

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



# **OPERATION MANUAL**

For All Inquiries  
Please Contact  
Our Local Distributor

**FOR U.S.A. (Only)**  
**1-800-333-6556**

Thank you for choosing ORION'S 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 and skills.

Please read this manual carefully and keep it handy. Following these simple operating instructions will insure the safe and efficient performance of this machine and simple maintenance procedures will guarantee 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:

- 9 0 4 9 4 2 9  
9 0 4 9 4 3 0  
1) Model 9 0 4 9 4 3 1  
2) Serial Number  
3) Subassembly (see PART LIST)

H/L 55-13 (96T)  
H/L 66-13 (112T)  
Prog. Version 13.0  
Dwg. # 301 785

**SAFETY**

**ORION'S stretch wrappers should be operated with caution and common sense as any other industrial equipment. To prevent a potential injury and/or electrical shocks, 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 all inspection, maintenance or repair work.**

**Orion Packaging Inc.**  
**Semi - Automatic Machines Version -13 Specifications and Options List**  
**Effective, February 23,1999 (Revised: Feb. 23, 1999)**

**ORION "MATRIX" SERIES MODEL H-55**

9 0 4 9 4 2 9  
 L 9 0 4 9 4 3 0  
 L 9 0 4 9 4 3 1

**Spiral Semi-Automatic Heavy Duty High Profile**

<b>Maximum Load Size</b>	55"W x 55"L x 82"H
<b>Weight Capacity</b>	6,000 lbs. Dynamic, 20,000 lbs. Static
<b>Utilities</b>	115/1/60 20 Amp Service
<b>Turntable</b>	52"x 52" Formed & Weided Octagonal Turntable w/ Skirt Structural Steel Plate 4 Support Casters 4 1/2" x 2 1/2" Steel Precision Caster Bearings
<b>Turntable Drive</b>	0 - 16 RPM Variable Turntable Speed DC Variable Speed Drive Motor Heavy Duty ANSI Chain & Sprocket Drive Adjustable Electronic Soft Start Positive Alignment Feature
<b>Control Features</b>	CSA Approved, NEMA 12 Control Panel State-of-the-Art Allen Bradley Programmable Logic Control for Maximum Flexibility User Friendly Controls with Non-Proprietary Pushbuttons, and Switches Electronic Film Tension Control Adjustment on the Panel End of Cycle Film Force Release <u>RevoLogic® Exact Top and Bottom Wrap Counting Logic</u> Separate Top and Bottom Wrap Count Selectors Variable & Separate Speed Film Carriage Up/Down Controls Film Carriage Raise/Lower Switch (Manual) Cycle Pause On/Off Switch Reinforce Wrap Switch for Banding Photocell for Automatic Load Height Detection with On/Off Switch Turntable Jog Pushbutton Spiral Up or Up/Down Cycles
<b>Film Delivery</b>	20" Orion Power Prestretch <u>'InstaThread™' Self Threading Carriage</u> Electronic Film Tension Control Adjustment on the Panel Full Authority Film Dancer Bar with Variable Speed Output Heavy Duty ANSI Chain & Sprocket Ratio Control Maximum Available Pre-Stretch Ratio of 307% (Standard Setting of 245%) DC Variable Speed Drive Motor Adjustable Film Roping Bar on Chassis for Stronger Interlocking of Load and Pallet
<b>Film Carriage Elevator Drive</b>	Heavy Duty ANSI Chain Carriage Lift DC Variable Speed Drive Motor Structural Tubular Beam Guidance Ultra-High Molecular Weight Carriage Guidance System
<b>Structural Features</b>	100% Structural Steel Construction Throughout Non-Proprietary, Locally Obtainable Components Throughout Easy Access to All Components Open Mechanical Design for Ease of Maintenance Forklift Portable Base Design Structural Steel Tubular Beam Mast
<b>Estimated Shipping Weight</b>	1,300 lbs.

**Orion Stretchwrapping Equipment...Engineered Like No Other!**

## 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 enter the forks under the frame or insert the forks in the tube brackets welded to the top of machine.
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.
3. Sit the machine down assuring uniform contact with the floor, which is necessary to ensure correct and smooth operation.

