


orion
PACKAGING SYSTEMS, INC.

2270 Industriel, Montreal (Laval) Canada H7S 1P9 / Tél.: (514) 667-9769 Fax: (514) 667-6320



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)**

014020

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 SW-66

014020

Custom Suitcase Wrapper

Utilities: 116/1/60 15 Amp Electrical Service

Turntable: 36" Round Steel Plate
3 Support Cam Followers
5 1/8" Height to Top of Turntable

Turntable Drive: 0 - 15 RPM Variable Turntable Speed
Chain Drive with Tensioner
Electronic Soft Start
Positive Alignment Feature

Control Features: Electronic Film Force Control
Wrap Count Selector

Film Delivery: 30" Orion Multistretch Power Prestretch
Electronic Film Tension Control
End of Cycle Film Force Release
Full Authority Film Dancer Bar
40 Chain/Sprocket Ratio Control

Structural Features: Heavy Structural Steel Tubing Frame Desing
Casters for Portability
Fiberglass Molded Body
Pedestal for Turntable to Allow Suitcase Underwrap

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.**

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.

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.**

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 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.

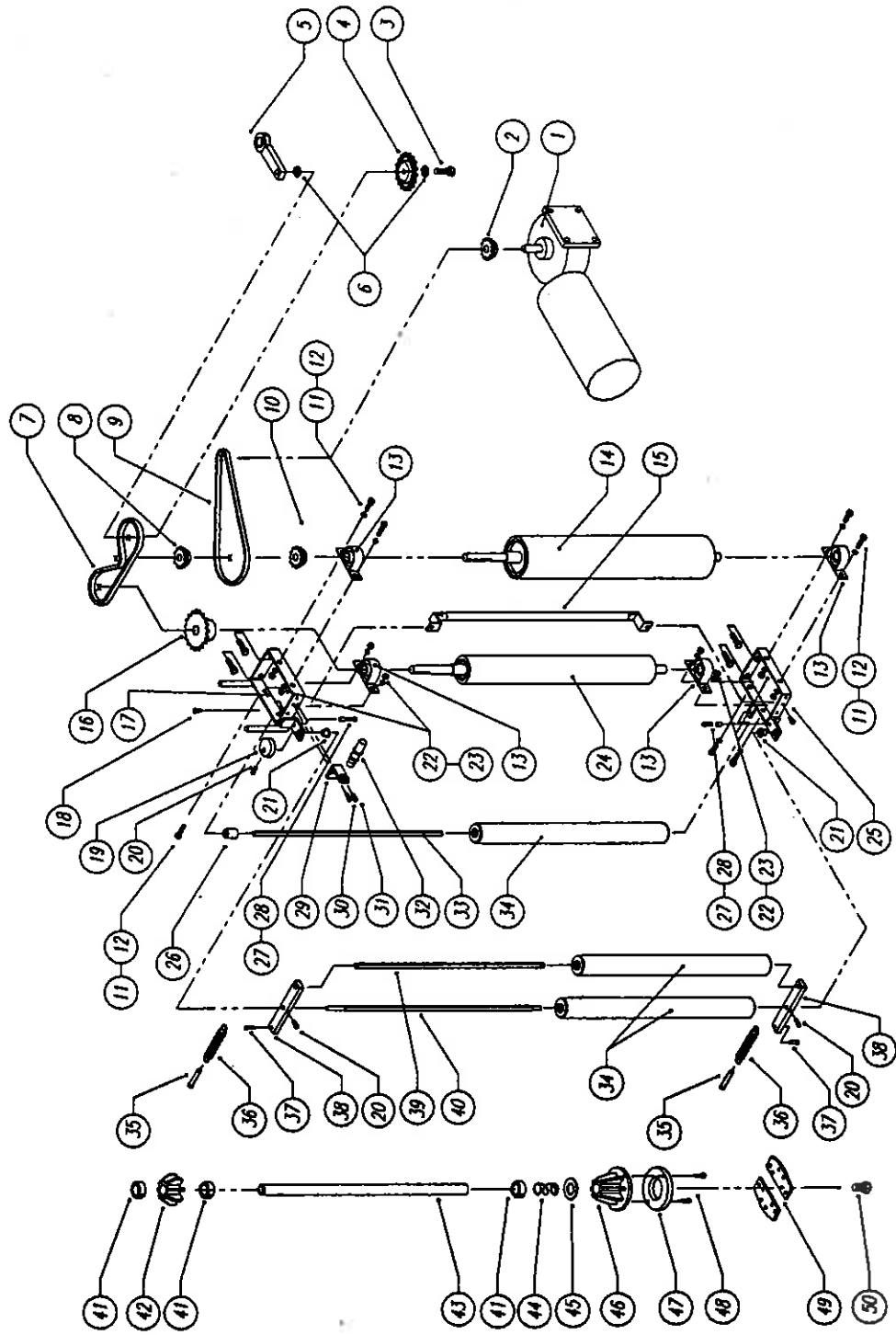
