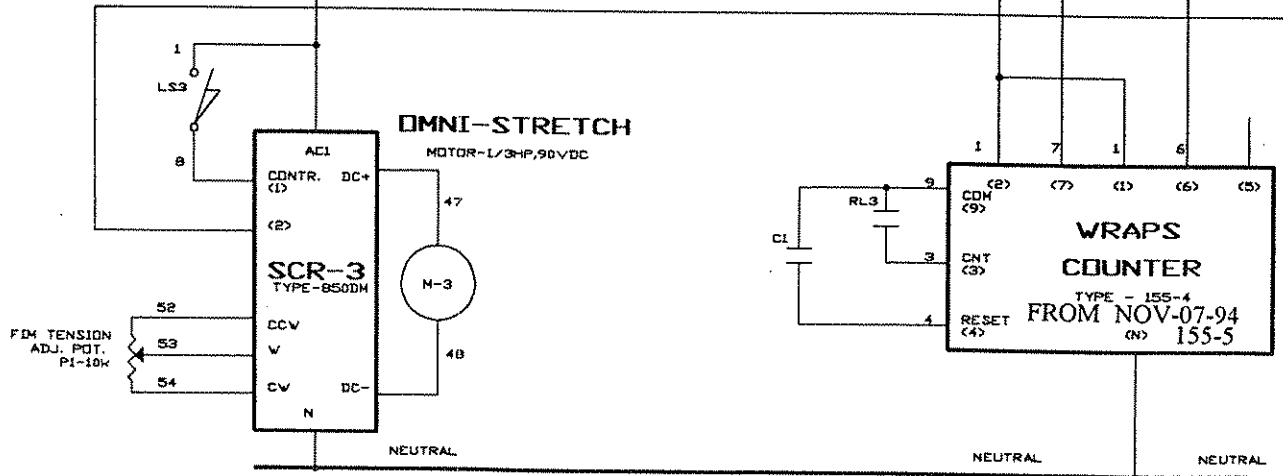


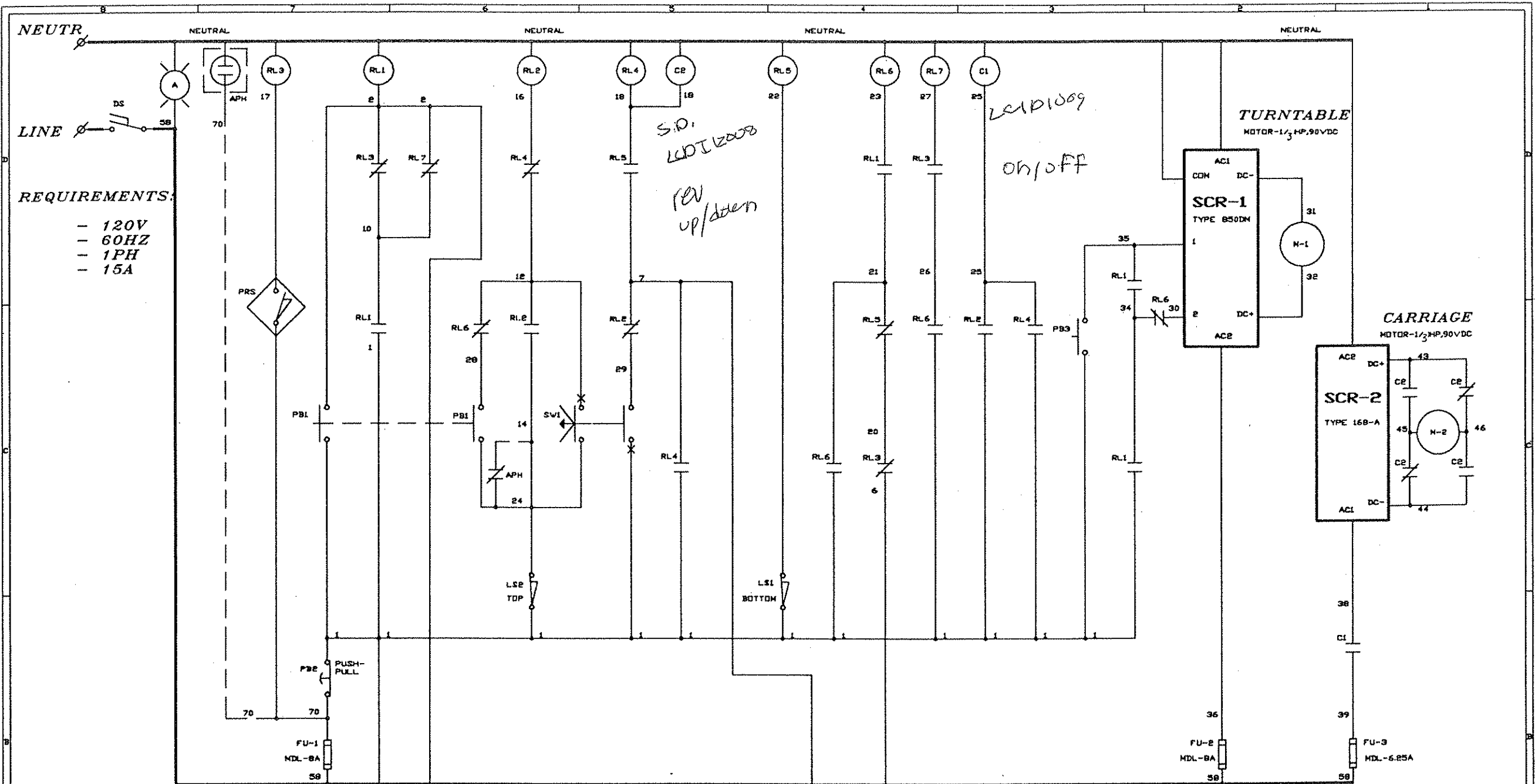
REQUIREMENTS:

- 120V
- 60HZ
- 1PH
- 15A

- LEGEND**
- DS - MAIN POWER SWITCH
 - SW1 - CARRIAGE UP/DOWN JGG
 - LS1 - CARRIAGE BOTTOM LIMIT SWITCH
 - LS2 - CARRIAGE TOP LIMIT SWITCH
 - LS3 - MOTOR ENABLE/DISABLE LIMIT SWITCH
 - PBI - START PB
 - PBE - E-STOP PB
 - PPS - TURNABLE JGG PB
 - PRS - TURNABLE ALIGNMENT PROXIMITY SWITCH
 - APH - CARRIAGE AUTOHEIGHT PH.
 - C1 - CARRIAGE DRIVER - POWER CONTACTOR
 - C2 - CARRIAGE REVERSE - CONTACTOR



| | | |
|---|--|-----------------------------|
| <p>4124915</p> <p>PACKAGING INC. MONTREAL</p> <p>PANEL SIZE - 16X12X06 STICKER # 500 021 RELAY BOARD TYPE-511</p> | <p>ORION PACKAGING INC.</p> <p>2270 INDUSTRIEL RD LAVAL QUE, CANADA H7S 1P9 TEL: (514) 667-9769 FAX: (514) 667-6320 DESIGN BY: J.B.S. DRAWN BY: SVIATEK</p> | |
| | <p>TITLE H&L77-9</p> | |
| <p>SIZE DOCUMENT NO. D</p> | <p>JOB # STANDARD 300 641</p> | <p>REV 1</p> |
| <p>DATE: JAN-03-1994</p> | <p>SHEET 1 OF 1</p> | <p>FILENAME: HL77-9.SCH</p> |

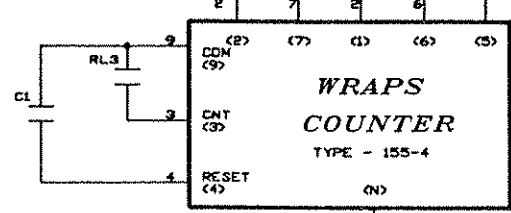
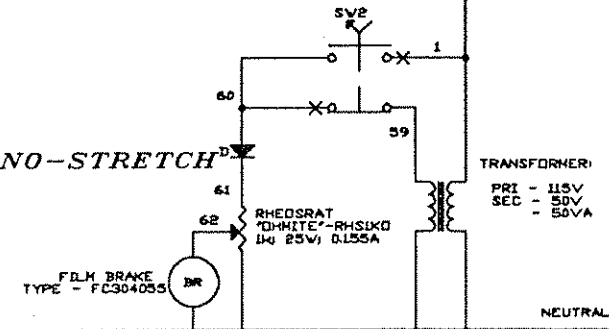