## 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/or polyurethane covering on the film carriage 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. Any transport damage cannot be claimed to Orion Packaging Inc.

Items that are vulnerable to damage and must be inspected:

- motors and transmissions (transmissions may require purge plugs which could have been unplugged for the transport purpose).
  - junction boxes
  - electrical conduits
  - proximity and limit switches
  - photocells
3. Check the turntable assembly 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 film carriage to be sure that it is correctly aligned with the tower
  - 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 shall be connected as specified on the diagrams supplied with the machine.

An electrical diagram is provided with each machine in the operating manual envelope attached to the panel enclosure.

## ASSEMBLY PROCEDURE

The structural frames of the machine have to be installed on a leveled 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).

**NOTE:** Mongoose M66IS or M67IS the "Z" stand **must be bolted to the floor by the 5/8"** or stronger anchors

- Any wiring that has been disconnected to facilitate transport is marked with a number located on the junction box to which the wiring must be reconnected. 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.
- The tower deviation from vertical must not exceed 1/4" on the distance of 10 feet (angle: 0 degree 6').
- The conveyor roller deviation from horizontal must not exceed 1/16" on the distance of 52" (angle: 0 degree 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 tight (rigid conduit) to the main junction box located on the wrapper main frame next to the tower.



# **MACHINE OPERATION**

## **Before Starting Machine Operation**

Verify that the machine is properly connected to the electrical source. The electrical requirements depend on the machine type and features. For this information, please see the machine electrical diagram provided with the machine operation manual. The control panel layout for the machine is shown on the drawing.

**CAUTION:** Before proceeding the machine operation familiarize yourself with the EMERGENCY-STOP button and all functions, switches and pushbuttons.

## **POWER SWITCH**

Located on the panel door or side of the panel box, the lockable power switch has two settings:

ON - connects a power source to the machine

OFF - disconnects the power source.

## **START AND EMERGENCY STOP SWITCHES**

The START switch is used to start the cycle once the load is on the turntable. The cycle may be stopped on by pressing the STOP button (may also be used for the choosing the range of counts of the top and bottom wraps - see TOP WRAPS and BOTTOM WRAPS).

**NOTICE:** In case of emergency, the push-pull STOP button interrupts all the machine electrical circuits. To continue the cycle the STOP push button should be pulled out and START button pressed for the machine restarting. Double pressing of the push - pull STOP button will reset the machine program and machine will be ready to apply the wrapping cycle from its beginning.

## WRAP PATTERN SELECTOR SWITCH "SPIRAL" Up / Up/Down

The Pattern Selector Switch " SPIRAL" positions:

UP - When the Up position has been selected machine will first wrap bottom of load applying selected number of bottom wraps. The film carriage will then move to the top of load and stop. Selected number of top wraps will then be applied, after which the turntable will slow down and stop in home position. Wrap pattern "SPIRAL UP ONLY" has been completed.

UP/Down - This Selection has two Sub -Modes, programmable to enable the machine to perform the two different wrap patterns (Bottom Wraps First and Top Wraps First).

BOTTOM WRAPS FIRST - When this Sub-Mode has been selected machine will first wrap bottom of load applying selected number of bottom wraps. The film carriage will then move to top of load and stop. Selected number of top wraps will then be applied. The film carriage will move down to bottom position, after which the turntable will slow down and stop in home position.

TOP WRAPS FIRST - When this Sub-Mode has been selected film carriage will move to top of load and stop. Selected number of top wraps will be applied. The film carriage will then move to bottom of the load and stop. Selected number of bottom wraps will then be applied. The film carriage will be in bottom position, turntable will slow down and stop in home position.

Machine is shipped pre-programmed in Top Wraps First Sub-Mode, in order to change Sub-Mode from Top Wraps First to Bottom Wraps First see instructions below.

