

INSTRUCTION MANUAL



100 Crescent Drive
Collierville, TN 38017

PACKAGING SYSTEMS, INC.
A PRO MACH OPERATING PARTNER

(800) 333-6556
(901) 888-4170

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** 053558
- 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

053558

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 it's 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.

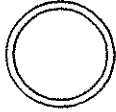
* The tower deviation from vertical must not exceed 1/4" on the distance of 10 feet (angle: 0 degrees 6').

** 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').

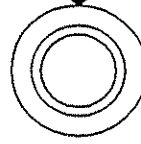
CONTROL PANEL

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.

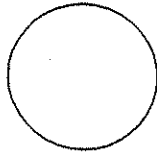
START



FILM TENSION



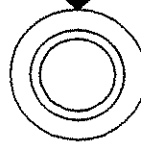
STOP



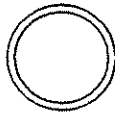
SPIRAL UP **UP/DOWN**



TOP WRAPS



TURNTABLE JOG



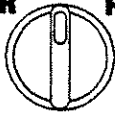
PHOTOCELL OFF **ON**



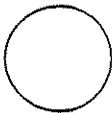
BOTTOM WRAPS



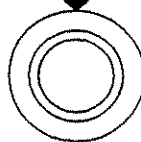
CARRIAGE LOWER **RAISE**



POWER

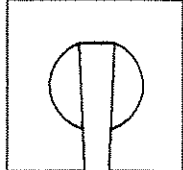


CARRIAGE SPEED



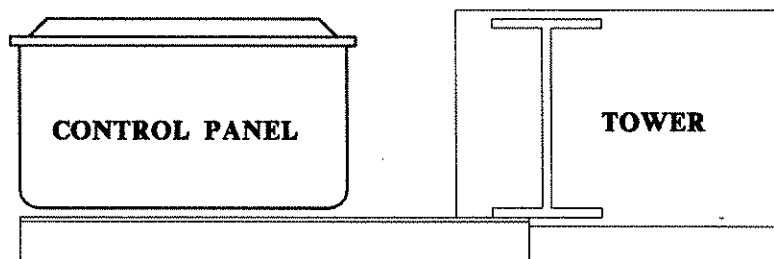
WARNING!
DANGEROUS OR FATAL ELECTRIC SHOCKS MAY RESULT IF POWER TO THE MACHINE IS NOT DISCONNECTED BEFORE OPENING THE PANEL.
DISCONNECT POWER TO THE MACHINE BEFORE OPENING PANEL.

POWER SWITCH

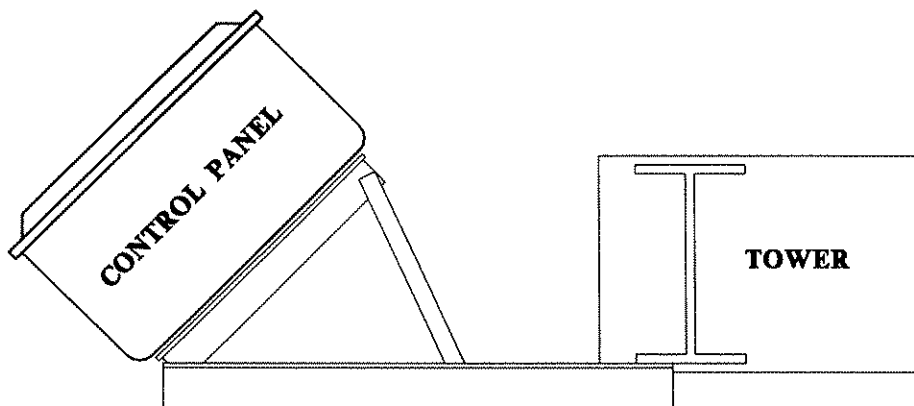


PN-500014

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.

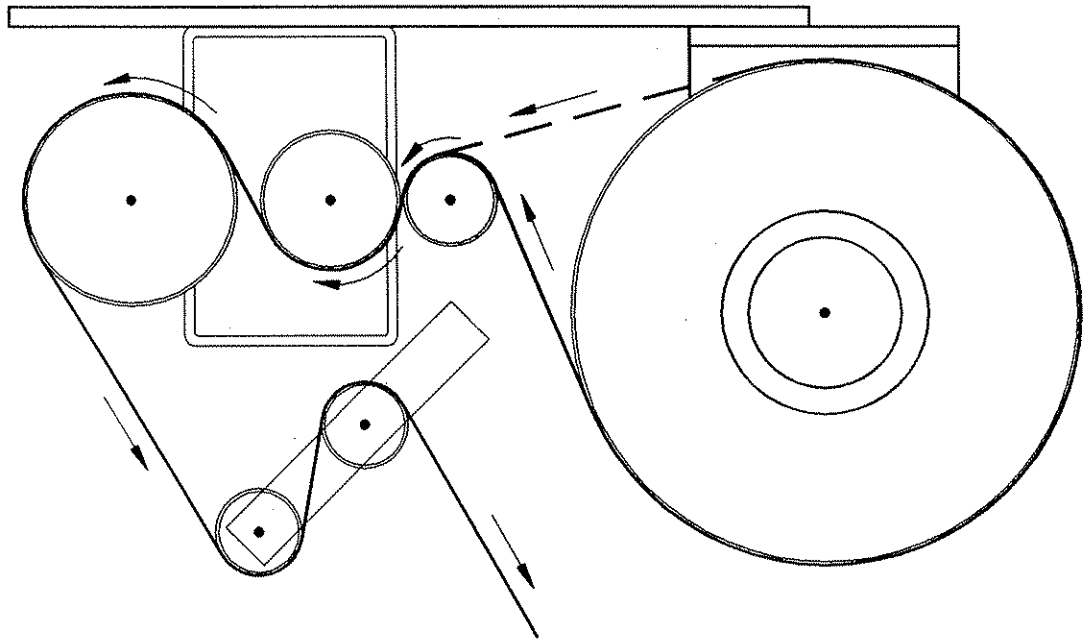
NOTE: The condition in which the motor hums but does not turn must be maintained even after all elements are tightened. If not, the adjustment procedure must be repeated.

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.