REQUIREMENTS:
 - 120V
 - 60HZ
 - 1PH
 - 15A

*S.D. LTD 12008
 REV up/down*

*241009
 on/off*

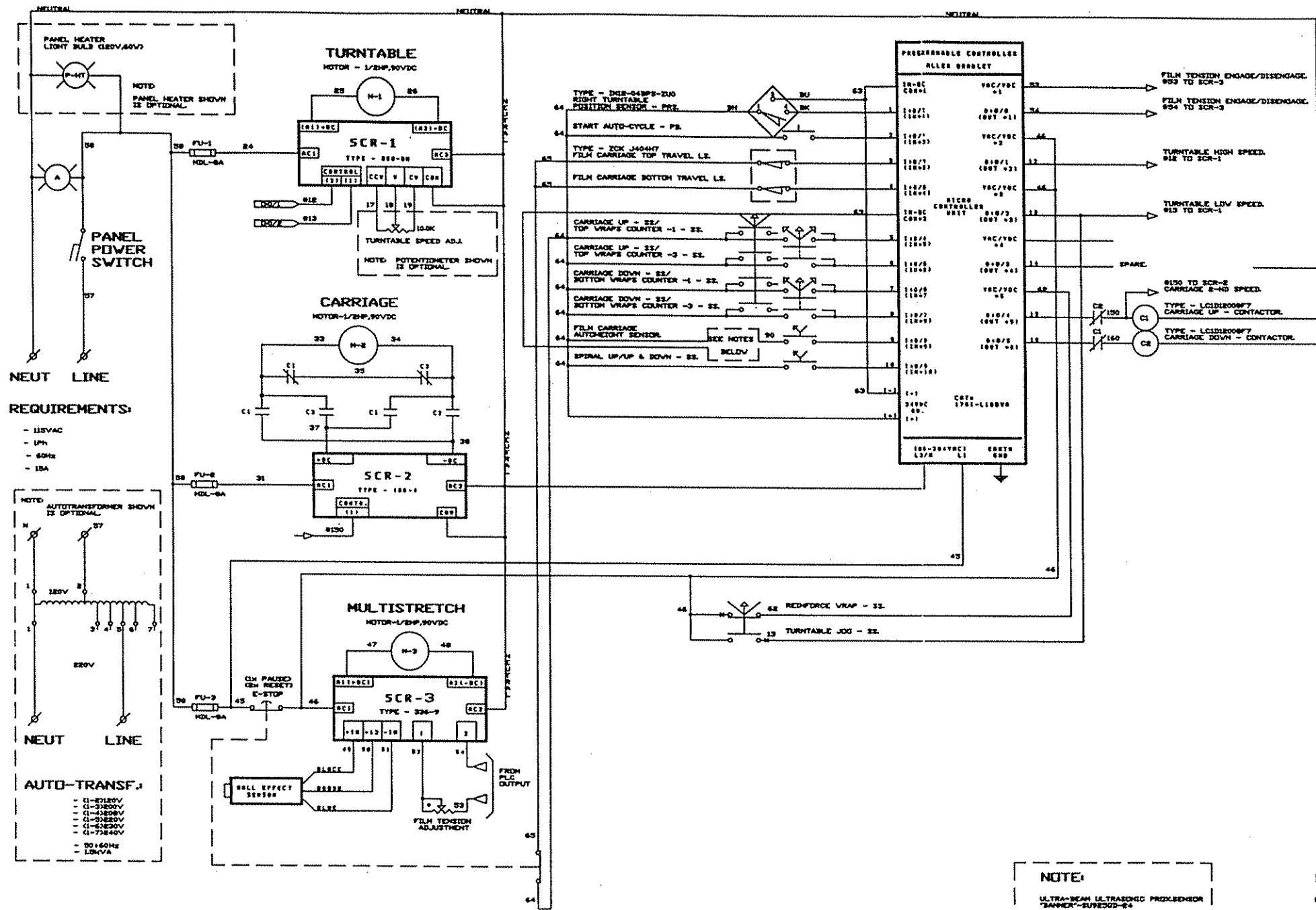
ECONO-STRETCH



- LEGEND**
- DS - MAIN POWER OFF/ON
 - SW1 - CARRIAGE DOWN/UP JOG - SS.
 - SW2 - FILM TENSION LOW/HIGH - SS.
 - LS1 - CARRIAGE BOTTOM LIMIT SWITCH
 - LS2 - CARRIAGE TOP LIMIT SWITCH
 - PBI - START PB
 - PBE - EMERGENCY STOP PB
 - PBS - TURNTABLE JOG PB
 - PRS - TURNTABLE ALIGNMENT PROXIMITY SWITCH
 - APH - CARRIAGE AUTOHEIGHT PH. (OPTIONAL)
 - C1 - CARRIAGE DRIVER POWER CONTACTOR
 - C2 - CARRIAGE REVERSE CONTACTOR

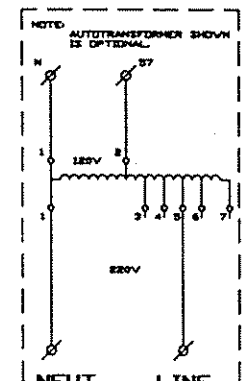
REV: JAN-20-1995

| | | | |
|---|--|---|--|
| 5025028 | | ORION PACKAGING INC. | |
| | | 2870 INDUSTRIEL RD LAVAL, QUEBEC, CANADA H7S 1P9 TEL: (514) 667-9769 FAX: (514) 667-6380 DESIGN BY: J.B.S. DRAWN BY: S.WIATEK | |
| RELAY BOARD TYPE-S11 PANEL SIZE: 16X18X06 STICKER # 500 DB1 | | TITLE H&L78-9 | |
| DATE: APR-08-1994 | | SHEET 1 OF 1 | |
| JOB # STANDARD 300 642/A 3 | | REV 3 | |

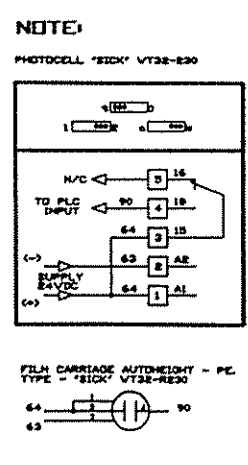
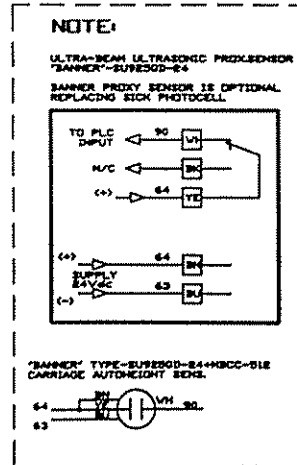


REQUIREMENTS:

- 115VAC
- 1PH
- 60Hz
- 15A

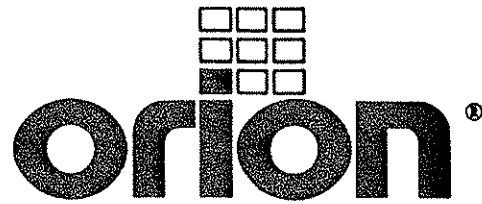


- AUTO-TRANSF.**
- C1-2125V
 - C1-31200V
 - C1-31200V
 - C1-31200V
 - C1-31200V
 - C1-31200V
 - 50/60Hz
 - 15kVA



- L FUSES FU-2 AND FU-3
- NDL-8A (20" CARRIAGE)
- NDA-10A (30" CARRIAGE OR HEAVY FILM GAUGE UPGRADE)
- E BOARD SCR-3
- 334-9 (20" CARRIAGE)
- 334-7 (30" CARRIAGE OR HEAVY FILM GAUGE UPGRADE)

| | | | |
|---|--|---------|--------|
| <p>ORION PACKAGING INC. 2270 INDUSTRIAL BOUL. LAMAL QUEBEC, CANADA, H7B 1P9 TEL: (468) 867-9798 FAX: (468) 867-9798 TELEX: 501 683-5</p> | <p>ORION PACKAGING INC.</p> <p>2270 INDUSTRIAL BOUL. LAMAL, QUEBEC, CANADA, H7B 1P9 TEL: (468) 867-9798 FAX: (468) 867-9798 TELEX: 501 683-5</p> | | SCALE |
| | <p>(HL66;HL55)-17</p> | | NTS |
| SIZE | DOC/ORDR NO. | 302 435 | REV |
| D | 408 / STANDARD | | 2 |
| PANEL SIZE 8418 (E8418)8424 (E8424)8430 (E8430)8436 (E8436)8442 (E8442)8448 (E8448)8454 (E8454)8460 (E8460)8466 (E8466)8472 (E8472)8478 (E8478)8484 (E8484)8490 (E8490)8496 (E8496)8502 (E8502)8508 (E8508)8514 (E8514)8520 (E8520)8526 (E8526)8532 (E8532)8538 (E8538)8544 (E8544)8550 (E8550)8556 (E8556)8562 (E8562)8568 (E8568)8574 (E8574)8580 (E8580)8586 (E8586)8592 (E8592)8598 (E8598)8604 (E8604)8610 (E8610)8616 (E8616)8622 (E8622)8628 (E8628)8634 (E8634)8640 (E8640)8646 (E8646)8652 (E8652)8658 (E8658)8664 (E8664)8670 (E8670)8676 (E8676)8682 (E8682)8688 (E8688)8694 (E8694)8700 (E8700)8706 (E8706)8712 (E8712)8718 (E8718)8724 (E8724)8730 (E8730)8736 (E8736)8742 (E8742)8748 (E8748)8754 (E8754)8760 (E8760)8766 (E8766)8772 (E8772)8778 (E8778)8784 (E8784)8790 (E8790)8796 (E8796)8802 (E8802)8808 (E8808)8814 (E8814)8820 (E8820)8826 (E8826)8832 (E8832)8838 (E8838)8844 (E8844)8850 (E8850)8856 (E8856)8862 (E8862)8868 (E8868)8874 (E8874)8880 (E8880)8886 (E8886)8892 (E8892)8898 (E8898)8904 (E8904)8910 (E8910)8916 (E8916)8922 (E8922)8928 (E8928)8934 (E8934)8940 (E8940)8946 (E8946)8952 (E8952)8958 (E8958)8964 (E8964)8970 (E8970)8976 (E8976)8982 (E8982)8988 (E8988)8994 (E8994)8999 (E8999) | DATE | SHEET | |
| DATE: F28-20-2002 | | | 1 OF 1 |
| STICKER 000 078 (ENGLISH) STICKER 000 049 (FRENCH) | REVISIONS | 302 435 | REV |
| | | | |



INSTRUCTION MANUAL

FOR ALL INQUIRIES
PLEASE CONTACT
OUR LOCAL DISTRIBUTOR

FOR U.S. (ONLY)
1-800-333-6556

Thank you for choosing ORION stretch-wrapping equipment. It is a wise choice which will benefit your company now and in the future.

ORION uses a unique combination of functional, rugged steel structure and sophisticated control systems to offer equipment high in durability and low in maintenance requirements. Our advanced control systems mean that ORION equipment can be operated safely and efficiently without the need for special operator expertise.

Please read this manual carefully and keep it handy. Following these simple operating instructions will insure the safe and efficient performance of this machine while simple maintenance procedures will guarantee a long and productive life of the equipment.

NOTICE:

Our manual covers standard features of the machine. Certain options may not be fully covered due to their unique application.

In order to acquire more information about custom made features of your machine and to provide quicker service, the following information is required when making an inquiry:

- 1) **MODEL**
- 2) **SERIAL NUMBER**
- 3) **SUBASSEMBLY (see PART LIST)**

SAFETY:

ORION'S stretch wrappers should be operated with caution and common sense as any other industrial equipment. To prevent injury and / or electrical shock, careful operation of the machine and awareness of its many automatic functions is required.

Note: All electrical power and compressed air must be disconnected prior to performing any inspection, maintenance or repair work.

ORION PACKAGING INC.