CAM FOLLOWER MAINTENANCE

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**



**30" FILM CARRIAGE FOR SW-66
ASSEMBLY**

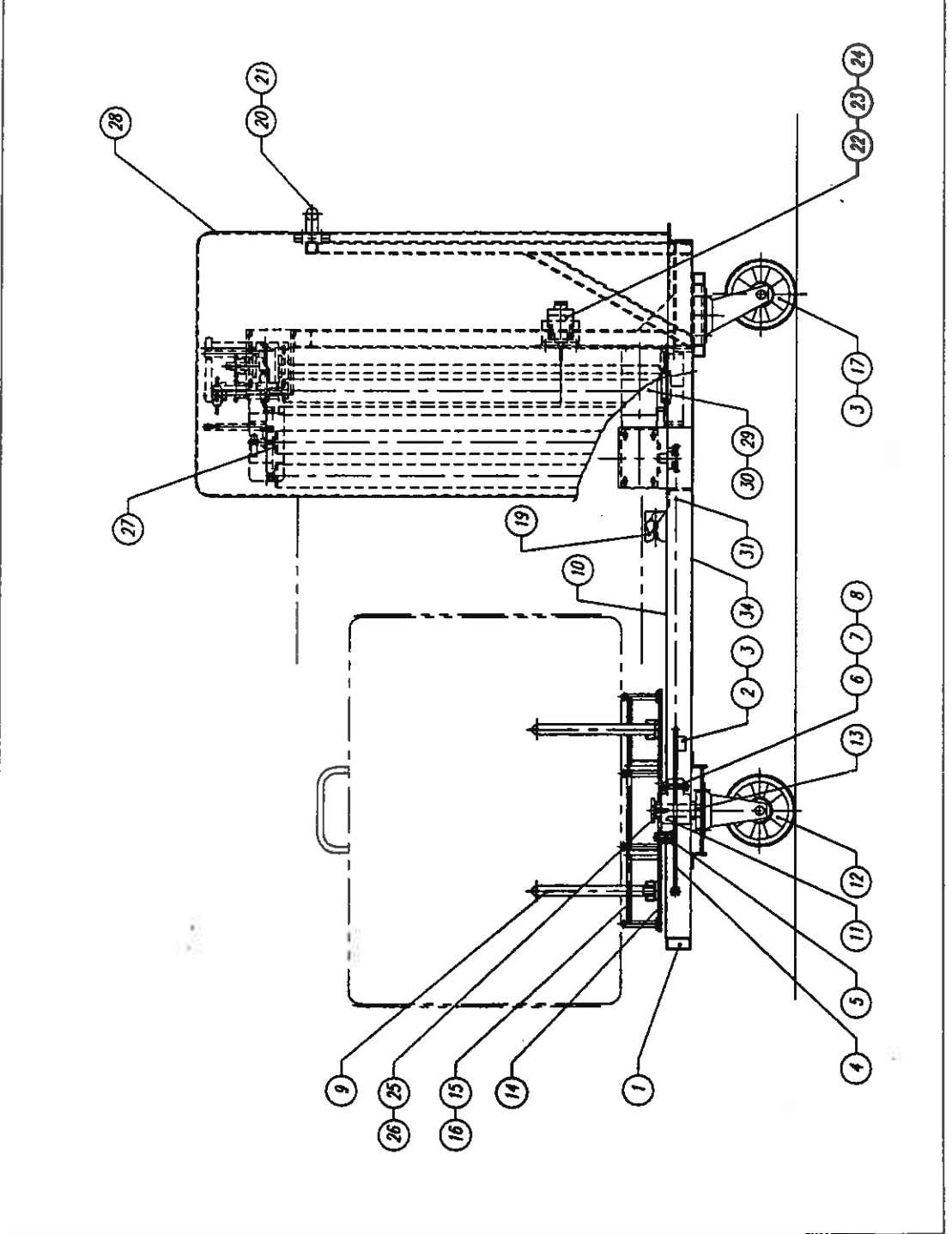
UPDATED JAN-17-94 # 404650

**30" FILM CARRIAGE FOR SW-66 ASS'Y
PART LIST**

404 650
Updated Jan-17-94

ORION NO.	PART NO.	DESCRIPTION	Q-TY
1.	013072	ELECTR. MOTOR	1
2.	010968	SPROCKET	1
3.	012482	HEX HEAD SCREW	1
4.	011297	IDLER SPROCKET	1
5.	240896	CHAIN TENSIONER	1
6.	012584	FLAT WASHER	2
7.	010583	CHAIN	1
8.	010975	SPROCKET	1
9.	010583	CHAIN	1
10.	010975	SPROCKET	1
11.	012725	FLAT WASHER	12
12.	010291	HEX HEAD SCREW	10
13.	010427	PILLOW BLOCK BEARING	4
14.	402877	RUBBER ROLLER 4 1/8" DIA.	1
15.	403450	SAFETY BAR	1
16.	011452	SPROCKET	1
17.	402250	TOP BRACKET	1
18.	012475	HEX HEAD SCREW	2
19.	230648	PROXIMITY SENSOR CAM	1
20.	010257	SOCKET HEAD CAP SCREW	3
21.	010058	FL. BRONZE BUSHING	2
22.	012751	HEX NUT	12
23.	012724	SPRING WASHER	12
24.	402876	RUBBER ROLLER 2 3/4" DIA.	1
25.	402270	BOTTOM BRACKET	1
26.	402822	PLASTIC TUBE SPACER	1
27.	011423	SHOULDER CAP SCREW	2
28.	010946	PLASTIC HOUSE	2
29.	230647	PROXIMITY SENSOR BRACKET	1
30.	010277	HEX HEAD SCREW	1
31.	012722	HEX HEAD SCREW	2
32.	011470	PROXIMITY SENSOR	1
33.	402880	SNUB ROLLER SHAFT	1
34.	402875	ALUMINUM ROLLER	3
35.	401375	CLEVIS PIN	2
