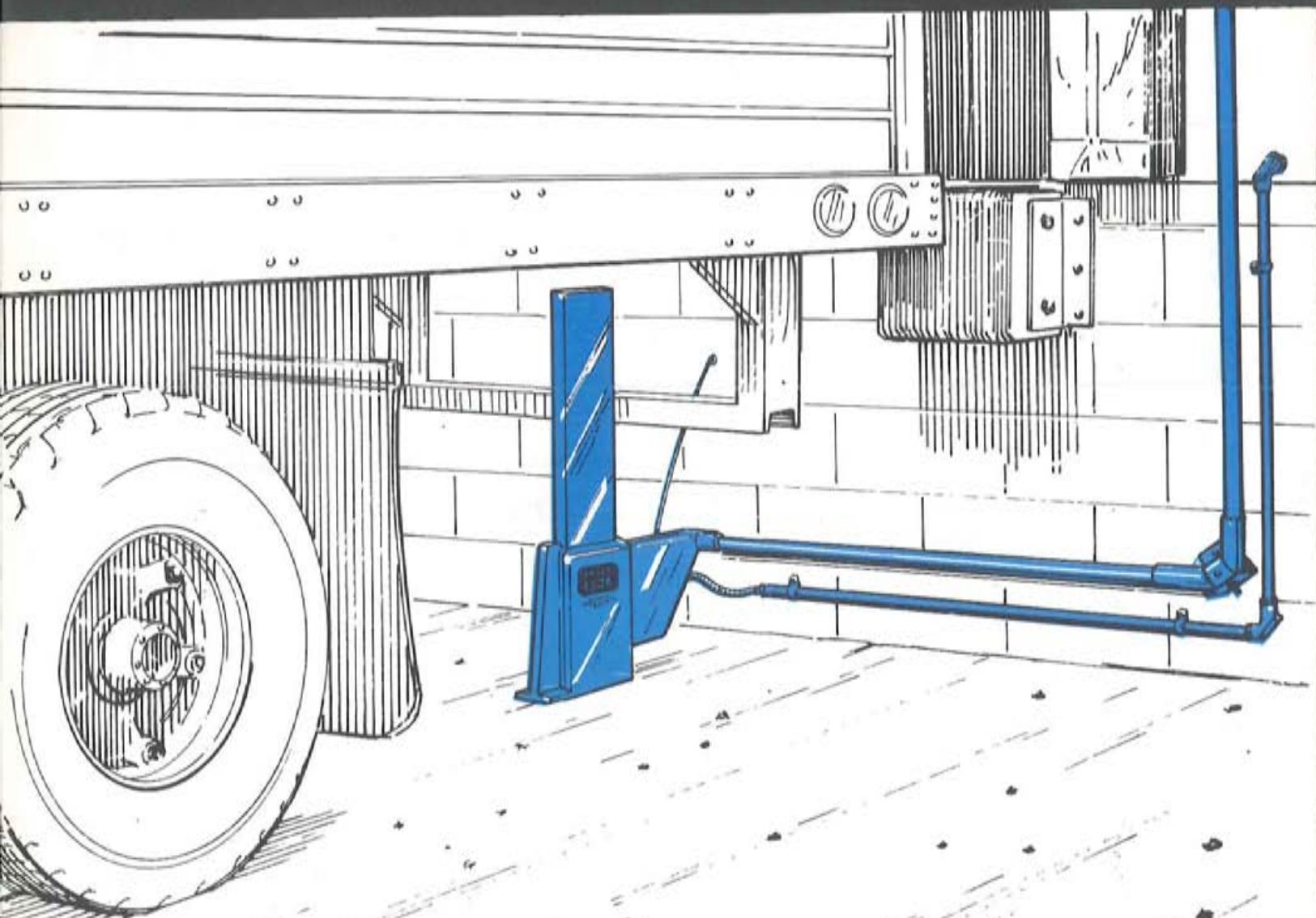


# INSTALLATION, PARTS & OWNER'S MANUAL

**Nova Technology TRUCK LOCK™  
MODEL 300 SERIES**



**NOVA**  
TECHNOLOGY

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# WARRANTY

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NOVA TECHNOLOGY, INC. warrants the NOVA 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 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 other incidental or consequential damages.

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## INDEX

Description	Page
Introduction .....	1
Arrangement and Function of Major Components .....	2
Restraint Sequence .....	3
Installation Instructions .....	4-16
General Maintenance .....	17
Electrical Check List .....	17-18
Wiring Diagram .....	18
Illustrated Parts List .....	19-22

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## INTRODUCTION

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The Nova Technology 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 TRUCK LOCK™

- REVIEW DISTRIBUTORS' SURVEY SHEET
- VERIFY THAT THE DATA CORRESPONDS TO YOUR JOB SITE REQUIREMENTS
- IF THERE'S A DISCREPANCY, CONTACT YOUR DISTRIBUTOR OR ELSE IT WILL COST YOU \$\$\$!

IMPORTANT!



↑  
THIS IS NOVA

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

NOTE: Blue indicator light shows the presence of a truck with an ICC Bar.

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

TRUCK SENSING WAND.  
Detects presence of truck at loading dock.

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

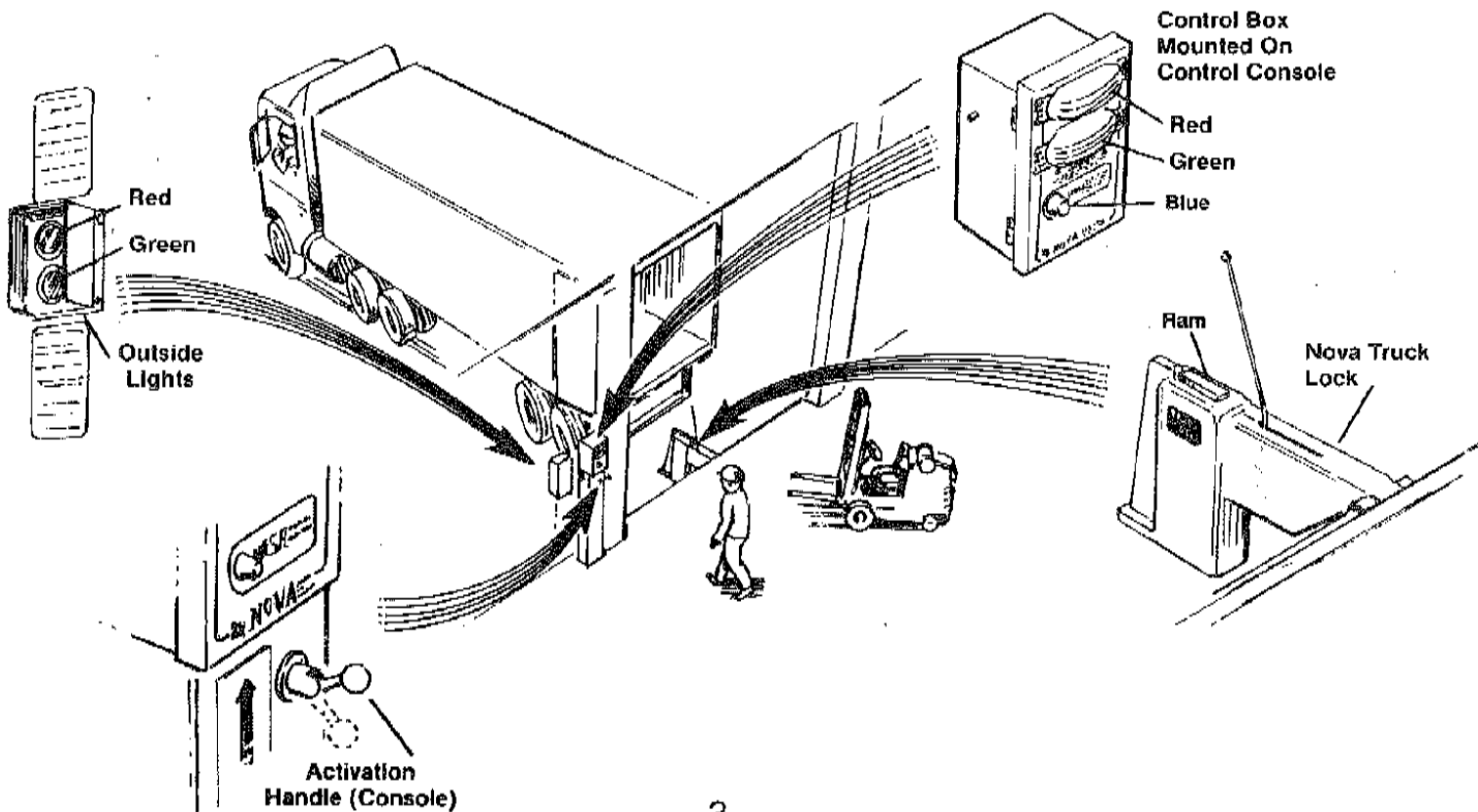
# NOVA TRUCKLOCK™ RESTRAINT SEQUENCE

(WHEN POWER TO CONTROL CONSOLE IS ON)

CONDITIONS AT LOADING DOCK	RED/GREEN OUTSIDE LIGHTS	RED/GREEN INSIDE LIGHTS	BLUE INSIDE LIGHT	ACTIVATION HANDLE
<ul style="list-style-type: none"> <li>• OPEN DOCK</li> <li>• NO TRUCK</li> <li>• RAM IS DOWN</li> </ul>	FLASHING GREEN	FLASHING RED	OUT	RELEASED
<ul style="list-style-type: none"> <li>• TRUCK ARRIVES</li> <li>• RAM IS DOWN</li> </ul>	FLASHING GREEN	FLASHING RED	FLASHING BLUE	RELEASED
<ul style="list-style-type: none"> <li>• TRUCK IS IN &amp; RESTRAINED LOADING/UNLOADING</li> <li>• RAM IS UP</li> </ul>	FLASHING RED	CONSTANT GREEN *	CONSTANT BLUE *	RESTRAINED
<ul style="list-style-type: none"> <li>• TRUCK IS IN &amp; LOADING/UNLOADING IS COMPLETED</li> <li>• RAM IS LOWERED</li> </ul>	FLASHING GREEN	FLASHING RED	FLASHING BLUE	RELEASED
<ul style="list-style-type: none"> <li>• TRUCK IS OUT</li> <li>• DOCK IS OPEN</li> <li>• RAM IS DOWN</li> </ul>	FLASHING GREEN	FLASHING RED	OUT	RELEASED

\*If ram's upper movement is restricted by a bent ICC bar or other obstruction, the outside "RED" light will flash indicating to the truck driver that it is not safe to pull out. Inside, the "RED" light will continue to flash indicating that an alternate method of restraining the truck should be used.

\* NOTE: If the truck has no ICC bar, when the ram is raised, the outside "RED" light will flash indicating to the truck driver that it is not safe to pull out. Inside, the "BLUE" light will not illuminate and the "RED" light will switch to constant, indicating that there is no ICC bar and an alternate method of restraining the truck should be used.



# 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

- (11) ¼" Fasteners
- (16) #10 Fasteners
- Concrete mix — Approx. 3 to 6  
80 lb. bags (Minimum strength 4000 psi)
- ¾" Thinwall conduit — 20 ft.
- ½" Thinwall conduit — 20 ft.
- ½" Conduit elbows (2)
- ½" Wall clips (for conduit)

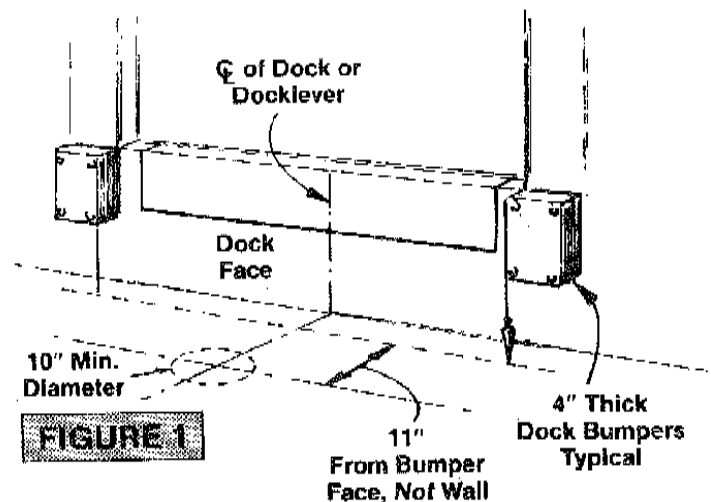
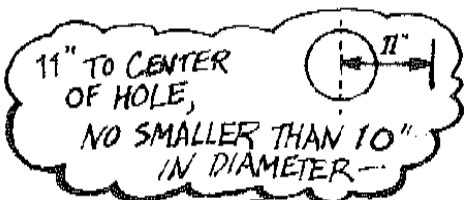
### ! WARNING !

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

### WARNING!

IF TOTAL BUMPER PROJECTION FROM FACE OF DOCK EXCEEDS 4½", A CABLE GUIDE EXTENSION MUST BE INSTALLED. SEE PAGE 8, STEP 11.