ORION MODEL H-77

Spiral Semi-Automatic Medium Duty High Profile

| | |
|-----------------------------------|---|
| Maximum Load Size: | 54"W x 54"L x 82"H (Recommended) 68"W x 68"L x 85"H (Theoretical)* |
| Weight Capacity: | 3,000 lbs. Dynamic, 6,000 lbs. Static |
| Utilities: | 115/1/60 15 Amp Service |
| Turntable: | 48" x 48" Octagonal Formed Steel 5/16" Plate 3 Point Friction Drive Floating Caster Design 10 13/16" Height Floor to Top of Turntable |
| Turntable Drive: | 0-10 RPM Variable Turntable Speed 1/3 HP DC Drive Motor Friction Drive Wheel |
| Control Features: | Electronic Film Force Control Separate Top and Bottom Wrap Selectors Variable Speed Film Carriage Control Auto-Height Photocell Film Carriage Raise/Lower Switch Turntable Jog Pushbutton Power On/Off Switch Current Overload Protection NEMA 1 Electrical Enclosure |
| Film Delivery: | 20" Orion Omni-Stretch Film Carriage Electronic Film Tension Control End of Cycle Film Force Release Limited Authority Film Dancer Bar #40 Chain/Sprocket Ratio Control 1/3 HP DC/SCR Film Drive 150% Fixed Pre-Stretch Ratio |
| Film Carriage Drive: | #50 Roller Chain Carriage Lift 1/3HP Elevator Drive Motor Variable Speed SCR Control Structural "H" Beam Guidance UHMW** Carriage Guidance System |
| Structural Features: | Forklift Portable Base Design All Structural Steel Construction Film Roping Bar 6" x 12 lb./ft. "H" Beam |
| Estimated Shipping Weight: | 1,100 lbs. |

*THEORETICAL IS BASED UPON REMOVAL OF THE ROPING BAR, AND REFLECTS MAXIMUM FILM WEB HEIGHT ATTAINABLE.
**ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE

MACHINE UNLOADING INSPECTION & INSTALLATION

UNLOADING

Machine can be easily unloaded and transported by a forklift with a minimum capacity of 2500 lbs.

1. Carefully insert the forks into the lifting tubes to the maximum possible depth. Depending on the model, a forklift access may be either at the turntable end of the machine frame, the tower end or both. In case of the mongoose machine or the conveyor, enter the forks under the frame.
2. Lift the machine (or other part of system) only to the necessary height to move it with no bouncing or friction on the floor.
 - 2a. On the mongoose machines use the brackets welded on the top part of the machine.
3. Sit the machine down assuring uniform contact with the floor which is necessary to ensure correct and smooth operation.
 - 3a. Mongoose type machines (M66, M67) have to be attached on the bracket or on the stand (collapsible or anchored to the floor). The M55 has its own supporting frame which allows the machine to stand independently.

INSPECTION

1. Remove all packing and supporting additions - these may include the blocks under the carriage and the restraining bar over the table.

NOTE: when removing the stretchwrap film covering the machine, care must be taken not to cut any of the electrical wires and rubber covering on the multistretch rollers.

2. Perform a visual inspection of the electrical and mechanical parts for loosened joints and / or broken connections. Any suspected shipping damage must be reported immediately to the freight carrier.

Items that are vulnerable to damage and must be inspected are as follows:

- motors and transmissions
- junction boxes
- electrical conduits
- proximity and limit switches
- photocells

3. Check under the turntable (H - series models only) to ensure that there is no crippling of the movable parts i.e. casters, center axle or drive assembly.

4. Verify the following:

- turntable or rotary arm drive system to confirm that the reducer to drive the chain is snug and properly aligned
- verify the wires tight conduits for crushed sections or loose fittings
- verify the carriage to be sure that it is correctly aligned with the tower and verify the tension on the lift chain
- verify all the dials and knobs on the control panel for smooth action.

MACHINE INSTALLATION

After the visual inspection has been completed the electrical power and the compressed air may be connected as specified on the diagrams supplied with the machine.

An electrical diagram is provided with each machine in the envelope attached to the panel box.

ASSEMBLY PROCEDURE

The structural frames of the machine have to be installed on a levelled floor. Locate the main wrapper section into its final position, keeping the tower assembly* away from any traffic.

The wrapper mainframe section must be bolted to the floor by the 1/2" concrete floor anchors (leg & shield or expandable type).

Conveyor sections (where applicable) have to be positioned, levelled** and bolted to the floor. Any wiring which has been disconnected to facilitate transport is marked with a number located on the junction box to which the wiring must be reconnected. It allows identification of the proper position of the infeed and outfeed conveyor sections. Any wire run that appears too short or long may indicate that the position of the mechanical components is incorrect. Verify the status of all assemblies before proceeding.

CAUTION: improper placement and alignment of the conveyor section(s) and/or electric photocells may lead to equipment malfunction and damage.

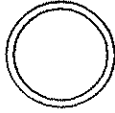
* The tower deviation from vertical must not exceed 1/4" on the distance of 10 feet (angle: 0 degrees 6').

** In the case of the conveyors, the roller deviation from the horizontal must not exceed 1/16 "on the distance 52" (angle: 0 degrees 4').

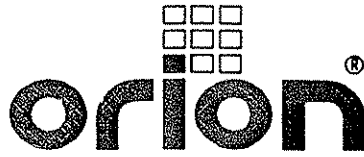
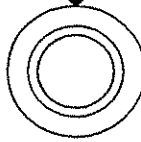
CONTROL PANEL

In the case of the free standing panel (console) place it adjacent to the system and anchor firmly to the floor. Connect the liquid tide (rigid conduit) to the main junction box located on the wrapper main frame next to the tower (or tower home position in case of mongoose). The wires must be matched properly on both sides.

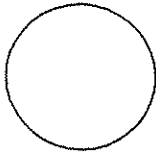
START



FILM TENSION



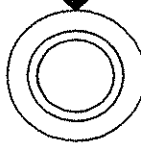
STOP



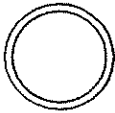
SPIRAL UP **UP/DOWN**



TOP WRAPS



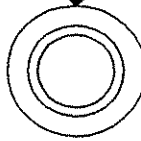
TURNTABLE JOG



PHOTOCELL OFF **ON**



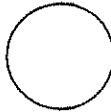
BOTTOM WRAPS



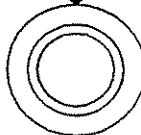
CARRIAGE LOWER **RAISE**



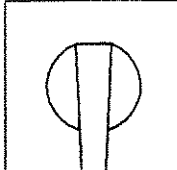
POWER



CARRIAGE SPEED



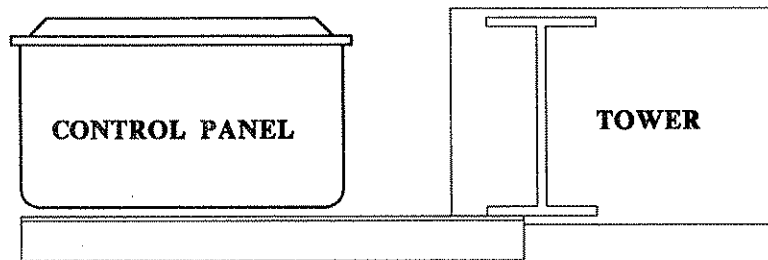
POWER SWITCH



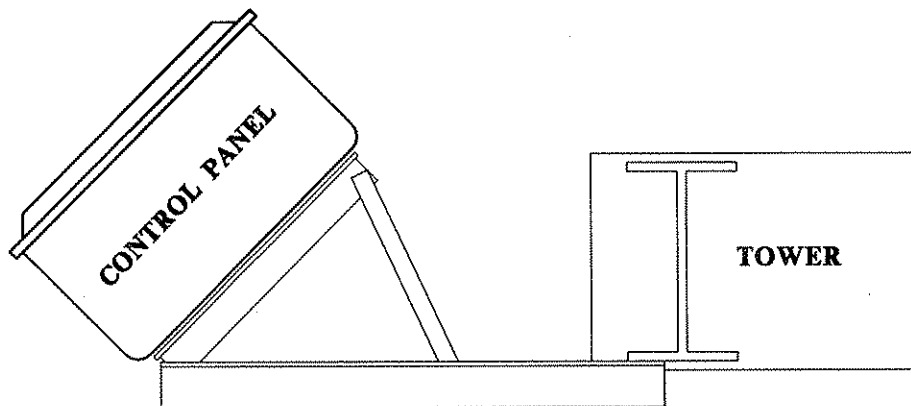
WARNING!
DANGEROUS OR FATAL ELECTRIC SHOCKS MAY RESULT IF POWER TO THE MACHINE IS NOT DISCONNECTED BEFORE OPENING THE PANEL.
DISCONNECT POWER TO THE MACHINE BEFORE OPENING PANEL.

PN-500014

In order to facilitate access and manipulation, the control panel can be mounted in two positions:



1. On the angle brackets aligned to the tower.



2. With the position bar (installed between upper angles), control panel can be rotated forward/to the side. (additional screw is attached to the tower's foot)

CONTROL PANEL MOUNT TWO POSITIONS

CYCLE CONTROLS

The control panel layout is custom designed for each particular installation, however, common standard controls have been employed.

CAUTION: before proceeding be familiar with the EMERGENCY button and all functions, switches and pushbuttons.

POWER SWITCH

The Power Switch has two settings:

ON - connects a power source to the machine (voltage depends on the machine type - see electrical diagram provided with the machine).

OFF - disconnects the power source.

START AND STOP SWITCHES (EMERGENCY STOP)

The START switch is used to start the cycle once the load is on the turntable (or under the rotary arm). The cycle may be stopped at anytime by pressing the STOP button.

NOTICE: In case of emergency, use the STOP button which interrupts all the machine electrical circuits (except multistretch drive). If the STOP pushbutton is pressed in the middle of the cycle, the carriage and turntable may be returned to their home position by using the jog buttons before restarting the cycle.

SPIRAL WRAP SWITCH

The SPIRAL WRAP switch has two positions:

UP - in this position the cycle will end after completing the specified number of top wraps, therefore, the machine will only wrap the load once, going up.

UP/DOWN - in this position the cycle will be completed after the load is wrapped in both the up and down directions.

NOTE: TOP WRAP FIRST (OPTIONAL)

The carriage raises faster at the beginning of the cycle to wrap the top of the load (see electrical diagram provided with the machine).

CARRIAGE CONTROL SWITCH

The CARRIAGE CONTROL switch is a three position switch with the following settings:

RAISE - raises the carriage until the top limit switch on the tower is activated.

LOWER - lowers the carriage until the bottom limit switch on the tower is attained.

