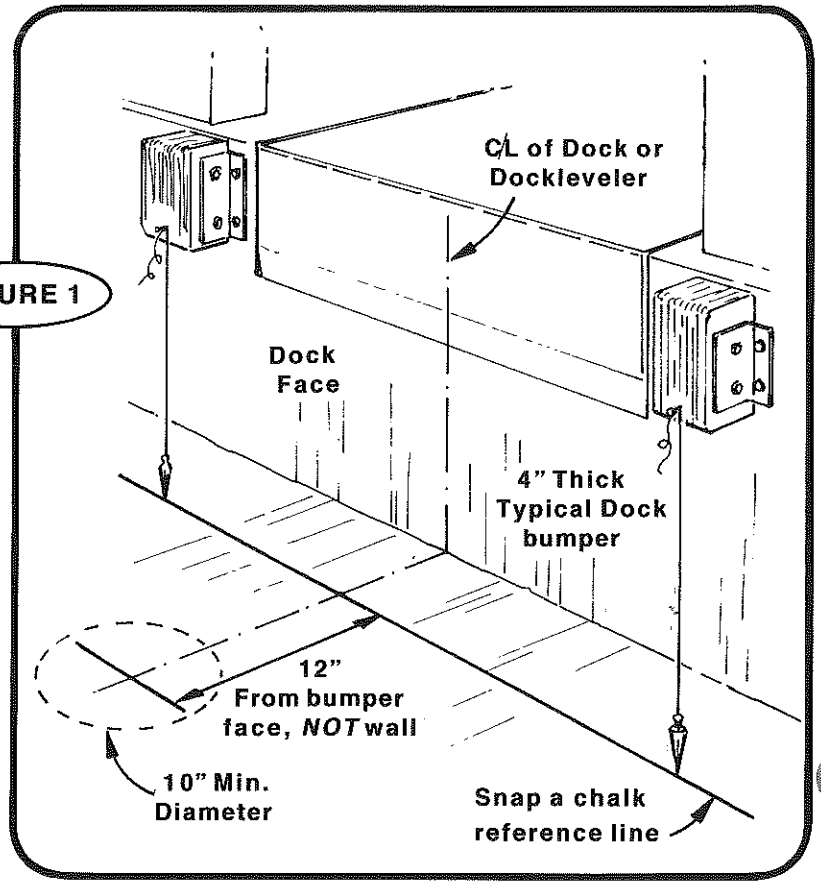
STANDARD SUPPLIES (Per unit) Furnished by Installer

(27) 1/4" Fasteners
Concrete mix - Approx. 3 to 8 cu. ft. -- depending on concrete or asphalt drive. (Minimum strength 4000 psi)
3/4" Thinwall conduit -- 20 ft. (Activation cable run)
1/2" Thinwall conduit -- 20 ft. (Truck Sensor run)
1/2" Conduit elbows (2) (Truck Sensor run)
1/2" Wall clips (for conduit) (Truck Sensor run)
1 Junction box (Truck Sensor run)

LUBRICATING ANIFREEZE SOLUTION
4 C. R.V. Antifreeze (non-toxic) 3 C. Lightweight Hydraulic Oil (Brake Fluid, Power Steering Fluid, etc.) 1 C. Water

Caution: When unpacking the Nova Lock be careful not to lose parts that are within the specially made packing boxes.

FIGURE 1



Note: Drawing is *NOT* to scale

STEP 1. Determine exact location of restraint ram housing per diagram, Figure 1. **NOTE THAT ALL DIMENSIONS ARE FROM FACE OF DOCK BUMPERS. IF BUMPERS ARE NOT YET INSTALLED, ADD THICKNESS OF BUMPERS.**

STEP 2. Core drill (auger, posthole digger, etc.) a 10" diameter hole minimum of 42" deep. The final shape of completed excavation depends on driveway surface.

IMPORTANT: Front support must be in full contact with the poured concrete.

CUTAWAY SECTION FOR CONCRETE

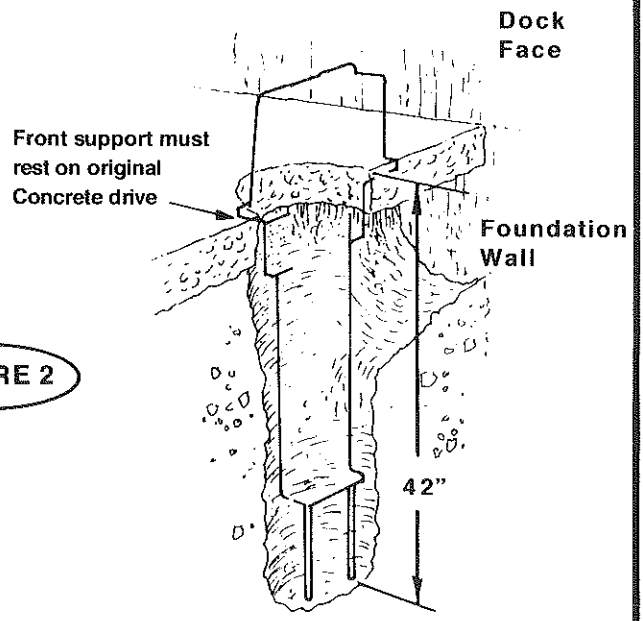


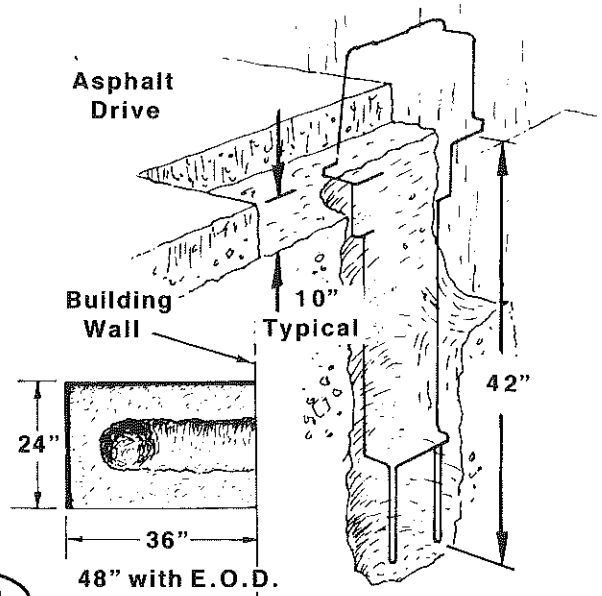
FIGURE 2

For non-concrete driveway surface, an area as shown must be cut out. This yields a much more substantial base since asphalt is subject to some movement climatically. See Figure 3 for placement of rebars when installing in a non-concrete drive.

STEP 3. Hook anchor rod through holes is housing cap as shown in Figure 2. Support housing in the augered hole and secure with concrete. **NOTE: RAM HOUSING MUST BE "PLUMB" IN ALL DIRECTIONS AND BOTTOM OF FRONT SUPPORT MUST BE FLUSH WITH TOP OF DRIVE. IF INSTALLING IN UNFINISHED DRIVEWAY, BE SURE TO INSTALL AT FINISHED DRIVE HEIGHT. IF NEW DRIVEWAY IS OTHER THAN CONCRETE, PLEASE REFER TO FIG. 3 FOR PAD DIMENSIONS. CONCRETE SHOULD HAVE MIN. COMPRESSIVE STRENGTH OF 4000 PSI OR EQUIVALENT.**

Note: Housing may be welded to the middle two rebars to help hold and stabilize housing during concrete pour.

CUTAWAY SECTION FOR ASPHALT & OTHERS



Cutout dimensions for non-concrete drives

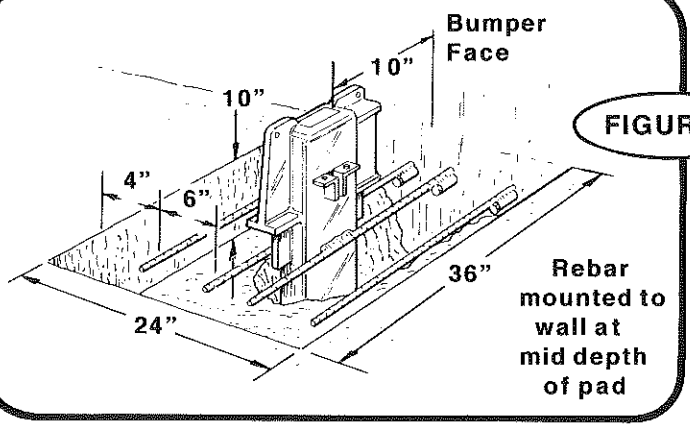


FIGURE 3

IMPORTANT! Remember, dimension from backedge of ram to bumper face should be 10"

REFER TO TECH. BULLETIN FURNISHED WITH REBAR.

WHILE THE CONCRETE IS SETTING UP, YOU NOW CAN PROCEED WITH THE MOUNTING OF BRACKETS AND CONSOLE.

NOTE: BE SURE THERE ARE NO OBSTRUCTIONS ON OUTSIDE OF BUILDING WHICH WOULD INTERFERE WITH CABLE RUN BETWEEN CONTROL CONSOLE AND RAM HOUSING. POSITION CONTROL CONSOLE SO THAT ACTIVATION CABLE CLEARS DOCK BUMPERS. ALSO BE SURE THAT THERE IS ADEQUATE CLEARANCE FOR FUTURE INSTALLATION OF DOCK SEALS OR SHELTERS. See Figure 4.

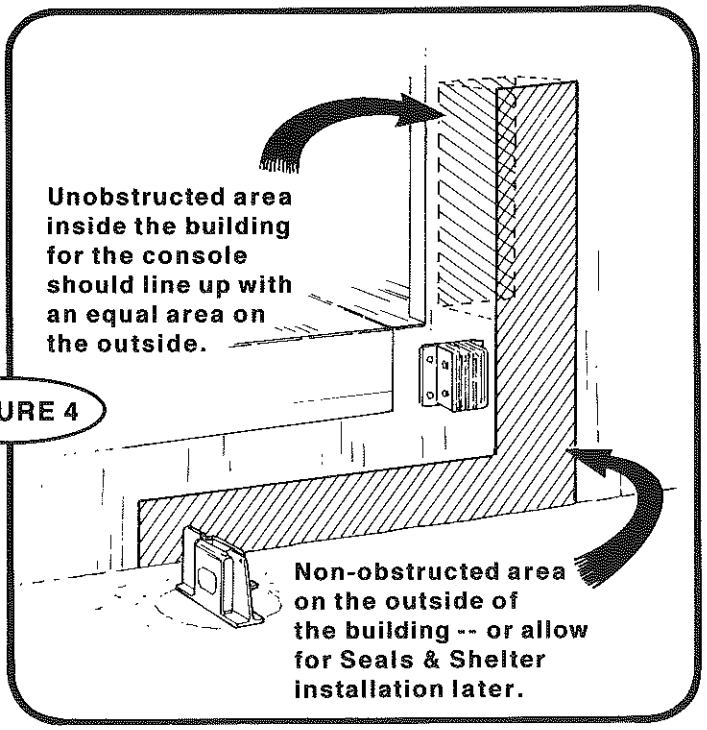


FIGURE 4

! WARNING !

PRIOR TO INSTALLATION OF ACTUATION CABLE, MAKE SURE CONCRETE HAS SET UP, OR ELSE CABLE FORCE MAY LOOSEN HOUSING IN CONCRETE.

STEP 4. Remove cover from control console by removing four 3/8" x 1/2" bolts. See Figure 5.

If metal building support is required as per survey sheet, follow those instructions for correct installation.

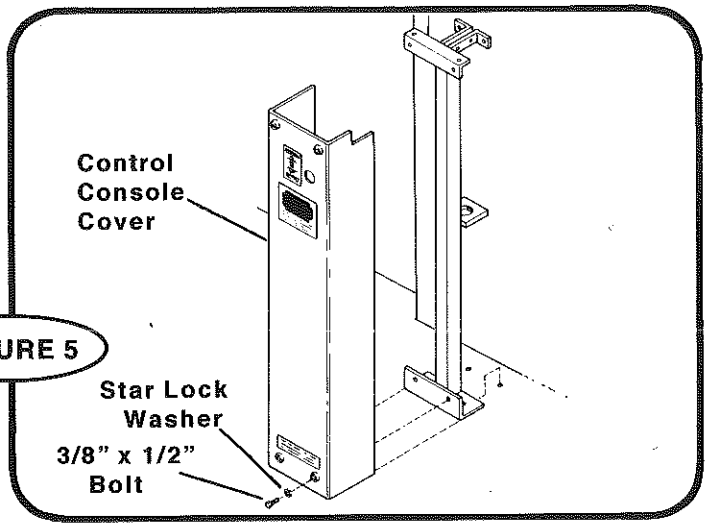


FIGURE 5

STEP 5. Temporarily place control console (with cover removed) against inside wall in desired location. Mark the four mounting holes for the pole (two on wall and two on floor) as well as the 1" dia. cable exit hole. See Figure 6.

WARNING! GET THIS PART RIGHT TO AVOID CABLE RUBBING BETWEEN PULLEYS.
1. **CABLE MUST RUN ON PULLEYS.**
2. **CABLE MUST RUN LINE OF SIGHT BETWEEN PULLEYS.**
3. **CABLE MUST NOT RUB ON WALL MATERIAL.**

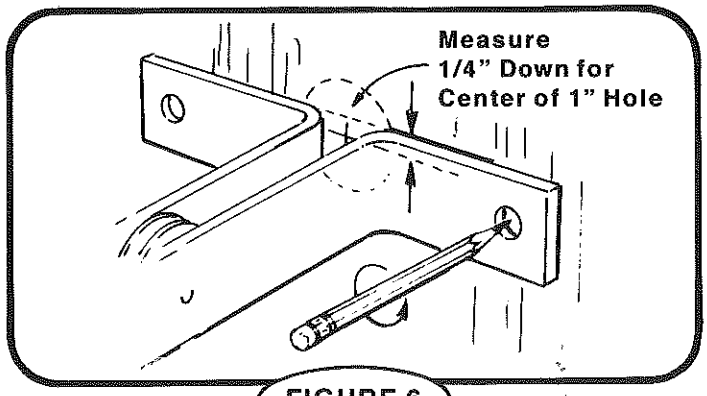
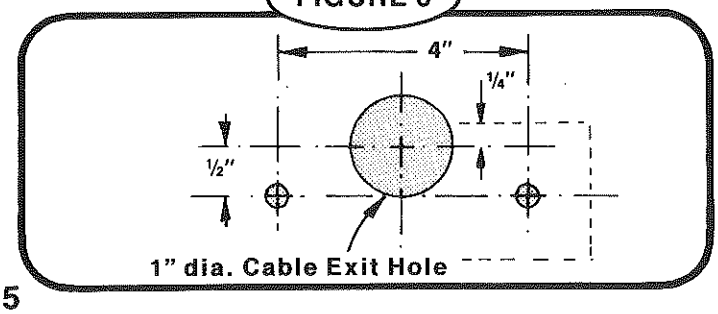


FIGURE 6

STEP 6. First, drill the 1" dia. cable exit hole through the wall from inside at the location marked in Figure 6.

NOTE: TO PREVENT OUTSIDE CONCRETE WALL FROM CHIPPING, DRILL A 1/2" PILOT HOLE FIRST. IF INTO A BLOCK WALL, LOOSE INSULATION, ETC., SLEEVE THE HOLE WITH A SECTION OF 3/4" CONDUIT.



STEP 7. Replace console pole and check alignment of the 1" hole per Figure 6. Then drill mounting holes. Mount control console on inside of building wall.

NOTE:
USE EXPANSION BOLTS, TOGGLE BOLTS OR THROUGH BOLTS AS APPROPRIATE. BOLTS AND FASTENERS SUPPLIED BY INSTALLER.

STEP 8. Mount upper outside pulley to exterior wall, being sure top of pulley aligns with center of 1" hole through wall. See Figure 7 and the note regarding anchors above.

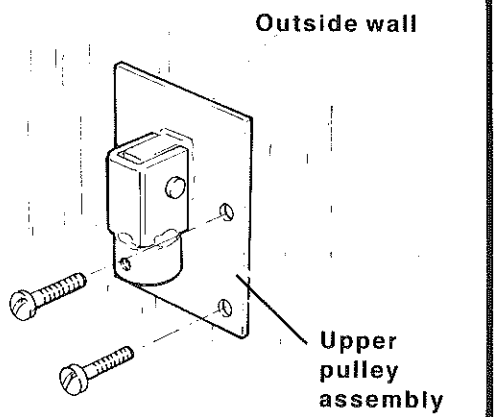


FIGURE 7

STEP 9. Route cable through side extension bracket, and bolt side extension bracket to housing as shown in Fig 8. Route cable through tail section and bolt tail section to the side extension bracket as shown in Figure 8.

NOTE: RECESSED BUILDING WALL OR DOCK FOUNDATION WALL MAY REQUIRE A PULLEY BRACKET AS PER YOUR SURVEY SHEET.