Before proceeding ensure that machine is in MANUAL, STANDBY MODE (machine is powered on and all machine manual functions are enabled)

- Press the STOP (Red) Button
- To Re-program machine to BOTTOM WRAPS FIRST Sub-Mode, Switch and hold "Carriage Raise/Lower" Selector Switch in LOWER position and maintain for approximately 12 seconds.
- Pull the STOP (Red) push-button out.
- Perform standard machine reset procedure by double push-pull operation of the red mushroom stop button.
- At this point machine is ready and BOTTOM WRAPS FIRST Sub-Mode is now activated.

To Re-program machine to TOP WRAPS FIRST Sub-Mode follow procedures above, with the exception of step 2. Switch and hold "Carriage Raise/Lower" Selector Switch in RAISE position.

At this point machine is ready and TOP WRAPS FIRST Sub-Mode is now activated.

## **CARRIAGE CONTROL SWITCH**

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

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 activated.

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 the respective direction.

### **TURNTABLE JOG & REINFORCE WRAP**

The turntable jog switch will rotate the turntable low speed when the switch positioned on the TOWER / TURNTABLE JOG. When the switch is released, the turntable (rotary tower) will stop. The switch is inoperative during the wrap cycle.

When the same switch is positioned on the REINFORCE WRAP the carriage will be stationary until the switch is released.

## **PHOTOCELL ON/OFF SWITCH**

The photocell switch has two settings:

ON - when turned ON, the photocell instructs the carriage to stop and begin the top wrap 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 useful range for most of the films used by our customers, 8 to 10 as a very high range which may break some films).

## **CARRIAGE SPEED**

The carriage speed potentiometer control can be used to control the amount of overlap the film will have during the wrap. The potentiometer has settings from 0 to 10, the higher settings being the fastest. High settings mean less film overlap because of faster carriage speed and low settings mean more film overlap because of lower carriage speed.

## **TOP WRAPS 1, 2, 3...9**

Three-position switch controls the number of wraps that may be applied on the top of the load. The machine is preset RANGE # 1 (top wraps: 1 or 2 or 3). To change the values of wrap see TOP & BOTTOM WRAP COUNTS CHANGE.

## **BOTTOM WRAPS 1, 2, 3...9**

Three-position switch controls the number of wraps that may be applied on the bottom of the load. The machine is preset with RANGE # 1 (bottom wraps: 1 or 2 or 3) which may be applied. To change the values of wrap see TOP & BOTTOM WRAP COUNTS CHANGE.

## **TOP & BOTTOM WRAP COUNTS CHANGE**

The Top & Bottom Wrap Selector Switches have three (3) ranges of wrap counts and operate independently of each other.

Range #1	Wrap values of 1-2-3
Range #2	Wrap values of 4-5-6
Range #3	Wrap values of 7-8-9

For the selection of any of these ranges for top and bottom wraps please do as follows:  
Before proceeding ensure that machine is in MANUAL, STANDBY MODE (machine is powered on and all machine manual functions are enabled)  
Press the STOP (red) Button

Set the Top and Bottom wrap count selector switch to the position corresponding with the desired count range.

1 = Range #1

2 = Range #2

3 = Range #3

Press the START (Green) pushbutton and maintain for approximately 12 seconds.

Pull the STOP (Red) pushbutton out.

Perform standard machine reset procedure by double push-pull operation of the red mushroom stop button.

At this point machine is ready and new preset values are loaded.

## **MACHINE WRAPPING TEST**

Notice: It is advisable to test-run the equipment with several pallet loads before attempting to wrap using film. Please position the operator beside the EMERGENCY STOP push button.

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

- load height stop photoswitch (on the carriage)
- top limit switch position
- bottom limit switch position
- roping bar height adjustment