The switch is normally positioned in the middle where the carriage remains stationary. Turning the switch to the RAISE or LOWER will activate the carriage to move in its respective direction.

TURNTABLE (ROTARY TOWER) JOG

The turntable (rotary tower) jog switch is a pushbutton which will rotate the turntable (rotary arm) in a clockwise direction (as viewed from the top) when the switch is held depressed. When the switch is released the turntable (rotary tower) will stop. The switch is inoperative during the wrap cycle.

PHOTOCELL SWITCH

The photocell switch has two settings:

ON - when turned ON, the photocell instructs the carriage to stop and begin the top wraps sequence once the top of the load is reached. The carriage will always stop at the top of the load regardless of its height. The photoswitch position on the track can be adjusted in order to make the carriage pass the top of the load and overlap the top.

OFF - when turned OFF, the photocell is inoperative and the carriage will stop when the top limit switch has been activated.

FILM TENSION

Film tension may be adjusted using the film tension control knob. It has a range of tension from 0 to 10 (0 to 4 the low range, 4 to 8 the most usefull range for most of the films used by our customers, 8 to 10 as a very high range which may break some films).

NOTE: Lighter loads may require lower tension settings then heavier loads.

Film tension is controlled through the dancer bar system. Occasionally the feed back proximity sensor may need some adjustment. Adjustment of feed back is shown on drawing # 001

Adjustment instructions:

- remove the carriage cover
- unbolt the two nuts holding the proximity switch -item # 1
- turn the proximity switch - item # 2 until the moment when the motor starts to turn (or hums)
- tighten on the nuts securing the proximity switch.

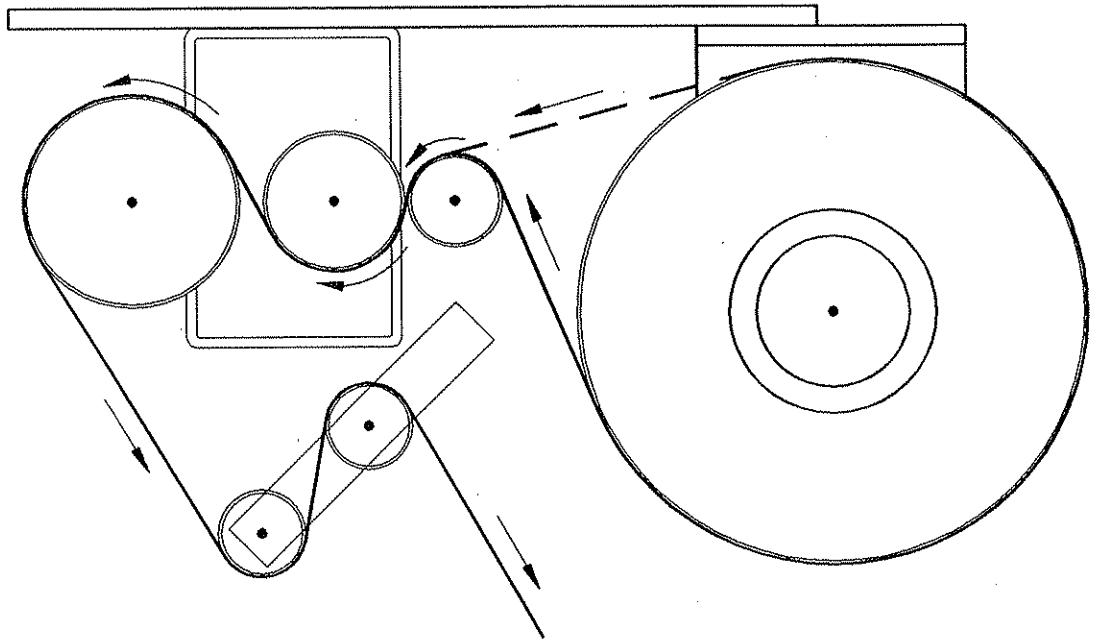
NOTE: The condition in which the motor hums but does not turn must be maintained even after all elements are tightened. If not, the adjustment procedure must be repeated.

TO LOAD THE FILM....

The film roll can be loaded on the mandrel of the carriage from either end of the roll. When using tacky film, please verify that the inward tacky surface of the film is inward on the load.

1. Disconnect power (turn off power switch).
2. Put the roll of film on the mandrel and press down to insure penetration of spikes into the card board center of the film roll.
3. In the case of automatic machines, install the film cap on top of the roll to prevent upward movement.
4. Introduce the roping end of the film between the shafts of all rollers (as shown on the dwg.) and pull to pass it around all three rollers (pressure roller and both rubber rollers).
5. Pass the film between the two dancer (aluminium) rollers (in certain applications the film has to be passed around one or two additional position aluminium rollers).
6. When the film feeding is completed - turn the power switch ON
7. Peel off the first few winds of the film (multistretch will run due to displacement of the dancer roller) and fix the film end onto the load or into the clamp mechanism (if machine is fully automatic).

The system is now ready to begin the first wrapping cycle.
Proceed to page titled SYSTEM START UP.



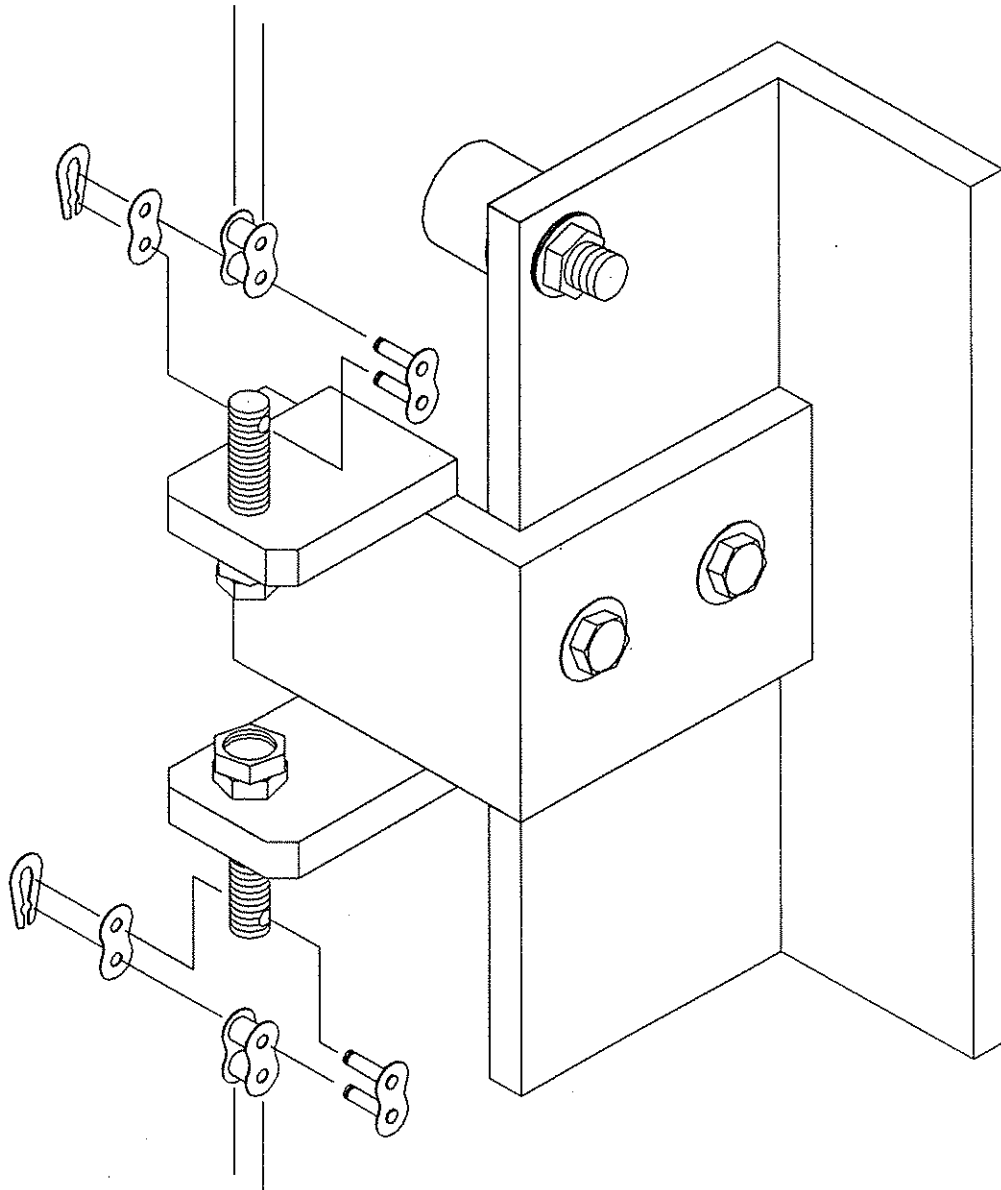
WARNING:

DISCONNECT POWER BEFORE FEEDING FILM

**FILM FEEDING PATTERN
FOR STANDARD CARRIAGE**

ATTENTION:

**WHEN MOUNTING THE CARRIAGE LIFT CHAIN,
PLEASE ENSURE, THAT THE CONNECTING
LINK'S PIN IS INSERTED FROM THE TOWER SIDE**



CHAIN TENSIONER ASSEMBLY

SYSTEM START-UP

Notice: It is advisable to test-run the equipment with several pallet loads before make the attempt to wrap with film. Please position a worker at the EMERGENCY STOP push button.

Start up of the machine (system) may determine the need for the adjustment of:

- pallet sensor eyes (automatic systems only)
- load height stop photoswitch (on the carriage)
- conveyor acceleration/deceleration
- turntable speed & jog speed
- turntable speed acceleration/deceleration
- turntable home position (rotary tower home position)
- film tail treatment devices (automatic systems).

MACHINE WRAPPING TEST

Before the test procedure adjust the wrapping cycle parameters i.e. top wraps, bottom wraps, height photocell on/off, film tension, carriage speed (those two parameters may be adjusted during the wrapping cycle).

When there is no photocell, verify the top limit switch position.