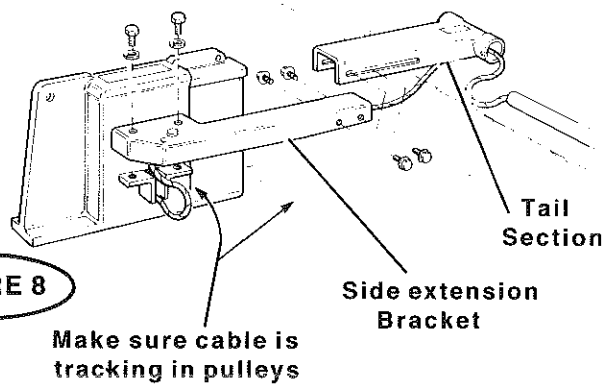
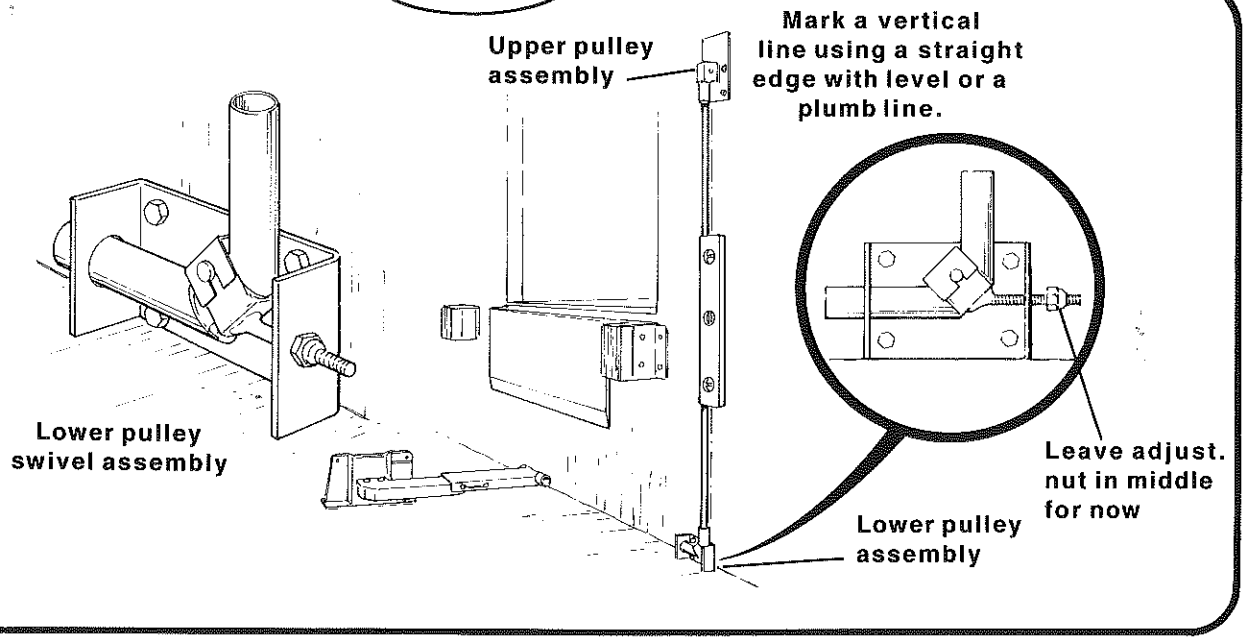


FIGURE 8

STEP 10. Mount lower pulley swivel assembly to foundation directly beneath upper pulley assembly. In northern climates, where driveway heaving (freezing) is possible, the lower puley swivel bracket may be installed 2"-3" above the drive. See Figure 9.

FIGURE 9



IMPORTANT!

STEP 11. Remove ram from housing and carefully pour in a mixture of anti-freeze, oil and water. This combination provides lubrication and prevents freezing under normal conditions. Fee Figure 9A. This combination will fill housing to 9" and provides lubrication.

Lubricating Anifreeze Solution
4 C. R.V. anti-freeze (non-toxic) 3 C. lightweight hydraulic oil (brake fluid, power steering fluid, etc.) 1 C. water

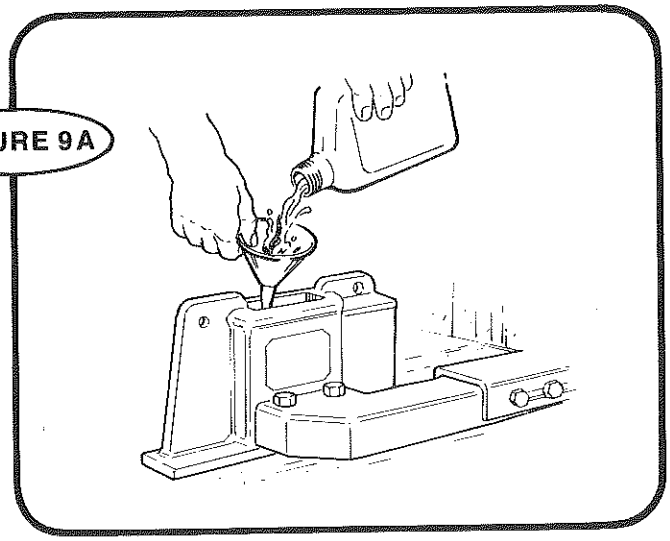


FIGURE 9A

STEP 12. Measure distance between conduit collar on upper pulley bracket and conduit collar on lower pulley swivel bracket and add 2-3/4". Cut a piece of 3/4" thin wall conduit to this length. See Figure 10.

STEP 13. Measure distance from conduit collar on lower pulley to conduit collar on ram housing assembly and add 2-3/4". Cut 3/4" thin wall conduit to length as above. Slide end into tube on lower pulley swivel bracket. Thread cable from housing through conduit, into lower pulley swivel bracket, through vertical conduit and through upper pulley bracket. Allow free cable end to stick out of conduit at top pulley. Do not attempt to feed through building wall at this time. Slide end of conduit into mounting tube on ram housing and secure with set screw. See Figure 10.

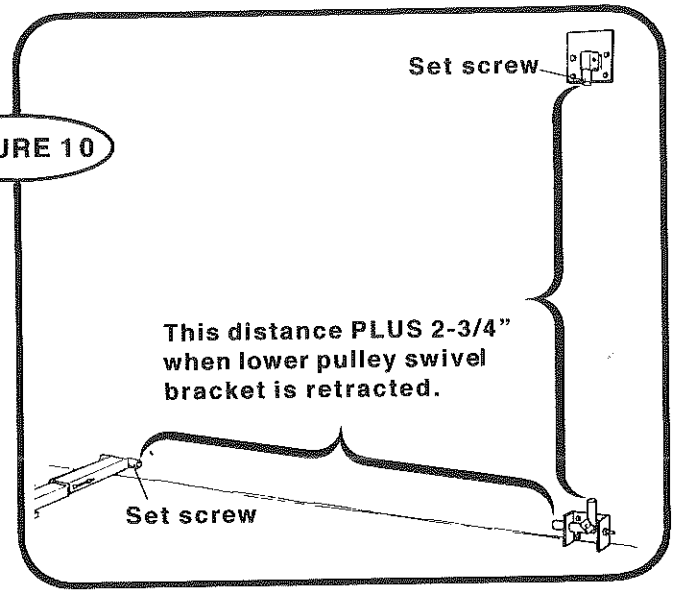


FIGURE 10

STEP 14. Route ram cable around top of upper outside pulley, into building through hole in wall, and over the pulley between wall bracket on control console. See Figure 11.

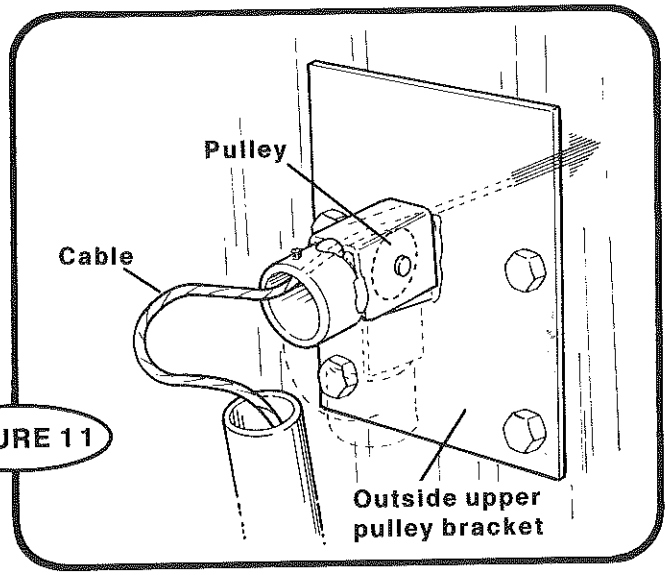


FIGURE 11

THE FOLLOWING SECTION (PGS. 8-12) OF THIS MANUAL IS FOR INSTALLATION OF MANUAL TRUCK RESTRAINTS (MODELS A100, A101, A102.)

IF YOU ARE INSTALLING A PNEUMATIC UNIT (MODEL A201, A202, A203) PLEASE PROCEED TO PAGES 13-17.

STEP 1M. Raise handle to full up position. Make sure upper limit switch lever is contacting Activation Handle Tube. Pull cable tight and attach to spring using cable bolt and bracket. Run excess cable down center of spring, exiting on right side of handle. Cut off cable flush with bottom of spring. See Figure 12.

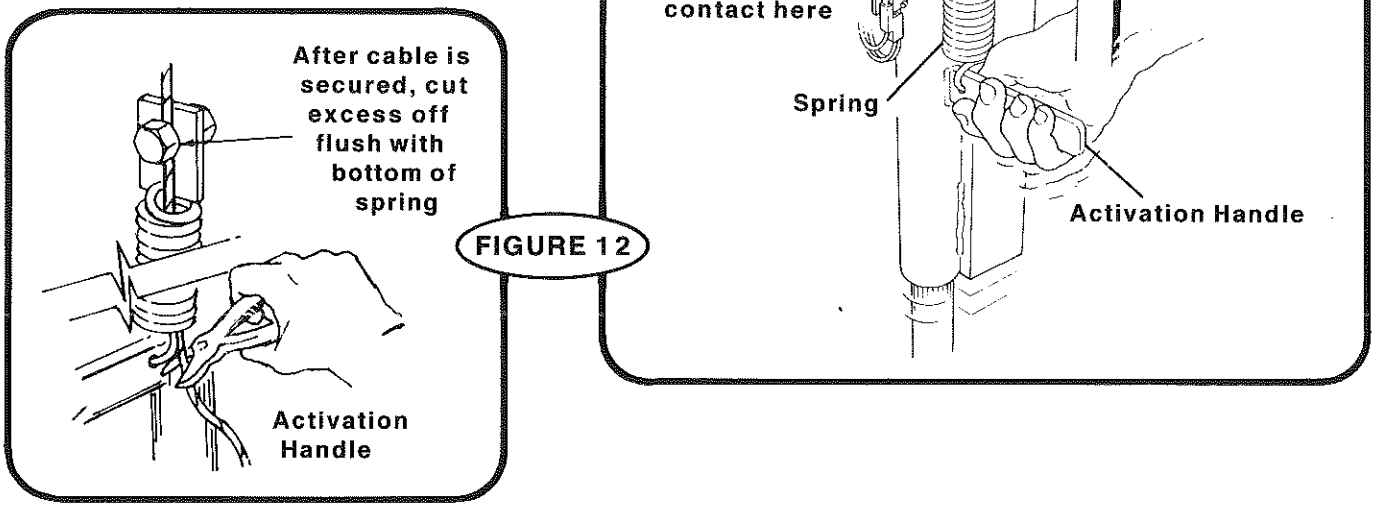


FIGURE 12

STEP 2M. Determine location of outside light on exterior of building. Light must be on truck driver side of dock door (right side when facing dock from outside) and 8' above surface of drive. Be sure location of light will not interfere with the future installation of dock shelters or seals. Drill hole through wall at approximate center of light fixture. Feed wire from light through hole in wall and affix light to wall. See Figure 13.

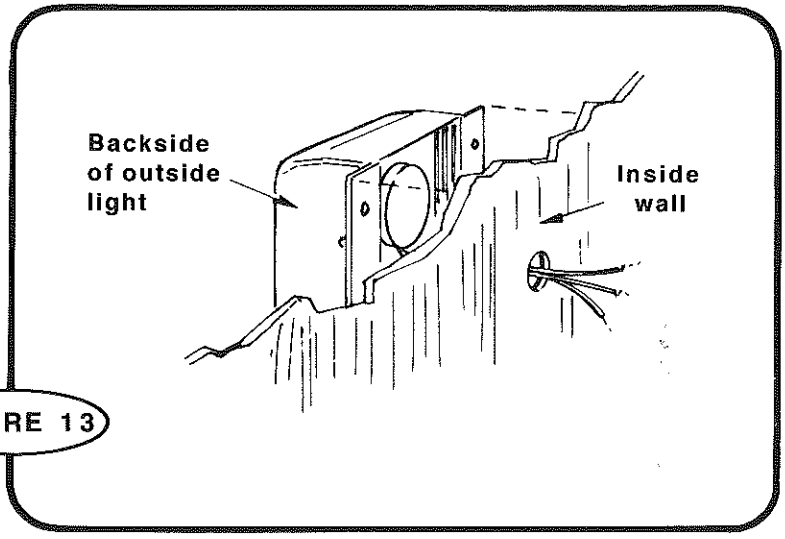


FIGURE 13

STEP 3M. Mount control box to top of control console using two 1/4" x 3/4" hex head bolts, nuts and lock washers. See Figure 14. Install Inside Warning sign on inside wall above control console. Attach the sign to wall with screws, bolts or a specific adhesive/ mastic made for styrene to your wall material.

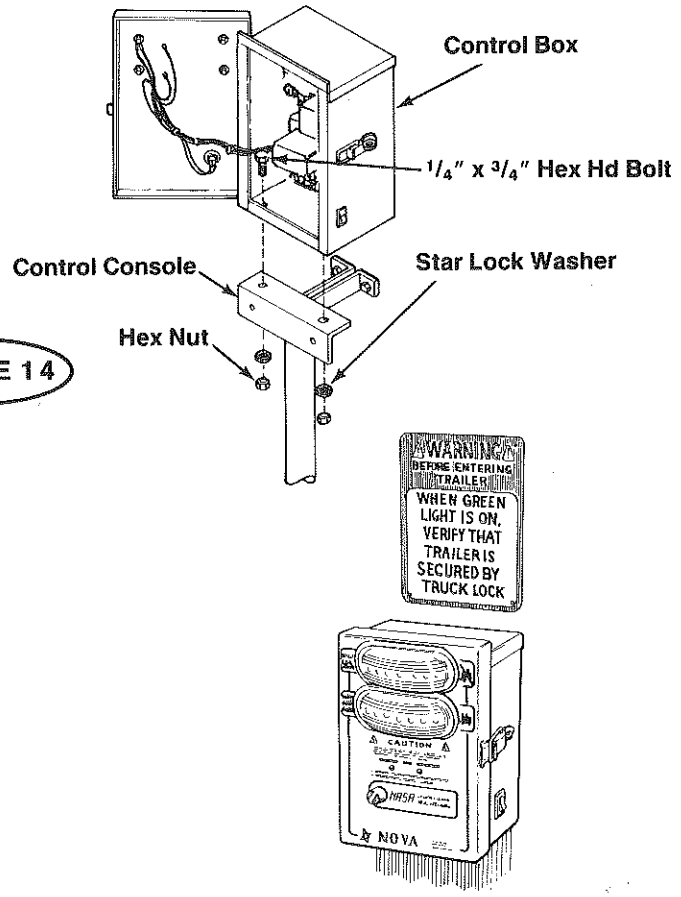


FIGURE 14

NOTE: ALL CONTROL AND LIGHTING CIRCUITS ARE LOW VOLTAGE. INSTALLATION OF 115V GROUNDED SUPPLY CIRCUIT MUST CONFORM TO LOCAL ELECTRICAL CODES AND CUSTOMER SPECIFICATIONS.

STEP 4M. Fasten printed signs to outside wall, one above and one below light, as shown in Figure 15. "RED" text sign should be above light and "GREEN" text sign below. Attach signs to building with fasteners or an acrylic based adhesive or mastic that won't attack styrene.

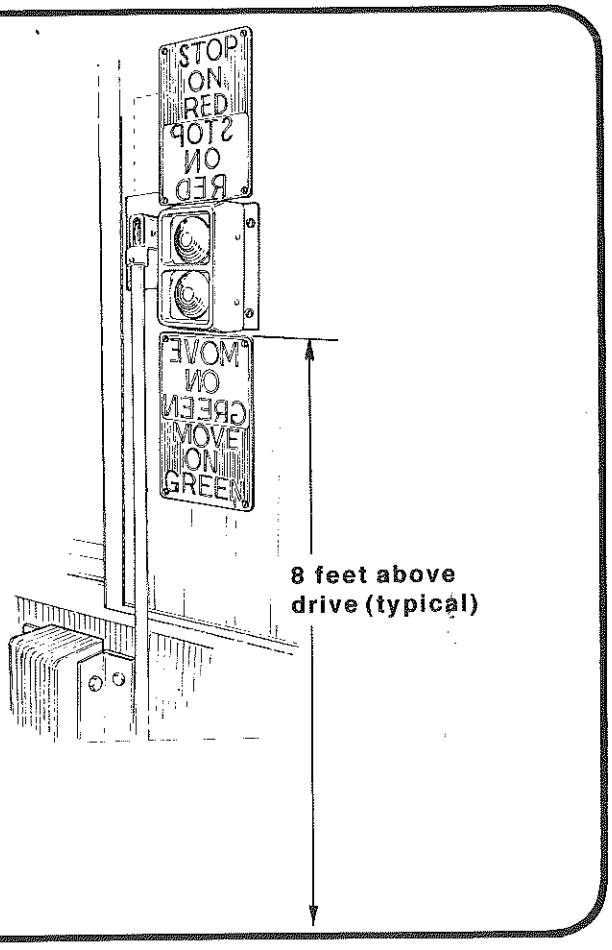


FIGURE 15

STEP 5M. Turn console cover around. Connect the two three-wire electrical cables from the control box to the limit switches, one mounted on the cover and the other mounted on the top of the slide pole. See Figure 16.