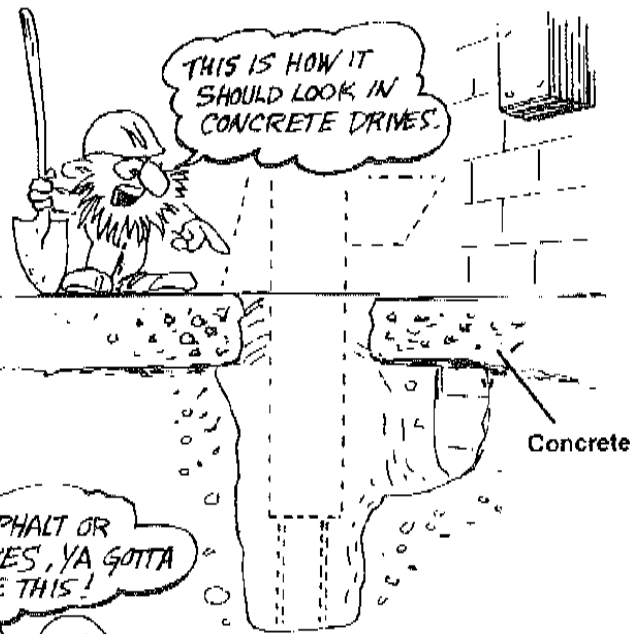
STEP 1. Determine exact location of restraint ram housing per diagram, Figure 1. NOTE THAT ALL DIMENSIONS ARE FROM FACE OF DOCK BUMPERS. IF BUMPERS ARE NOT YET INSTALLED, ADD THICKNESS OF BUMPERS.



NOTE: Drawing is not to scale.

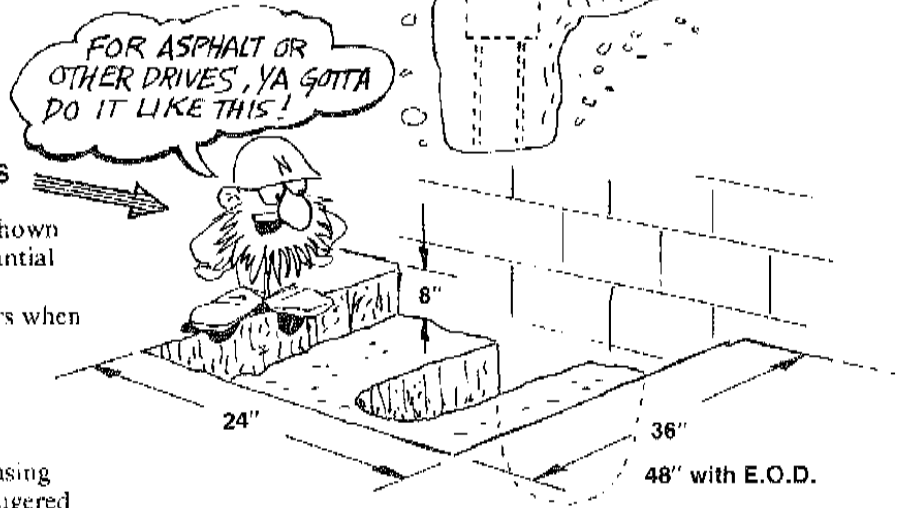
**STEP 2.** Core drill (auger, posthole digger, etc.) a 10" diameter hole minimum of 42" deep. The final shape of completed excavation depends on driveway surface.

**FOR CONCRETE**



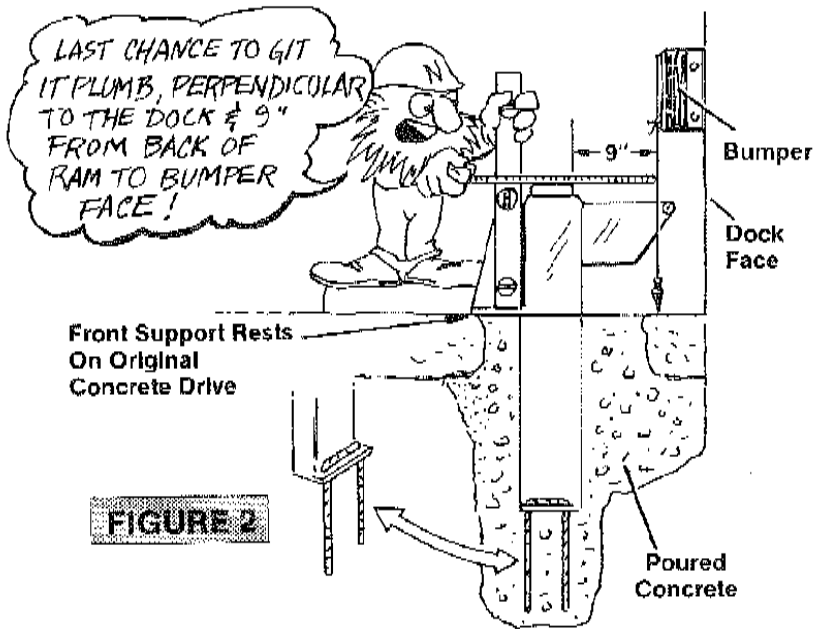
**FOR ASPHALT & OTHERS**

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 rebar when installing in non-concrete drive.

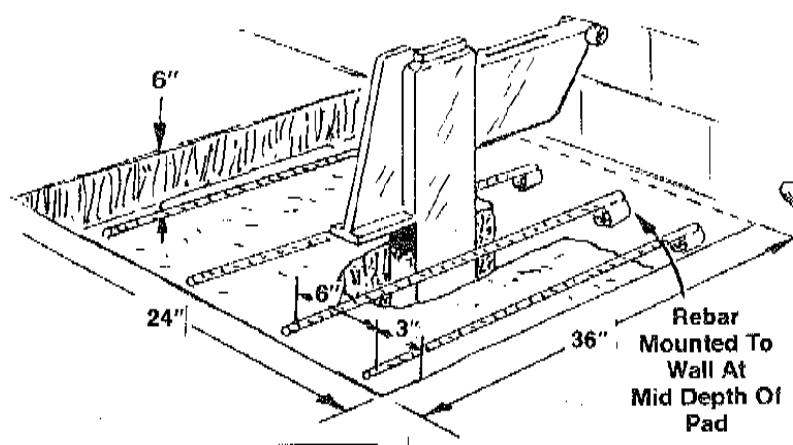


**STEP 3.** Hook anchor rod through holes in housing cap as shown in Figure 2. Support housing in augered hole and secure with concrete. **NOTE: RAM HOUSING MUST BE "PLUMB" IN ALL DIRECTIONS AND BOTTOM OF FRONT SUPPORT MUST BE FLUSH WITH TOP OF DRIVE. IF INSTALLING IN UNFINISHED DRIVEWAY, BE SURE TO 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.**

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

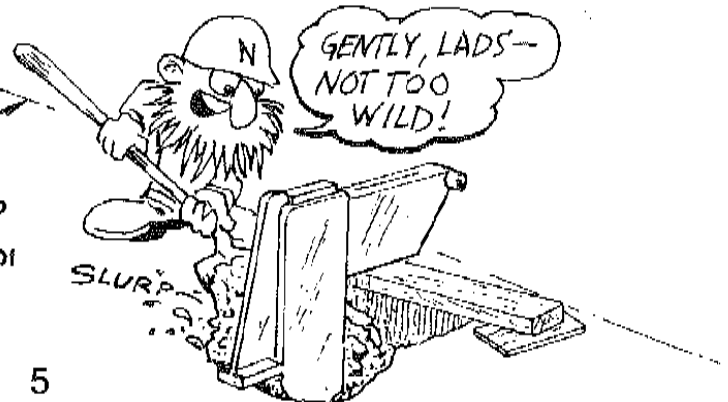


**FIGURE 2**



**FIGURE 3**

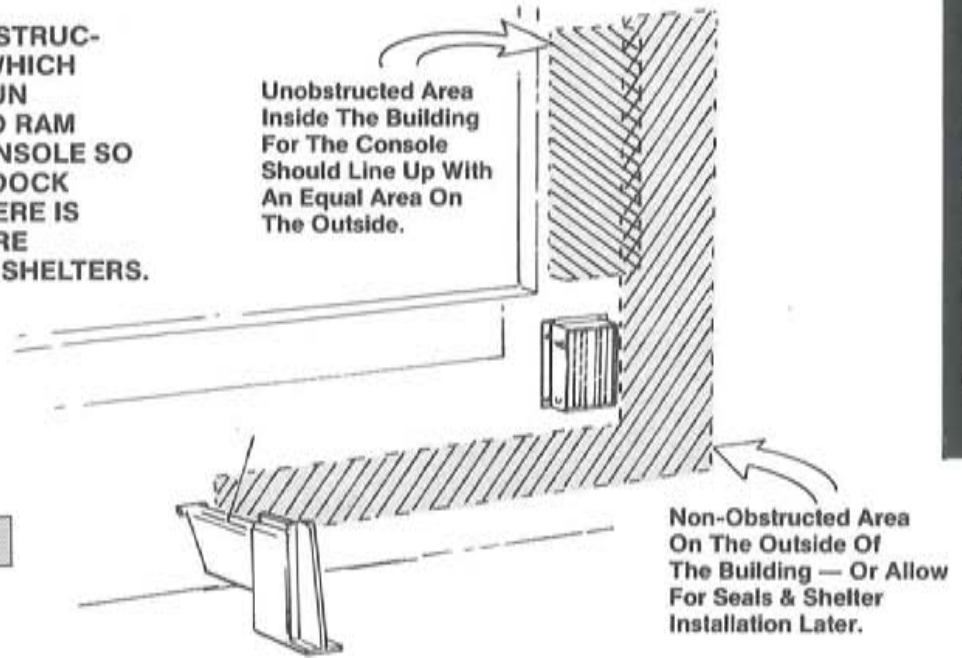
REFER TO TECH. BULLETIN FURNISHED WITH REBAR.



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



STEP 4. Remove cover from control console by removing four  $\frac{3}{8}$ " x  $\frac{1}{2}$ " bolts. See Figure 5.

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

STEP 5. Temporarily place control console (with cover removed) against inside wall in desired location. Mark the four mounting holes for the console (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.

STEP 6. First, drill the 1" dia. cable exit hole through the wall from the inside at the location marked in FIG. 6. REPLACE BRACKET & CHECK ALIGNMENT OF THE 1" HOLE PER FIG. 6 — THEN DRILL MOUNTING HOLES.

FIGURE 5

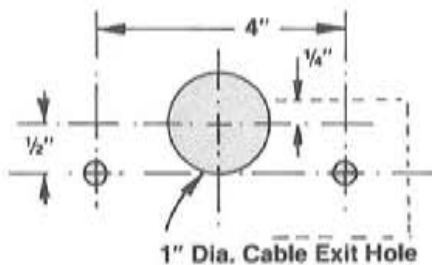
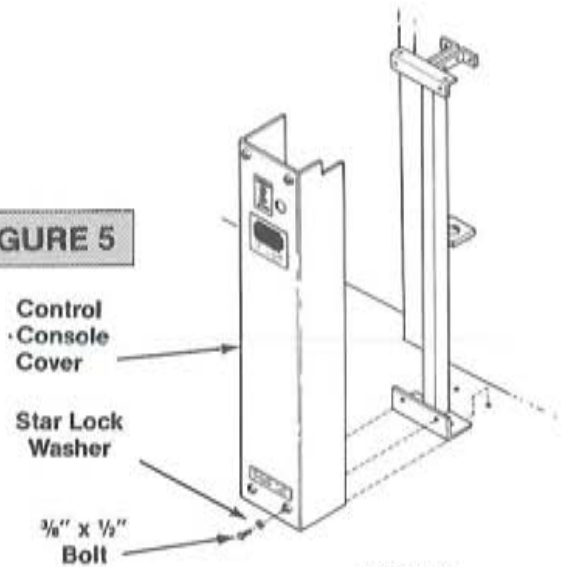
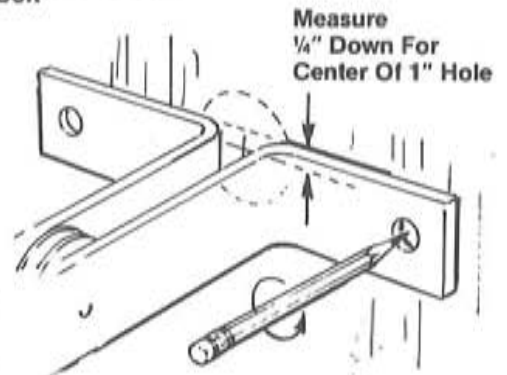
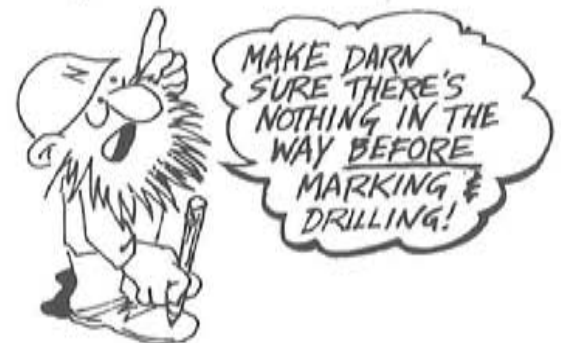


FIGURE 6



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



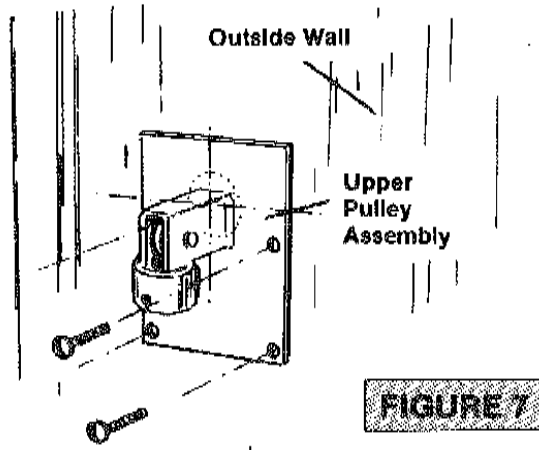
**STEP 7.** Mount control console on inside of building wall.