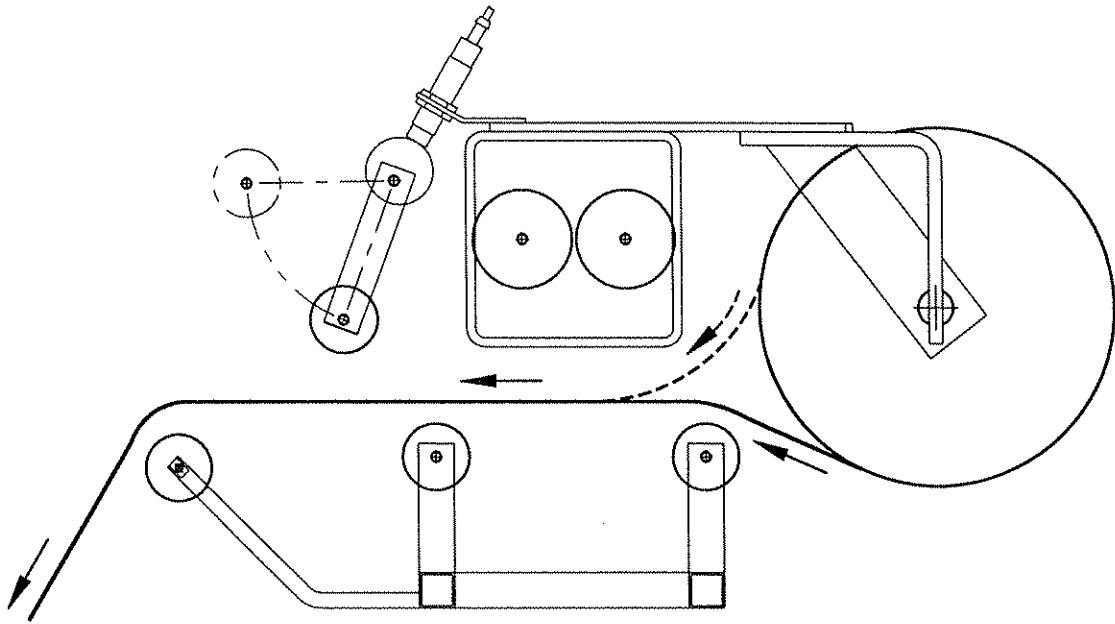
Before the test procedure adjust the wrapping cycle parameters i.e. top wraps, bottom wraps, height photocell on/off, film tension, carriage speed (those two parameters may be adjusted during the wrapping cycle).

## **LOADING THE FILM**

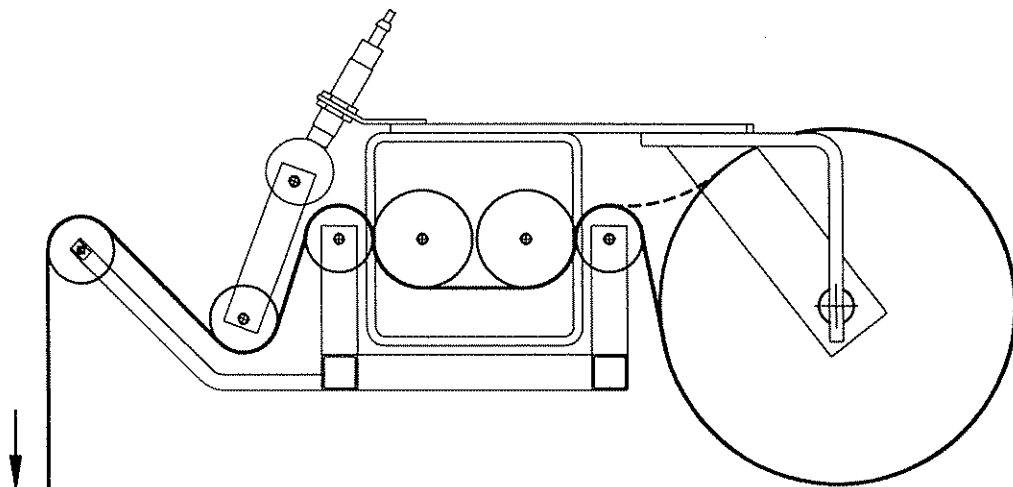
The film roll can be loaded on the carriage mandrel from either end of the roll. When using tacky film, please verify that the inward tacky surface of the film is inward on the load.