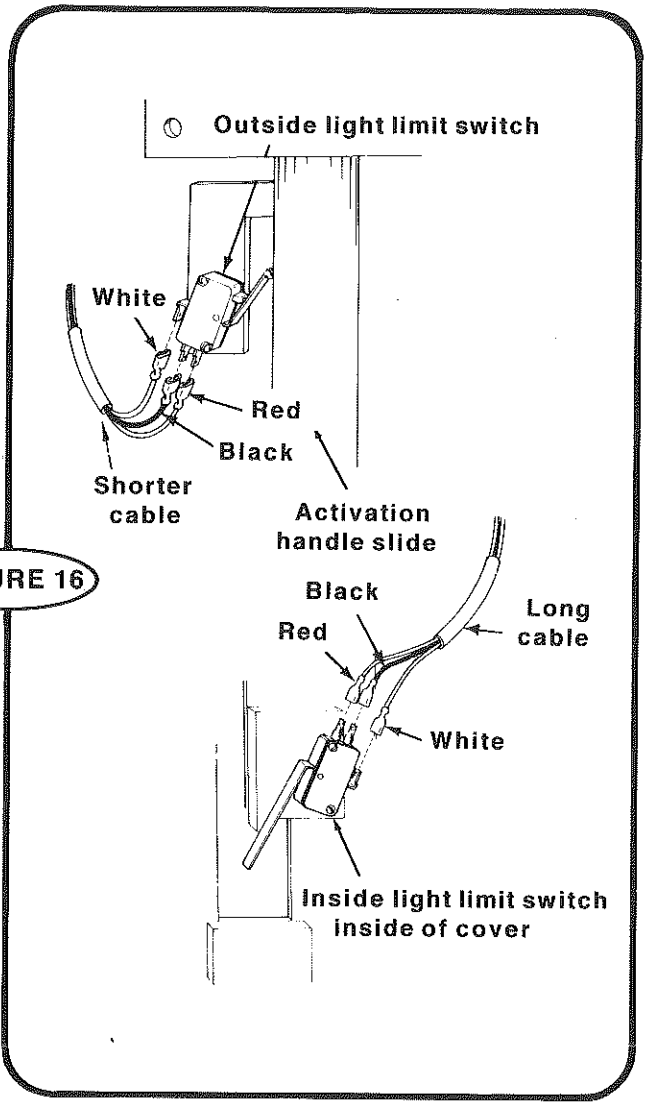
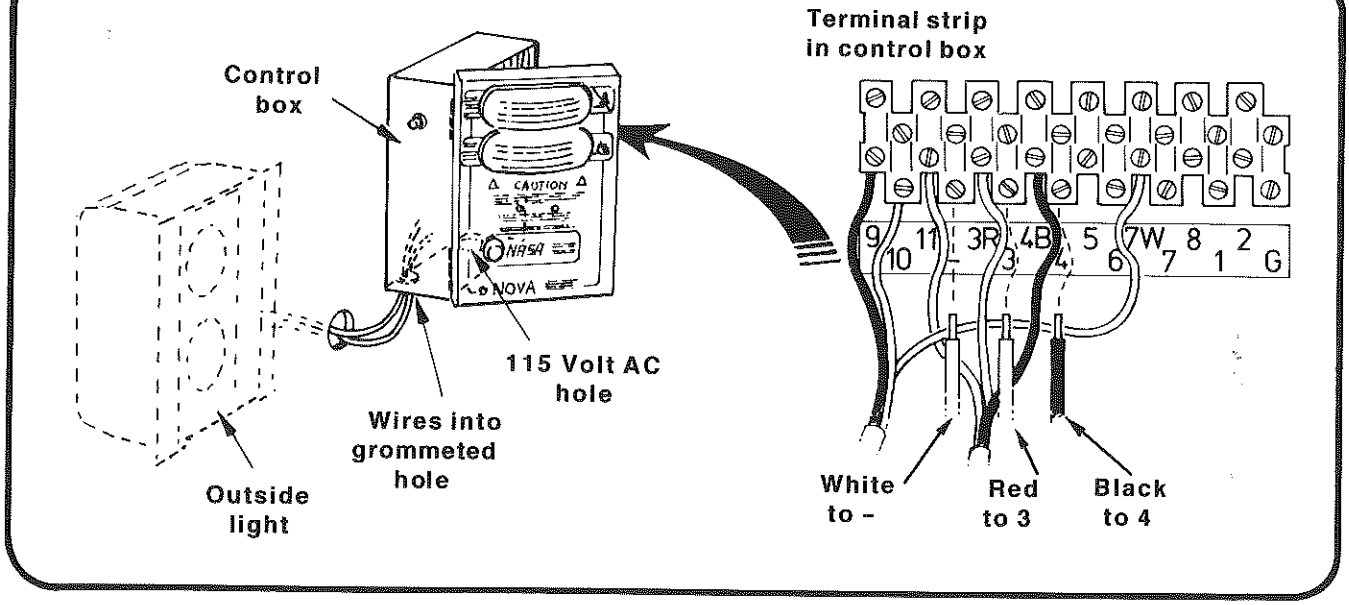


FIGURE 16

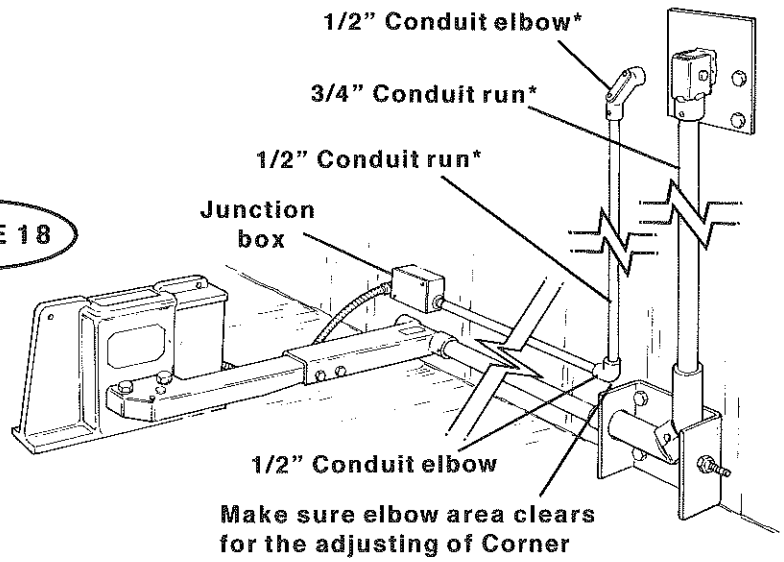
STEP 6M. Route wire from outside light to inside control box through grommeted hole only in bottom of box. Cut to length and connect to terminal strip as shown in Figure 17.

FIGURE 17



STEP 7M. (For A102 Model Only!) Install 1/2" thin wall conduit to shield sensor switch wire running to control box as shown in Figure 18. Install a Junction Box in the area as shown in Fig. 18. This will greatly ease any future servicing of the switch or wiring if it's required.

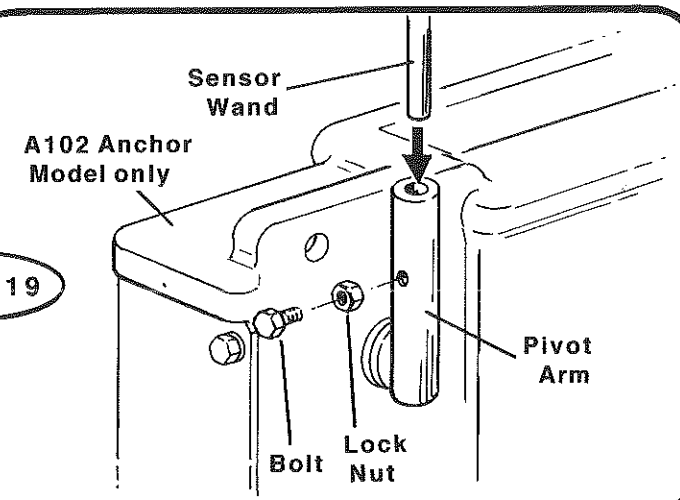
FIGURE 18



*Supplied by Installer

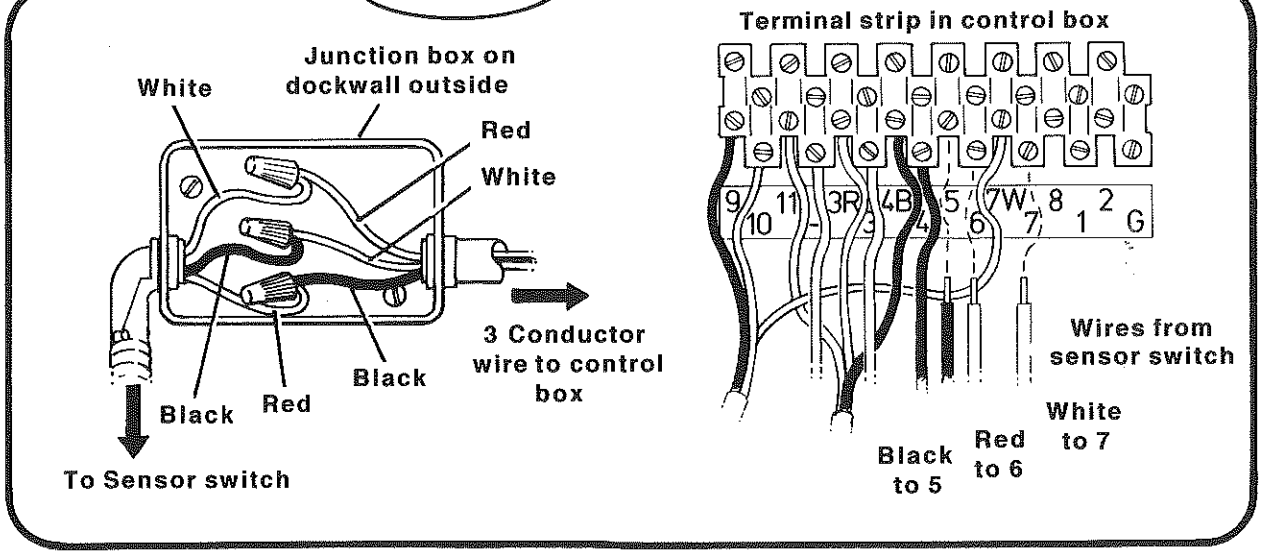
STEP 8M. (For A102 Model only!) Install truck sensor wand into pivot arm. Insert wand until it is flush with the bottom of the pivot arm assembly and secure with a 1/4" bolt and lock nut. Tighten 1/4" lock nut against pivot arm to lock bolt in place. See Fig. 19.

FIGURE 19



STEP 9M. (For A102 Model only!) Uncoil wire from sensor switch and feed through flex conduit to junction box. In junction box attach 3 conductor wire (NOVA supplied) and make connections as per Fig. 20 diagram. After connections are made and sealed properly, run 3 cond. wire through the 1/2" conduit to control box and its grommeted hole. Cut wire to length and connect to terminal strip as shown in Fig. 20 diagram.

FIGURE 20



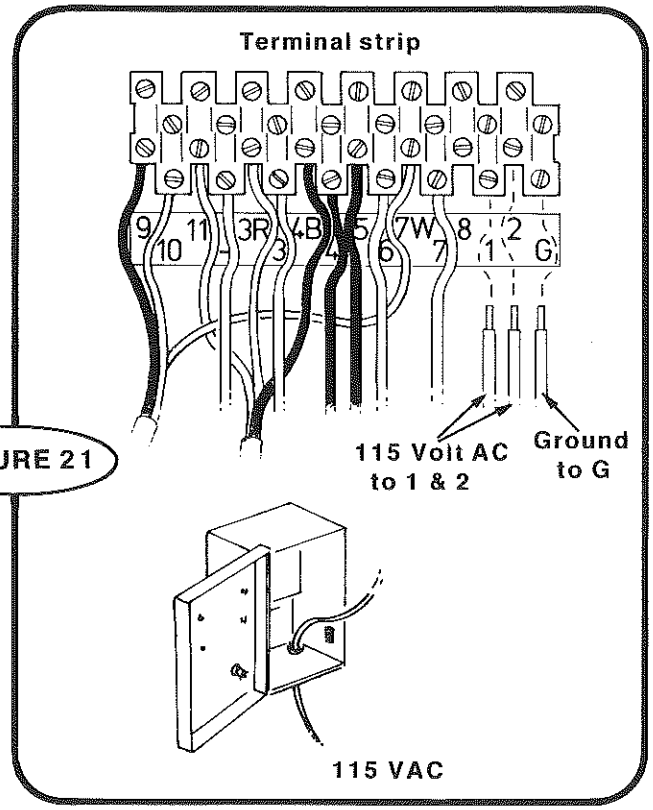


FIGURE 21

STEP 10M. Connect 115 volt AC power to Terminal Strip. See Figure 21. This may be accomplished by a conduit connection to the hole provided in the control box or by attaching the optional drop cord and plugging into a wall receptacle.

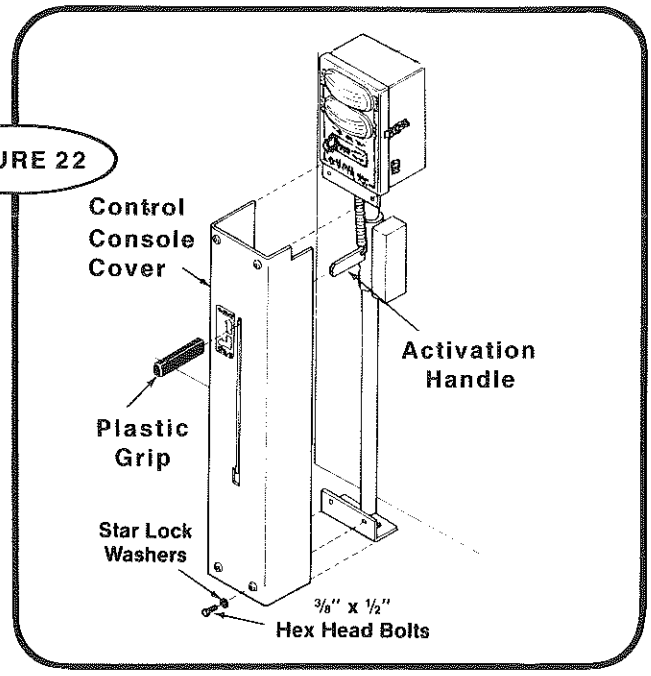


FIGURE 22

STEP 11M . Replace cover on control console and secure with four 3/8" x 1/2" bolts and star lock washers. Slide plastic grip onto Activation Handle. See Figure 22.

IMPORTANT! Make sure that wires from control box will not get tangled in activation handle, or counterweight assembly once console cover is replaced.

Step 12M. Move activation handle down into "Restrain" position which will raise restraint ram outside. Adjust ram height by turning nut on lower pulley swivel assembly. Tighten cable until entire hole in ram is just visible above top of ram housing. Do not overtighten, as ram will not completely lower when handle is raised. See Figure 23.

Step 13M. Test entire restraint operation along with proper light sequence and make adjustments as necessary.

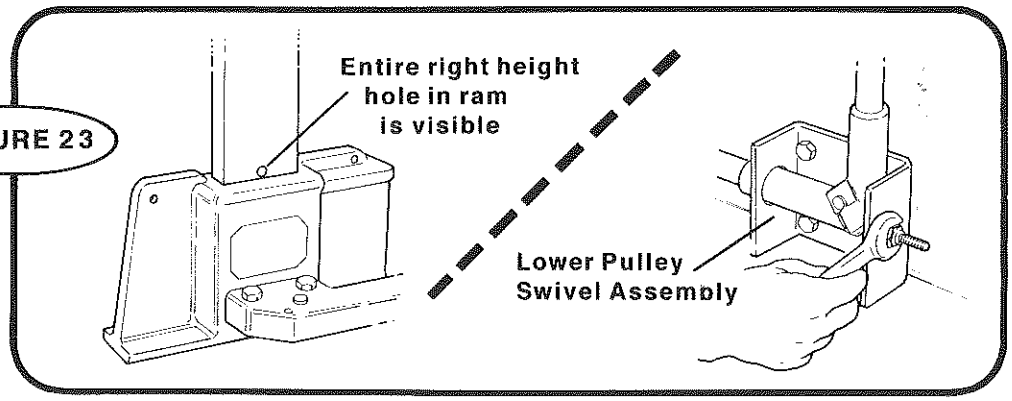


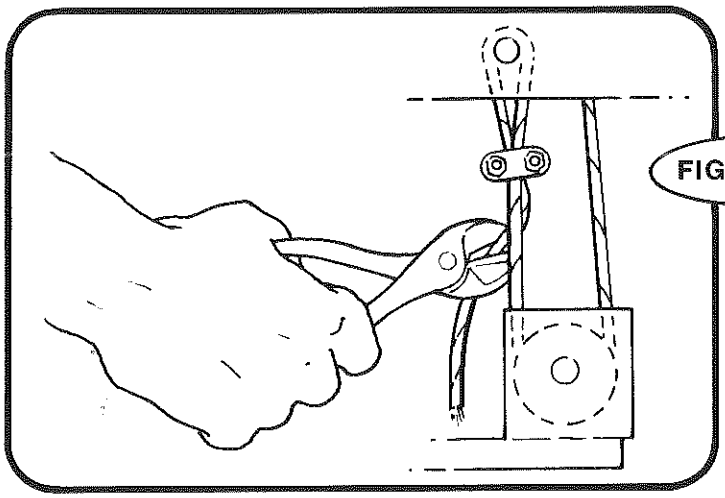
FIGURE 23

This completes the installation of a typical Manual System -- turn to page 20 for important final checks.