MACHINE MAINTENANCE

REDUCER OIL CHANGE

On the reducing transmission, after the first week all external cap screws and plugs should be checked for tightness. It is recommended to change the oil every six months or 25000 hours of operation, whichever ever comes first. When adding oil, the transmission should never be filled above the oil level mark indicated, because leakage and overheating may occur. Below is a list of the type of lubricant that should be used:

| Manufacturer | Lubricant |
|------------------------|-----------------------------|
| American Oil CO. | American Cyl Oil no:196-L |
| Cities Service Oil Co. | Citgo Cyl.Oil 100-5 |
| Gulf Oil Corp. | Gulf Senate 155 |
| Mobil Oil Corp. | Mobil 600 W Suerr Cyl.Oil |
| Philips Oil Co. | Andes S 180 |
| Texaco Inc. | 624+650T Cyl.Oil |
| Shell Oil Co. | Velvata Oil J82 |
| Union Oil Of Cal. | Red Line Worm Gear Lube 140 |

MOTOR MAINTENANCE

An occasional inspection of the brushes should be made in order to establish a wear rate. Replacement brushes should be installed before old brushes wear to 9/16" long, measured on the long side. After replacing brushes run the motor near rated speed for at least 1/2 hour with no load to seat the new brushes.

Failure to properly seat the new brushes may cause commutator damage and rapid wear of the new brushes. If the commutator becomes rough, scored or out of shape, a competent motor shop should disassemble the motor and resurface the commutator. With every third brush change, have a competent motor shop resurface the commutator and blow the carbon dust out of the motor.

CHAIN MAINTENANCE

To clean the chain, wipe it with an oily cloth every month. If the environment is very dusty or damp, it may be necessary to clean it more often.

With time the chain will tend to stretch. A loose elevator and turntable (rotary arm) chain should be tightened at the chain tensioner, or by moving the reducer on the mounting plate.

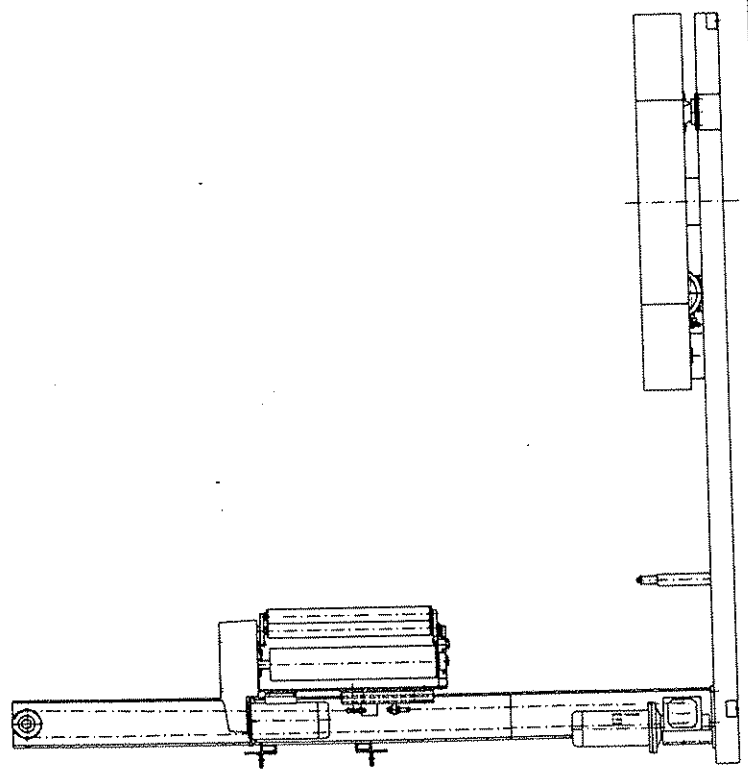
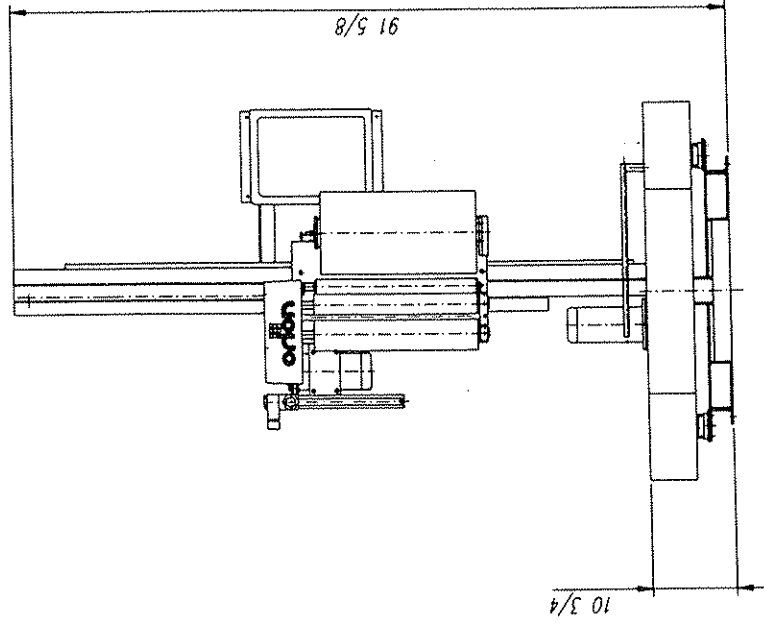
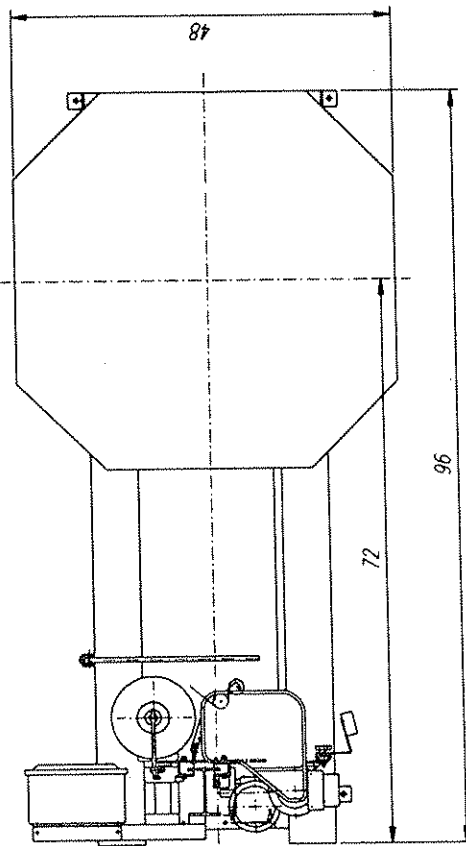
CAM FOLLOWER MAINTENANCE

The cam followers behind the carriage have deep grease pockets and do not need frequent relubrication. The portion of the tower on which the cam followers run, should be cleaned and regreased every 300 hours of operation. If the machine operates in a dusty or corrosive environment the tower should be relubricated more often.

**SEMI-AUTOMATIC
STANDARD ASSEMBLY
PART LIST**


Note :

- * Quantity listed in order of part number**
- ** The names given to the parts are generic**



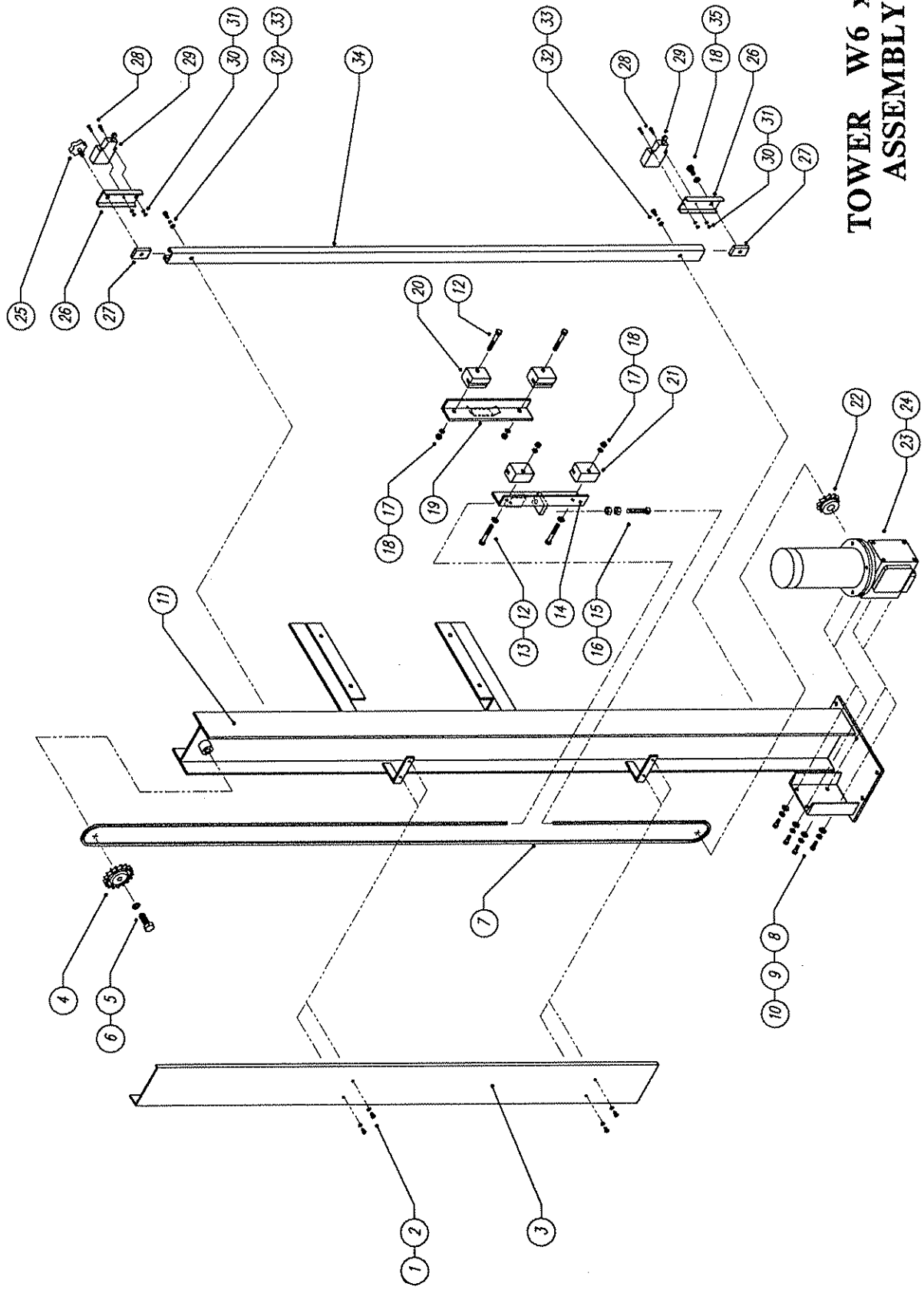
THIS DRAWING REPLACES DWG. # 260-348 B

HIGH PROFILE WRAPPER H77/9 - LAYOUT

| | | | | |
|--|---------------|---------------|---------------|--------|
|  <p>ORION PACKAGING INC. 2270 INDUSTRIEL LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (514) 667-9769</p> | DATE: | JUL-04-94 | SCALE: | 1 : 16 |
| | DRAWN BY: | MARIA MIERNIK | MACHINE TYPE: | H77/9 |
| | CHECKED BY: | M. W. SOBUCKI | DRAWING SIZE: | B |
| | ASSEMBLY DWG: | STD | JOB No.: | 404738 |