1. Disconnect power (turn off power switch)
2. Swing up the top mandrel spool
3. Put the roll of film on the bottom mandrel
4. Install the top mandrel on top of the roll to prevent upward movement
5. Pull the handle marked PULL TO OPEN to open film distributor cradle
6. Pass the roped tail of the film through opening (as shown on the film quick threading pattern DWG. # 418180 Fig. 1)
7. Close the film distributor cradle by pushing bar marked PUSH TO CLOSE
8. When the film feeding is completed (Fig. 2) - turn the power switch on
9. 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.

The system is now ready to begin the first wrapping cycle.



**Fig. 1 OPEN CRADLE**



**Fig. 2 CLOSED CRADLE**

**FILM QUICK THREADING**

UPDATED FEB-15-99

DWG #418180

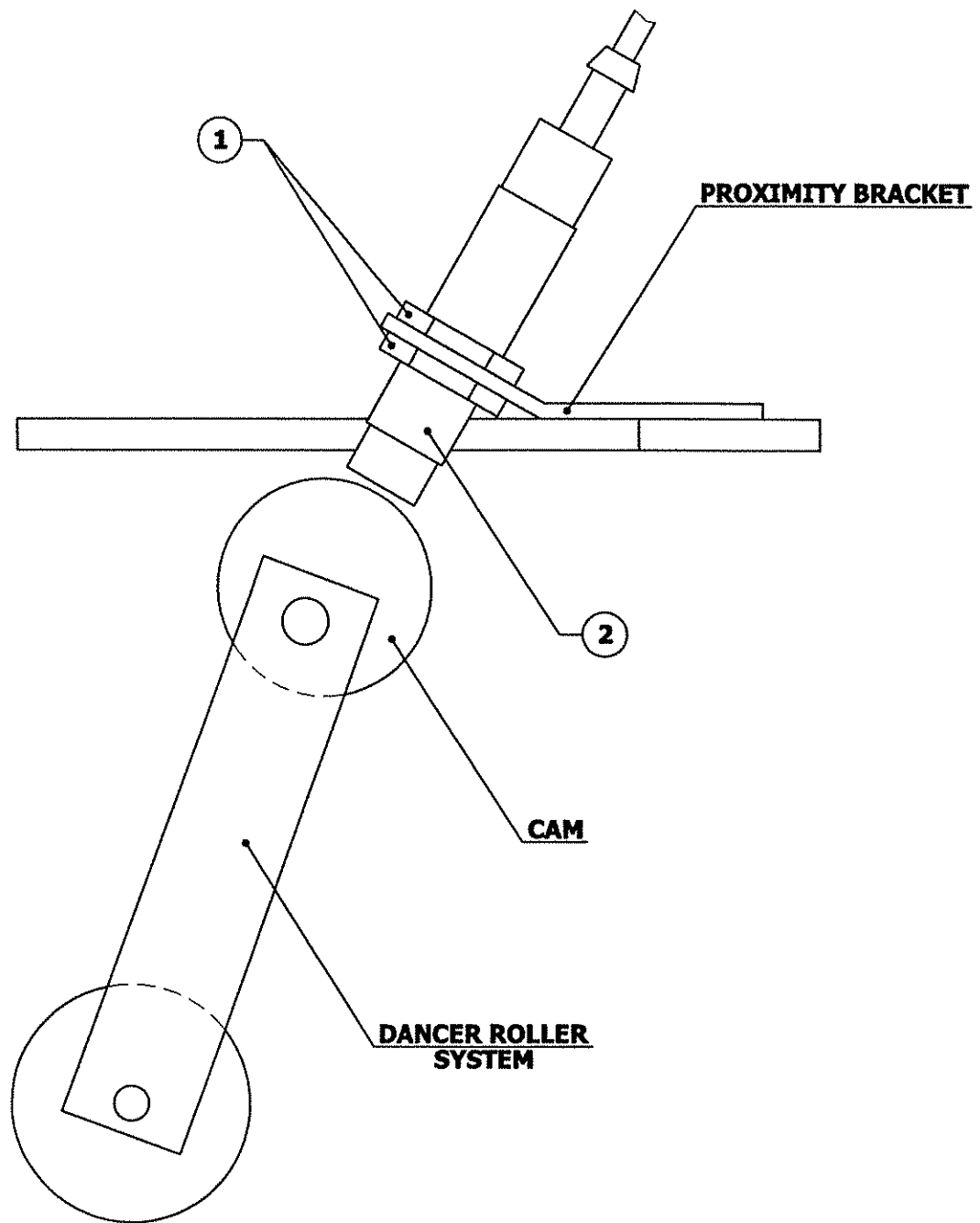
## PROXIMITY SENSOR ADJUSTMENT

Occasionally the Feed Back Proximity Sensor may need some adjustment. The position of the feed back proximity sensor against the cam is shown on drawing # 419139.

Adjustment instructions:

- remove the carriage cover
- unbolt the two nuts holding the proximity switch - item # 1
- turn the Proximity sensor - (item # 2) to create the gap between the cam and the front side of proximity sensor about 1/8 "
- tighten on the nuts securing the Proximity Sensor
- turn the trim pot SPAN (Board 336-8 or 336-9) adjust the moment when motor starts to turn when dancer roller moved from its home position up to 1 1/2".





## **PROXIMITY SENSOR FEED BACK ADJUSTMENT**

UPDATED FEB-15-99

DWG #419139

## **MACHINE MAINTENANCE**

All general information about machine maintenance is based on normal machine working conditions: indoors, moderate dust and low moisture environment, and maximum rotation of 32 RPM of turntable/rotary arm.

They should be regarded as guidelines, reviewed and corrected according to requirements of actual use and conditions.

### **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 it 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.

### **REDUCER OIL CHANGE**

All external cap screws and plugs on the reducing transmission should be checked for tightness after the first week. It is recommended to change the oil every six months or at least 1800 hours of operation, whichever comes first. When adding or changing oil, the transmission should never be filled above the oil level mark indicated, because leakage and overheating may occur.

Below is the list of the type of lubricant that should be used.