THE FOLLOWING SECTION (PGS. 13-17)OF THIS MANUAL IS FOR INSTALLATION OF PNEUMATIC TRUCK RESTRAINT (MODELS A201, A202 & A203).

STEP 1P. Manually extend air cylinder. Run end of cable through pulley at top of cylinder rod, pull cable tight, and attach end to clevis pin at top of control console frame, using cable clamp supplied. See Figure 24. Cut off excess cable.

NOTE: Pull cable only tight enough to remove all slack from cable. Do not pull so tight that you raise the ram from its resting position in the housing.



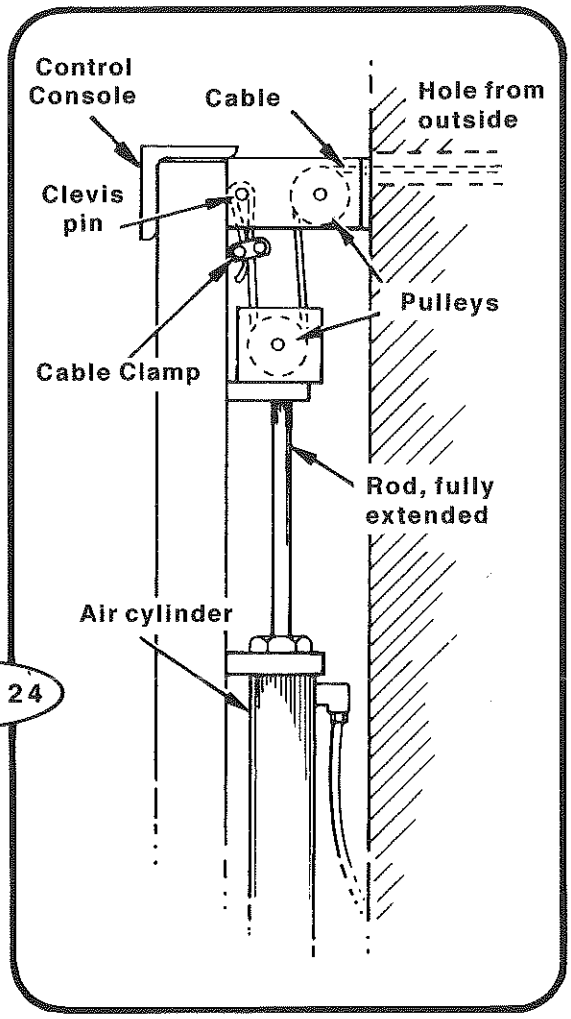


FIGURE 24

STEP 2P. Determine location of outside light on exterior of building. Light must be on truck driver side of dock door (right side when facing dock from outside) and 8' above surface of drive. Be sure location of light will not interfere with the future installation of dock shelters or seals. Drill hole through wall at approximate center of light fixture. Feed wire from light through hole in wall and affix light to wall. See Figure 25.

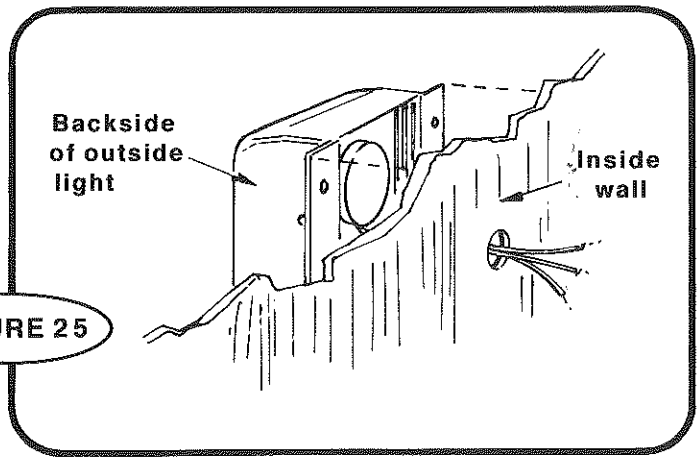


FIGURE 25

STEP 3P. Fasten printed signs to outside wall, one above and one below light, as shown in Figure 26. "RED" text sign should be above light and "GREEN" text sign below. Attach signs to building with fasteners or an Acrylic-based adhesive or mastic that won't attack styrene.

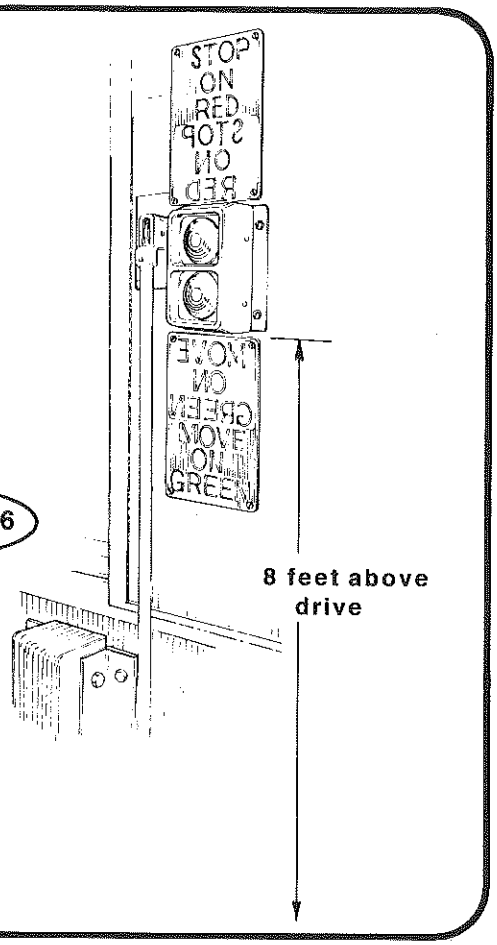


FIGURE 26

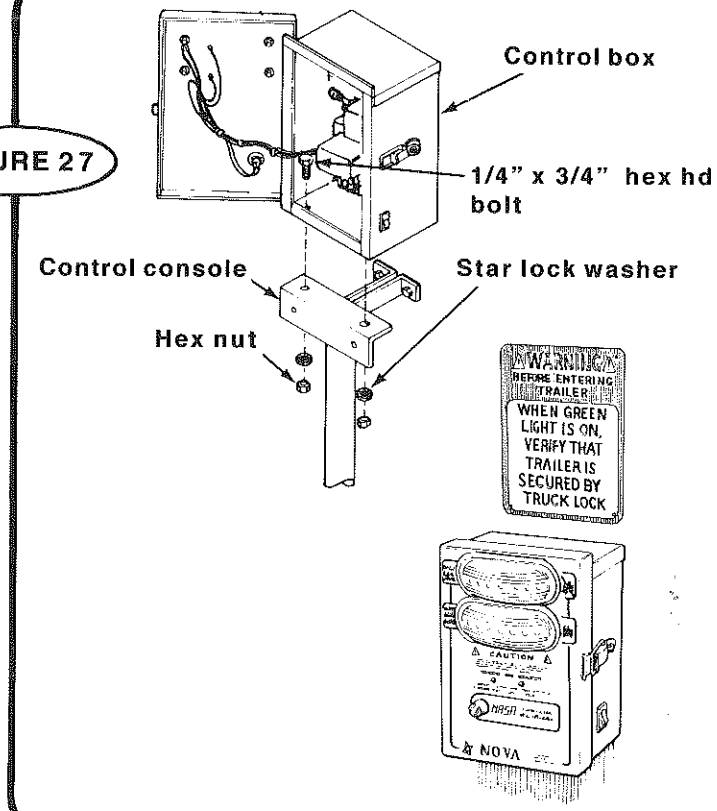


FIGURE 27

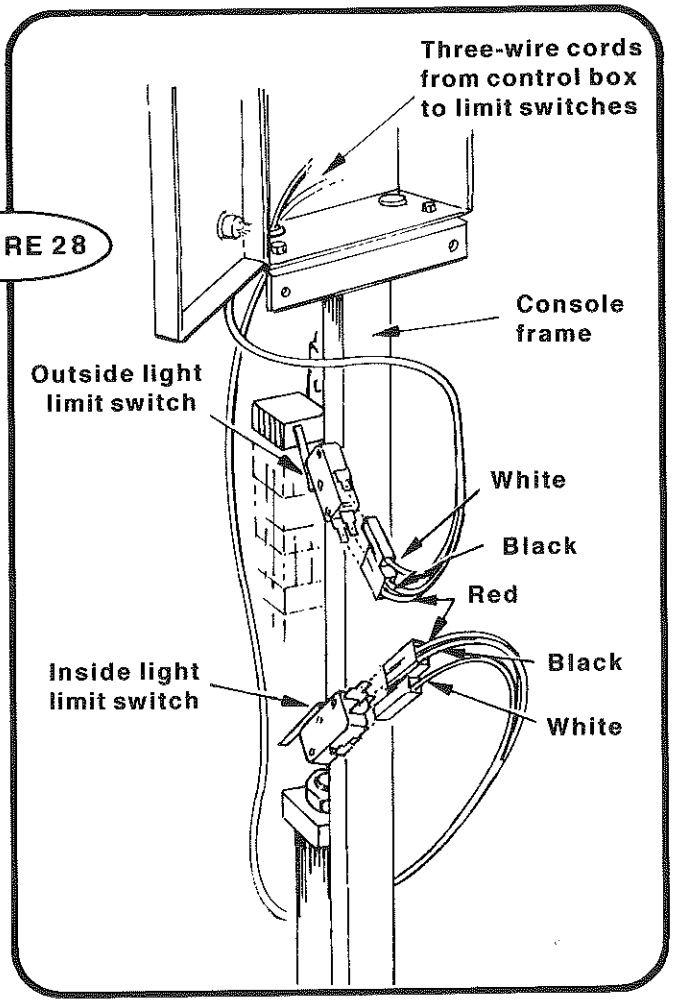
STEP 4P. Mount control box to top of control console using two 1/4" x 3/4" hex head bolts, nuts, and lock washers. See Figure 27. Install Inside Warning sign on inside wall above control console. Attach the sign to wall with screws, bolts or a specific adhesive/mastic made for stryrene to your wall material.

NOTE: ALL CONTROL AND LIGHTING CIRCUITS ARE LOW VOLTAGE. INSTALLATION OF 115V GROUNDED SUPPLY CIRCUIT MUST CONFORM TO LOCAL ELECTRICAL CODES AND CUSTOMER SPECIFICATIONS.

STEP 5P. Connect the two three-wire electrical cables from the control box to the limit switches mounted on the console frame. See Figure 28.

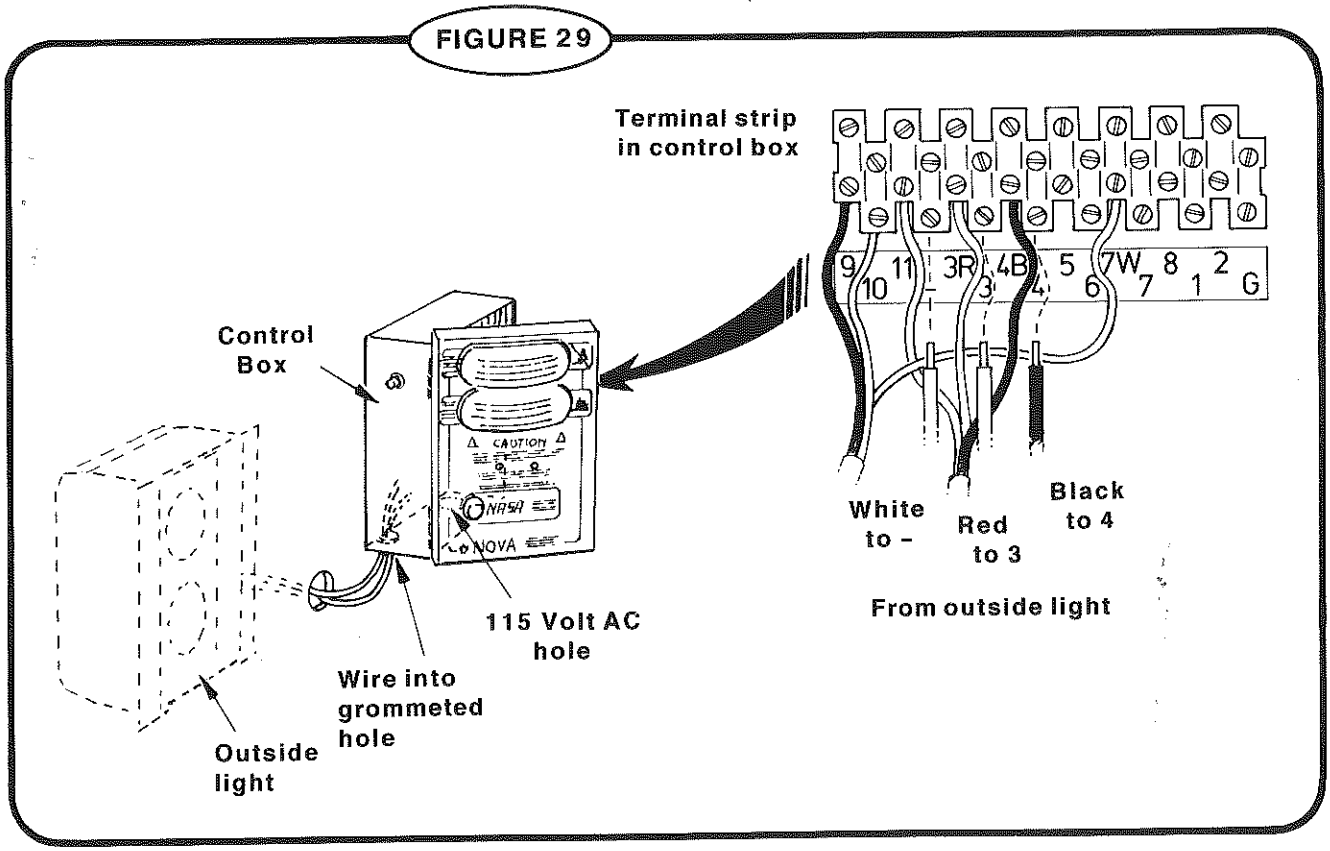
AFTER HOOK-UP, CHECK TO MAKE SURE ALL WIRES CLEAR THE PATH OF THE ROD END ASSEMBLY.

FIGURE 28



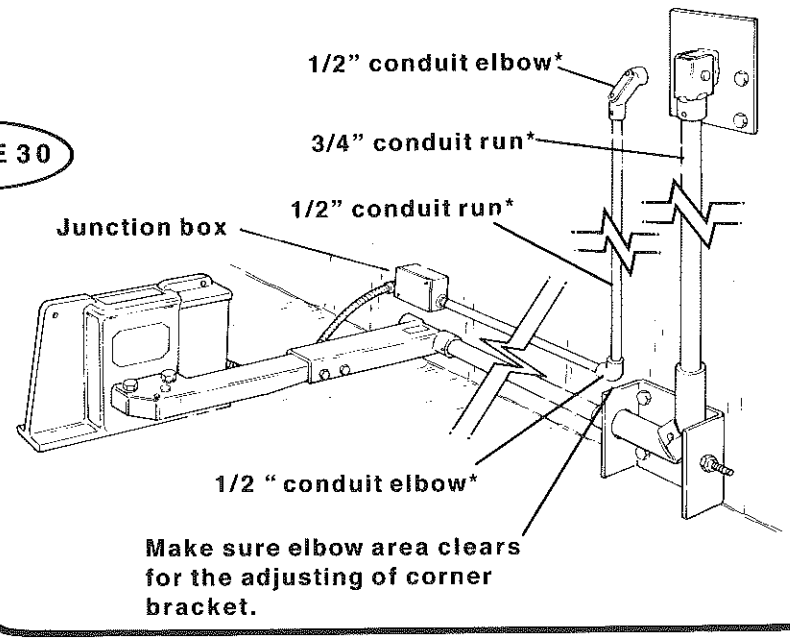
STEP 6P Route wire from outside light to inside control box and thread through grommeted hole only in bottom of box. Cut to length and connect to terminal strip as shown in Figure 29.