**NOTE:** FASTENERS TO BE 1/4" DIAMETER. 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 note regarding anchors above.

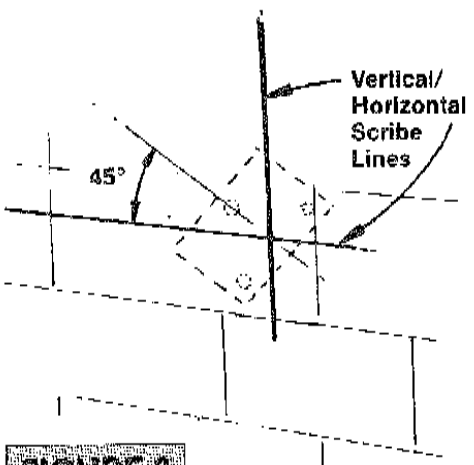
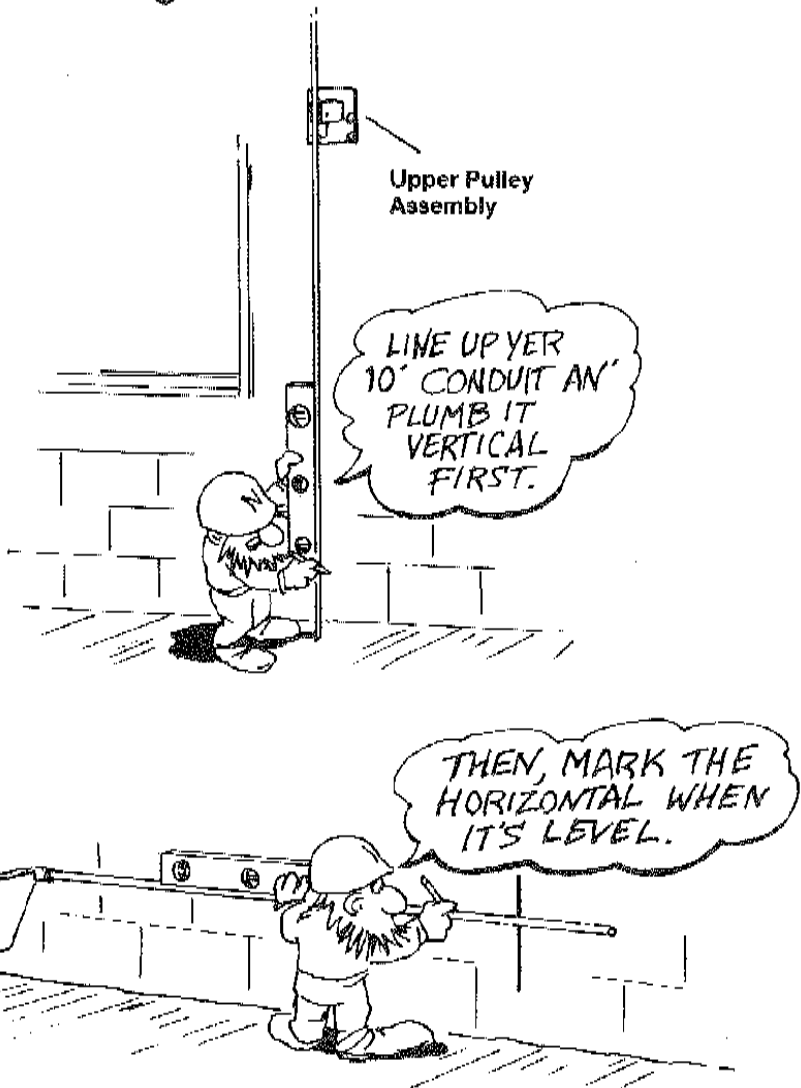
**NOTE:** RECESSED BUILDING WALL OR DOCK FOUNDATION WALL MAY REQUIRE A PULLEY BRACKET AS PER YOUR SURVEY SHEET.

**STEP 9.** Mount lower pulley assembly to foundation directly beneath upper pulley assembly and at a 45° angle. See Figure 8 and notes above. Use the 1/4" fasteners.

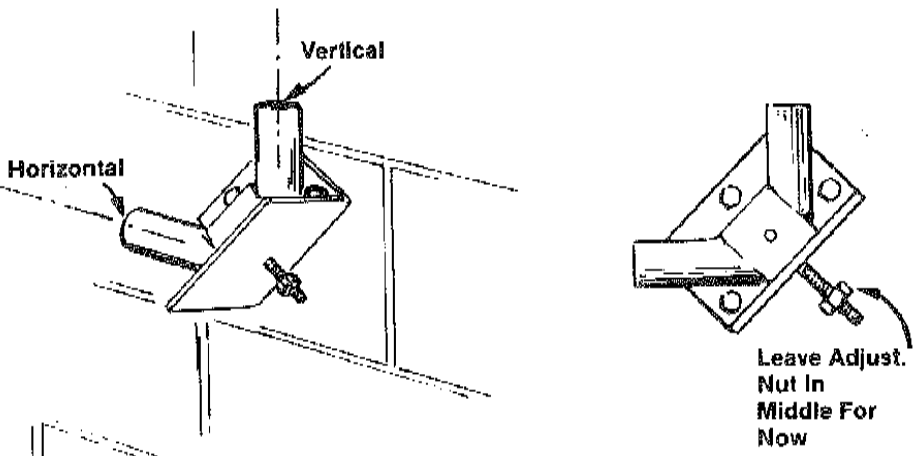
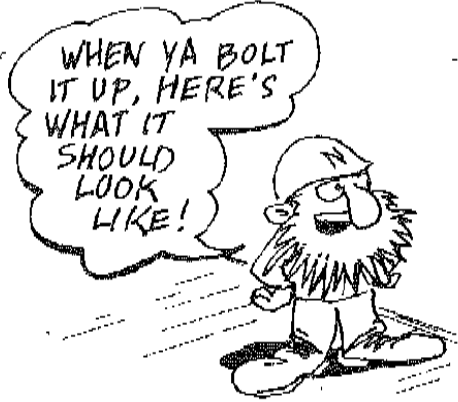


**FIGURE 7**

Position the lower pulley mount in the relative position as shown in Figure 8.



**FIGURE 8**



# AFTER THE CONCRETE HAS SET-UP

## IMPORTANT

**STEP 10.** Remove ram from housing and carefully pour in the "Nova Juice"™ from bottle. This combination provides lubrication and prevents freezing if any water enters the housing. Figure 8A. This combination will fill housing to 9" and provides lubrication.

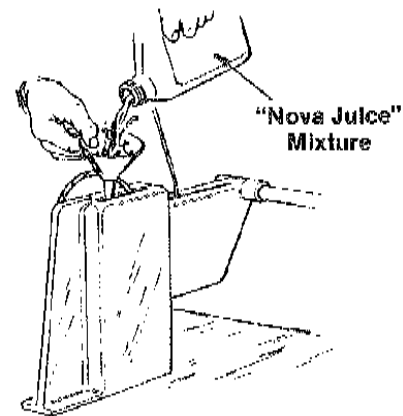
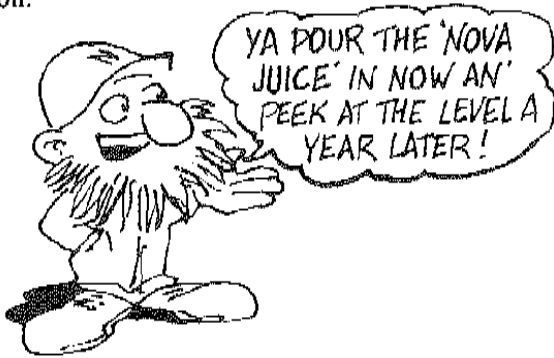


FIGURE 8A

\*1 qt. Lightweight Hydraulic Oil, (Ex. - Automatic Transmission Fluid, Power Steering Fluid), 1 pt. Antifreeze, 1 cup Water.

**STEP 11.** If unit is being installed at dock with E.O.D. Dock Leveler or bumper projection is greater than 4½", weld or bolt E.O.D. extension bracket per survey sheet. See Fig. 9.

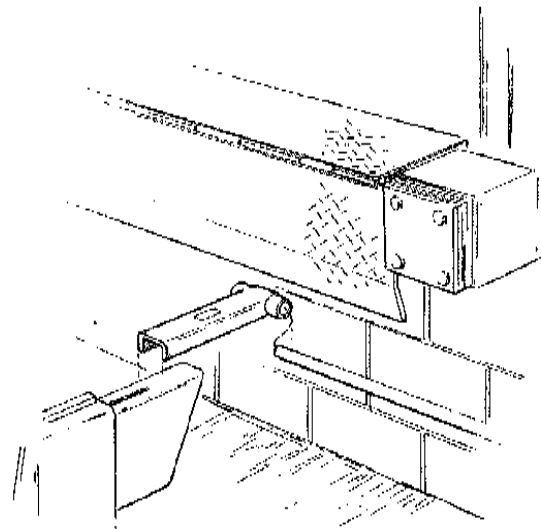


FIGURE 9

**IMPORTANT! CUT EXTENSION BRACKET AND POSITION SO THAT SENSOR WAND SLOT ISN'T COVERED.**

**STEP 12.** Measure distance between mounting tube on upper pulley and mounting tube on lower pulley and add 2¾". Cut a piece of ¾" thin wall conduit to this length. See Figure 10.

**STEP 13.** Measure distance from mounting tube on lower pulley to mounting tube on ram housing assembly and add 2¾". Cut ¾" thin wall conduit to length as above. Slide end into tube on lower pulley. Thread cable through lower and upper pulley assemblies.

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.

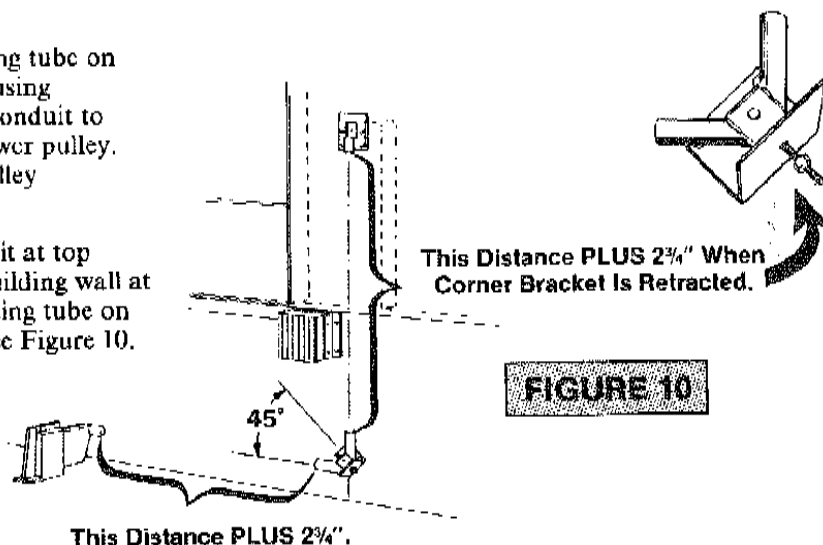
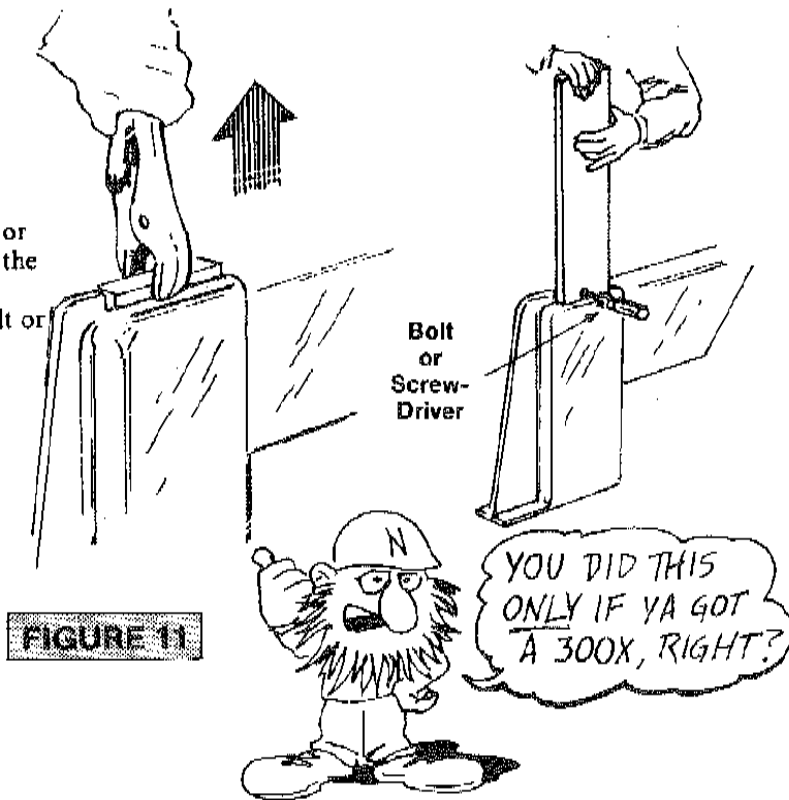