36.	010047	TENSION SPRING	2
37.	401374	CLEVIS PIN	2
38.	401358	DANCER ROLLER LEVER	2
39.	402878	DANCER ROLLER SHAFT	1
40.	402879	DANCER LEVER SHAFT	1
41.	010052	COLLAR	3
42.	010051	TOP SPOOL	1
43.	010050	MANDREL SHAFT	1
44.	010891	COMPRESSION SPRING	1
45.	010199	FLAT WASHER	1
46.	010838	BOTTOM SPOOL	1
47.	010887	MANDREL BRAKE DISK	1
48.	010886	SPIKE	2
49.	010049	BRAKE PADS	2
50.	012758	HEX HEAD SCREW	1

34.	BOTTOM COVER	1
33.	PROXIMITY SWITCH	1
32.	PROXIMITY SWITCH BRACKET	403175 1
31.	ROLLER CHAIN	010583 1
30.	GEARMOTOR	013072 1
29.	SPROCKET	012402 1
28.	FIBERGLASS COVER	013135 1
27.	30" CARRIAGE ASS'Y. - LEFT	
26.	SOCK. FLAT HEAD SCREW	012692 1
25.	PLATE	220972 1
24.	ANGLE	240290 1
23.	PLATE	240289 1
22.	LIMIT SWITCH	012875 1
21.	PAN PHILL SCREW	012481 6
20.	SAFETY GRAB BAR	013136 1
19.	FILM CUTTING DEVICE	404577 1
17.	SWIVEL CASIER WITH BRAKE	013235 2
16.	PAN PHILL SCREW	012049 4
15.	PEDESTAL	403185 1
14.	TURNTABLE	404519 1
13.	THRUST WASHER	
12.	FIXED CASIER	013236 1
11.	BEARING	010244 2
10.	BASE COVER	404585 1
9.	LOAD GUIDE	404510 2
8.	FLAT WASHER	010948 4
7.	HEX. NUT	011128 2
6.	HEX. SCREW	
5.	HEX. SCREW	010322 4
4.	SPROCKET	404602 1
3.	HEX. SCREW	010293 13
2.	PROX. SWITCH TARGET	403159 1
1.	BASE	404520 1
No.	DESCRIPTION	PART No. Q'ty
DRAWING No. 404422		
SW-66 WRAPPER ASSY		