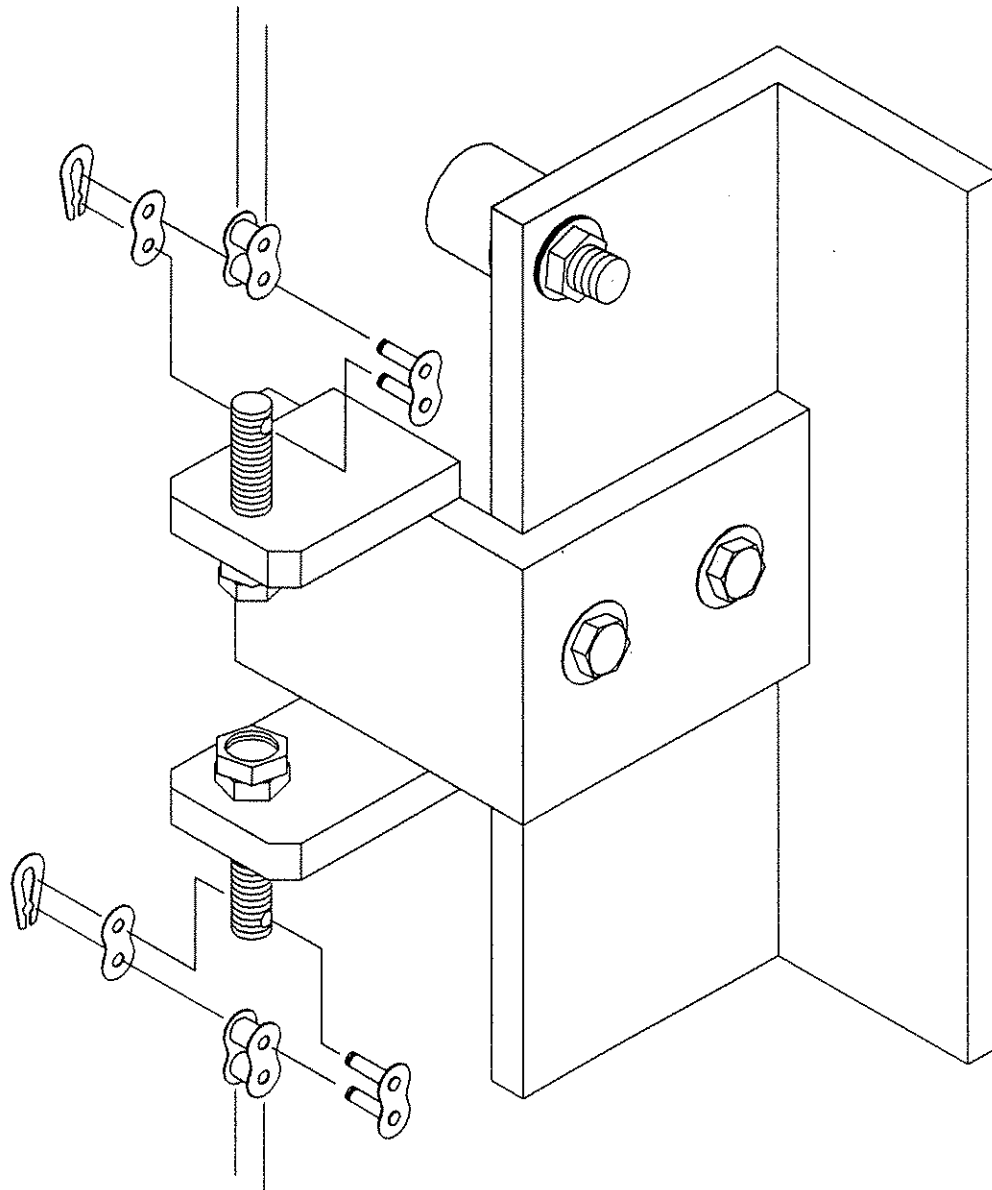
WARNING:

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.

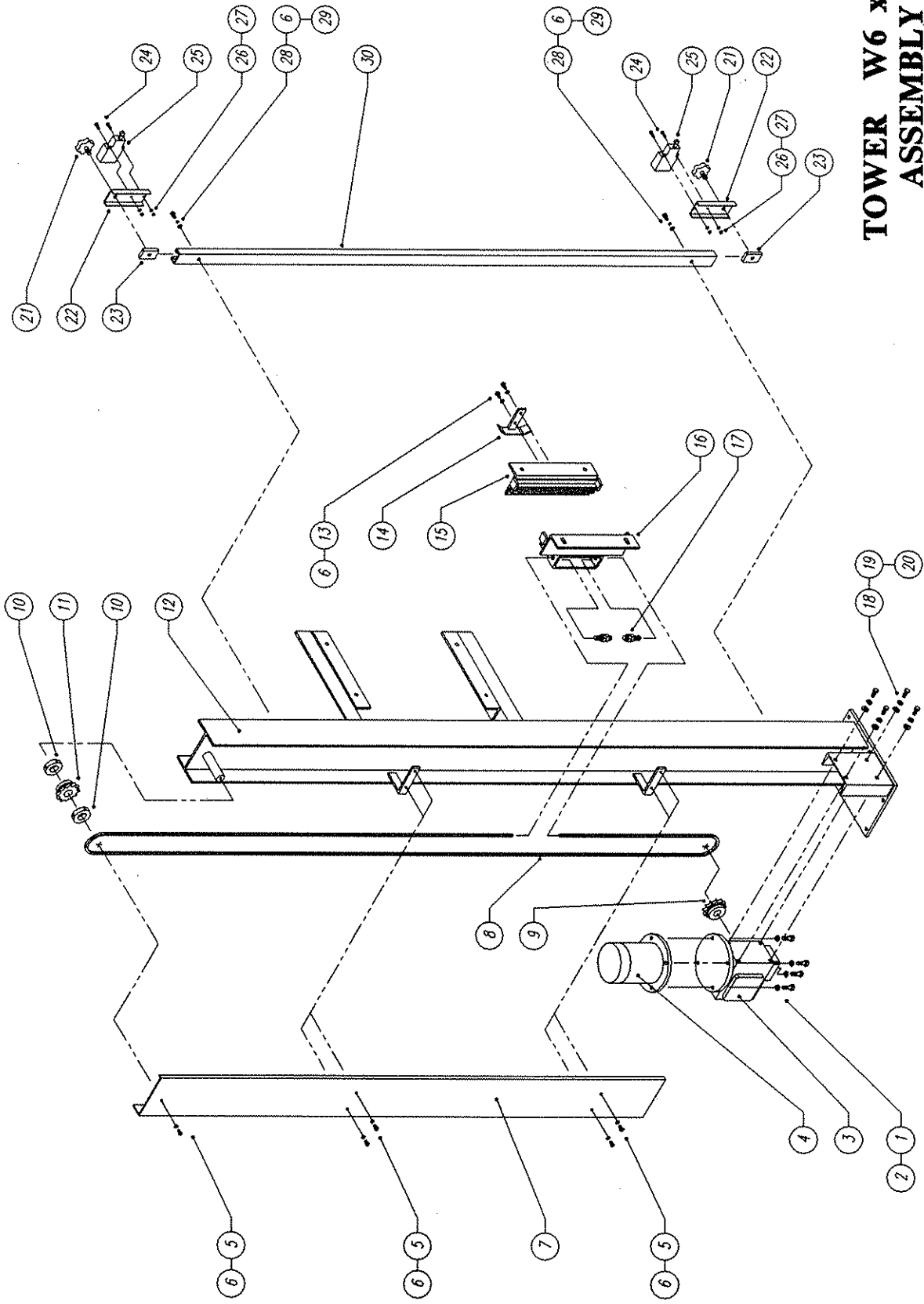
**SEMI-AUTOMATIC
STANDARD ASSEMBLY
PART LIST**