FIGURE 10

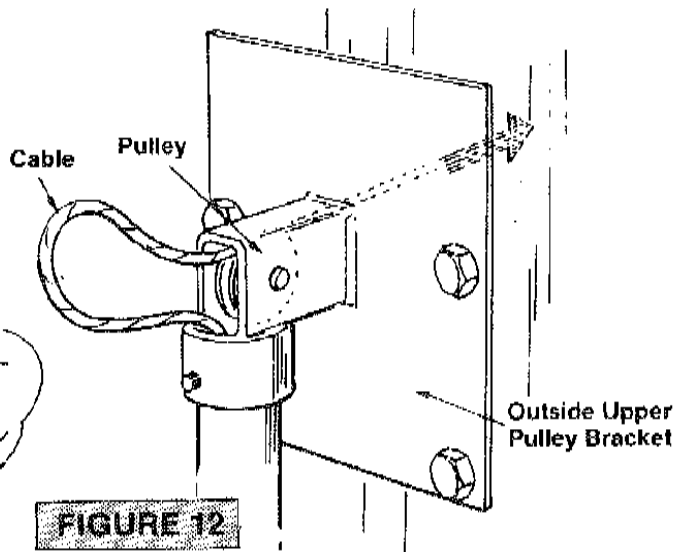
**NOTE: SKIP STEP 14 IF INSTALLING MODEL 300Z (PNEUMATIC).**

**STEP 14.** Raise the ram by grasping with vise grips or pliers on the end of ram and lifting till you can grip the ram by hand. Raise until entire right height hole is exposed and secure in "up" position by inserting bolt or screwdriver. See Figure 11.

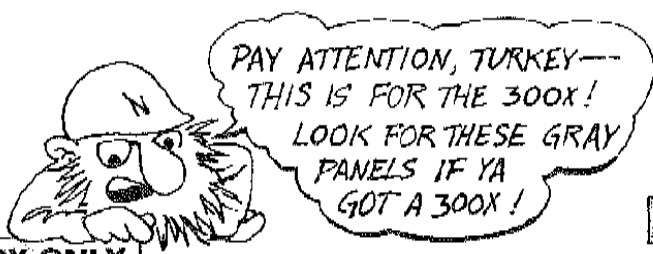


**FIGURE 11**

**STEP 15.** 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 12.

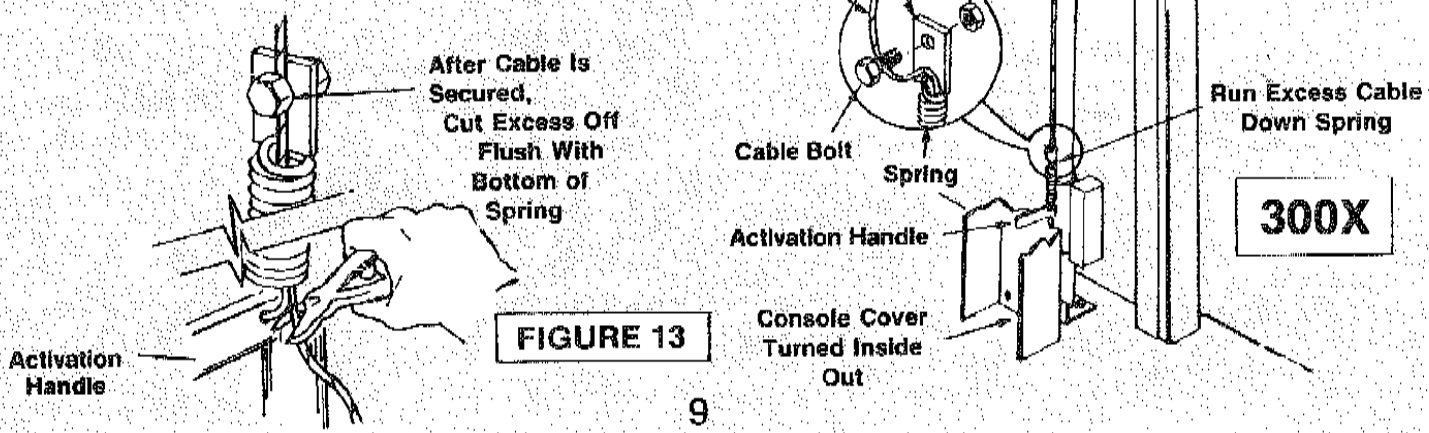


**FIGURE 12**



**FOR 300X ONLY**

**STEP 16X.** Use console cover to support activation handle in the lowest operating position. See Figure 13. 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 13.



**FIGURE 13**

## FOR 300Z SERIES ONLY

**STEP 16Z.** 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 13Z.

**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.

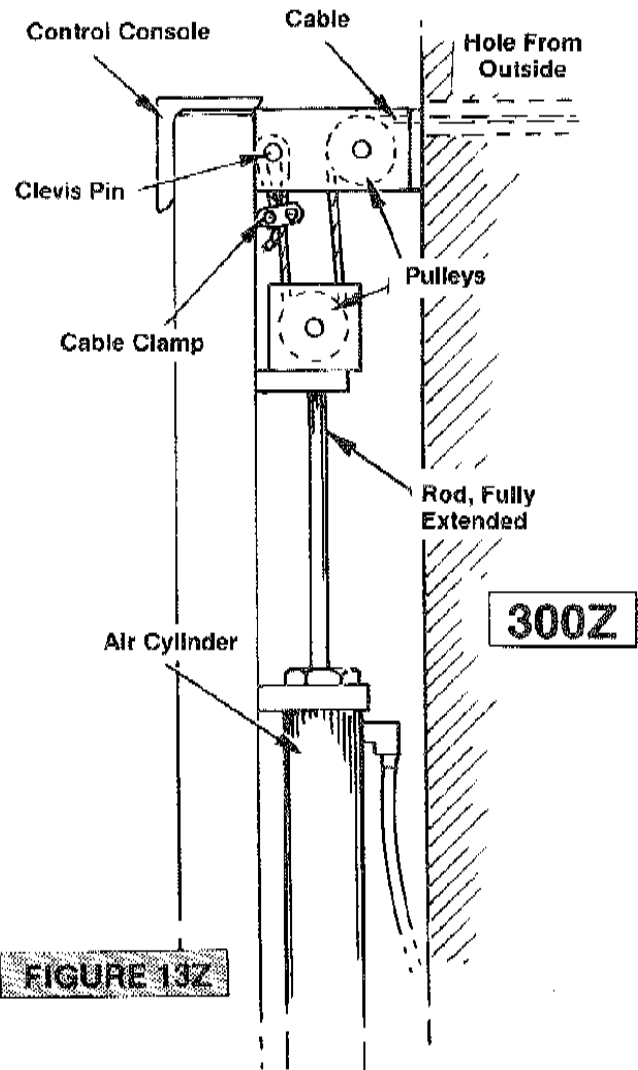
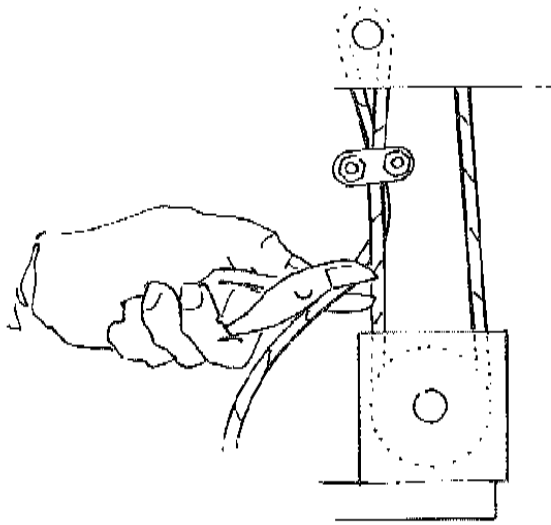
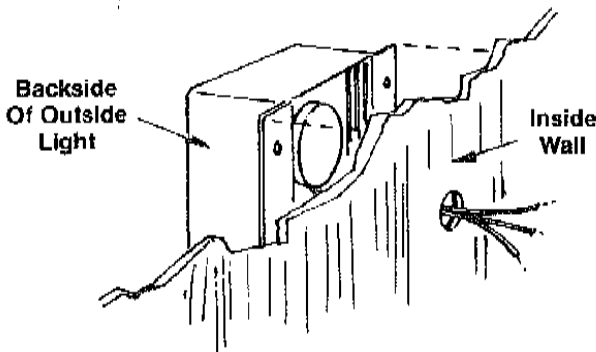


FIGURE 13Z

**STEP 17.** 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. Feed wire from light through hole in wall and affix light to wall. See Figure 14. Use #10 fasteners here.



**STEP 18.** Fasten printed signs to outside wall, one above and one below light, as shown in Figure 14. "RED" sign should be above light and "GREEN" sign below. Attach signs to building with #10 fasteners or an Acrylic based adhesive or mastic that won't attack styrene.

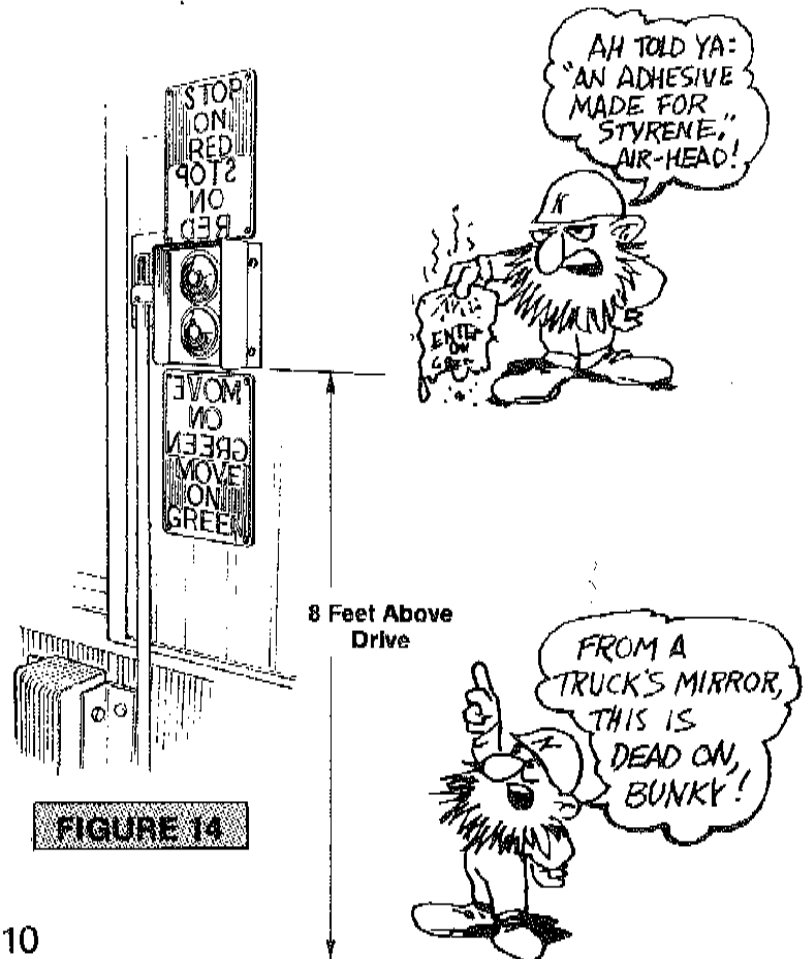
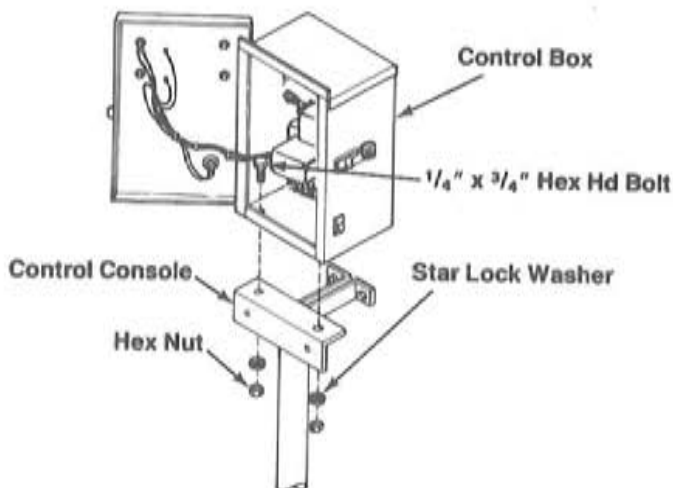


FIGURE 14

# IF YOU'RE NOT RESPONSIBLE FOR THE ELECTRICAL INSTALLATION PROCEED TO PAGE 14 STEP 26X IF A 300X, PAGE 15 IF A 300Z SERIES.