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.

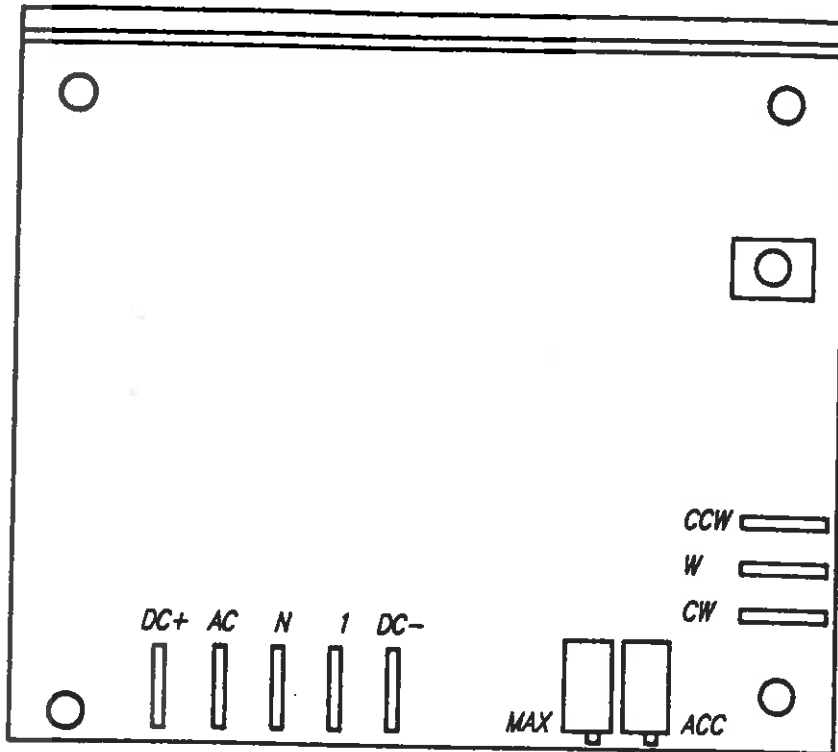
Note: If acceleration time is too low, an excessive amount of film will be ejected prior to the turntable achieving maximum speed.

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.

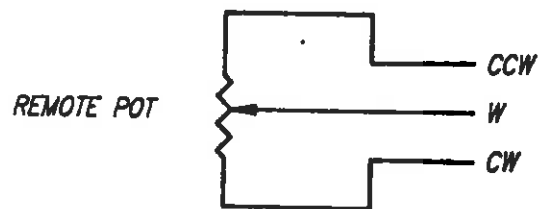
Note: If speed is too high dancer bars will jolt back and forth which in turn will switch the motor off and on. This will cause the film to be released unevenly.