FIGURE 29



STEP 7P. (For A202 and A203 Models only) Install 1/2" thin wall conduit to shield sensor switch wire running to control box as shown in Figure 30.

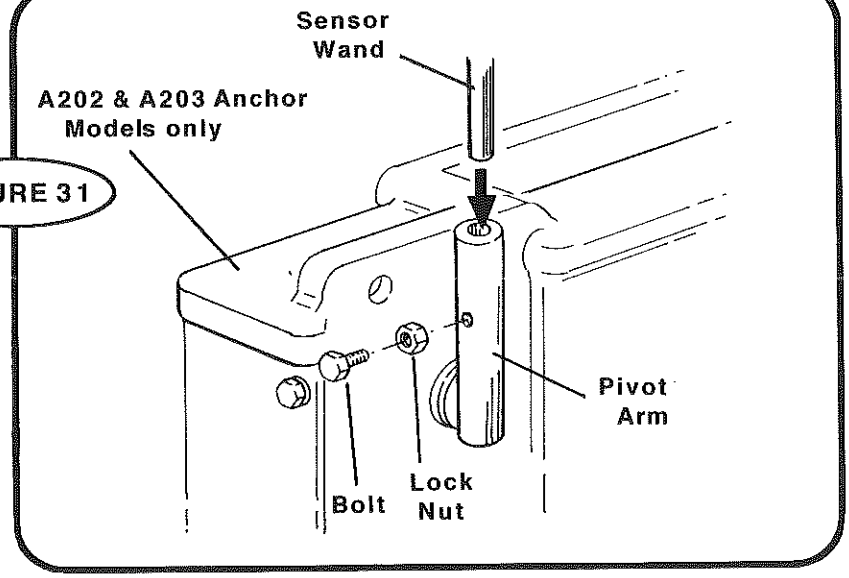
FIGURE 30



* Supplied by Installer

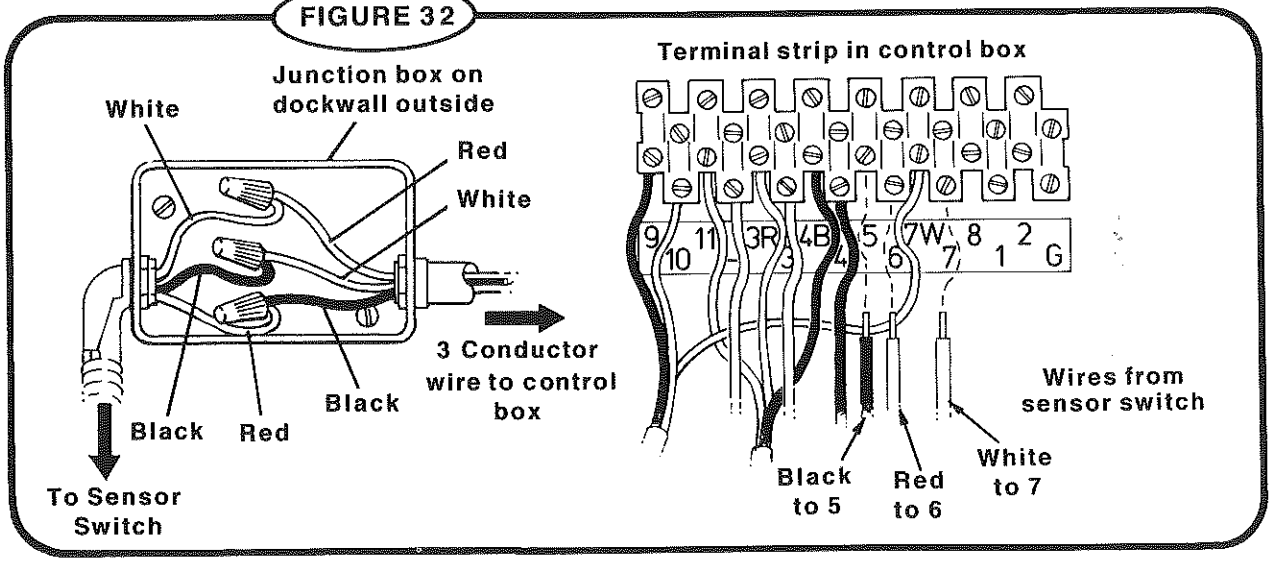
STEP 8P. (For A202 and A203 Models only!) Install truck sensor wand into pivot arm. Insert wand until it is flush with the bottom of the pivot arm assembly and secure with a 1/4" bolt and lock nut. Tighten 1/4" lock nut against pivot arm to lock bolt in place. See Fig. 31.

FIGURE 31



STEP 9P. (For A202 and A203 Models only!) Uncoil wire from sensor switch and feed through flex conduit to junction box. In junction box attach 3 conductor wire (NOVA supplied) and make connections as per Fig. 32 diagram. After connections are made and sealed properly, run 3 cond. wire through the 1/2" conduit to control box and its grommeted hole. Cut wire to length and connect to terminal strip as shown in Fig. 32 diagram.

FIGURE 32



STEP 10P. Connect 115 volt AC power to terminal strip. (If installing an A203 do not connect 115 volt AC power at this time) See Figure 33. This may be accomplished by a conduit connection to the hole provided in the control box or by attaching the optional drop cord and plugging into a wall receptacle.

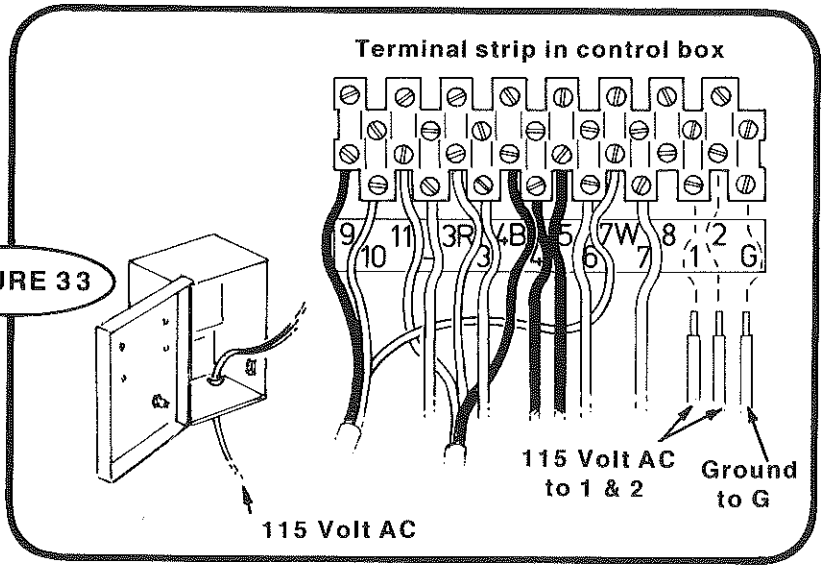


FIGURE 33

STEPS 11P--14P APPLIES ONLY TO MODEL A203. IF YOU ARE NOT INSTALLING MODEL A203, GO TO STEP 15P.

STEP 11P. Mount the limit switch under the dock board as shown in Figure 34. (Limit switch may also be used in conjunction with the overhead door.)

Switch is mounted in such a manner so that when dock lip is at a 45° angle, switch should click and system is activated.

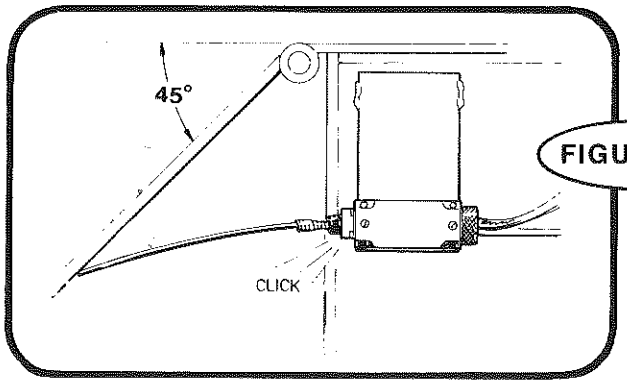
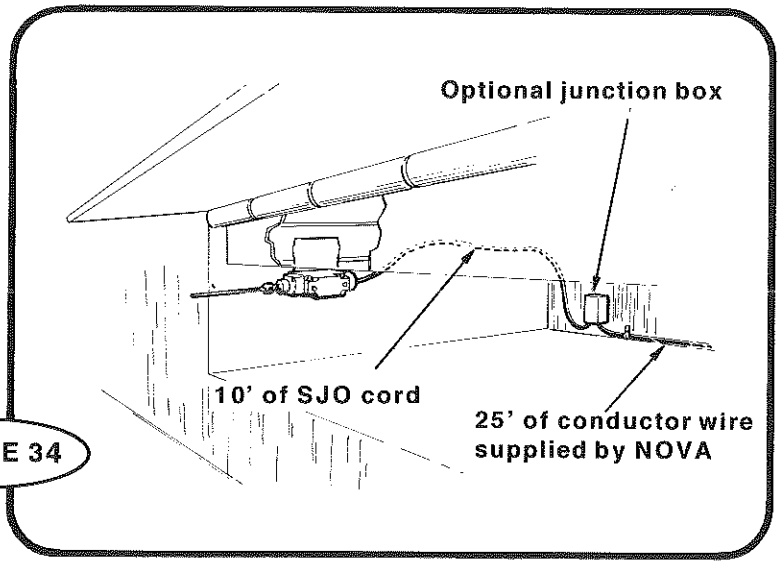


FIGURE 34



STEP 12P. Route wire from limit switch into control box through the grommeted hole. Cut the wire to length and connect to the terminal strip as shown in Figure 35. Black to "A", White to "B".

STEP 13P. Route wire from solenoid valve into control box through to grommeted hole. Cut the wire to length and connect to the terminal strip as shown in Figure 35. Black to "D" , Black to "E" (Either black wire in either position will work).

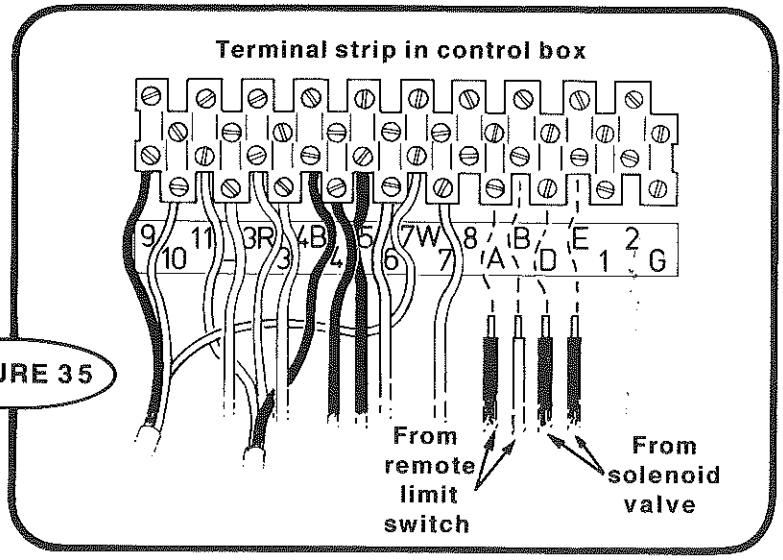


FIGURE 35

STEP 14 P. Connect 115 volt AC power to Terminal Strip. See Figure 36. This may be accomplished by a conduit connection to the hole provided in the control box or by attaching the optional drop cord and plugging into a wall receptacle.

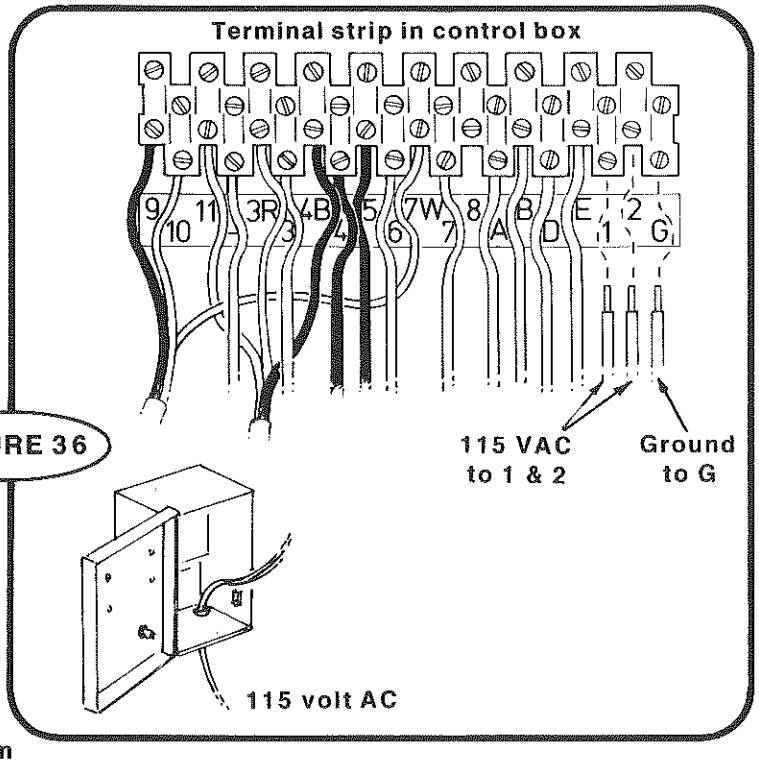


FIGURE 36

NOTE: Air may be supplied from plant system or by small compressor. Air must be minimum of 100 pound/square inch and maximum of 130 pounds/square inch. Air must be dry and clean. Air usage is approximately .020 cubic feet per operation. Duration of normal power stroke is about 2 seconds.

STEP 15P. Run 1/4" polyethelene tubing capable of withstanding 150 psi above dock doors as in Figure 37. Plot the tees to align with the console(s).

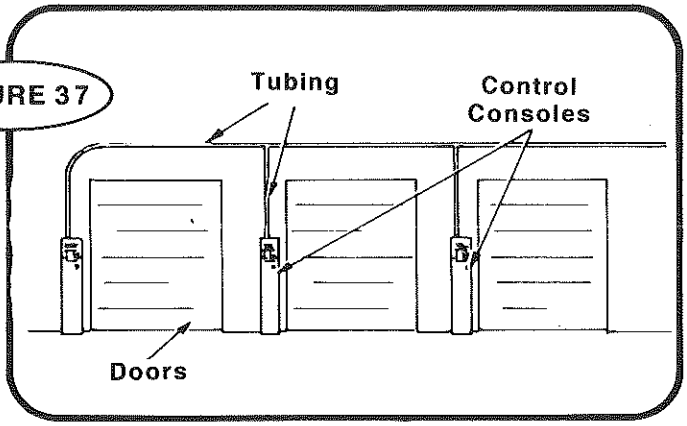


FIGURE 37

STEP 16P. Run polyethylene tubing from header tee to control valve barb fitting. Cut polyethylene tubing to allow for cover removal.

STEP 17P. Connect short tube from control valve to barb fitting on air cylinder. See Figure 38.

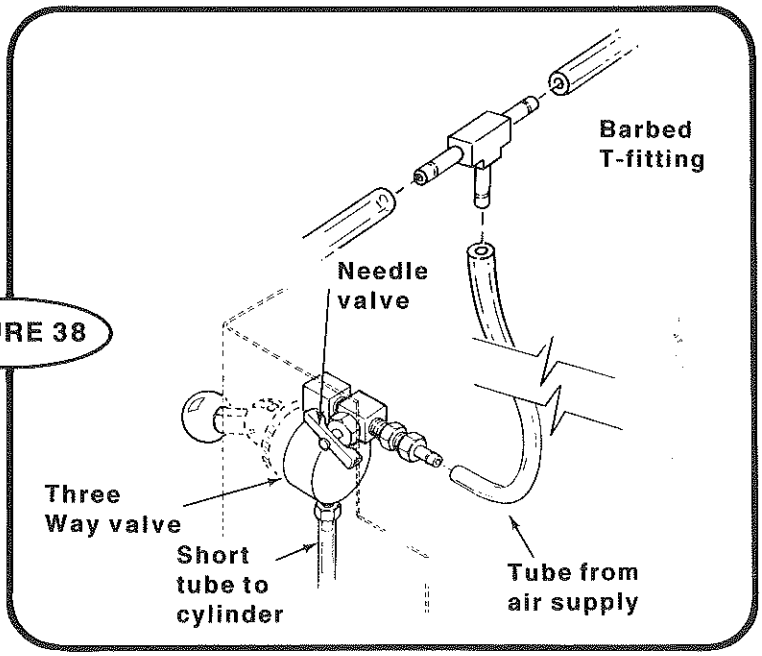


FIGURE 38

STEP 18P. Turn air supply on.

CAUTION! Be sure to keep hands clear of air cylinder, pulley assembly and cable when retracting cylinder. Personal injury could result.

STEP 19P. Replace control console cover and secure with four 3/4" x 1/2" bolts and star lack washers.

STEP 20P. Move control valve lever up to "RESTRAIN" position.

STEP 21P. The unit is shipped with the needle valve 3/4 turn open.

STEP 22P. Move control lever to down and lower ram.

NOTE: Lowering speed is not adjustable and is controlled by internal orifice.