**STEP 19.** Mount control box to top of control console using two 1/4" x 3/4" hex head bolts, nuts and lock washers. See Figure 15. Install "ENTER ON GREEN ONLY" 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. See Step 18.



**FIGURE 15**

*DON'T FORGET!  
THIS BETTER CONFORM TO  
LOCAL CODES & CUSTOMER  
SPECIFICATIONS!!*

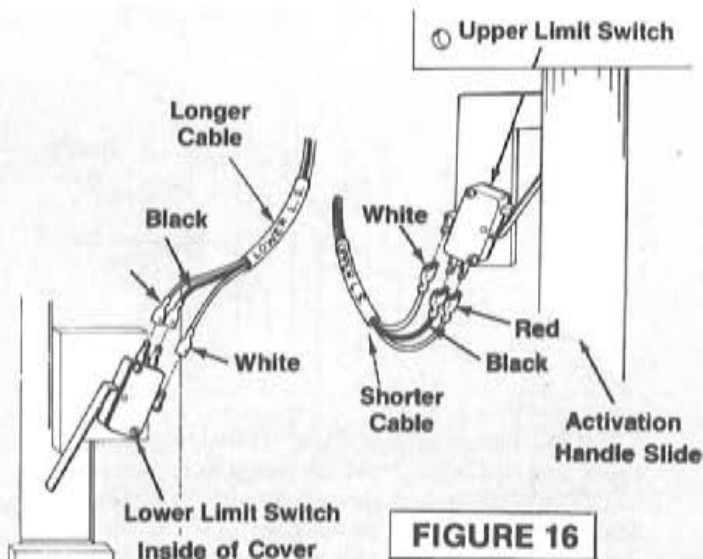


**NOTE:** ALL CONTROL AND LIGHTING CIRCUITS ARE LOW VOLTAGE. INSTALLATION OF 115V GROUNDED SUPPLY CIRCUIT MUST CONFORM TO LOCAL ELECTRICAL CODES AND CUSTOMER SPECIFICATIONS.

## FOR 300X

**STEP 20X.** 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.

*I WONDER IF THE  
WIRES ARE GONNA  
CLEAR THE  
COUNTER BALANCE  
ASSEMBLY?*



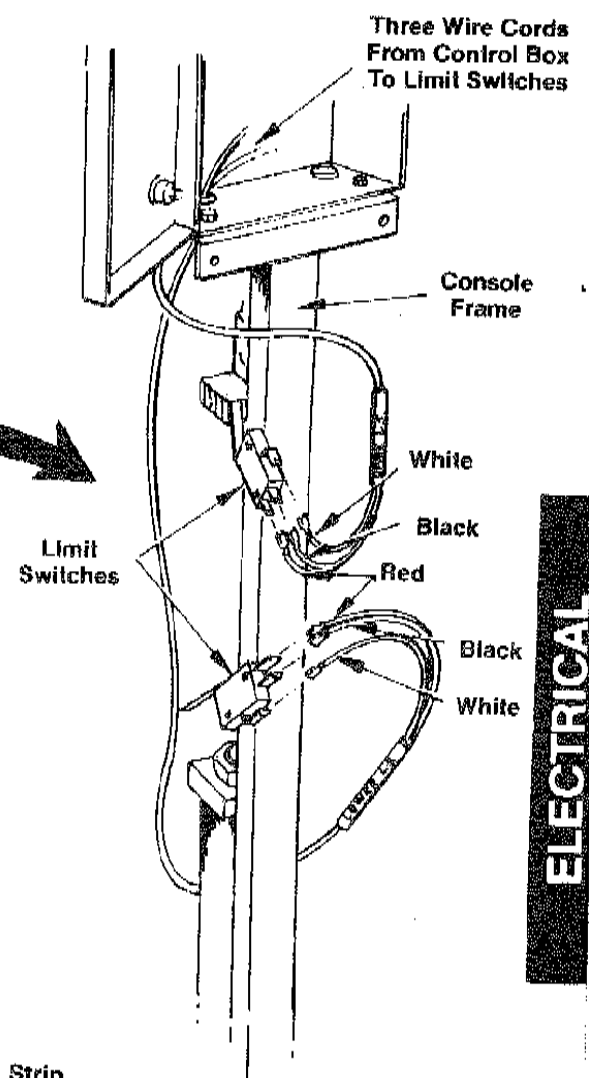
**FIGURE 16**

**300X**

**STEP 20Z.** Connect the two three-wire electrical cables from the control box to the limit switches mounted on the console frame. See Figure 16Z

**AFTER HOOK-UP, CHECK TO MAKE SURE ALL WIRES CLEAR THE PATH OF THE PISTON END ASSEMBLY OR COUNTERBALANCE ASSEMBLY.**

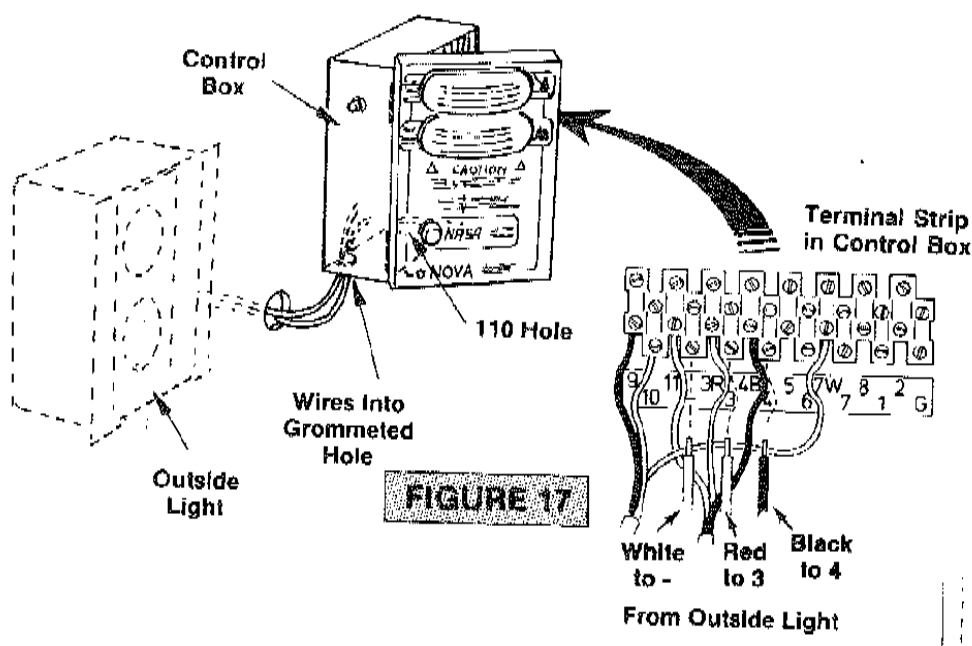
**STEP 21.** Route wire from outside light to inside control box through grommets hole only in bottom of box. Cut to length and connect to terminal strip as shown in Figure 17.



**FIGURE 16Z**

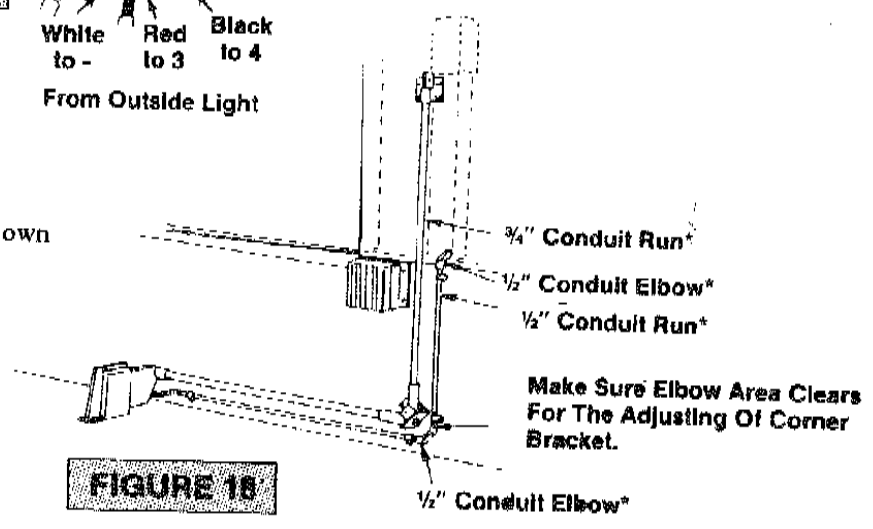
**300Z**

**ELECTRICAL**



**FIGURE 17**

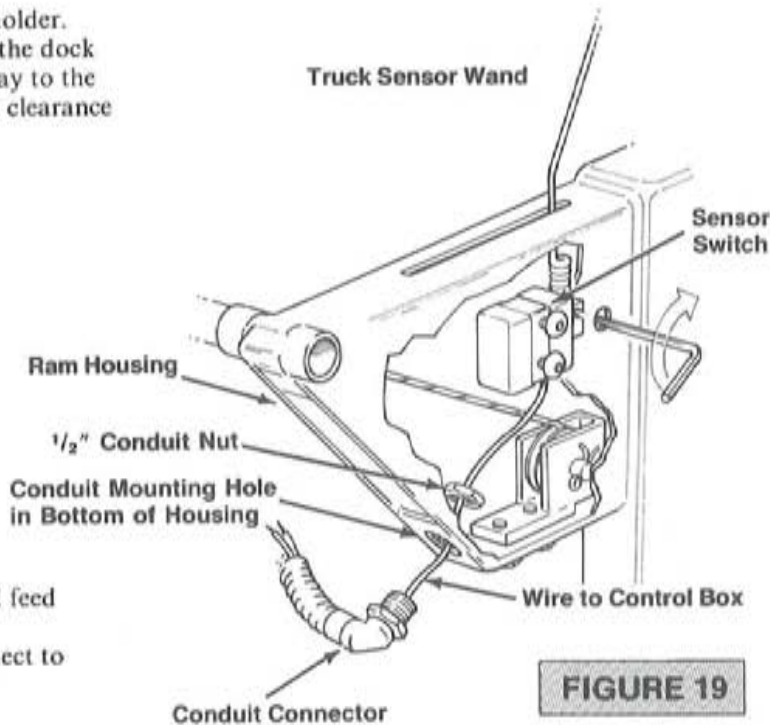
**STEP 22.** Install 1/8" thin wall conduit to shield mercury switch cable running to control box as shown in Figure 18.



**FIGURE 18**

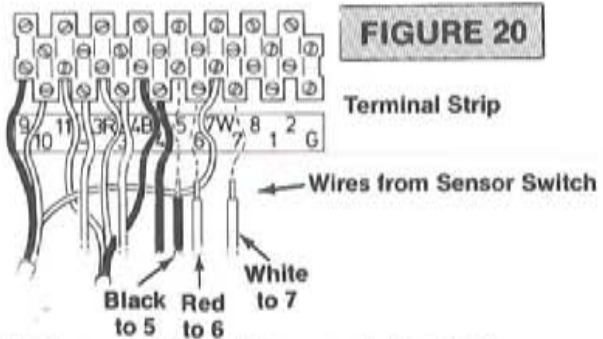
\*Supplied By Installer

**STEP 23.** Install truck sensor wand in wand holder. The bend in the wand should face away from the dock wall. Make sure the wand is inserted all the way to the bottom of the hole. Tighten set screw through clearance hole in the side of the housing.



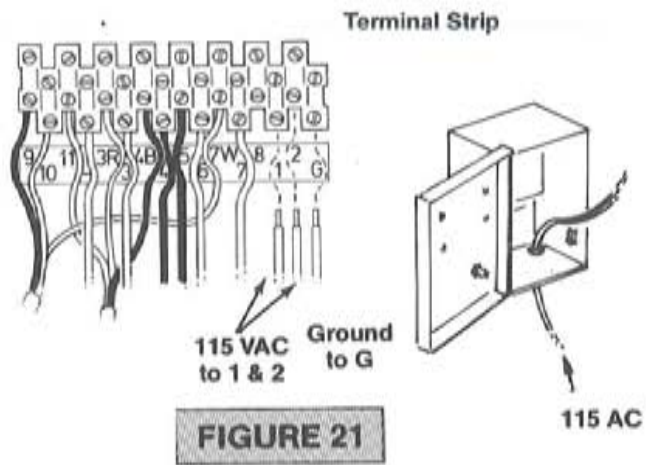
**FIGURE 19**

**STEP 24.** Uncoil wire from sensor switch and feed through conduit to control box and through grommeted hole. Cut wire to length and connect to terminal strip as shown in Figure 20.