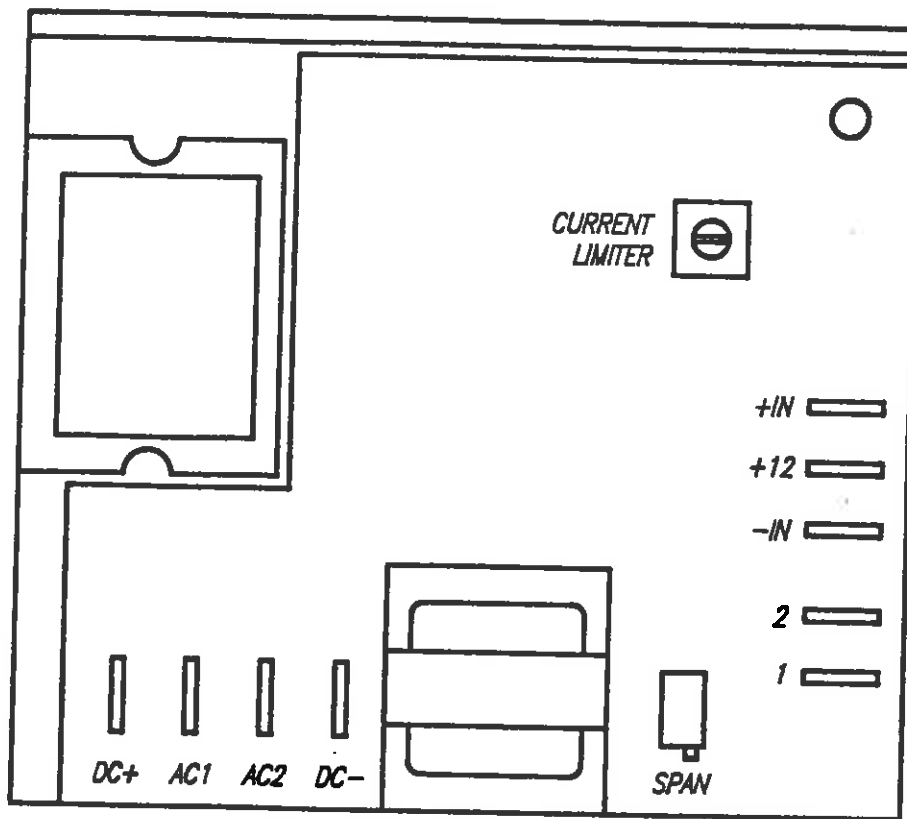
DC+: ARMATURE CONTROL
 AC: AC INPUT.
 N: NEUTRAL.
 I: CONTROL
 DC-: ARMATURE CONTROL

POTENTIOMETERS:

MAX: MOTOR SPEED ADJUSTMENT.
 ACC: ACCELERATION ADJUSTMENT.