#### List of recommended reducer oils

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 Corp.	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

#### **RING BEARING MAINTENANCE (when applicable)**

The ring bearing (located under the turntable) should be re-lubricated internally and externally.

**Internally:** by injecting grease into all the lubrication nipples in succession until a collar of fresh grease appears around the perimeter of the ring. The re-lubrication interval suggested for these bearings, used in Stretch Wrapping Machinery is 750 hours, with a maximum period of 6 months. The lubricant should be fresh and applied in sufficient quantities to make sure all surfaces are lubricated.

**Externally:** by lubricating and wiping the chain drive with oily cloth.

The frequency of lubrication depends on entirely upon the usage of the machine and environment in which the machine is placed (dust, moisture etc.).

Machines working under extremely dirty conditions should be lubricated every 400 operating hours but at minimum, every 2 months. Longer lubrication intervals may occur only when machine is working under very clean and dry conditions but should be not be longer than 6 months.

## List of recommended lubricants for the ring bearing lubrication

Manufacturer	Lubricant
BP	Energrease LS2
Castrol	Speeroll AP2
Esso	Beacon 2
Gulf	Crown Grease 2
Mobil	Mobilus 2
Shell	Avania Grease R2
Texaco	Glissando FT 2
Valvoline	LB - 2

## TOWER RACEWAYS MAINTENANCE

The film distributor (carriage) is sliding on the plastic guides attached behind its back plate. The section of the tower on which the plastic guides move (raceways) should be cleaned and re-greased approximately every 600 hours of machine operation.

NOTICE: If the machine works in a dusty and corrosive environment, the raceways should be re-greased more often (at least every 100 hours).

## CHAIN MAINTENANCE

To clean the chain, wipe it with an oily cloth every month. When machine is working in a dusty and damp environment, it may be necessary to repeat the cleaning operation more often.

As the chain lubricants please use the most common chain lubricants on the market.

With time, the chain will tend to stretch. A loose chain should be tightened at the chain tensioner, or by moving the reducer on its mounting plate.

NOTICE: Chain tension first adjustment must be done after the first two weeks of machine usage.