**FIGURE 20**

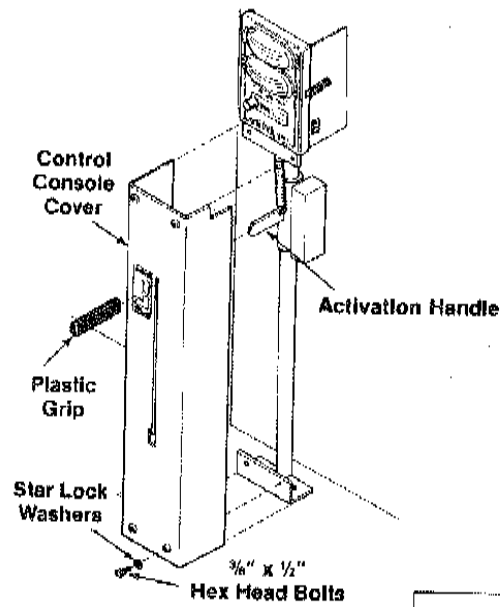
**STEP 25.** Connect 115 volt AC power to Terminal Strip. See Figure 21. This may be accomplished by a conduit connection to the hole provided in the control box or by attaching the optional drop cord and plugging into a wall receptacle.\*



**FIGURE 21**

**300X ONLY**

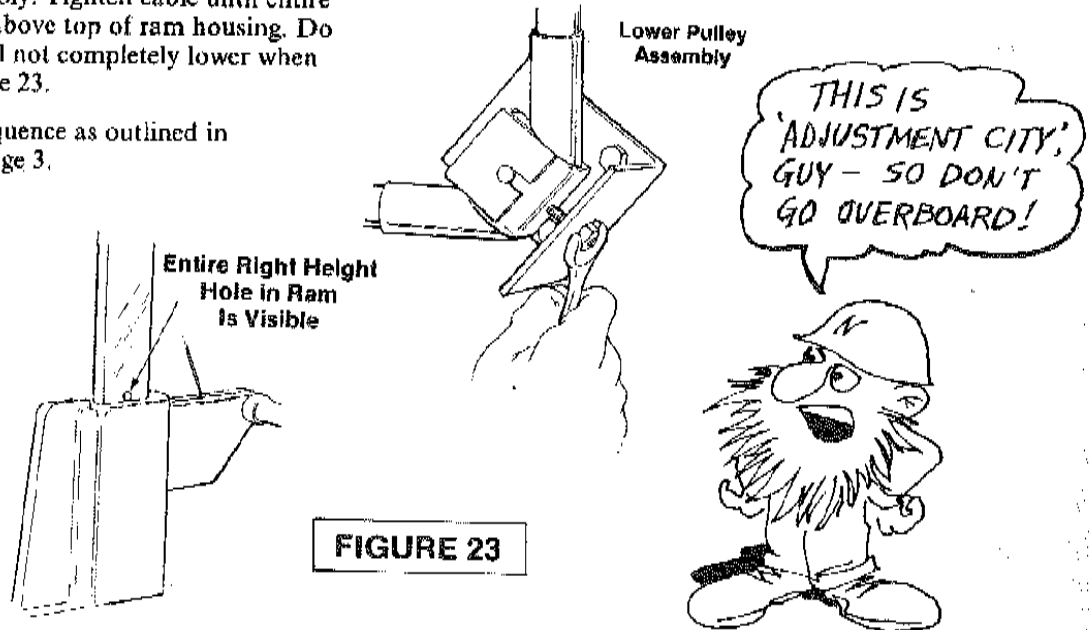
**STEP 26X.** Replace cover on control console and affix with four  $\frac{3}{8}$ " x  $\frac{1}{2}$ " bolts and star lock washers. Slide plastic grip onto activation handle. See Figure 22.



**FIGURE 22**

**STEP 27X.** Hook activation handle in bottom of slot. Remove bolt or screw driver holding ram in "UP" position (See Step 14). Adjust ram height by turning nut on lower pulley 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 28X.** Test entire sequence as outlined in Operating Instructions, Page 3.



**FIGURE 23**

**This completes the installation of a typical 300X System — turn to page 16 for important final checks.**

## FOR 300Z SERIES ONLY

**NOTE:** Air may be supplied from plant system or by small compressor. Air must be minimum of 80 pounds/square inch and maximum of 130 pounds/square inch. Air must be dry and clean. Air usage is approximately .015 cubic feet per operation. Duration of normal power stroke is about 2 seconds.

**STEP 29Z.** Run 1/4" polyethylene tubing capable of withstanding 150 psi above dock doors as in Figure 24. Plot the tees to align with the console(s).

**NOTE:** Header line is not furnished but can be obtained locally.

**STEP 30Z.** Run polyethylene tubing from header tee to control valve barb fitting. Cut polyethylene tubing to allow for cover removal.

**STEP 31Z.** Connect short tube from control valve to barb fitting on air cylinder. See Figure 25Z.

**STEP 32Z.** Turn air supply on.

**CAUTION:** Be sure to keep hands clear of air cylinder, pulley assembly and cable when retracting cylinder. Serious personal injury could result.

**STEP 33Z.** Replace control console cover and secure with four 3/8" x 1/2" bolts and star lock washers. Refer to Figure 22.

**STEP 34Z.** Move control valve lever to up (RAISE) position.

**STEP 35Z.** The unit is shipped with the needle valve 1/2 to 3/4 turn open.

**STEP 36Z.** Move control lever to down and lower ram.  
**NOTE:** Lowering speed is not adjustable and is controlled by internal orifice.

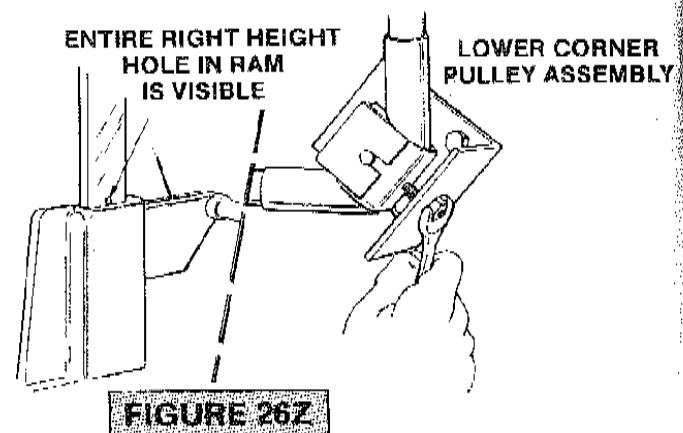
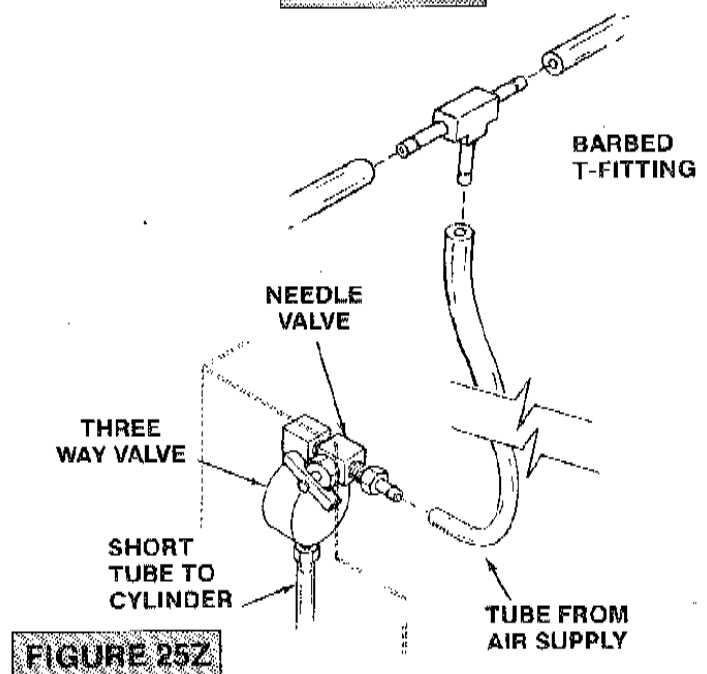
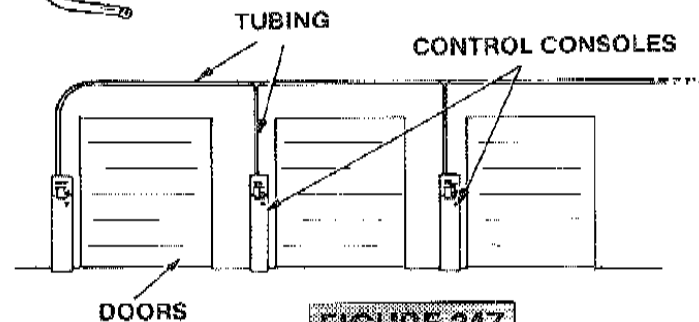
**STEP 37Z.** Cycle unit again. Turn adjusting knob on needle valve out to increase rise speed and in to decrease speed. Continue to cycle unit until desired speed is obtained.

**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.

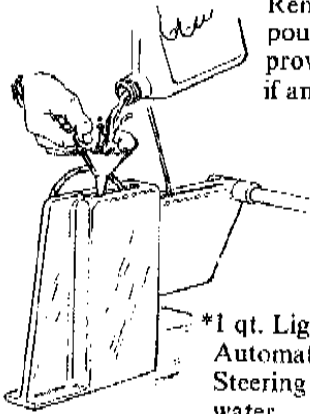
**CAUTION:** Adjusting needle valve so that ram rises too fast can cause unnecessary stress on the unit and may present a danger to personnel.

**STEP 38Z.** Move control lever to "RESTRAINED" position. Adjust ram height by turning nut on lower pulley 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 26Z.

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

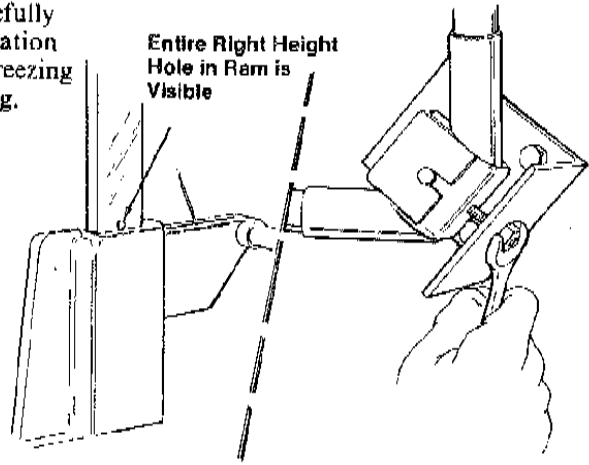


# IMPORTANT CHECKS!



Remove ram from housing and carefully pour in "Nova Juice"\*: this combination provides lubrication and prevents freezing if any water should enter the housing.

\*1 qt. Lightweight Hydraulic Oil, (Ex.- Automatic Transmission Fluid, Power Steering Fluid), 1 pt. Antifreeze, 1 cup water.



Entire Right Height Hole in Ram is Visible

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.



AN' THAT'S IT!  
NOW, LET'S SPRUCE UP THE  
WORK SITE FOR A REAL  
PROFESSIONAL TOUCH—AN'  
THEN I'M GONNA HAVE  
A BREW!

# GENERAL MAINTENANCE

## DAILY

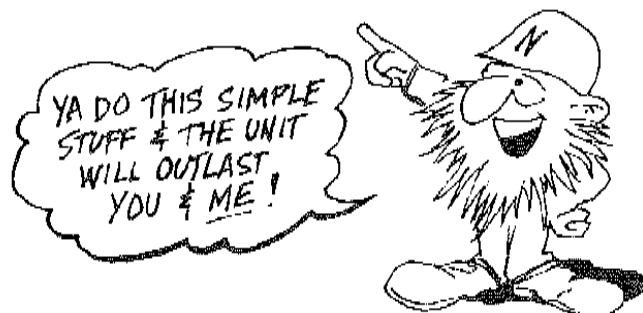
Operate the TRUCK LOCK to assure it is in proper working condition. Replace damaged or missing light bulbs and lenses.

## EVERY 90 DAYS - 300X

Apply oil to slide pole. This may be done by locking the unit in the restrained position and, using an oil can, applying oil to the slide pole through the slot in the cover.

## ANNUALLY - 300X & 300Z

Check liquid level in ram housing by removing ram and using a dip stick. There should be 9" of liquid in ram housing with ram removed. If required, add 4 parts oil, 2 parts anti-freeze and 1 part water. Refer to Step 10.