850D SINGLE SPEED DC
 MOTOR CONTROL BOARD



DC+: ARMATURE CONTROL

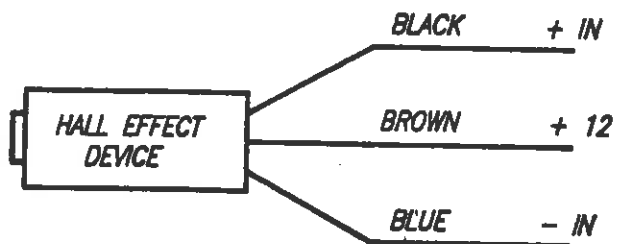
AC1: AC INPUT

AC2: AC INPUT

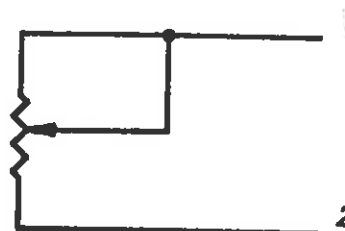
DC-: ARMATURE CONTROL

POTENTIOMER

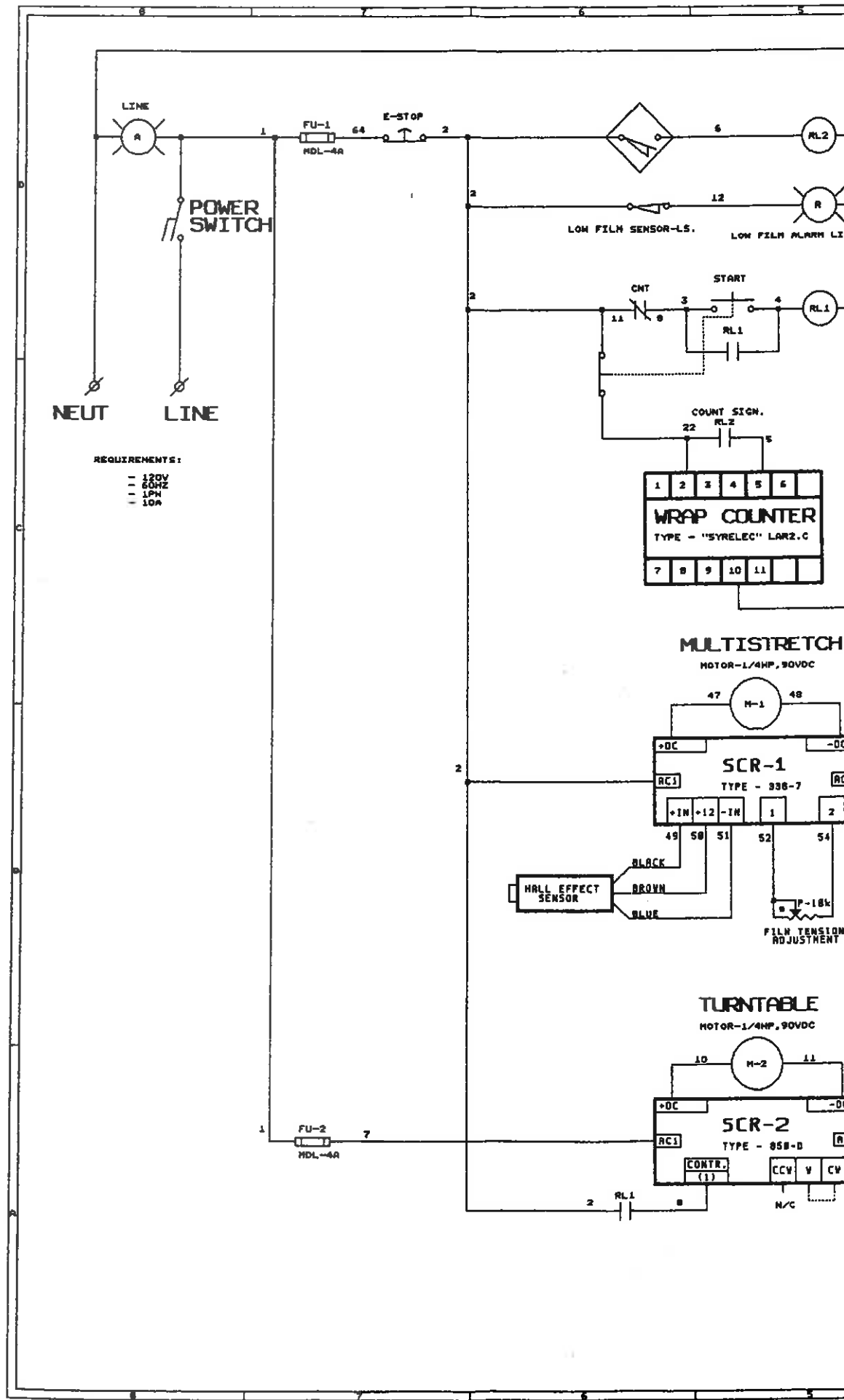
SPAN: HALL EFFECT SENSITIVITY CONTROL



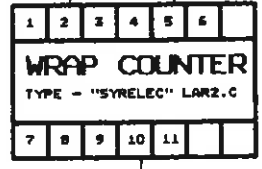
FILM TENSION ADJUSTMENT
REMOTE POTENTIOMETER



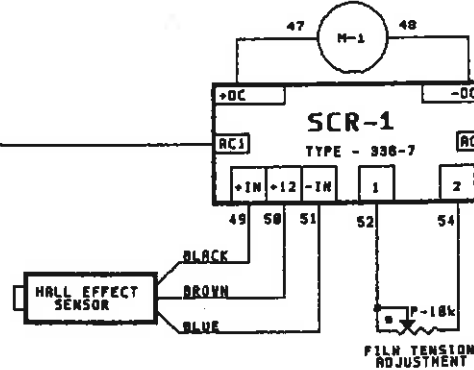
336-6
MULTISTRETCH BOARD



- REQUIREMENTS:**
- 120V
 - 60HZ
 - 1PH
 - 10A



MULTISTRETCH
MOTOR-1/4HP, 90VDC



TURNTABLE
MOTOR-1/4HP, 90VDC