## PNEUMATIC SYSTEM MAINTENANCE (when applicable)

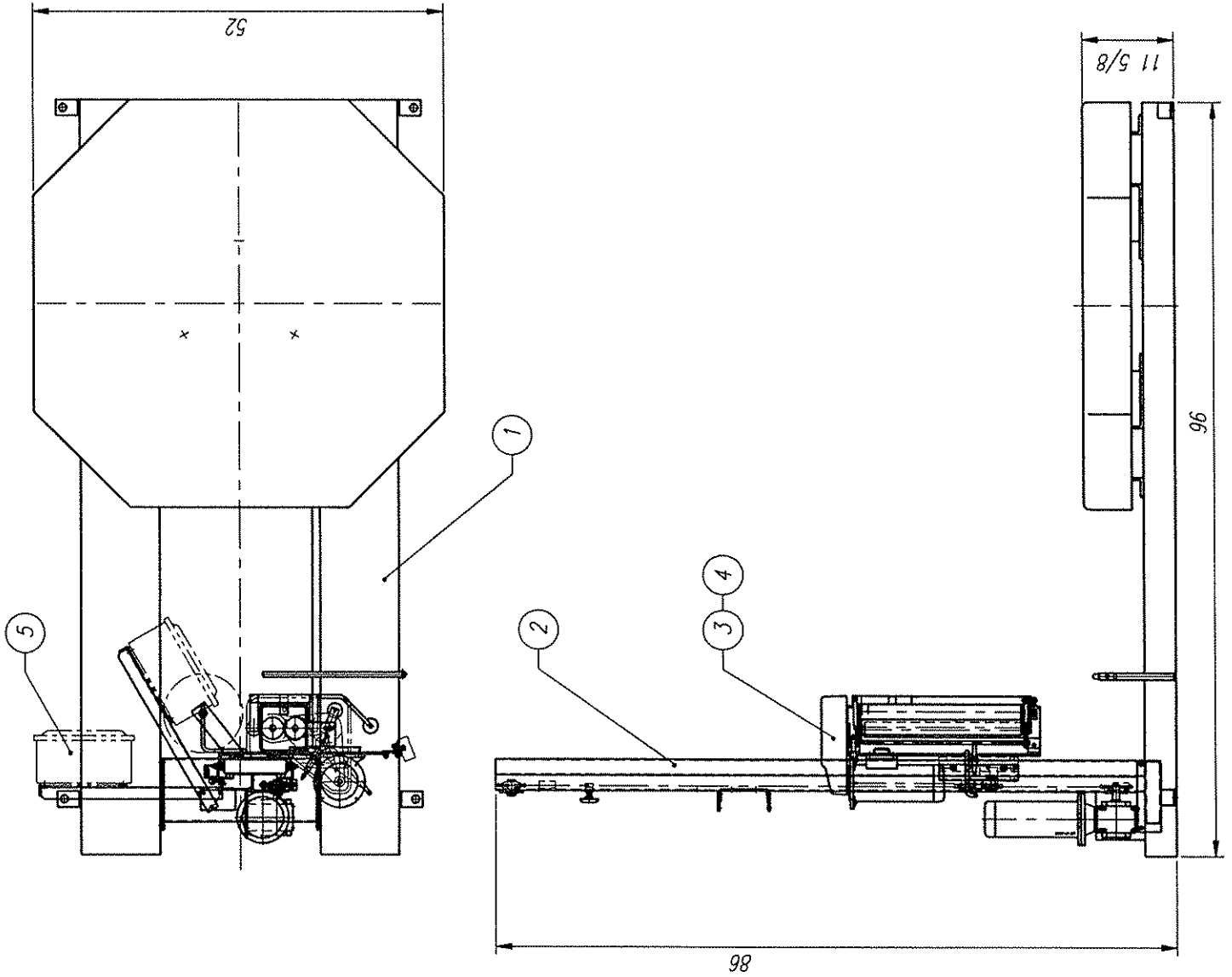
The air supply system must be checked weekly and must be free from the moisture. In cold environments, it may be necessary to drain the air supply system daily and lubricate using SAE #10 oil.

The air lubricator should be filled to approximately 3/4" of its full capacity.