Note :

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

TOWER W6 x 12 ASSEMBLY

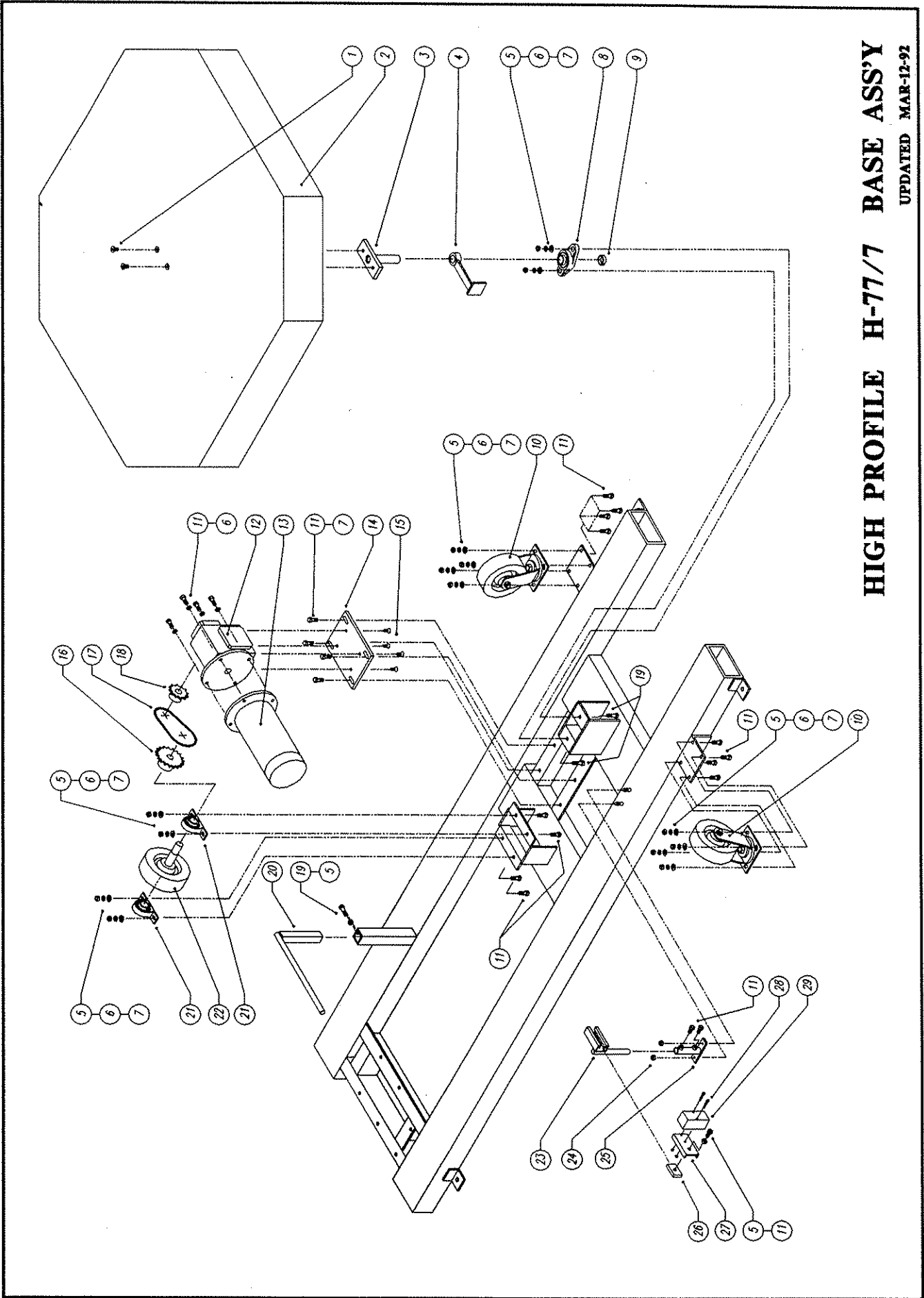
UPDATED APR-08-92



TOWER W6 x 12 ASS'Y - PART LIST

updated April-07-92

ORION			
NO.	PART NO.	DESCRIPTION	Q-TY
1.	010293	HEX HEAD SCREW	4
2.	011390	SPRING WASHER	4
3.	010986	REDUCER	1
4.	010545	ELECTR. MOTOR	1
5.	012049	PAN PHILL	3
6.	011393	SPRING WASHER	7
7.	012735	TOWER CHAIN COVER	1
8.	010009	CHAIN	1
9.	010094	SPROCKET	1
10.	010052	COLLAR	2
11.	010999	SPROCKET	1
12.	012737	TOWER	1
13.	012722	HEX HEAD SCREW	2
14.	012740	LIMIT SWITCH ACTUATOR	1
15.	012742	RIGHT CARRIAGE HOLDER	1
16.	012741	LEFT CARRIAGE HOLDER	1
17.	010387	CHAIN TENSION SCREW	2
18.	012723	HEX HEAD SCREW	4
19.	012724	SPRING WASHER	4
20.	012725	FLAT WASHER	4
21.	010092	KNOB	2
22.	010087	LIMIT SWITCH HOLDER	2
23.	011153	CHANNEL GUIDE	2
24.	012690	PAN PHILL	4
25.	010123	LIMIT SWITCH	2
26.	012726	HEX NUT	2
27.	012743	SPRING WASHER	4
28.	010257	SOCKET HEAD CAP SCREW	4
29.	012221	FLAT WASHER	2
30.	010335	LIMIT SWITCH CHANNEL	1