TOWER W6 x 12 ASSEMBLY

UPDATED FEB-23-94 # 404840



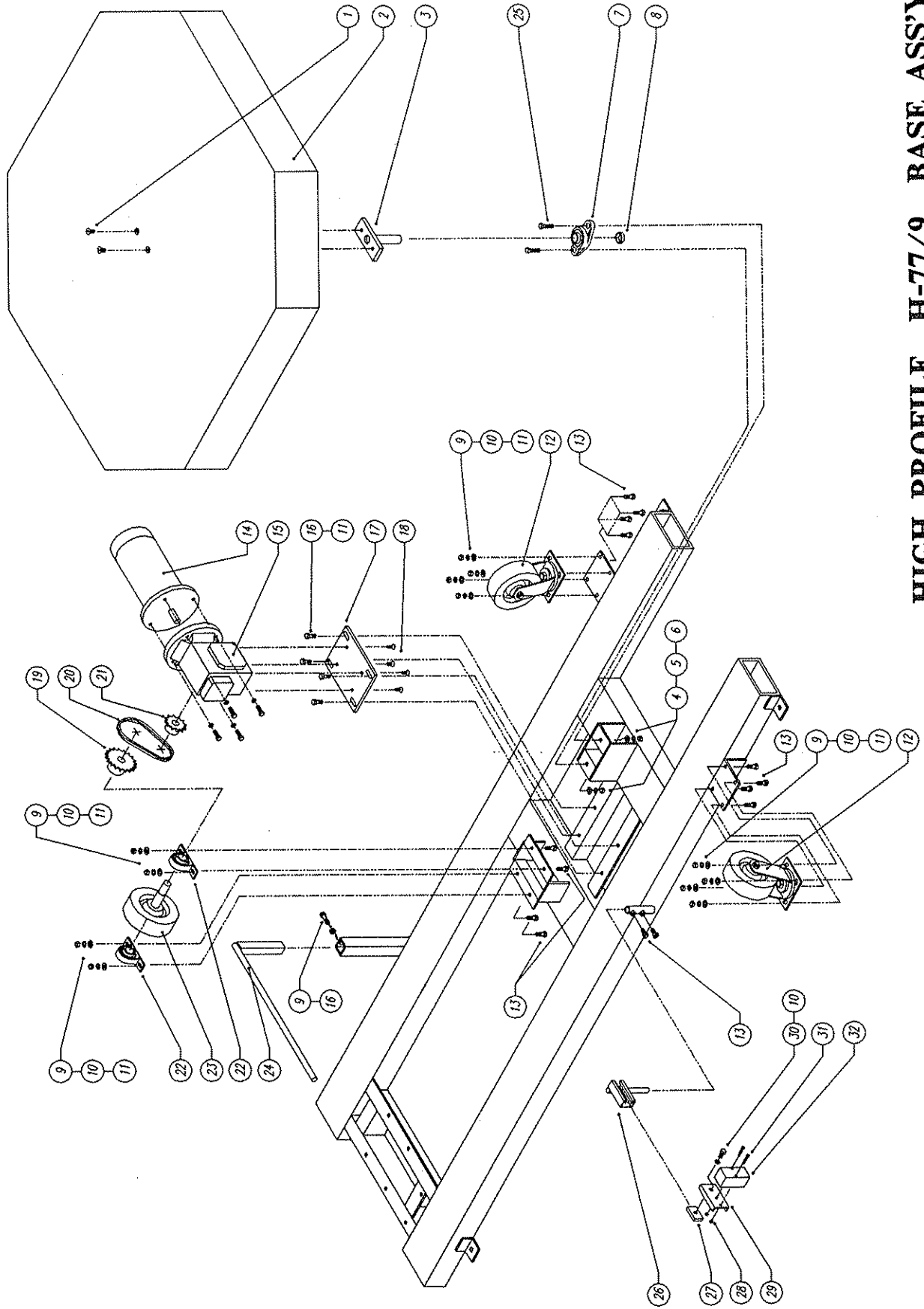
**TOWER W 6 x 12 ASS'Y
PART LIST**

Updated Jun-30-94

Dwg. # 404840

| NO. | ORION PART # | DESCRIPTION | Q- TY |
|-----|-----------------|----------------------------|----------|
| 1. | 012049 | PAN PHILL SCREW | 4 |
| 2. | 011393 | SPRING WASHER | 4 |
| 3. | 404941 | TOWER CHAIN GUARD | 1 |
| 4. | 010008 | IDLER SPROCKET | 1 |
| 5. | 012847 | HEX HEAD SCREW | 1 |
| 6. | 012721 | SPRING WASHER | 1 |
| 7. | 010009 | CHAIN | 1 |
| 8. | 012723 | HEX HEAD SCREW | 4 |
| 9. | 012724 | SPRING WASHER | 4 |
| 10. | 012725 | FLAT WASHER | 4 |
| 11. | 404285 | TOWER W6 x 12 | 1 |
| 12. | 010401 | HEX HEAD SCREW | 4 |
| 13. | 010948 | FLAT WASHER | 4 |
| 14. | 406429 | FILM CARRIAGE ATTACHMENT | 1 |
| 15. | 400892 | TIGHTENER SCREW | 1 |
| 16. | 011266 | HEX NUT | 2 |
| 17. | 011128 | HEX NUT | 4 |
| 18. | 011390 | SPRING WASHER | 4 |
| 19. | 405083 | SLIDE BLOCK ALIGNING ANGLE | 1 |
| 20. | 405057 | SLIDE BLOCK (TOP) | 2 |
| 21. | 405058 | SLIDE BLOCK (BOTTOM) | 2 |
| 22. | 010094 | SPROCKET | 1 |
| 23. | 010344 | REDUCER | 1 |
| 24. | 010059 | ELECTR. MOTOR | 1 |
| 25. | 010092 | KNOB | 1 |
| 26. | 260816 | LIMIT SWITCH HOLDER | 2 |

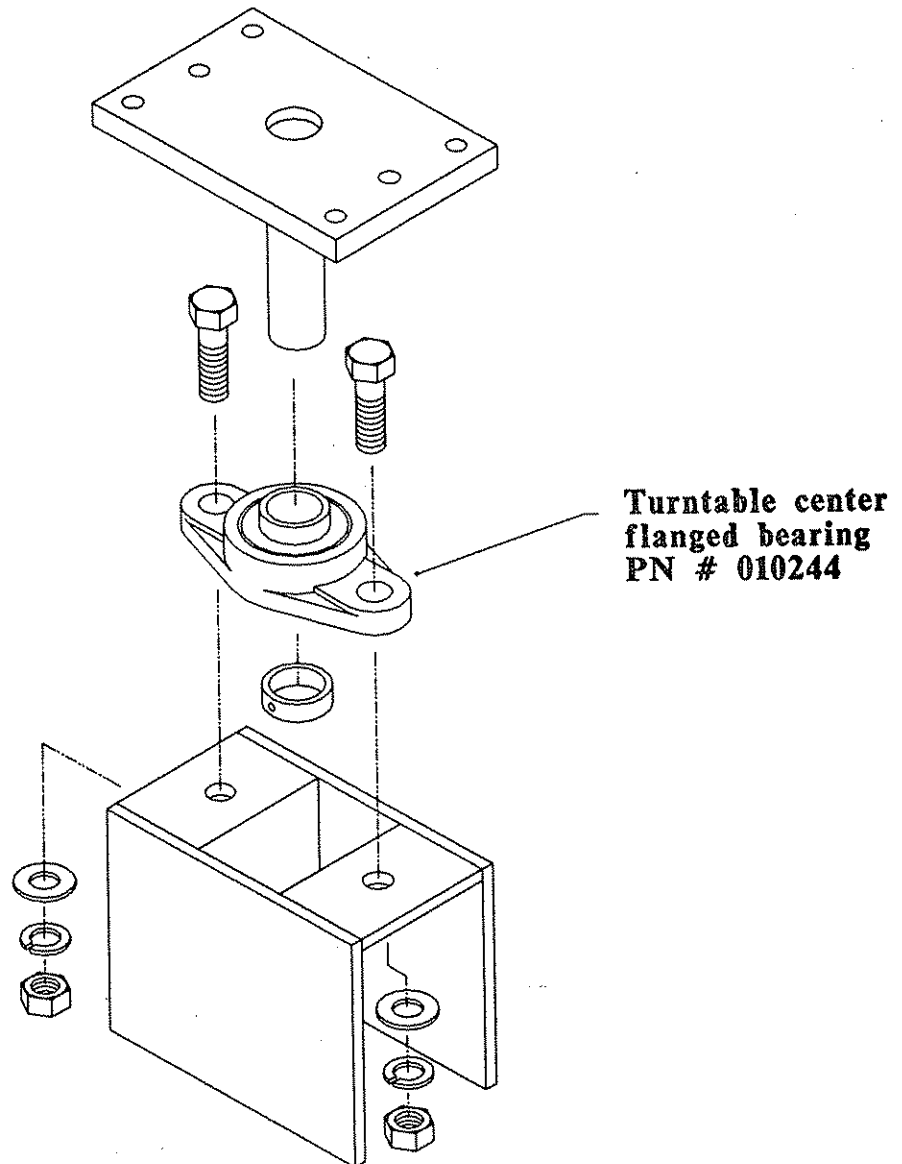
| | | | |
|-----|--------|-----------------------|---|
| 27. | 220518 | CHANNEL GUIDE | 2 |
| 28. | 012690 | PAN PHILL SCREW | 4 |
| 29. | 010123 | LIMIT SWITCH | 2 |
| 30. | 012726 | HEX NUT | 4 |
| 31. | 012743 | SPRING WASHER | 4 |
| 32. | 010257 | SOCKET HEAD CAP SCREW | 2 |
| 33. | 012221 | FLAT WASHER | 2 |
| 34. | 220794 | LIMIT SWITCH CHANNEL | 1 |
| 35. | 012747 | HEX HEAD SCREW | 1 |



HIGH PROFILE H-77/9 BASE ASSY

UPDATED NOV-25-93

404237



WARNING !