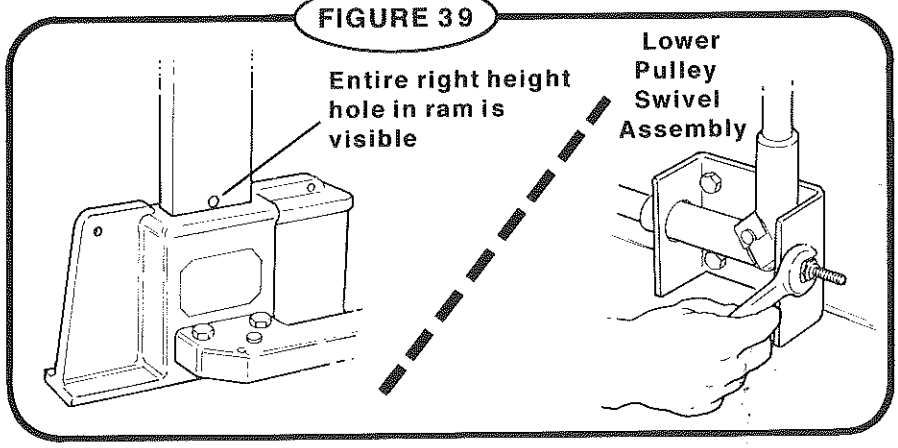
STEP 23P. Cycle unit again. Turn adjusting knob on needle valve out to increase rise speed and in to decrease speed. Continue to cycle unit until desired speed is obtained.

NOTE: When properly adjusted, the ram should fully rise in 1 to 2 seconds. There should be less than 1/2" of "hop" by the ram at the end of the rise stroke.

CAUTION: Adjusting needle valve so that ram rises too fast can cause unnecessary stress on the unit and may present a danger to personnel.

STEP 24P. Move control lever to "RESTRAINED" position. Adjust ram height by turning nut on lower pulley swivel assembly. Tighten cable until right height hole in ram is just visible above top of ram housing. Cycle unit several times to check cable adjustment. See Figure 39.

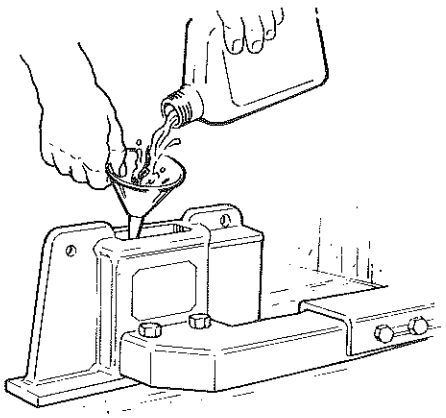
FIGURE 39



CAUTION: If ram does not completely lower, cylinder damage could result and range of Truck Lock will be reduced.

This completes the installation of a typical pneumatic system -- see page 20 for important final checks.

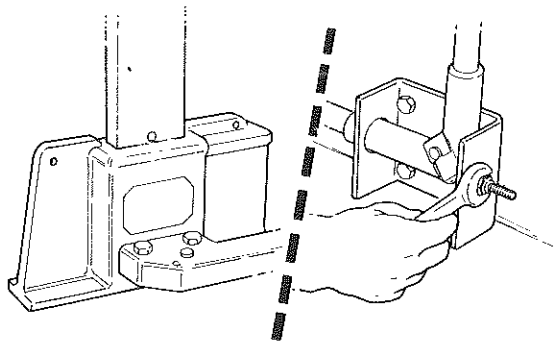
IMPORTANT CHECKS!



Remove ram from housing and carefully pour in a mixture of RV antifreeze, oil and water. This combination provides lubrication and prevents freezing under normal operating conditions.

LUBRICATING ANTIFREEZE SOLUTION
4 C. RV antifreeze (non-toxic) 3 C. lightweight hydraulic oil (brake fluid, power steering fluid, etc.) 1 C. water

Adjust cable length by turning nut on lower pulley assembly. Tighten cable until entire right height hole in ram is visible above top of ram housing. Do not overtighten as ram will not completely lower when lever is released.



Pack up tools, clean up any installation debris for a professional touch that's appreciated by the customer.

GENERAL MAINTENANCE

CAUTION: BE SURE THAT MAIN POWER TO UNIT IS SHUT OFF PRIOR TO PERFORMING ANY MAINTENANCE OR REPAIR!

DAILY

Operate the TRUCK LOCK to assure it is in proper working condition. Replace damaged or missing light bulbs and lenses.

ANNUALLY - ALL MODELS

- For best performance, remove old, used fluids (siphon, drill pump, shop vac) and replace with new mixture.
- Replace all outside light bulbs.

LUBRICATING ANTIFREEZE SOLUTION
4 C. RV antifreeze (non-toxic) 3 C. lightweight hydraulic oil (brake fluid, power steering fluid, etc.) 1 C. water

ELECTRICAL TROUBLESHOOTING

NOTE: IN CASE OF ELECTRICAL MALFUNCTION, REFER TO ELECTRICAL TROUBLESHOOTING GUIDE AS WELL AS THE WIRING DIAGRAM.

Be sure that the main power to the unit is shut off prior to performing any electrical work. Electrical troubleshooting and repair should be performed only by a qualified electrician.

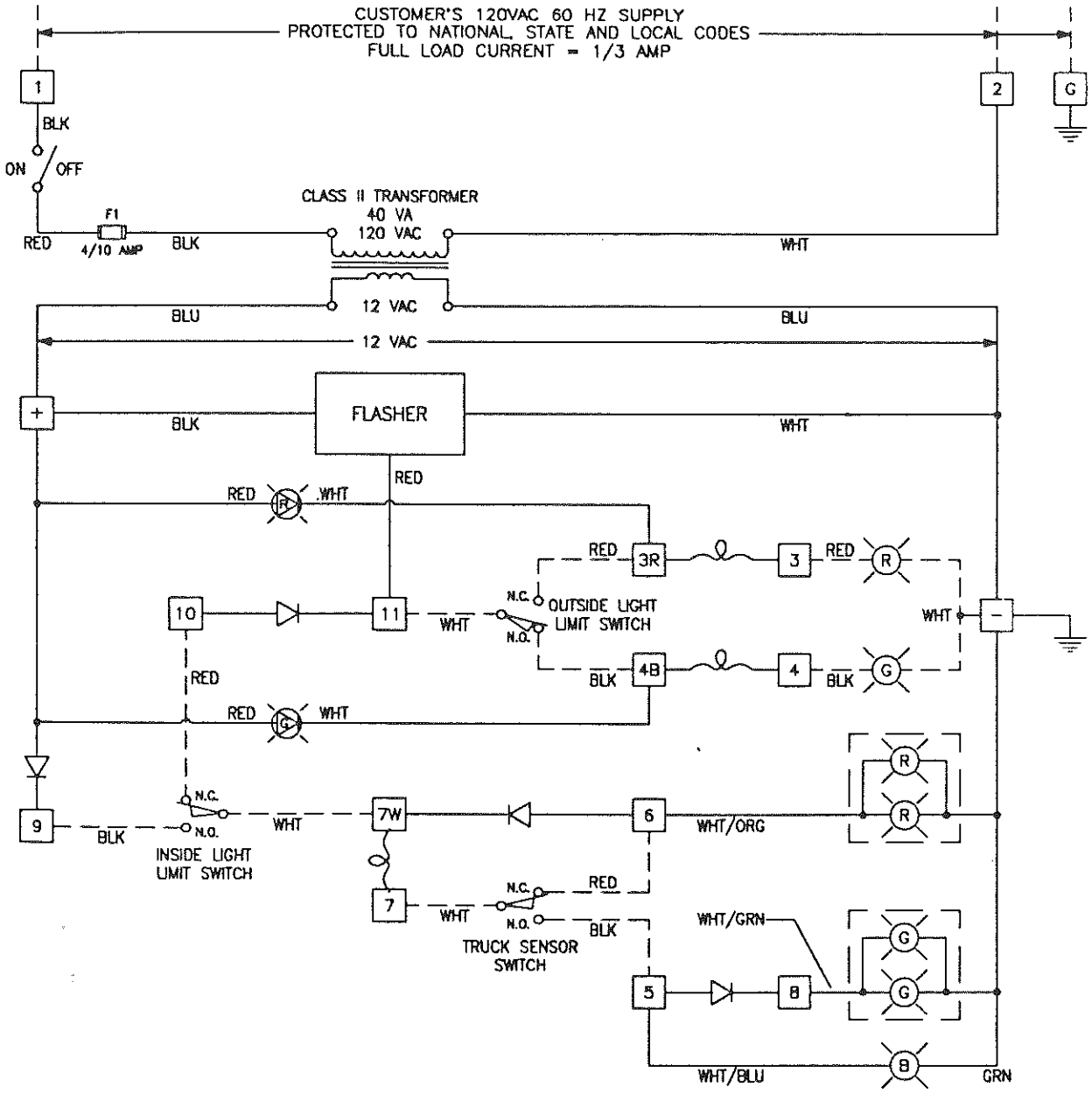
LIGHT FUNCTIONS AND RELATED COMPONENTS

LIGHT MALFUNCTION	RELATED COMPONENTS
All	115V power to unit, fuse, flasher, power switch, transformer outside light, inside light limit switch.
Outside Red	Bulb, outside light limit switch, flasher module
Outside Green	Bulb, outside light limit switch, flasher module
Both Outside Lights	Common lead to lights, outside light limit switch, flasher module
Inside Red (flashing)	Bulb, inside light limit switch, flasher module
Inside Red (constant)	Bulb, inside light limit switch, outside sensor limit switch, flasher module
Inside Green	Bulb, inside light limit switch, outside sensor limit switch, flasher module
Blue (flashing)	Bulb, inside light limit switch, outside sensor limit switch, flasher module
Blue (constant)	Bulb, inside light limit switch, outside sensor limit switch, flasher module
All Inside Lights	Common lead to lights (cover), inside light limit switch, flasher module
Inside Red L.E.D. **Inside Green L.E.D.**	Outside red or outside green bulb, L.E.D. bulb

ELECTRICAL COMPONENT CHECK

COMPONENT	CHECK
Fuse	Visual and continuity
Power switch	Disconnect and check continuity
Transformer	Disconnect and check primary continuity and secondary continuity.
Limit switches	Disconnect and check continuity common/normally open, common/normally closed.

"Anchor" TRUCK LOCK™ ELECTRICAL SCHEMATIC - A102, A202



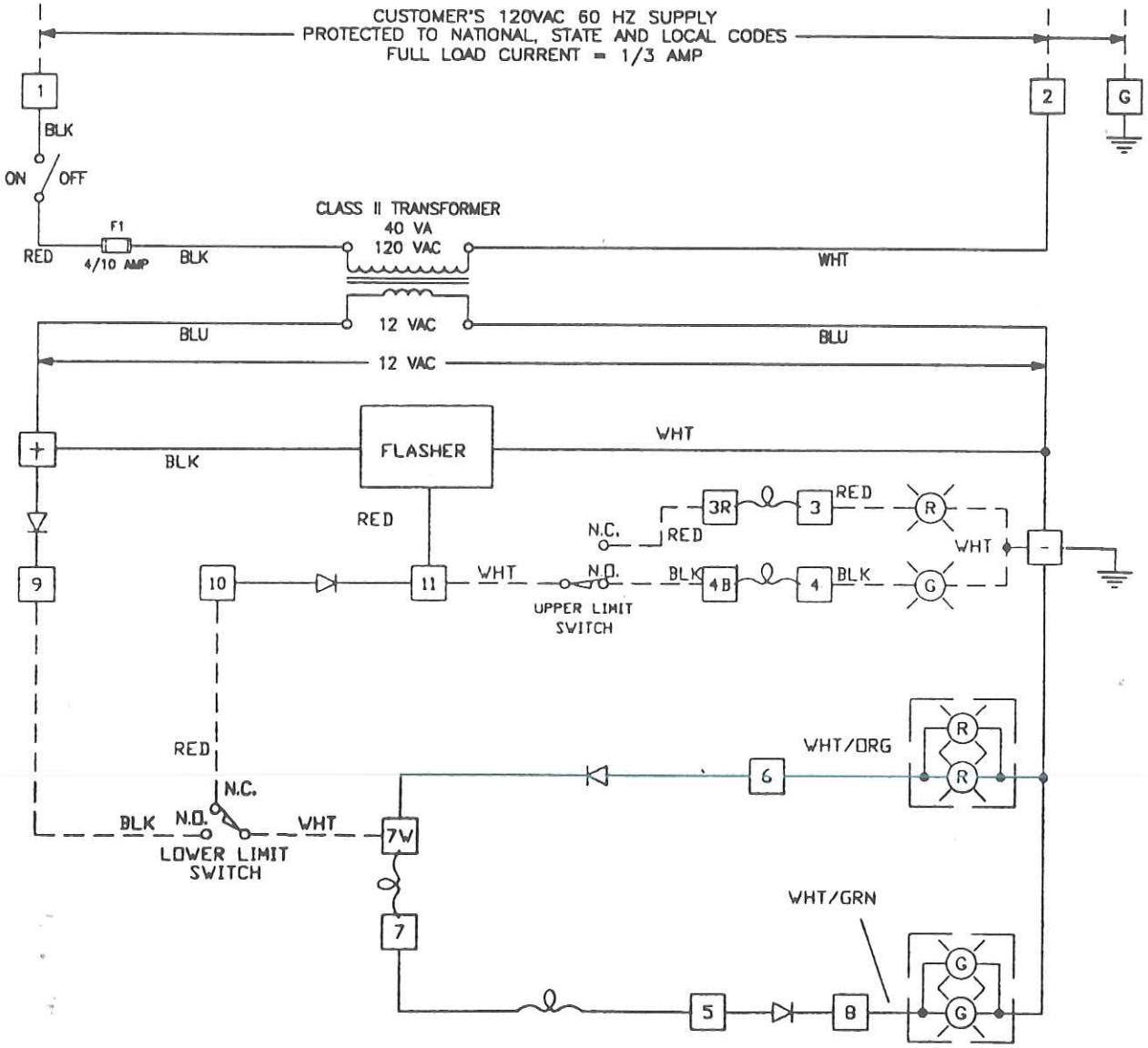
NOTE: CIRCUIT SHOWN WITH POWER OFF – NO TRUCK IN POSITION – UNRESTRAINED

+	9	11	–	3R	4B	5	7	8	2
+	10	11	–	3	4	6	7W	1	G

ENLARGED VIEW OF TERMINAL BLOCK

INTERLOCK FEED
Associated equipment such as a dockleveler or door may be interlocked so that they can only be operated when TRUCK LOCK is in restraining position. Consult factory for Specific Application.

"Anchor" TRUCK LOCK™ ELECTRICAL SCHEMATIC - A101, A201



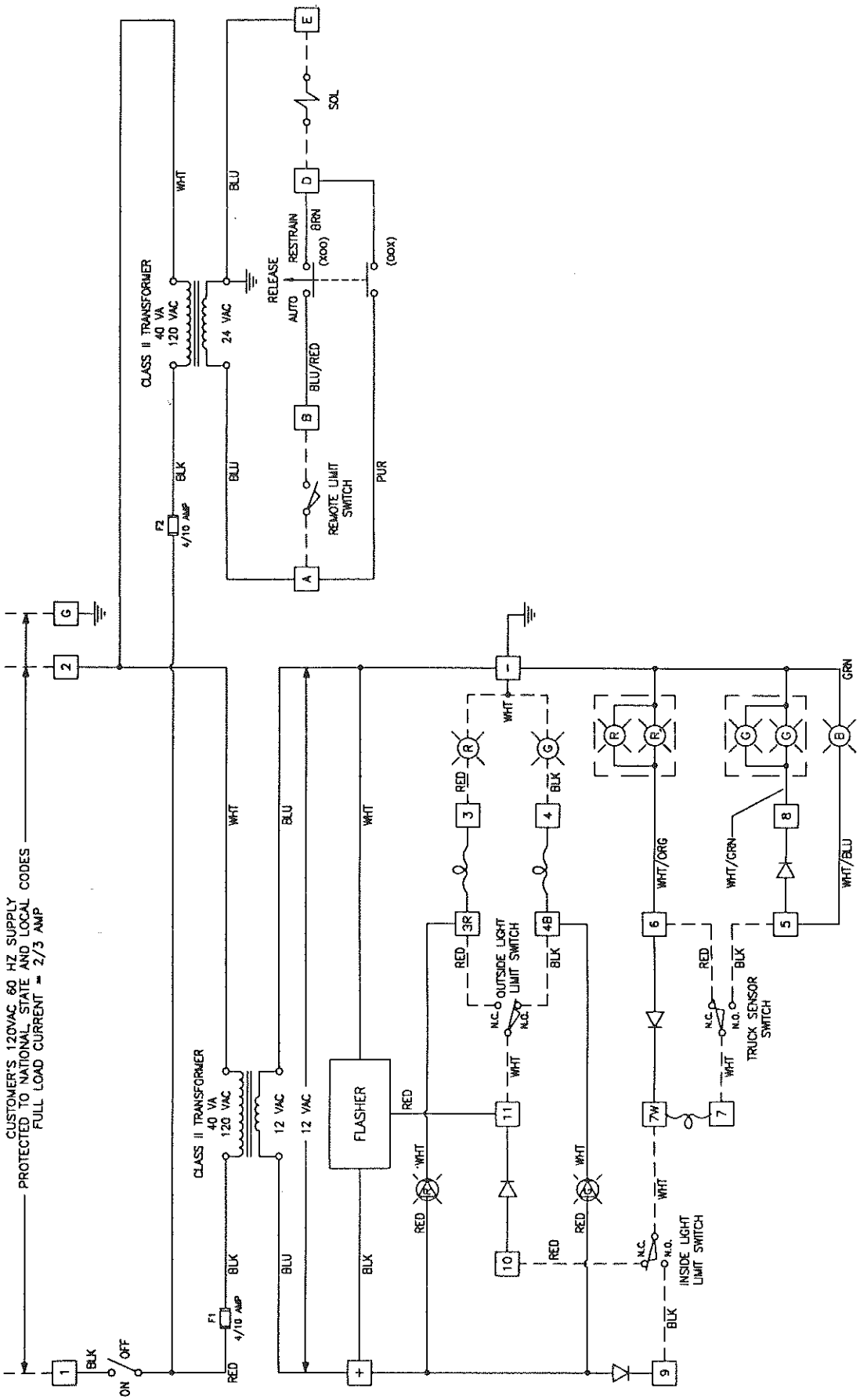
NOTE: CIRCUIT SHOWN WITH POWER OFF – NO TRUCK IN POSITION – UNRESTRAINED

+	9	11	–	3R	4B	5	7	8	2
+	10	11	–	3	4	6	7W	1	G

ENLARGED VIEW OF TERMINAL BLOCK

INTERLOCK FEED
Associated equipment such as a dockleveler or door may be interlocked so that they can only be operated when TRUCK LOCK is in restraining position. Consult factory for Specific Application.