HIGH PROFILE H-77/7 BASE ASS'Y

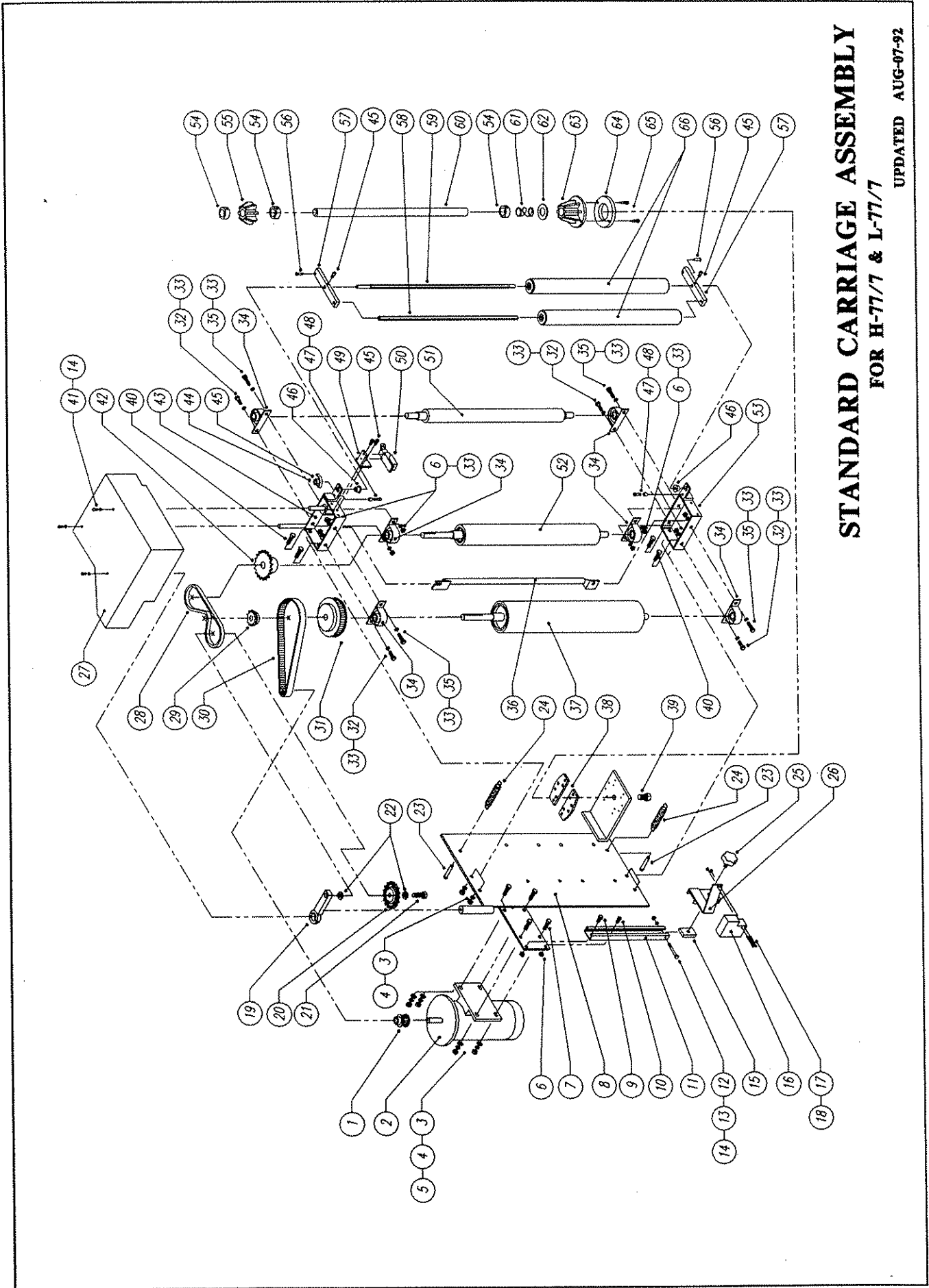
UPDATED MAR-12-92

PART LIST

FOR HIGH PROFILE H-77/7 BASE ASS'Y

updated March-12-92

ORION NO. PART NO.	DESCRIPTION	Q-TY
1. 012692	FLAT SOCKET CAP SCREW	2
2. 010241	TURNTABLE	1
3. 010562	TURNTABLE SHAFT	1
4. 010563	PROXIMITY SWITCH ACTUATOR	1
5. 012477	HEX NUT	16
6. 011390	SPRING WASHER	18
7. 012672	FLAT WASHER	14
8. 010244	2-BOLT FLANGED BEARING	1
9. 010052	COLLAR	1
10. 010876	SWIVEL CASTER	2
11. 010293	HEX HEAD SCREW	23
12. 010035	REDUCER	1
13. 010036	ELECTR. MOTOR	1
14. 012695	REDUCER BASE	1
15. 012693	FLAT SOCKET CAP SCREW	4
16. 010235	SPROCKET	1
17. 010009	CHAIN	1
18. 010999	SPROCKET	1
19. 012406	HEX HEAD SCREW	3
20. 012594	ROPING BAR	1
21. 010043	STAMP HOUSING PILLOW BLOCK	2
402542 22. 012623	DRIVE WHEEL WITH SHAFT	1
23. 010202	PROXIMITY SWITCH CHANNEL	1
24. 012689	HEX NUT	2
25. 010201	PROXIMITY SWITCH STAND	1
26. 010091	CHANNEL GUIDE	1
27. 012694	PROXIMITY SWITCH HOLDER	1
28. 012690	PAN PHILL & NUT	2
29. 010739	PROXIMITY SWITCH	1