When replacing turntable center flanged bearing (# 010244), please make sure that both bolts are placed head-up as shown on the drawing above.

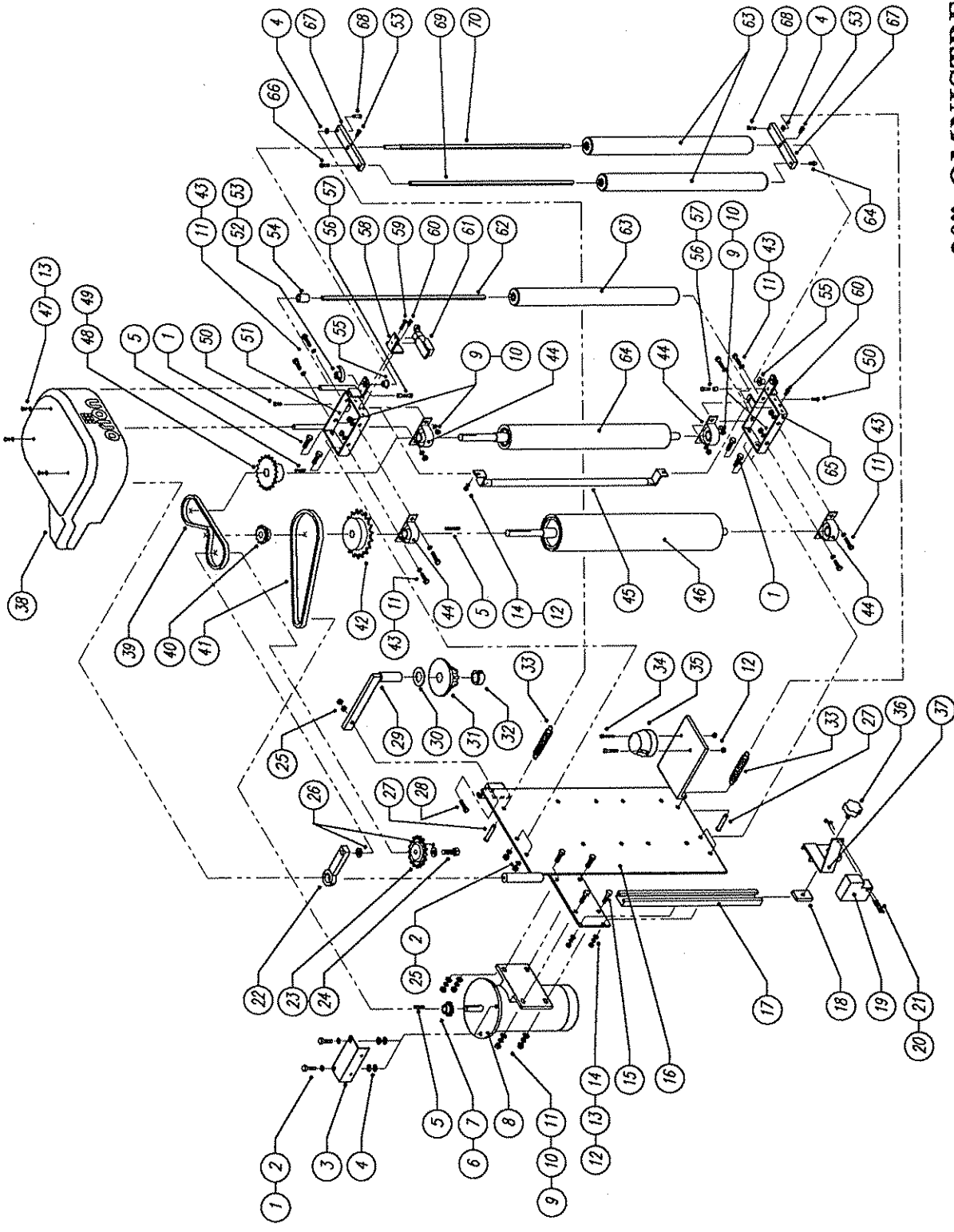
Incorrect installation may affect clear rotation and cause damage to the machine.

**FOR HIGH PROFILE H-66, H-77 & H-88
BASE ASSEMBLY**

HIGH PROFILE H77/9 BASE ASS'Y - PART LIST

DWG # 404237 updated November-25-93

| NO. | PART # | DESCRIPTION | QTY |
|-----|--------|------------------------------|-----|
| 1. | 010278 | FLAT SOCKET CAP SCREW | 2 |
| 2. | 403023 | TURNTABLE 48", OCTAGONAL | 1 |
| 3. | 404267 | TURNTABLE SHAFT | 1 |
| 4. | 011266 | HEX NUT | 2 |
| 5. | 012583 | SPRING WASHER | 2 |
| 6. | 012584 | FLAT WASHER | 2 |
| 7. | 010244 | 2-BOLT FLANGED BEARING | 1 |
| 8. | 010052 | COLLAR | 1 |
| 9. | 011128 | HEX NUT | 17 |
| 10. | 011390 | SPRING WASHER | 16 |
| 11. | 010948 | FLAT WASHER | 16 |
| 12. | 010876 | SWIVEL CASTER | 2 |
| 13. | 010293 | HEX HEAD SCREW | 14 |
| 14. | 010059 | EL. MOTOR | 1 |
| 15. | 010093 | REDUCER | 1 |
| 16. | 012406 | HEX HEAD SCREW | 5 |
| 17. | 250237 | REDUCER BASE | 1 |
| 18. | 012693 | FLAT SOCKET CAP SCREW | 4 |
| 19. | 010235 | SPROCKET | 1 |
| 20. | 010009 | CHAIN | 1 |
| 21. | 010989 | SPROCKET | 1 |
| 22. | 010043 | PILLOW BLOCK BRG | 2 |
| 23. | 402542 | DRIVE WHEEL 6" DIA. W/ SHAFT | 1 |
| 24. | 403521 | ROPING BAR | 1 |
| 25. | 010287 | HEX HEAD SCREW | 2 |
| 26. | 401465 | PROXIMITY SWITCH CHANNEL | 1 |
| 27. | 220518 | CHANNEL GUIDE | 1 |
| 28. | 012726 | HEX NUT | 2 |
| 29. | 260817 | PROXIMITY SWITCH HOLDER | 1 |
| 30. | 012274 | HEX HEAD SCREW | 1 |
| 31. | 012858 | PAN PHILL SCREW | 2 |
| 32. | 010739 | PROXIMITY SWITCH | 1 |



20" OMNISTRETCH STD
PART # 405647 - ASS'Y
 UPDATED MAY-10-94 # 404591

**20" OMNISTRETCH STD
PART # 405647 ASS'Y - PART LIST**

Updated May-10-94

Dwg. # 404591

| NO. | ORION PART # | DESCRIPTION | Q-TY |
|-----|-----------------|------------------------------|------|
| 1. | 010293 | HEX HEAD SCREW | 6 |
| 2. | 011390 | SPRING WASHER | 6 |
| 3. | 250162 | JUNCTION BOX BRACKET | 1 |
| 4. | 010948 | FLAT WASHER | 4 |
| 5. | 010295 | SQ. KEY | 3 |
| 6. | 013250 | SPROCKET | 1 |
| 7. | 012800 | SET SCREW | 2 |
| 8. | 010059 | ELECTR. MOTOR | 1 |
| 9. | 012751 | HEX NUT | 12 |
| 10. | 012724 | SPRING WASHER | 12 |
| 11. | 012725 | FLAT WASHER | 12 |
| 12. | 012689 | HEX NUT | 3 |
| 13. | 011393 | SPRING WASHER | 5 |
| 14. | 012221 | FLAT WASHER | 3 |
| 15. | 012757 | HEX HEAD SCREW | 4 |
| 16. | 405648 | BACK PLATE F/20" FILM | 1 |
| 17. | 404184 | PHOTOCELL CHANNEL F/20" FILM | 1 |
| 18. | 220518 | CHANNEL GUIDE | 1 |
| 19. | 011495 | PHOTOCELL | 1 |
| 20. | 012754 | PAN PHILL SCREW | 2 |
| 21. | 012726 | HEX NUT | 2 |
| 22. | 401357 | CHAIN TENSIONER | 1 |
| 23. | 011297 | IDLER SPROCKET | 1 |
| 24. | 012482 | HEX HEAD SCREW | 1 |
| 25. | 011128 | HEX NUT | 6 |
| 26. | 012584 | FLAT WASHER | 2 |
| 27. | 401375 | CLEVIS PIN | 2 |
| 28. | 010322 | HEX HEAD SCREW | 1 |
| 29. | 403802 | TOP MANDREL | 1 |
| 30. | 012323 | FLAT WASHER | 1 |