"Anchor" TRUCK LOCK™ ELECTRICAL SCHEMATIC - A203



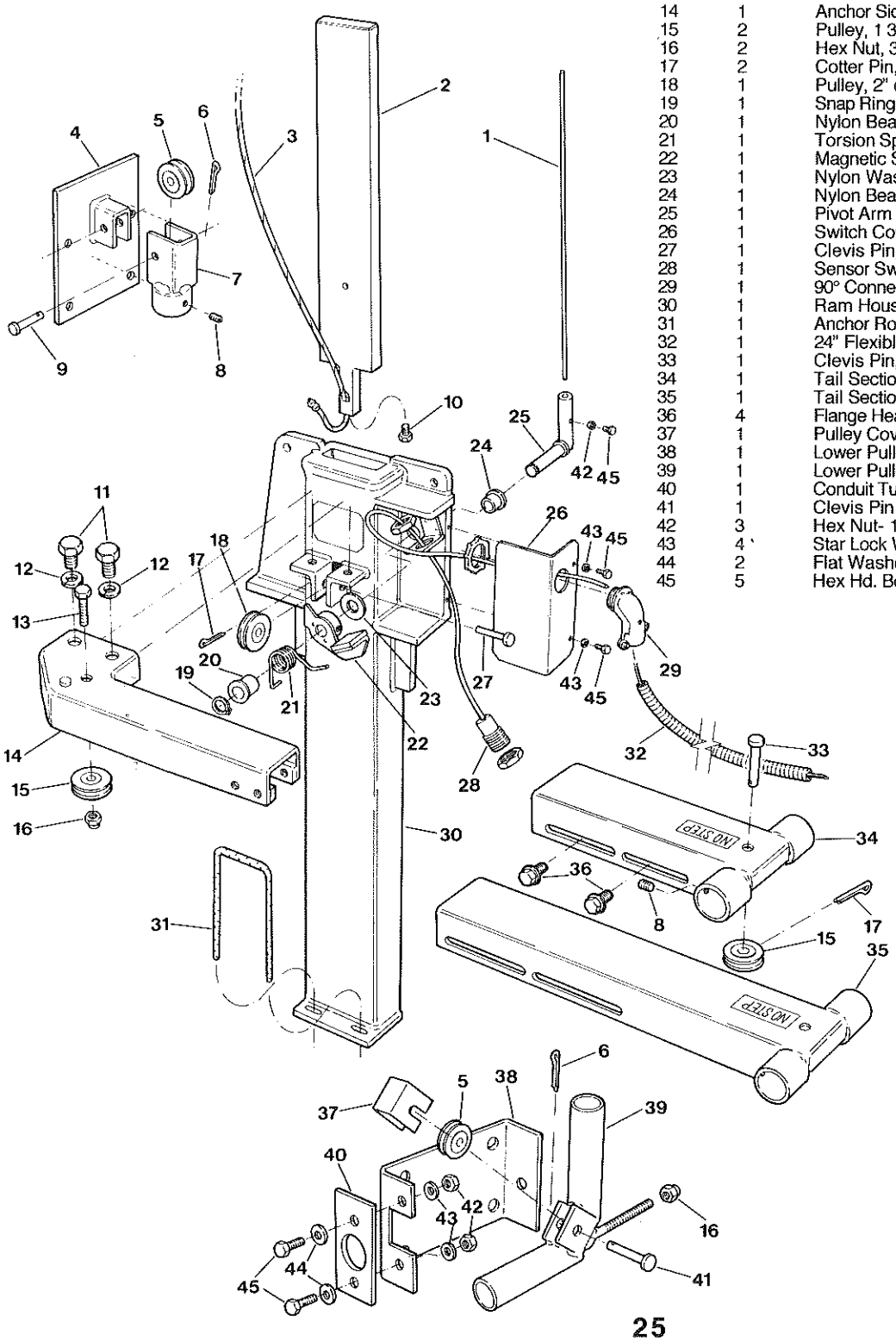
INTERLOCK FEED
Associated equipment such as a dockleveler or door may be interlocked so that they can only be operated when TRUCK LOCK is in restraining position. Consult factory for Specific Application.

NOTE: CIRCUIT SHOWN WITH POWER OFF - NO TRUCK IN POSITION - UNRESTRAINED

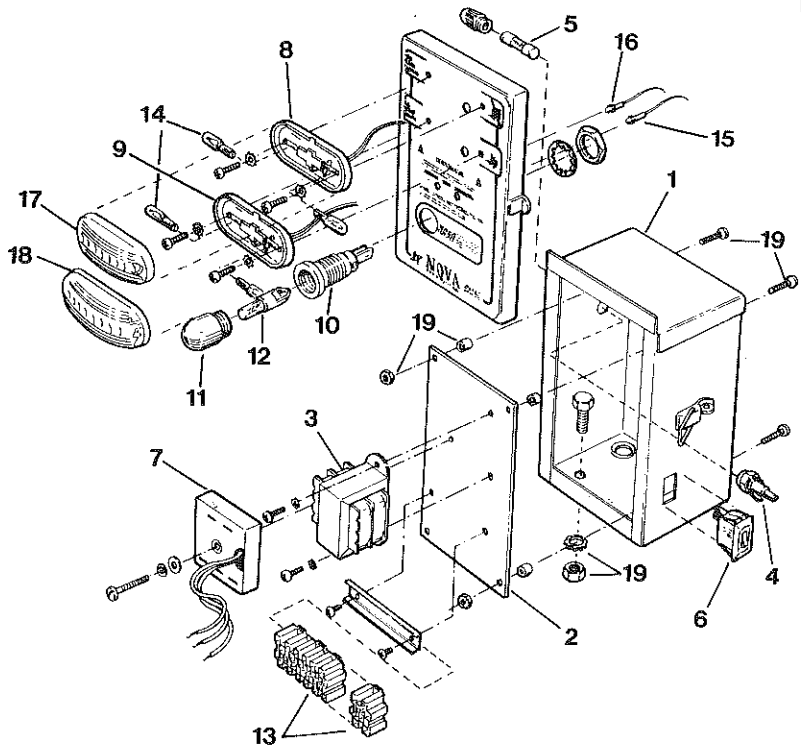
ENLARGED VIEW OF TERMINAL BLOCK

"Anchor" RAM & RAM HOUSING ASSEMBLY
MODELS A100, A101, A102, A201, A202, A203

ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Sensor Wand (fiberglass)	02-0-019
2	1	Ram Assembly	02-0-002
3	1	Cable, 25'	03-0-001
4	1	Upper Pulley Swivel Brkt.	41-1-912
5	2	Pulley	03-0-002
6	2	Cotter Pin, 1/16" X 3/4"	01-0-082
7	1	Swivel Cap	41-1-902
8	2	Socket Set Screw, 1/4"-20 X 1/4"	01-0-007
9	1	Clevis Pin, Long	01-0-083
10	1	Ram Plug	02-0-010
11	2	Hex Hd. Bolt, SS 5/8"-11 X 1"	02-0-011
12	2	Lockwasher, 5/8"	02-0-012
13	1	Hex Hd. Bolt, 3/8"-16 X 1 1/4"	02-0-013
14	1	Anchor Side Extension	02-0-009
15	2	Pulley, 1 3/4" dia.	CPS-413
16	2	Hex Nut, 3/8" -16 Nylok	01-0-016
17	2	Cotter Pin, 1/8" X 3/4"	01-0-012
18	1	Pulley, 2" dia.	CPS-650
19	1	Snap Ring, 5/8"	02-0-020
20	1	Nylon Bearing, 5/8"I.D.X7/8"O.D.X3/4"lng.	02-0-021
21	1	Torsion Spring	02-0-022
22	1	Magnetic Switch Trip	02-0-023
23	1	Nylon Washer	02-0-024
24	1	Nylon Bearing,5/8"I.D.X13/16"O.D.X5/8"lng.	02-0-025
25	1	Pivot Arm	02-0-026
26	1	Switch Cover	02-0-027
27	1	Clevis Pin, 3/8" X 1 3/4" Lng.	02-0-016
28	1	Sensor Switch (Prox.)	02-0-018
29	1	90° Connector, BX	31-0-100
30	1	Ram Housing	02-0-003
31	1	Anchor Rod	31-1-024
32	1	24" Flexible BX Cable	31-0-101
33	1	Clevis Pin, 3/8" X 1 3/8" lng.	02-0-017
34	1	Tail Section (Short)	02-0-007
35	1	Tail Section (Long)	02-0-008
36	4	Flange Head Bolt, 3/8"-16 X 1" lng.	02-0-014
37	1	Pulley Cover	31-1-105
38	1	Lower Pulley Swivel Mount	41-1-020
39	1	Lower Pulley Swivel Assy.	41-1-908
40	1	Conduit Tube Guide Plate	41-1-021
41	1	Clevis Pin	01-0-017
42	3	Hex Nut- 1/4"-20	25-20-00
43	4	Star Lock Washer, 1/4"	25-20-01
44	2	Flat Washer, 1/4"	25-30-01
45	5	Hex Hd. Bolt, 1/4"-20 X 3/4" lng.	25-20-75

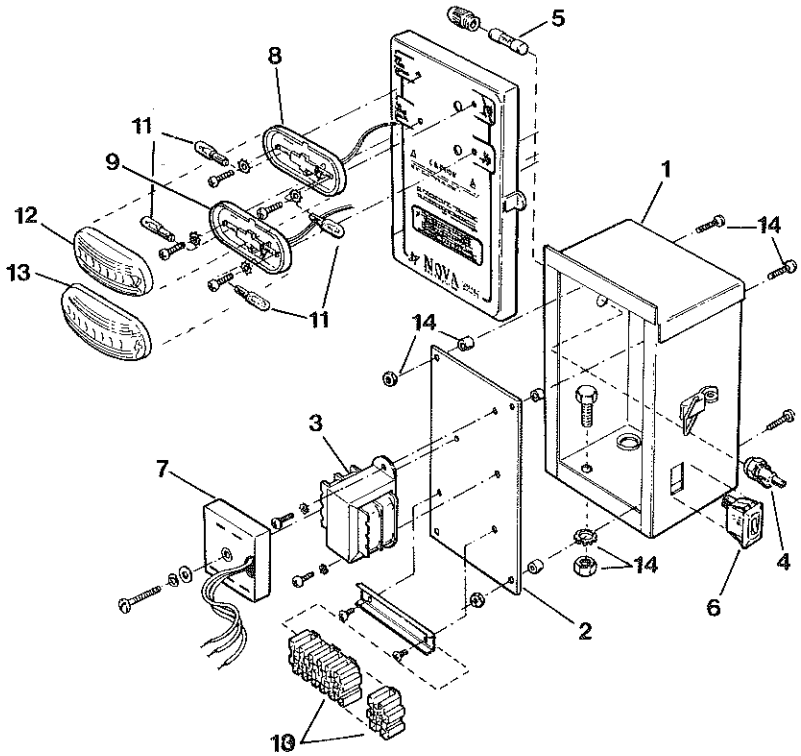


A102,A202 CONTROL BOX ASSEMBLY



ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Enclosure: Nema 3R, 8" x 6" x 4"	8R64HCLO
2	1	Subpanel	T6664-001
3	1	Transformer 12 V	AP-590-40
4	1	Fuse Holder	HKP-HH
5	1	Fuse, ½ Amp.	MDL½
6	1	Switch, Rocker, ON-OFF	RA911-VB
7	1	Flasher Module	C100
8	1	Light, Red Assy.	2-69265
9	1	Light, Green Assy.	2-69270
10	1	Lamp Base	30099
11	1	Lens Cap, Blue	30213
12	1	Lamp	12PSB
13	4	Terminal Block	NT-4
14	4	Lamp	T-194
15	1	L.E.D. Red	2-69285
16	1	L.E.D. Green	2-69290
17	1	Red Lens Only	2-69275
18	1	Green Lens Only	2-69280
19		Miscellaneous Mounting Hardware, Wire, Cable Ties, Etc.	
20	1	Inside sign, "When Green Light is on, Verify that Trailer is Secured by Truck Lock	NT-0-126

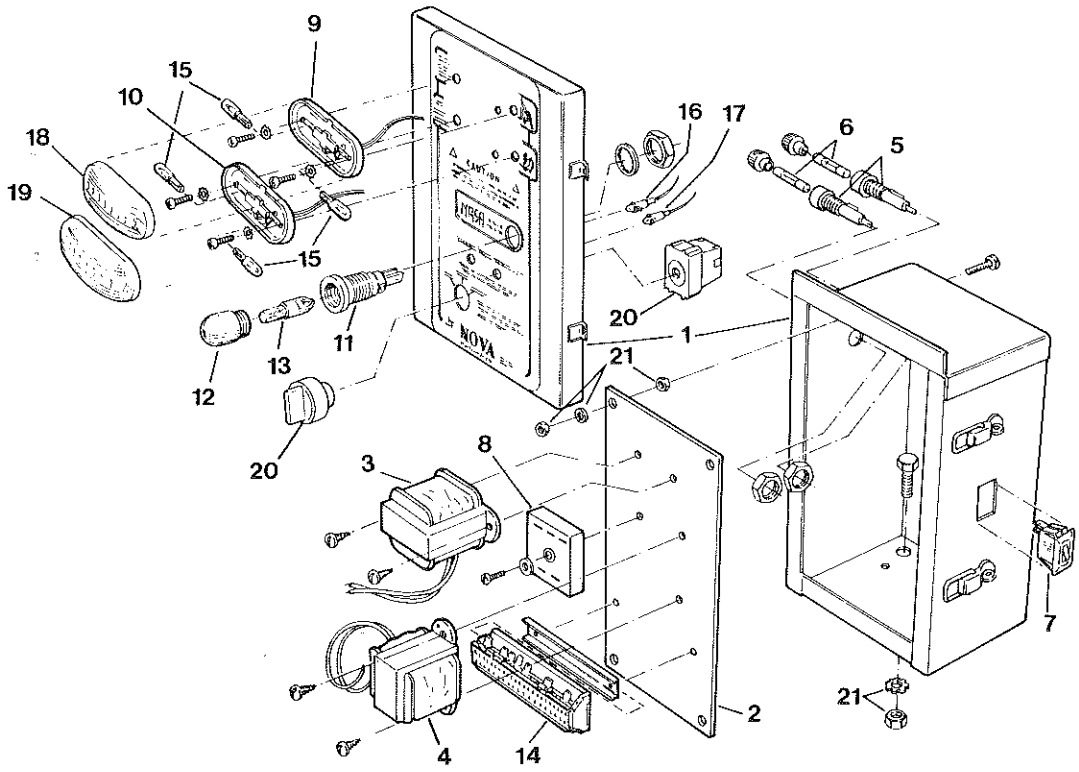
A101, A201 CONTROL BOX ASSEMBLY



ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Enclosure: Nema 3R, 8" x 6" x 4"	8R64HCLO
2	1	Subpanel	T6664-004
3	1	Transformer 12 V	AP-590-40
4	1	Fuse Holder	HKP-HH
5	1	Fuse, ½ Amp.	MDL½
6	1	Switch, Rocker, ON-OFF	RA911-VB
7	1	Flasher Module	C100
8	1	Light, Red Assy.	2-69265
9	1	Light, Green Assy.	2-69270
10	4	Terminal Block	NT-4
11	4	Lamp	T-194
12	1	Red Lens Only	2-69275
13	1	Green Lens Only	2-69280
14		Miscellaneous Mounting Hardware, Wire, Cable Ties, Etc.	
15	1	Inside sign, "When Green Light is on, Verify that Trailer is Secured by Truck Lock"	NT-0-126