STANDARD CARRIAGE ASSEMBLY
FOR H-77/7 & L-77/7

UPDATED AUG-07-92

STANDARD CARRIAGE ASS'Y

FOR H-77/7 & L-77/7 - PART LIST

updated Aug-07-92

ORION			
NO.	PART NO.	DESCRIPTION	Q-TY
1.	011283	TIMING BELT PULLEY	1
2.	010059	ELECTR. MOTOR	1
3.	011128	HEX NUT	8
4.	011390	SPRING WASHER	8
5.	010948	FLAT WASHER	4
6.	012751	HEX NUT	10
7.	012752	HEX HEAD SCREW	4
8.	260382	BACK PLATE F/20" FILM	1
9.	010382	HEX HEAD SCREW	1
10.	012693	FLAT SOCKET CAP SCREW	1
11.	011152	PHOTOCELL CHANNEL F/20" FILM	1
12.	012753	HEX HEAD SHOULDER SCREW	1
13.	012689	HEX NUT	1
14.	011393	SPRING WASHER	4
15.	011153	CHANNEL GUIDE	1
16.	011495	PHOTOCELL	1
17.	012754	PAN PHILL SCREW	2
18.	012726	HEX NUT	2
19.	011142	CHAIN TENSIONER	1
20.	011297	IDLER SPROCKET	1
21.	012482	HEX HEAD SCREW	1
22.	012584	FLAT WASHER	2
23.	012755	CLEVIS PIN	2
24.	010047	TENSION SPRING	2
25.	010092	KNOB	1
26.	012090	PHOTOCELL BRACKET	1
	012091	PHOTOCELL BRACKET F/R.H. ASS'Y	1
27.	260383	CARRIAGE COVER	1
28.	010583	CHAIN	1
29.	010975	DRIVE SPROCKET	1
30.	012701	TIMING BELT	1
31.	011003	PULLEY	1
32.	012723	HEX HEAD SCREW	4
33.	012725	FLAT WASHER	16
34.	010157	PILLOW BLOCK BEARING	6
35.	012757	HEX HEAD SCREW	4
36.	011412	SAFETY BAR F/20" FILM	1
37.	012763	RUBBER ROLLER 4" DIA. F/20" FILM	1
38.	010049	BRAKE PADS	2
39.	012758	HEX HEAD SCREW	1
40.	010293	HEX HEAD SCREW	4
41.	012049	PAN PHILL SCREW	3
42.	011452	DRIVE SPROCKET	1

ORION			
NO.	PART NO.	DESCRIPTION	Q-TY
43.	011369	TOP BRACKET	1
44.	260633	MINI LIMIT SWITCH ACTUATOR	1
45.	010257	SOCKET HEAD CAP SCREW	5
46.	010058	BRONZE BUSHING	2
47.	010286	SOCKET HEAD SHOULDER CAP SCREW	2
48.	010946	PLASTIC HOSE	2
49.	260842	MINI LIMIT SWITCH BRACKET	1
50.	012006	MINI LIMIT SWITCH	1
51.	011410	PRESSURE ROLLER F/20" FILM	1
52.	012764	RUBBER ROLLER 2.66"DIA. F/20" FILM	1
53.	011416	BOTTOM BRACKET	1
54.	010052	COLLAR	3
55.	010051	TOP SPOOL	1
56.	012756	CLEVIS PIN	2
57.	011370	LEVER	2
58.	011419	SHORT SHAFT F/20" FILM	1
59.	011421	LONG SHAFT F/20" FILM	1
60.	010050	MANDREL SHAFT F/20" FILM	1
61.	010891	COMPRESSION SPRING	1
62.	010199	FLAT WASHER	1
63.	010838	BOTTOM SPOOL	1
64.	010887	MANDREL BRAKE DISK	1
65.	010886	SPIKE	2
66.	011371	DANCER ROLLER F/20" FILM	2

ELECTRICAL BOARDS' CHART FOR ORION STRETCHWRAPPERS

	168-4	168-A	336-6 & 7	750 MX	850 M	850 C	155-3	850 D
L-77, H-77		X					X	X
M-77		X				X	X	X
M-67		X	X			X	X	
M-67 PA		X	X		X		X	
M-67 DEMO		X	X		X		X	
M-66, L-66, H-66		X	X		X		X	X
M-57		X	X			X	X	
M-55, L-55, H-55		X	X		X		X	
M-44, L-44, H-44	X	X	X	X			X	
*M-44,*L-44,*H-44	X	X	X	X				

* - PROCESSOR
 PA - POSITIVE ALIGNMENT
 DEMO - DEMO PACKAGE
 336-7 - REPLACES 336-6

TURNTABLE 850D MOTOR CONTROL (for H&L77)

Acceleration: (ACC Pot) The ACC pot controls the soft start feature of the 850D Board.

For an initial setting, turn the ACC pot fully counter clock wise (untill a clicking sound is heard), and then approximately 11 turns or revolutions clock wise. For a smoother start of the turntable, turn the ACC pot further CW. For a quicker start, turn the ACC pot CCW.

Speed Control: (MAX Pot) The MAX pot controls the turntable running speed during the wrap cycles. This speed is set at 10 r.p.m.

For an initial setting, the remote pot located on the front panel should be set to maximum, (i.e. fully CW). Using the pot on the board marked MAX set the turntable speed to achieve 10 r.p.m. A CW turn will increase the speed, CCW will decrease the speed.

In order to compensate for unstable and various load sizes, the 850D board features a remote Turntable Speed adjustment which is located on the front panel. This pot is provided to reduce the wrapping speed during a wrap cycle.

Since the 850D is a single speed board, the jog function will jog the turntable at 10 r.p.m.

NOTE: It is recommended that Turtable Speed be reduced when jogging unstable loads.

MULTISTRETCH 850D MOTOR CONTROL (for H&L77)

Acceleration: (ACC Pot) The ACC pot controls the soft start feature of the 850D Board.

For an initial setting, turn the ACC pot fully counter clock wise (untill a clicking sound is heard), and then approximately 8 turns or revolutions clock wise. For a softer start on the Multistretch motor, turn the ACC pot further CW. For a sharper response, turn the ACC pot CCW.