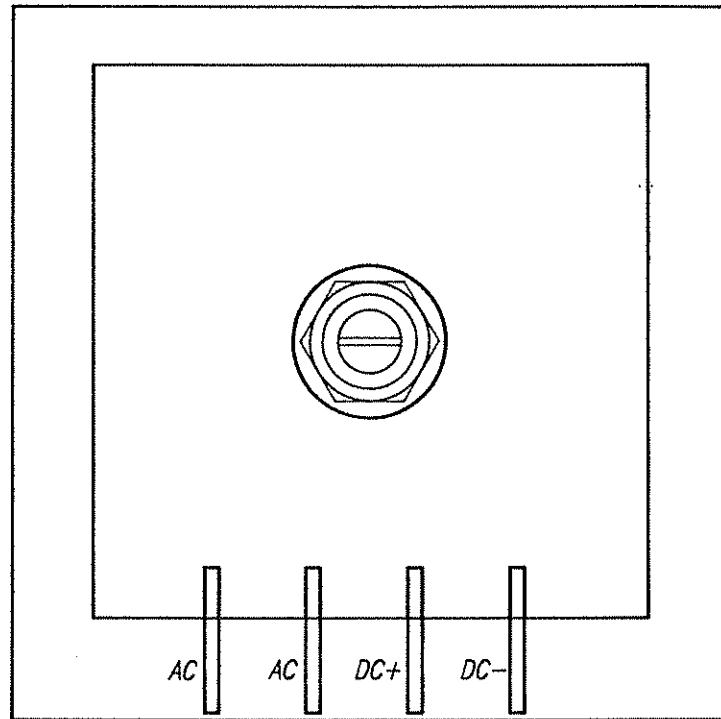
| NO. | ORION PART # | DESCRIPTION | Q-TY |
|-----|-----------------|------------------------------------|------|
| 31. | 403801 | SPOOL | 1 |
| 32. | 010052 | COLLAR | 1 |
| 33. | 010047 | TENSION SPRING, 40 COILS | 2 |
| or | 011424 | TENSION SPRING, UPPER, 50 COILS | 1 |
| | 401320 | TENSION SPRING, LOWER, 37 COILS | 1 |
| 34. | 012794 | SOCKET HEAD CAP SCREW | 2 |
| 35. | 404264 | OMNISTRETCH BOTTOM SPOOL | 1 |
| 36. | 010092 | KNOB | 1 |
| 37. | 230721 | PHOTOCELL BRACKET | 1 |
| 38. | 404935 | FIBERGLASS COVER | 1 |
| 39. | 010583 | CHAIN | 1 |
| 40. | 010975 | SPROCKET | 1 |
| 41. | 010583 | CHAIN | 1 |
| 42. | 401316 | SPROCKET | 1 |
| 43. | 010291 | HEX HEAD SCREW | 8 |
| 44. | 010427 | PILLOW BLOCK BEARING | 4 |
| 45. | 403449 | SAFETY BAR | 1 |
| 46. | 403555 | OMNISTR. RUBBER ROLLER 4 1/8" DIA. | 1 |
| 47. | 012049 | PAN PHILL SCREW | 3 |
| 48. | 011452 | DRIVE SPROCKET, 155 % PRESTRECH | 1 |
| 49. | 012805 | SET SCREW | 2 |
| 50. | 012475 | HEX HEAD SCREW | 2 |
| 51. | 402787 | TOP BRACKET | 1 |
| 52. | 260633 | MINI LIMIT SWITCH ACTUATOR | 1 |
| 53. | 010257 | SOCKET HEAD CAP SCREW | 3 |
| 54. | 402822 | PLASTIC TUBE SPACER | 1 |
| 55. | 010058 | FL.BRONZE BUSHING | 2 |
| 56. | 011423 | SHOULDER SCREW | 2 |
| 57. | 010946 | PLASTIC HOSE | 2 |
| 58. | 403017 | MINI LIMIT SWITCH BRACKET | 1 |
| 59. | 010277 | HEX HEAD SCREW | 1 |
| 60. | 012722 | HEX HEAD SCREW | 2 |
| 61. | 012006 | MINI LIMIT SWITCH | 1 |

| NO. | ORION PART # | DESCRIPTION | Q-TY |
|-----|-----------------|------------------------------------|------|
| 62. | 402794 | SNUB ROLLER SHAFT | 1 |
| 63. | 402789 | ALUMINUM ROLLER | 3 |
| 64. | 403554 | OMNISTR. RUBBER ROLLER 2 3/4" DIA. | 1 |
| 65. | 402788 | BOTTOM BRACKET | 1 |
| 66. | 010259 | SOCKET HEAD CAP SCREW | 2 |
| 67. | 401358 | DANCER ROLLER LEVER | 2 |
| 68. | 401374 | CLEVIS PIN | 2 |
| 69. | 402792 | DANCER ROLLER SHAFT | 1 |
| 70 | 402793 | DANCER LEVER SHAFT | 1 |

ELECTRICAL BOARDS' CHART FOR ORION STRETCHWRAPPERS

| | 168-5 | 168-A | 336-7 | 750 MX | 850 M | 850 C | 155-5 | 850 DM |
|-------------------|-------|-------|-------|--------|-------|-------|-------|--------|
| L-78, H-78 | | X | | | | | X | X |
| L-77, H-77 | | X | | | | | X | X |
| M-66, M-67 | | X | X | | X | | X | |
| L-66, H-66 | | X | X | | X | | X | |
| M-55, L-55, H-55 | | X | X | | X | | X | |
| M-44, L-44, H-44 | X | | X | X | | | X | |
| *M-44,*L-44,*H-44 | X | | X | X | | | | |

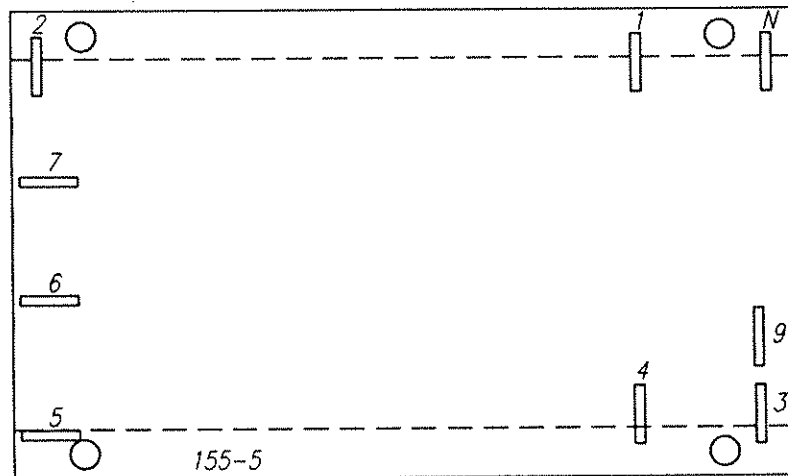
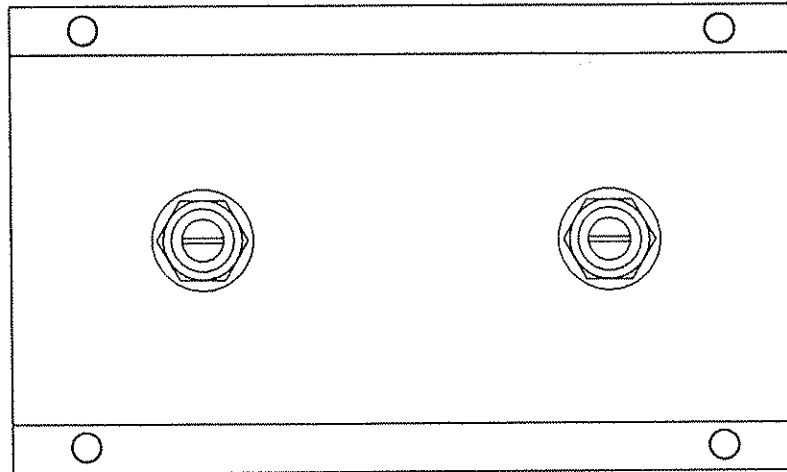
* - PROCESSOR



AC: AC INPUT
AC: AC INPUT
DC+: ARMATURE CONTROL
DC-: ARMATURE CONTROL

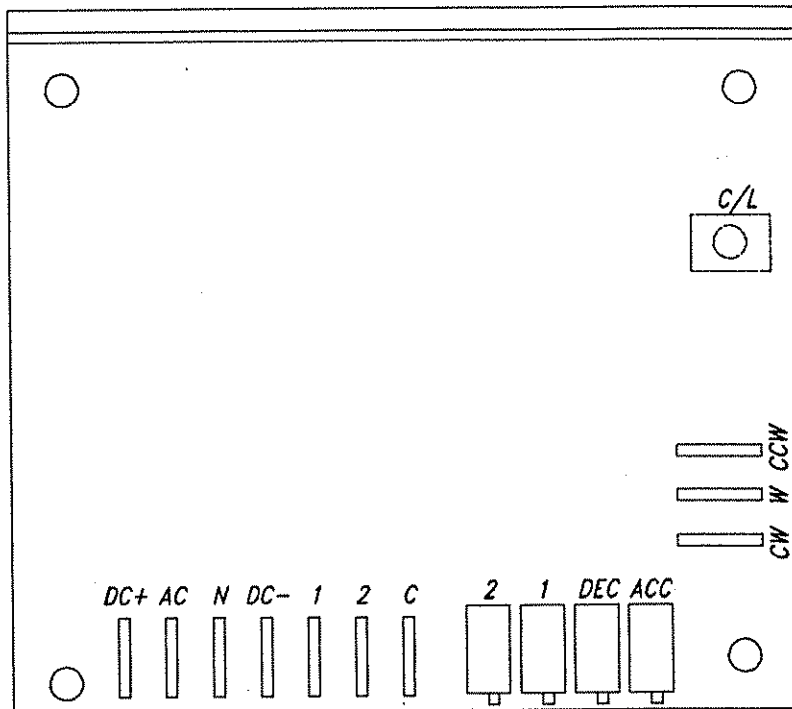
168-A

CARRIAGE SINGLE SPEED BOARD



- 1: AC INPUT
- 2: AC INPUT
- 3: COUNT
- 4: RESET
- 5: OUTPUT PULSE AFTER 1-ST COUNT
- 6: OUTPUT T/W
- 7: OUTPUT B/W
- 8: N/A
- 9: COMMON
- N: NEUTRAL

155-5
COUNTER BOARD



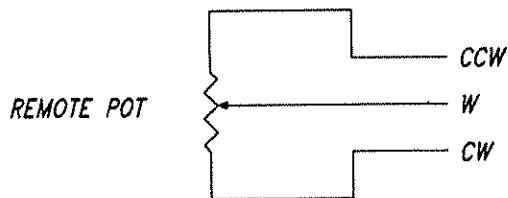
2-ND SPEED (HIGH)
 REMOTE ADJUSTMENT.
 (IF NOT USED - PUT JUMPER
 BETWEEN "CW" & "W").

TERMINALS:

DC+: ARMATURE CONTROL
 AC: AC (HOT) POWER INPUT
 N: AC NEUTRAL
 DC-: ARMATURE CONTROL
 C: CONTROL COMMON
 2: SPEED CONTROL (HIGH)
 1: SPEED CONTROL (JOG)

POTENTIOMETERS:

2: HIGH SPEED ADJUSTMENT.
 1: JOG SPEED ADJUSTMENT.
 A: ACCELERATION ADJUSTMENT.
 D: DECELERATION ADJUSTMENT.
 C/L: CURRENT LIMIT.



850DM 2 SPEED DC
 MOTOR CONTROL BOARD