## ELECTRICAL TROUBLESHOOTING

**NOTE: IN CASE OF ELECTRICAL MALFUNCTION, REFER TO ELECTRICAL TROUBLE SHOOTING 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.**

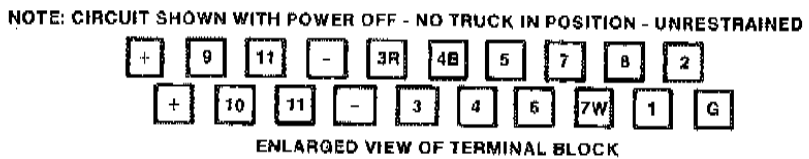
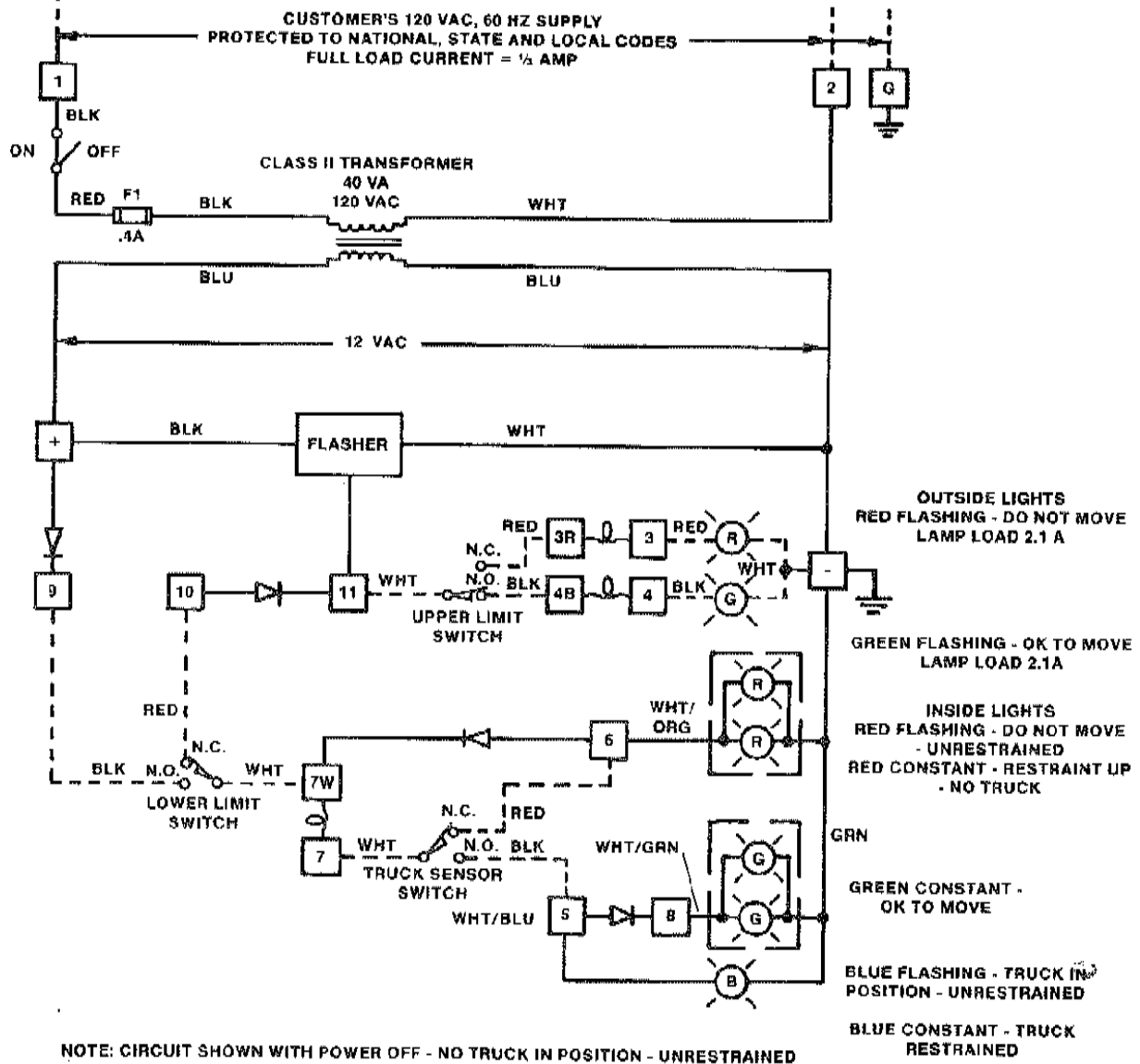
### LIGHT FUNCTIONS AND RELATED COMPONENTS

<u>LIGHT MALFUNCTION</u>	<u>RELATED COMPONENTS</u>	<u>LIGHT MALFUNCTION</u>	<u>RELATED COMPONENTS</u>
All	115V Power to unit, Fuse, Power Switch, Transformer, Upper and Lower Limit Switch	Inside Red (Constant)	Bulb, Lower Limit Switch, Sensor Limit Switch, Flasher Module
Outside Red	Bulb, Upper Limit Switch, Flasher Module	Inside Green	Bulb, Lower Limit Switch, Sensor Limit Switch, Flasher Module
Outside Green	Bulb, Upper Limit Switch, Flasher Module	Blue (Flashing)	Bulb, Lower Limit Switch, Sensor Limit Switch, Flasher Module
Both Outside Lights	Common Lead to Lights, Upper Limit Switch, Flasher Module	Blue (Constant)	Bulb, Lower Limit Switch, Sensor Limit Switch, Flasher Module
Inside Red (Flashing)	Bulb, Lower Limit Switch, Flasher Module	All Inside Lights	Common Lead to Lights (Cover), Lower Limit Switch, Flasher Module

### ELECTRICAL COMPONENT CHECK

<u>COMPONENT</u>	<u>CHECK</u>
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

### TRUCK LOCK™ ELECTRICAL SCHEMATIC — 300Z



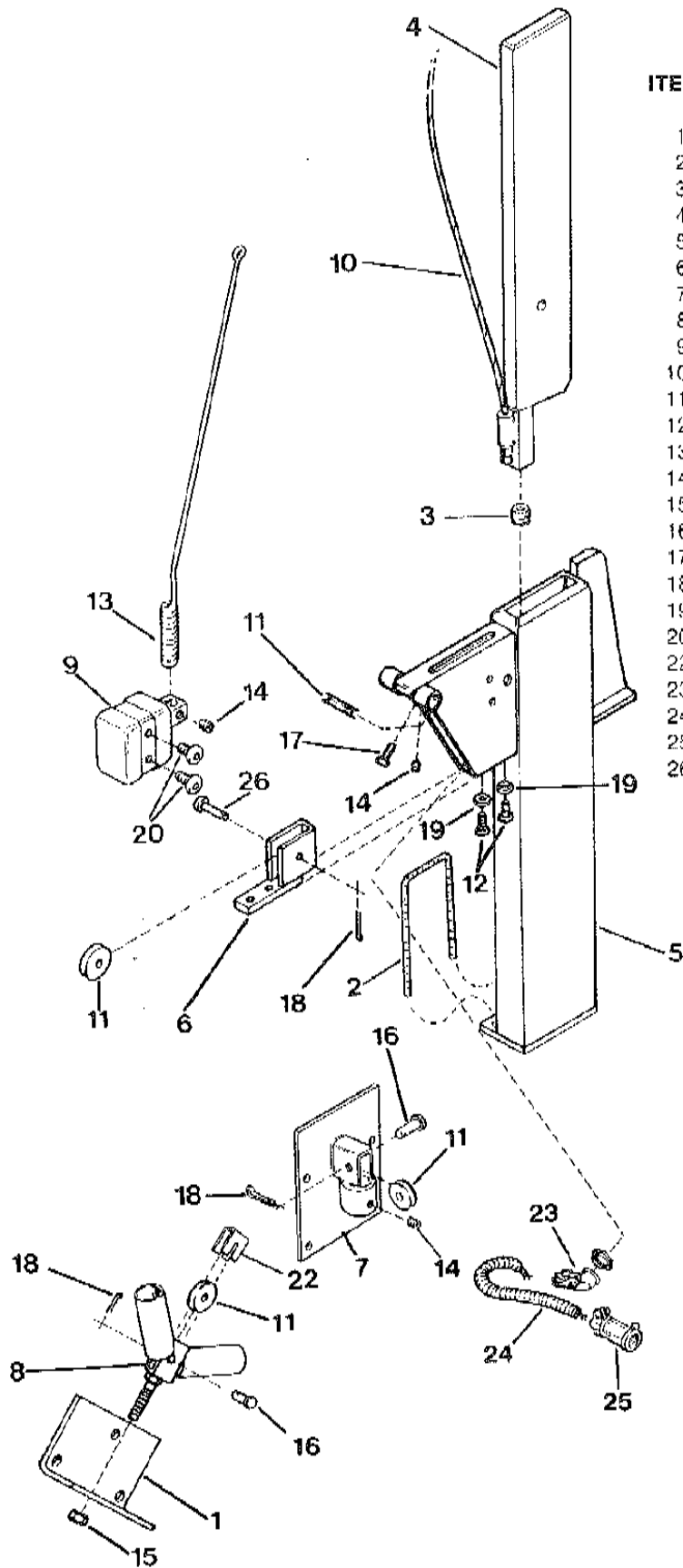
**ELECTRICAL**

#### 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. To accomplish this, connect an external relay

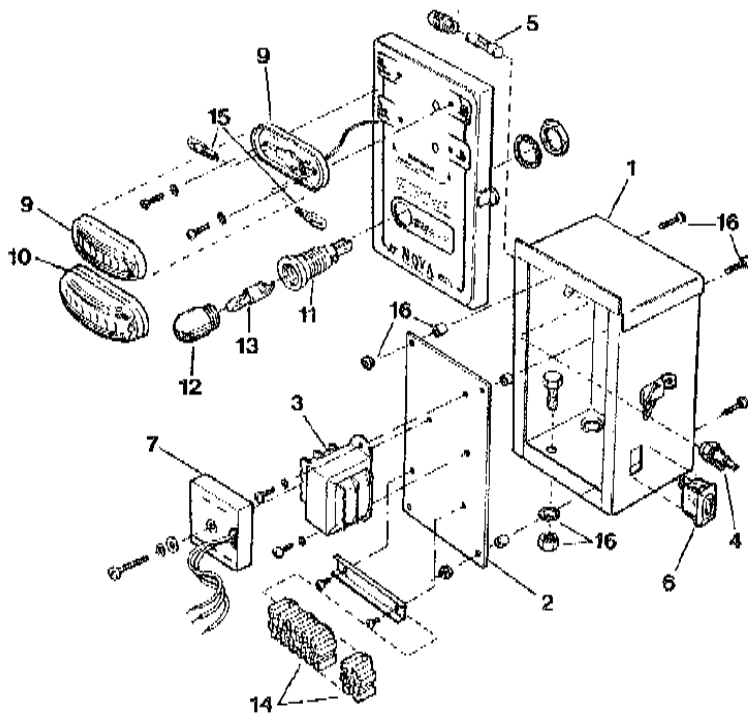
with a 6 volt AC coil to terminals "1" and "8". The current draw by this relay should not exceed 200 MA.