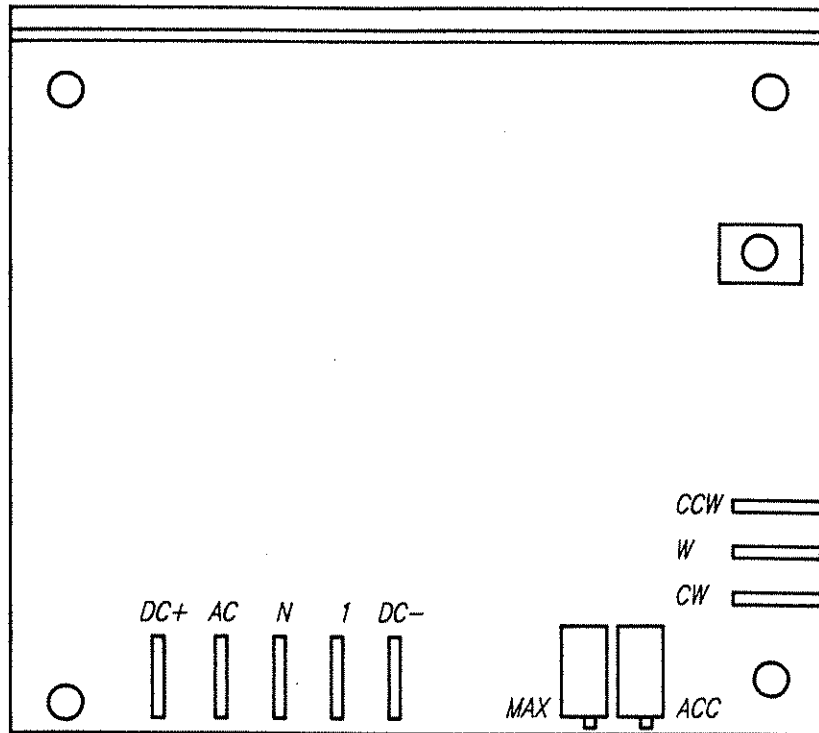
Note: If acceleration time is too low, an excessive amount of film will be ejected prior to the turntable achieving maximum speed.

Speed Control: (MAX Pot) The MAX pot controls the running speed of the Multistretch motor during the wrap cycles or any time dancer bars are deliberately moved.

For an initial setting, (w/turntable not running) the Film Tension remote pot located on the front panel should be set to minimum (i.e. fully CCW). Using the pot on the board marked MAX, set the Multistretch speed to achieve stable condition, (i.e. a smooth continious release of film). A CW turn will increase the speed, CCW will decrease the speed.

This board also features a Film Tension adjustment which is located on the front panel.

Note: If speed is too high dancer bars will jolt back and forth which in turn will switch the motor off and on. This will cause the film to be released unevenly.



DC+: ARMATURE CONTROL.

AC: AC INPUT.

N: NEUTRAL.

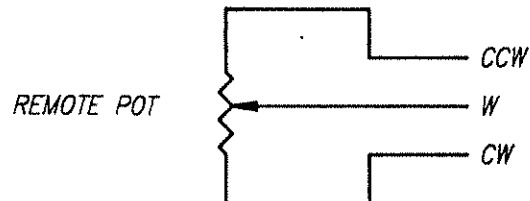
1: CONTROL.

DC-: ARMATURE CONTROL.

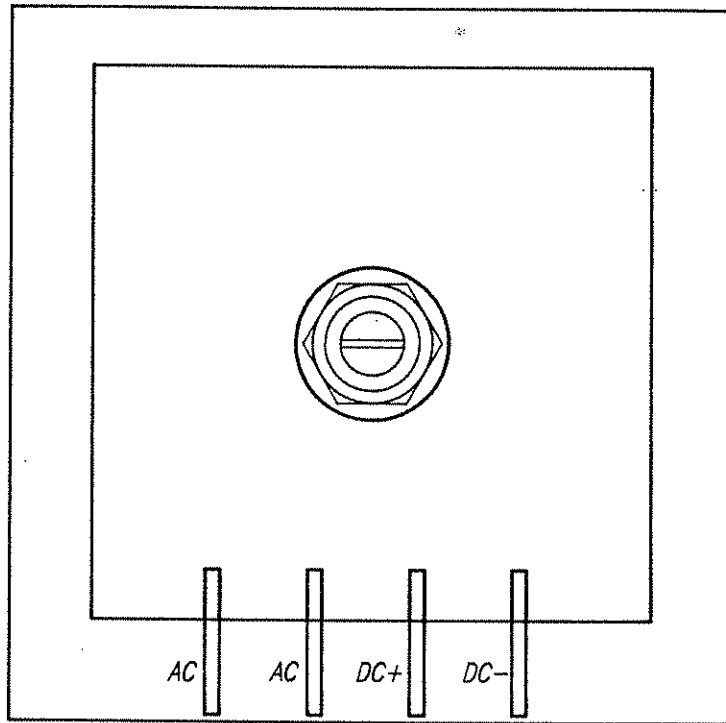
POTENTIOMETERS:

MAX: MOTOR SPEED ADJUSTMENT.

ACC: ACCELERATION ADJUSTMENT.

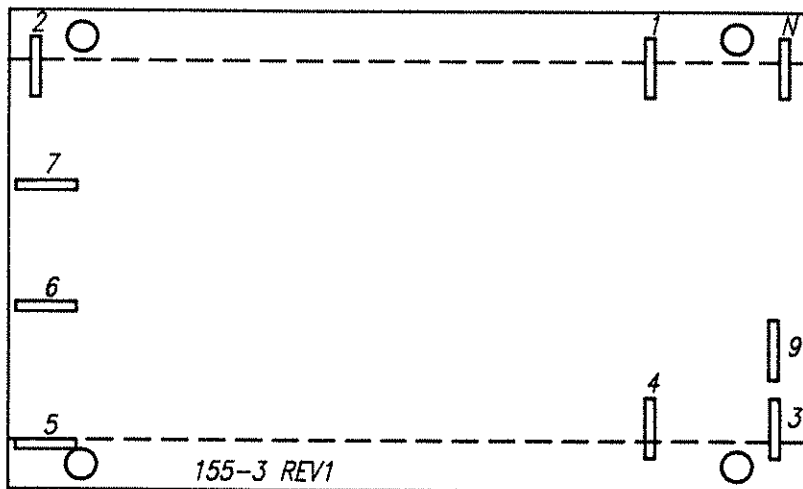
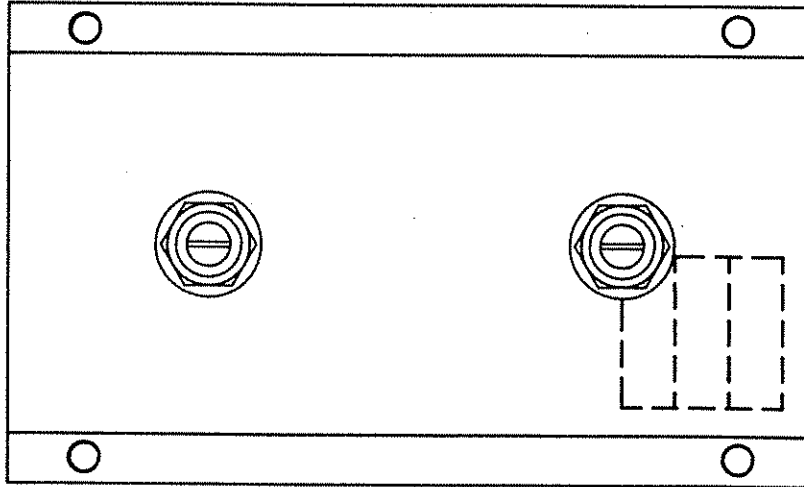