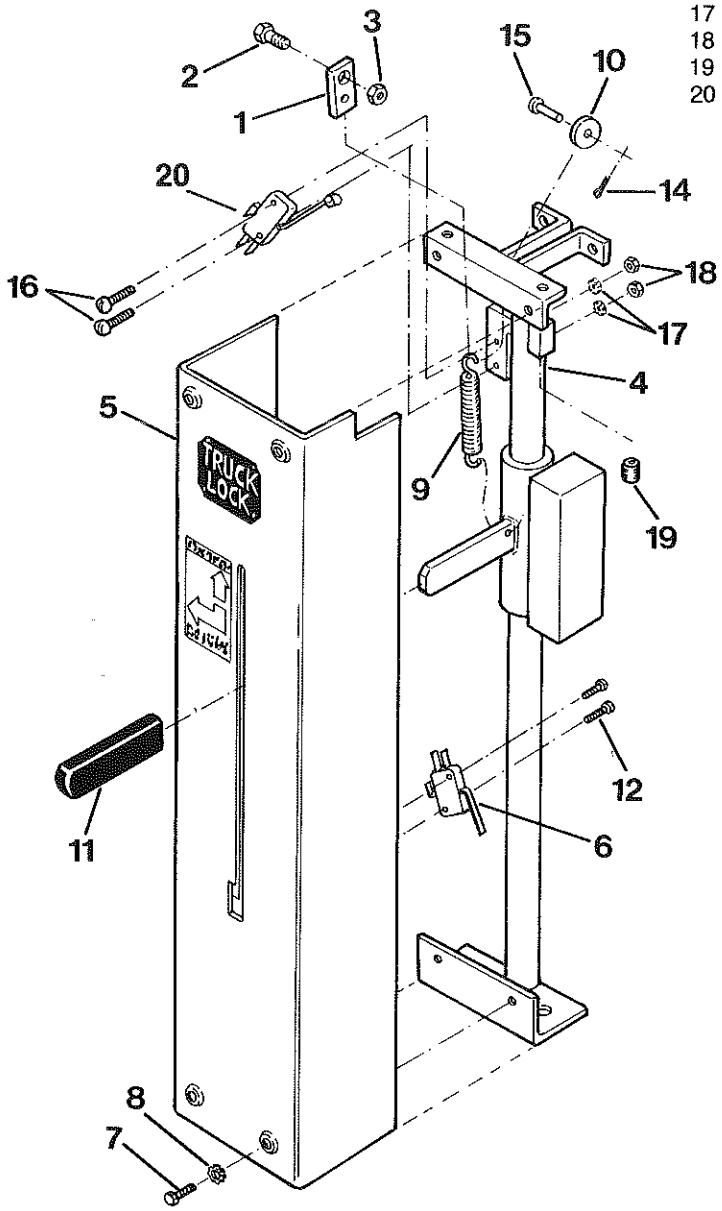
A203 CONTROL BOX ASSEMBLY

ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Enclosure: Nema 3R, 10" x 8" x 6"	10R86HCLO
2	1	Subpanel	T6664-005
3	1	Transformer (12 volt)	AP-590-40
4	1	Transformer (24 volt)	AP-590-80
5	2	Fuse Holder	HKP-HH
6	2	Fuse ½ Amp	MDL ½
7	1	Switch, Rocker, ON-OFF	RA911-VB
8	1	Flasher Module	C100
9	1	Light, Red Assy.	2-69265
10	1	Light, Green Assy.	2-69270
11	1	Lamp Base	30099
12	1	Lens Cap, Blue	30213
13	1	Lamp	12PSB
14	6	Terminal Block	NT-4
15	4	Lamp	T-194
16	1	LED Red	2-69285
17	1	LED Green	2-69290
18	1	Red Lens Only	2-69275
19	1	Green Lens Only	2-69280
20	1	ZA Selector Switch	9001D4G3S
21		Miscellaneous Mounting Hardware, Wire, Cable Ties, Etc.	
22	1	Inside sign, "When Green Light is on, Verify that Trailer is Secured by Truck Lock	NT-0-126



A100, A101, A102 CONSOLE ASSEMBLY

ITEM	REQ	DESCRIPTION	PART NO.
1	1	Cable Bracket	31-1-075
2	1	Cable Bolt	31-1-076
3	1	Hex Nut-Cable Bracket, ½'' - 13	01-0-020
4	1	Slide Pole Assembly	31-1-907
5	1	Cover Assembly	31-1-908
6	1	Limit Switch	31-0-035
7	4	Hex Hd Bolt, 3/8'' - 16 x ½''	01-0-001
8	4	Star Lock Washer, 3/8''	01-0-002
9	1	Counterbalance Spring	31-0-201
10	1	Pulley	03-0-002
11	1	Handle Cover	31-0-062
12	2	Round Hd Screw, #4-40 x 5/8''	01-0-006
14	1	Cotter Pin, 1/16'' x ¾''	31-0-082
15	1	Clevis Pin	01-0-017
16	2	Round Hd Screw, #4-40 x ¾''	31-0-096
17	2	Star Lock Washer #4	31-0-097
18	2	Hex Hd Nut, #4-40	31-0-098
19	1	Dampener	31-1-031
20	1	Limit Switch w/roller	31-0-035X

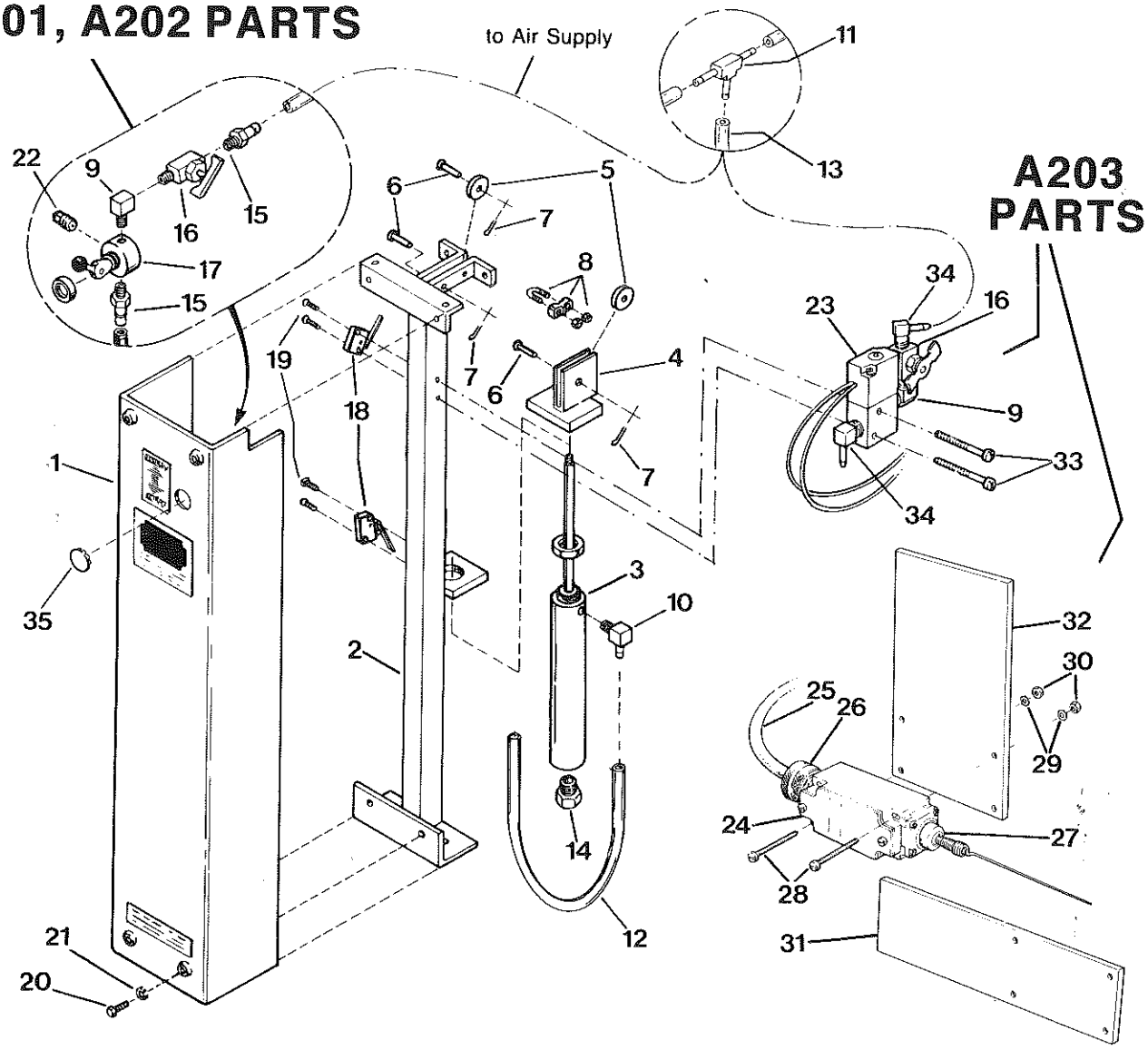


A201, A202, A203 CONSOLE ASSEMBLY

ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Console Cover	31-1-305
2	1	Cylinder Pole Assembly	31-1-932
3	1	Air Cylinder - 12" Stroke	02-0-001
4	1	Cylinder Rod Assembly	31-1-931
5	2	Pulley	03-0-002
6	3	Clevis Pin	01-0-017
7	3	Cotter Pin 1/16" x 3/4" Lg.	01-0-082
8	1	Cable Clamp	01-0-101
9	1	Street Elbow	07-0-001
10	1	90° Male Elbow 1/4" Tube x Barbed Fitting	07-0-015
11	1	T-Barbed Fitting	07-0-017
12	1	Plastic Tube 2' lg. x 1/4" O.D. x .040 Wall	07-0-007
13	1	Plastic Tube 25' lg. x 1/4" O.D. x .040 Wall	07-0-008
14	1	Breather Vent	07-0-022
15	2	Male Connector	01-0-684
16	1	Needle Valve	07-0-011
17	1	3-Way Valve	07-0-012
18	2	Limit Switch	31-0-035
19	4	Round Head Screw, #4-40 x 3/4"	01-0-005
20	4	Hex Head Bolt 3/8"-16 x 1/2"	01-0-001
21	4	Star Lock Washer, 3/8"	01-0-002
22	1	Valve Orifice	41-1-008

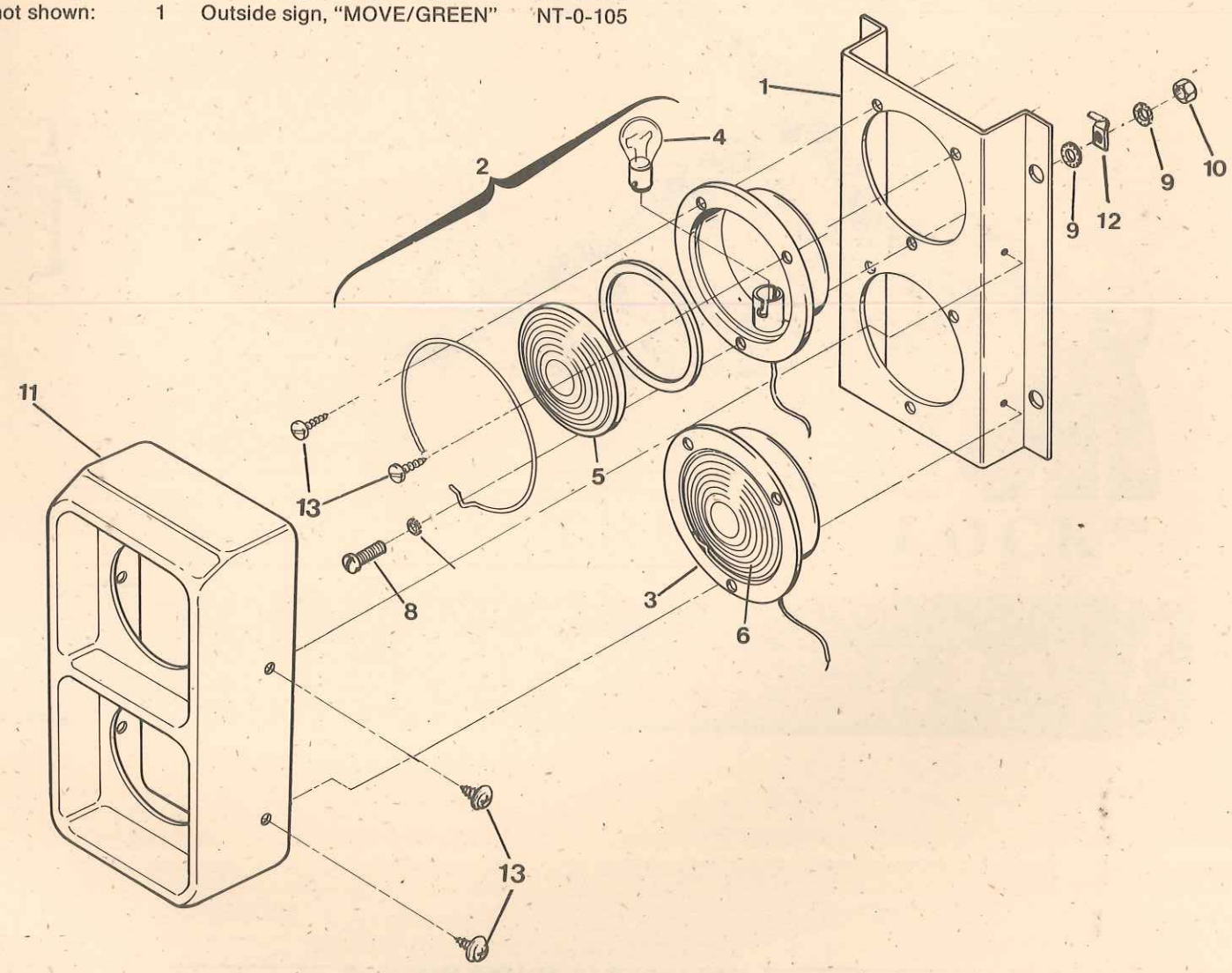
ITEM	REQ.	DESCRIPTION	PART NO.
23	1	Solenoid Valve	P26023-6
24	1	Limit Switch	SDC54K
25	1	12' SJO Cord	1219227
26	1	SJO Cord Grip	1218230
27	1	Spring Head	SDC54KH
28	2	Screw, #10-24 x 2"	10-24-200
29	2	Lock Washer #10	10-0-023
30	2	Hex Nuts #10-24	10-24-000
31	1	Vertical Mnt Plate	40-1-005
32	1	Hrzntl Mnt Plate	40-1-004
33	2	Screw #6-32x1"	01-0-010
34	2	90° Male Elbow 1/8" Tube x Barbed	07-0-694
35	1	300ZA Console Plug	01-0-612

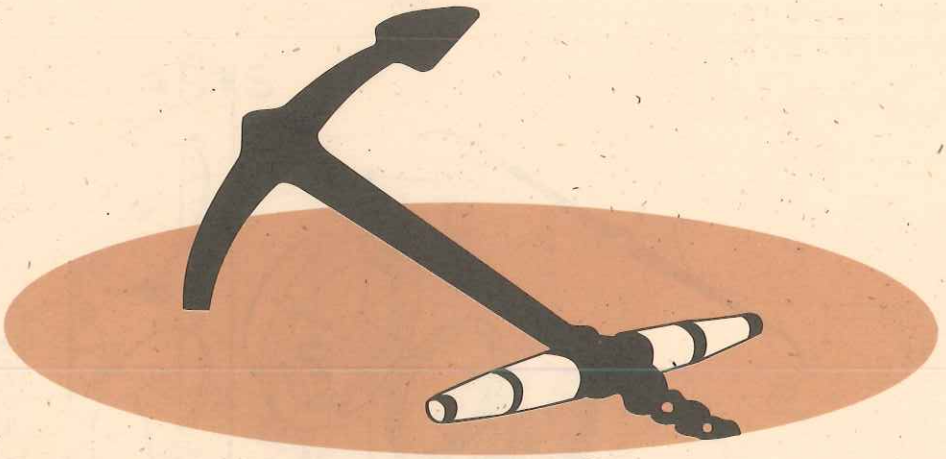
A201, A202 PARTS



OUTSIDE LIGHT ASSEMBLY
ALL MODELS, EXCEPT A100

ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Back Mounting Plate	31-1-023
2	1	Outside Light Assembly, Red	31-0-037
3	1	Outside Light Assembly, Green	31-0-038
4	2	Outside Light Bulb (1156)	31-0-080
5	1	Lens Only (Red)	31-0-321
6	1	Lens Only (Green)	31-0-322
8	1	Round Hd Screw, #8-32 x ⅜	01-0-008
9	3	Star Lock Washer, #8	01-0-010
10	1	Hex Nut, #8-32	01-0-009
11	1	Outside Light Visor	31-1-064
12	1	Wire Clip	01-0-121
13	9	Slotted Hex Screw, #8 x ½"	01-0-085
Following items not shown:	1	Outside sign, "STOP/RED"	NT-0-106
	1	Outside sign, "MOVE/GREEN"	NT-0-105





NOVA ANCHOR TRUCK LOCK MANUAL

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