# RAM AND RAM HOUSING ASSEMBLY

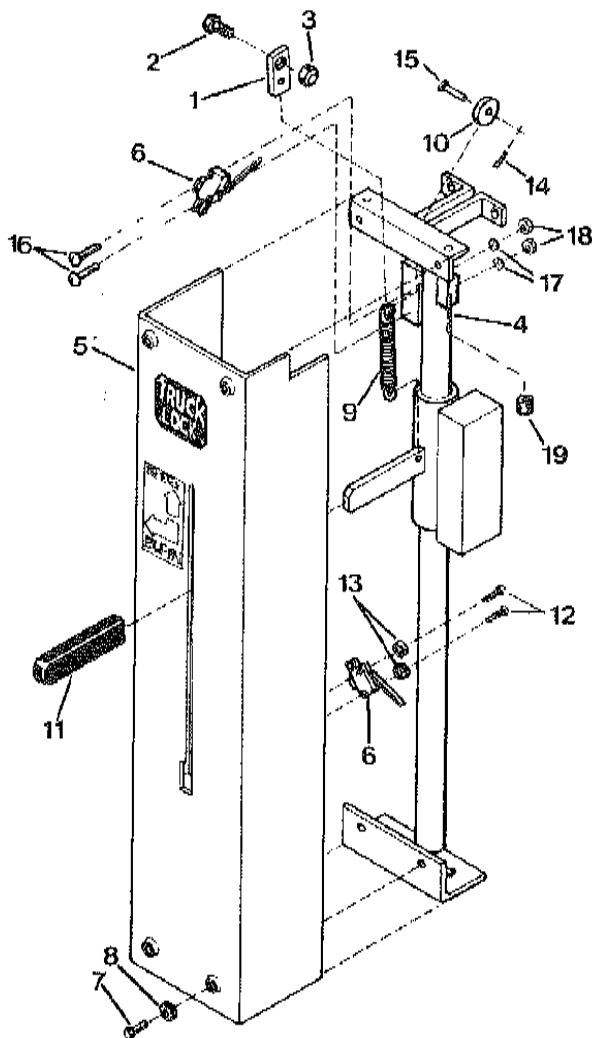


ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Lower Pulley Mount	31-1-012
2	1	Anchor Rod	31-1-024
3	1	Dampener	31-1-031
4	1	Ram Assombly	31-1-900
5	1	Ram Housing Assembly	31-1-901
6	1	Housing Pulley Mount Assembly	41-1-924
7	1	Upper Pulley Assembly	31-1-904
8	1	Lower Pulley Assembly	31-1-905
9	1	Sensor Switch Assembly	41-1-925
10	1	Cable, 25'	03-0-001
11	4	Pulley	03-0-002
12	2	Hex Hd Bolt, 3/8"-16 x 1" lg.	01-0-019
13	1	Sensor Spring	41-1-054
14	3	Socket Set Screw, 1/4"-20 x 1/4"	01-0-007
15	1	Hex Nut, 3/8"-16 Nylok	01-0-016
16	2	Clevis Pin	01-0-017
17	1	Clevis Pin, Dntl.	01-0-018
18	3	Cotter Pin, 1/16" x 3/2"	01-0-082
19	2	Star Lock Washer, 3/8"	01-0-002
20	2	Button Head Cap Screw	25-28-375
22	1	Pulley Cover	31-1-105
23	1	90° Connector, BX	31-0-100
24	1	24" of Flexible BX Cable	31-0-101
25	1	Adapter - BX to 1/2" Thinwall	31-0-102
26	1	Clevis Pin, Long	01-0-083

## 300X AND 300Z 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	AP-590-40
4	1 Fuse Holder	HKP-HH
5	1 Fuse	MDL 4/10
6	1 Switch, Rocker, ON-OFF	RA911-VB
7	1 Flasher Module	C100
9	1 Light, Red Lens	2-69265
10	1 Light, Green Lens	2-69270
11	1 Lamp Base	30099
12	1 Lens Cap, Blue	30213
13	1 Lamp	12PSB
14	4 Terminal Block	NT-4
15	4 Lamp	T-194
16	Miscellaneous Mounting Hardware, Wire, Cable Ties, Etc.	

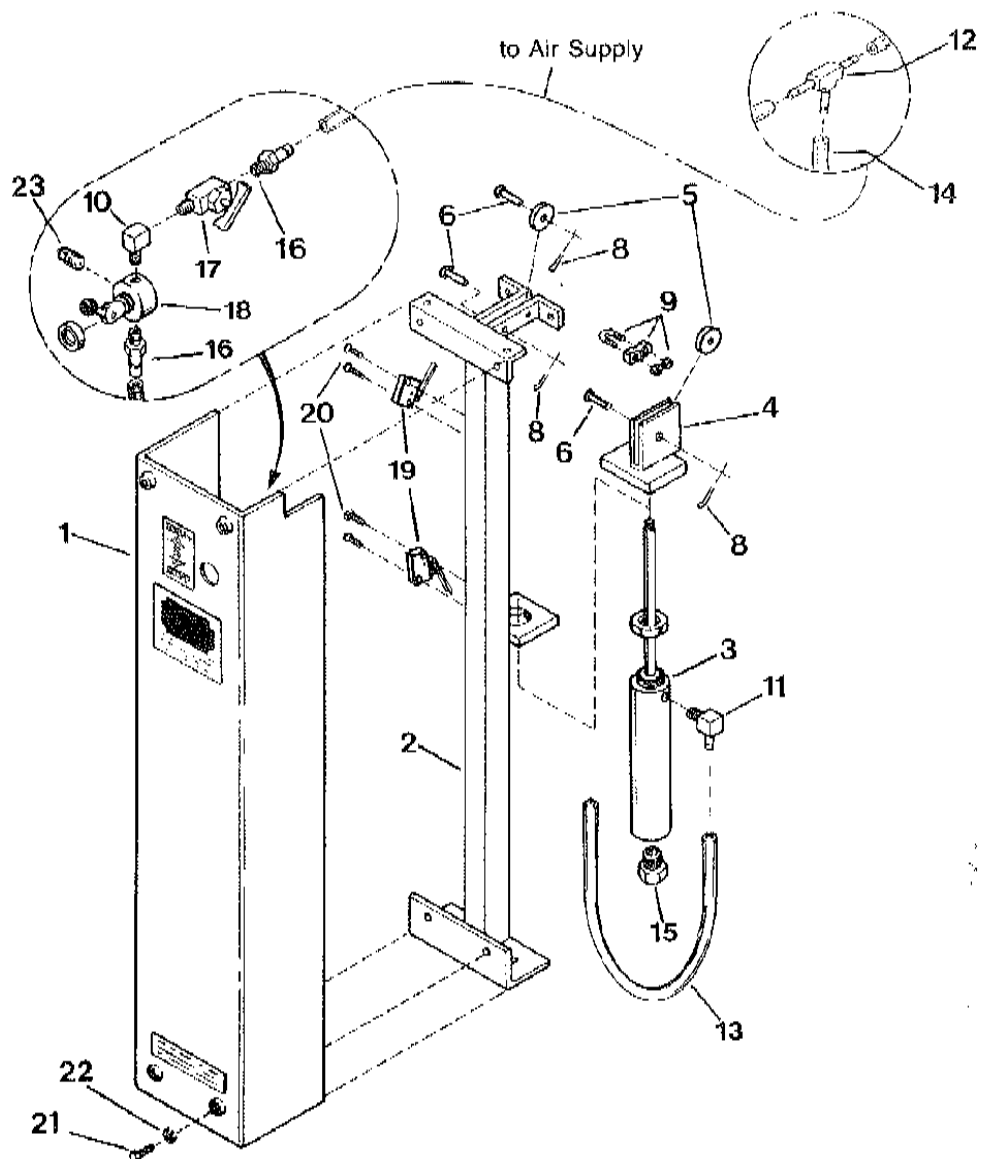


## 300X CONSOLE ASSEMBLY

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, 1/2" - 13	01-0-019
4	1 Slide Pole Assembly	31-1-907
5	1 Cover Assembly	31-1-908
6	2 Limit Switch	31-0-035
7	4 Hex Hd Bolt, 3/8" - 16 x 1/2"	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"	01-0-005
13	2 Star Lock Washer, #4	01-0-006
14	1 Cotter Pin, 1/16" x 3/4"	31-0-082
15	1 Clevis Pin	01-0-017
16	2 Round Hd Screw, #4-40 x 3/4"	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

# 300Z CONSOLE ASSEMBLY

ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Console Cover	31-1-305
2	1	Cylinder Poic Assembly	31-1-932
3	1	Air Cylinder	07-0-013
4	1	Cylinder Rod End Assembly	31-1-931
5	2	Pulley	03-0-002
6	3	Clevis Pin	01-0-017
8	3	Cotter Pin $\frac{1}{16}$ " x $\frac{3}{4}$ " Lg.	01-0-082
9	1	Cable Clamp	01-0-101
10	1	Street Elbow	07-0-001
11	1	90° Male Elbow $\frac{1}{4}$ " Tube x Barbed Fitting	07-0-016
12	1	T-Barbed Fitting	07-0-017
13	1	Plastic Tube 2' lg. x $\frac{1}{4}$ " O.D. x .040 Wall	07-0-007
14	1	Plastic Tube 25' lg. x $\frac{1}{4}$ " O.D. x .040 Wall	07-0-008
15	1	Breather Vent	07-0-022
16	2	Male Connector	01-0-684
17	1	Noodle Valve	07-0-011
18	1	3-Way Valve	07-0-012
19	2	Limit Switch	31-0-035
20	4	Round Head Screw, #4-40 x $\frac{1}{2}$ "	01-0-005
21	4	Hex Head Bolt $\frac{1}{4}$ " - 16 x $\frac{1}{2}$ "	01-0-001
22	4	Star Lock Washer, $\frac{1}{4}$ "	01-0-002
23	1	Valve Orifice	41-1-008



# OUTSIDE LIGHT ASSEMBLY

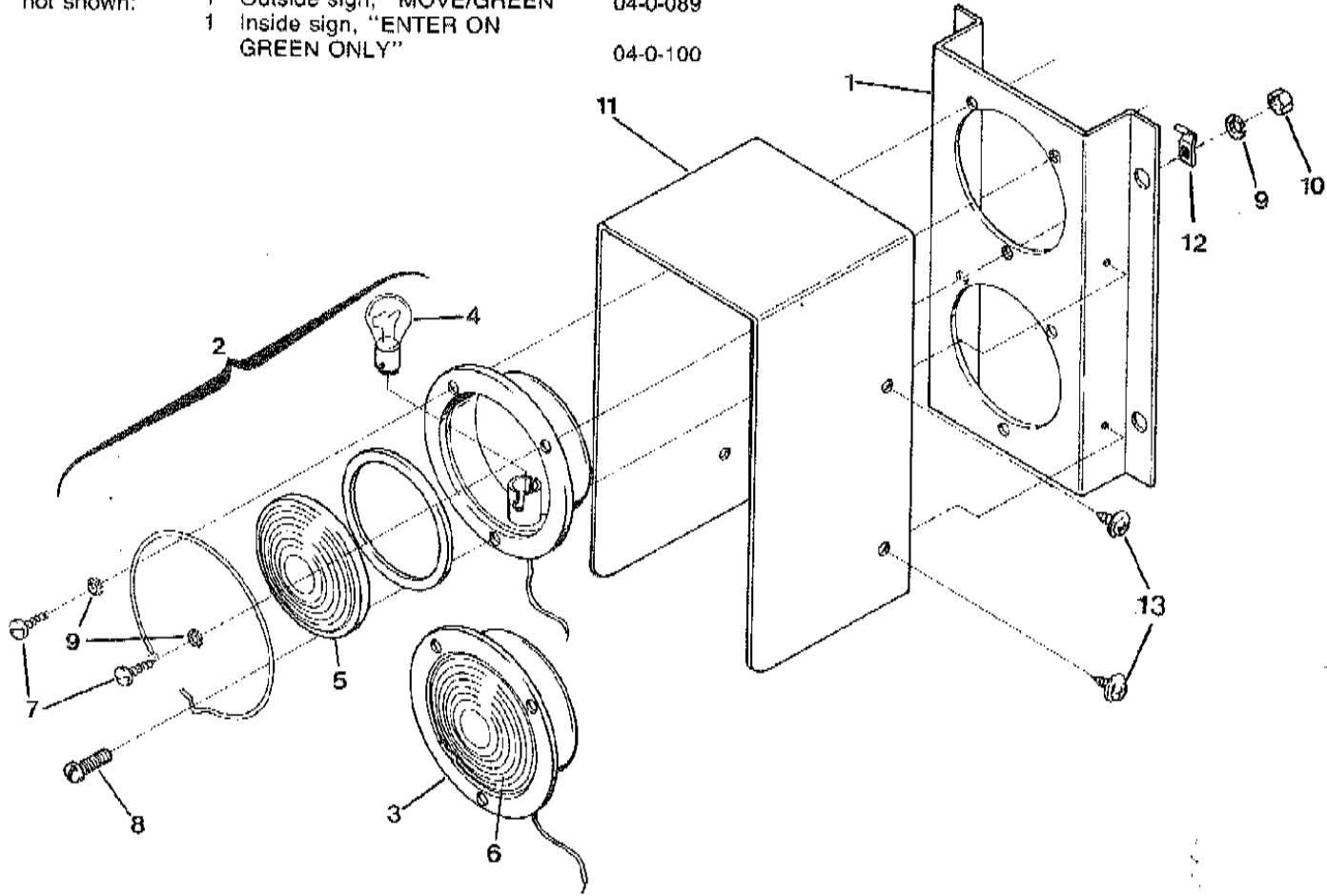
ITEM	REQ.	DESCRIPTION	PART NO.
1	1	Back Mounting Plate	31-1-023
2	1	Outside Light Assembly, Red	31-0-037
3	1	Outside Light Assembly, Green	31-0-038
4	2	Outside Light Bulb (1156)	31-0-080
5	1	Lens Only (Red)	31-0-321
6	1	Lens Only (Green)	31-0-322
7	5	Sheet Metal Screw #8 x 1/2"	01-0-004
8	1	Round Hd Screw, #8-32 x 3/8	01-0-008
9	6	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	4	Rnd Washer Hd Screw, #8 x 1/2"	01-0-085
Following items not shown:	1	Outside sign, "STOP/RED"	04-0-088
	1	Outside sign, "MOVE/GREEN"	04-0-089
	1	Inside sign, "ENTER ON GREEN ONLY"	04-0-100

Following items not shown:

1 Outside sign, "STOP/RED"

1 Outside sign, "MOVE/GREEN"

1 Inside sign, "ENTER ON GREEN ONLY"





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