*850D SINGLE SPEED DC
MOTOR CONTROL BOARD*



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

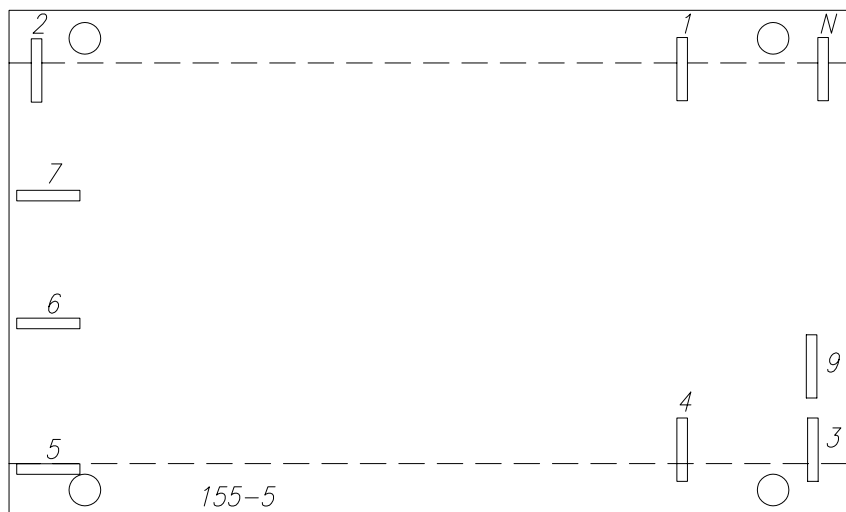
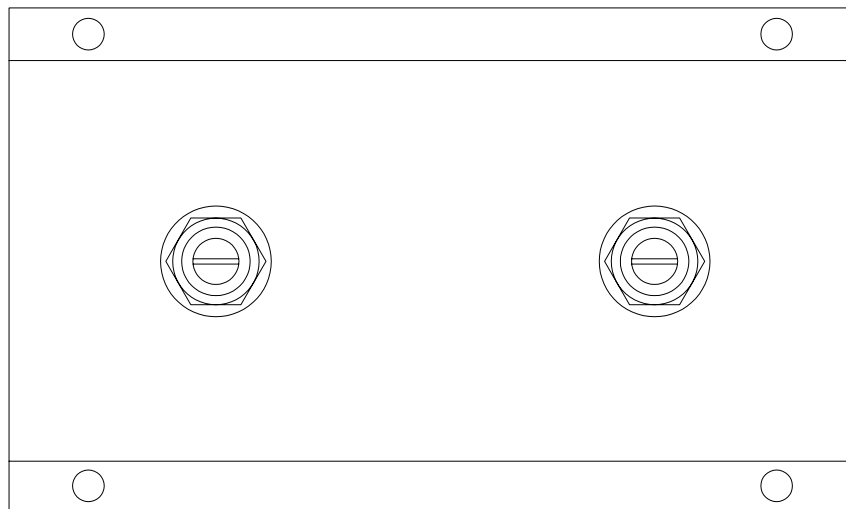
168-A
CARRIAGE SINGLE SPEED BOARD



155-3 REV1

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

155-3
COUNTER 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



DC - OUT
DC + OUT
AC2 IN
AC1 IN (NEUTRAL)

168-A CARRIAGE UP/DN
SINGLE SPEED BOARD

CONVEYOR 850D MOTOR CONTROL

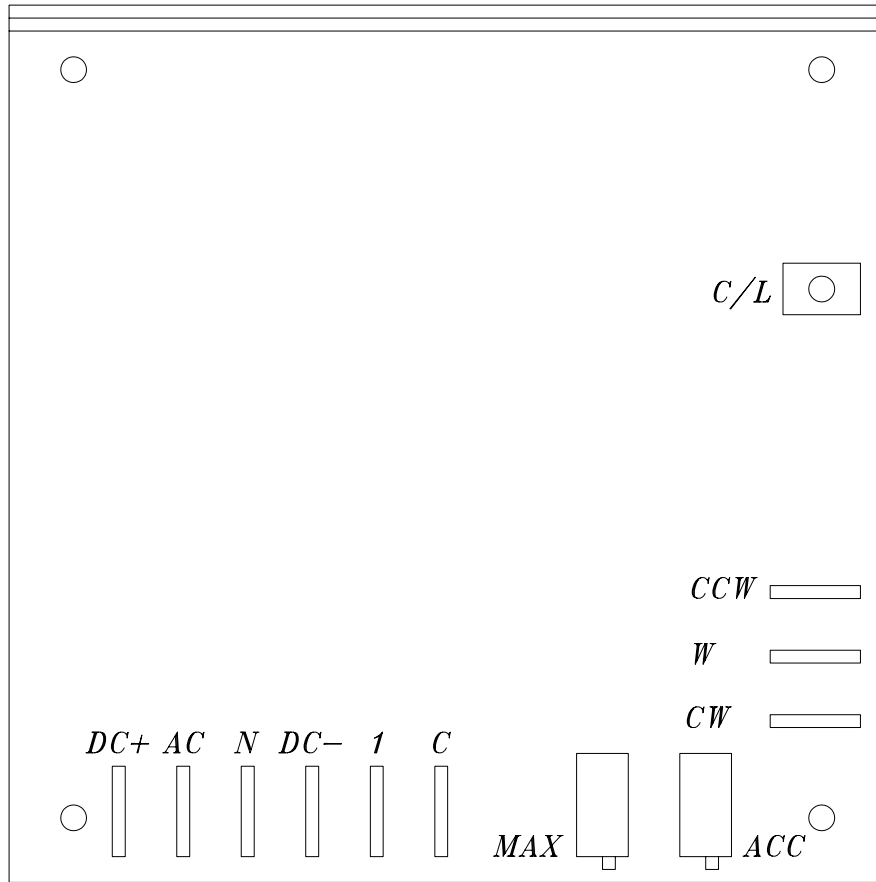
Acceleration: (ACC Pot) the ACC pot controls the soft start feature of the 850D board.

For an initial setting, turn the ACC pot fully counter clockwise until a Clicking sound is heard. Next turn the pot approximately 12 to 15 turns or Revolutions clockwise. For a smoother start, turn the ACC pot counter clockwise.

Speed Control: (MAX Pot) the MAX pot controls the conveyor running speed.

The conveyor running speed should be set with the aid of a tachometer. A Clockwise turn will increase speed; a counter clockwise turn will decrease speed.

Note: Inputs **W** and **CW** are shortened in conveyor motor control.



DC+: ARMATURE CONTROL.

AC: AC INPUT - LINE.

N: AC INPUT - NEUTRAL.

DC-: ARMATURE CONTROL.

1: CONTROL - LINE.

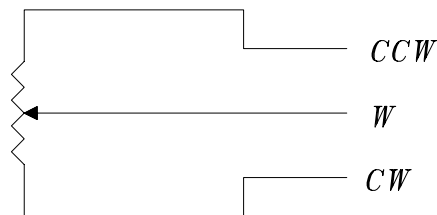
C: CONTROL - COMMON.
(REQUIRES A JUMPER TO "N")

MAX: MOTOR SPEED ADJUSTMENT.

ACC: ACCELERATION ADJUSTMENT.

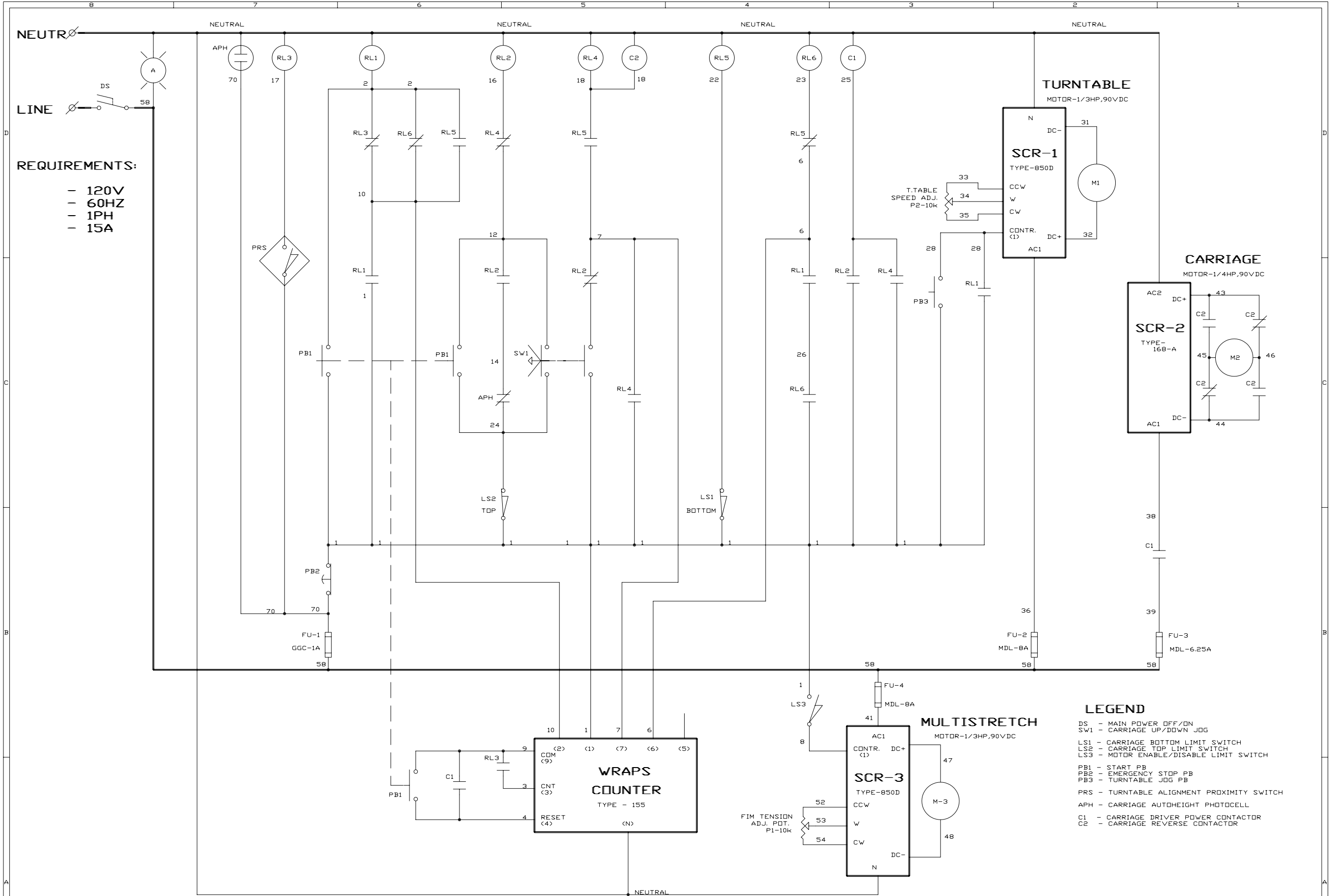
C/L: CURRENT LIMITER.
(FACTORY SET)

NOTE: WHERE A REMOTE POT IS
NOT USED (CONVEYOR)
"W" & "CW" ARE SHORTED.



*850D SINGLE SPEED 120VAC/90VDC
MOTOR CONTROL BOARD*

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



- LEGEND**
- DS - MAIN POWER OFF/ON
 - SW1 - CARRIAGE UP/DOWN JCG
 - LS1 - CARRIAGE BOTTOM LIMIT SWITCH
 - LS2 - CARRIAGE TOP LIMIT SWITCH
 - LS3 - MOTOR ENABLE/DISABLE LIMIT SWITCH
 - PB1 - START PB
 - PB2 - EMERGENCY STOP PB
 - PB3 - TURNTABLE JCG PB
 - PRS - TURNTABLE ALIGNMENT PROXIMITY SWITCH
 - APH - CARRIAGE AUTOHEIGHT PHOTOCELL
 - C1 - CARRIAGE DRIVER POWER CONTACTOR
 - C2 - CARRIAGE REVERSE CONTACTOR

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TITLE: **H&L77-7**

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