# SEMI-AUTOMATIC STANDARD ASSEMBLY PART LIST


NOTE:

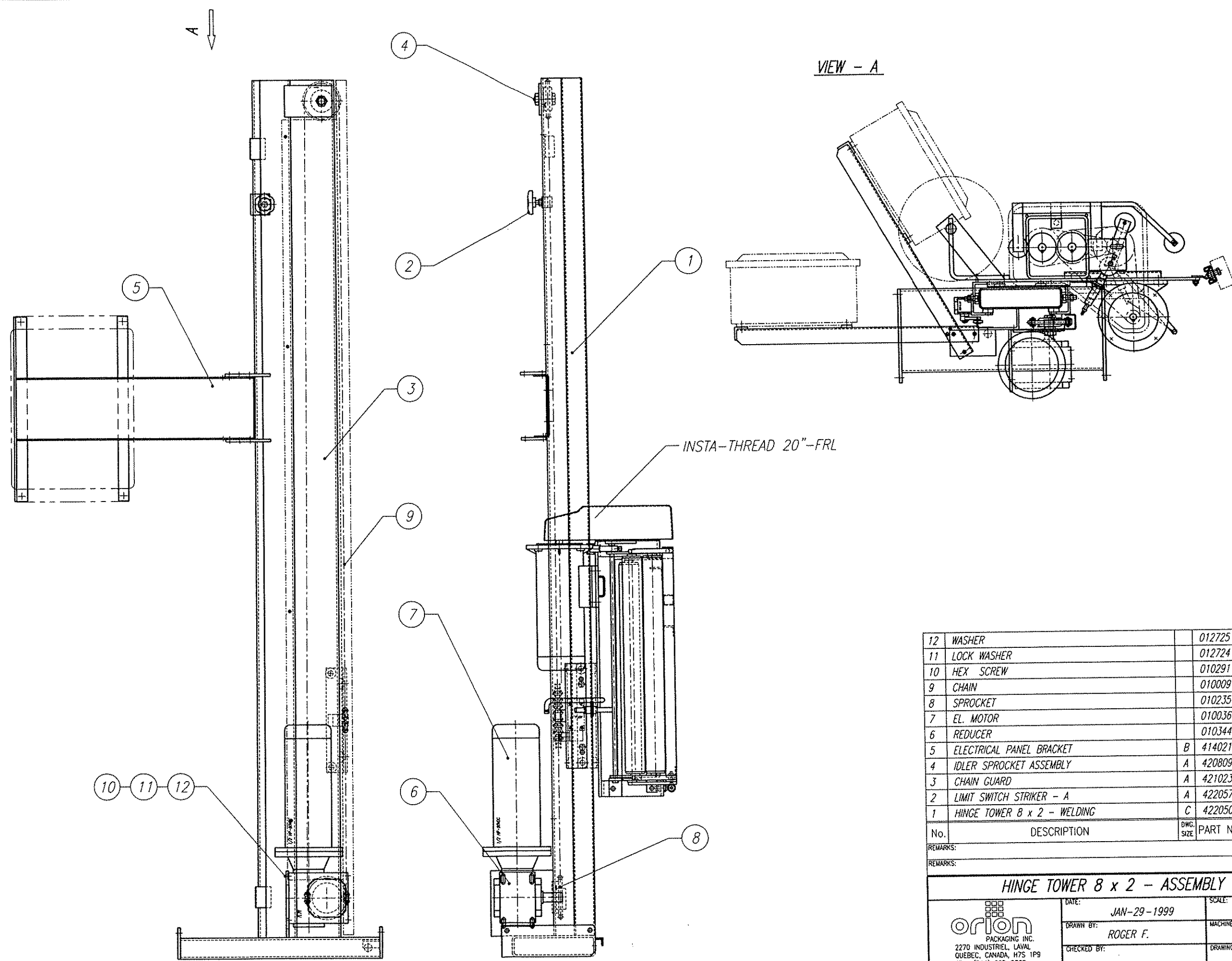
- Quantities listed in order of part number.
- The names given to the parts are generic.



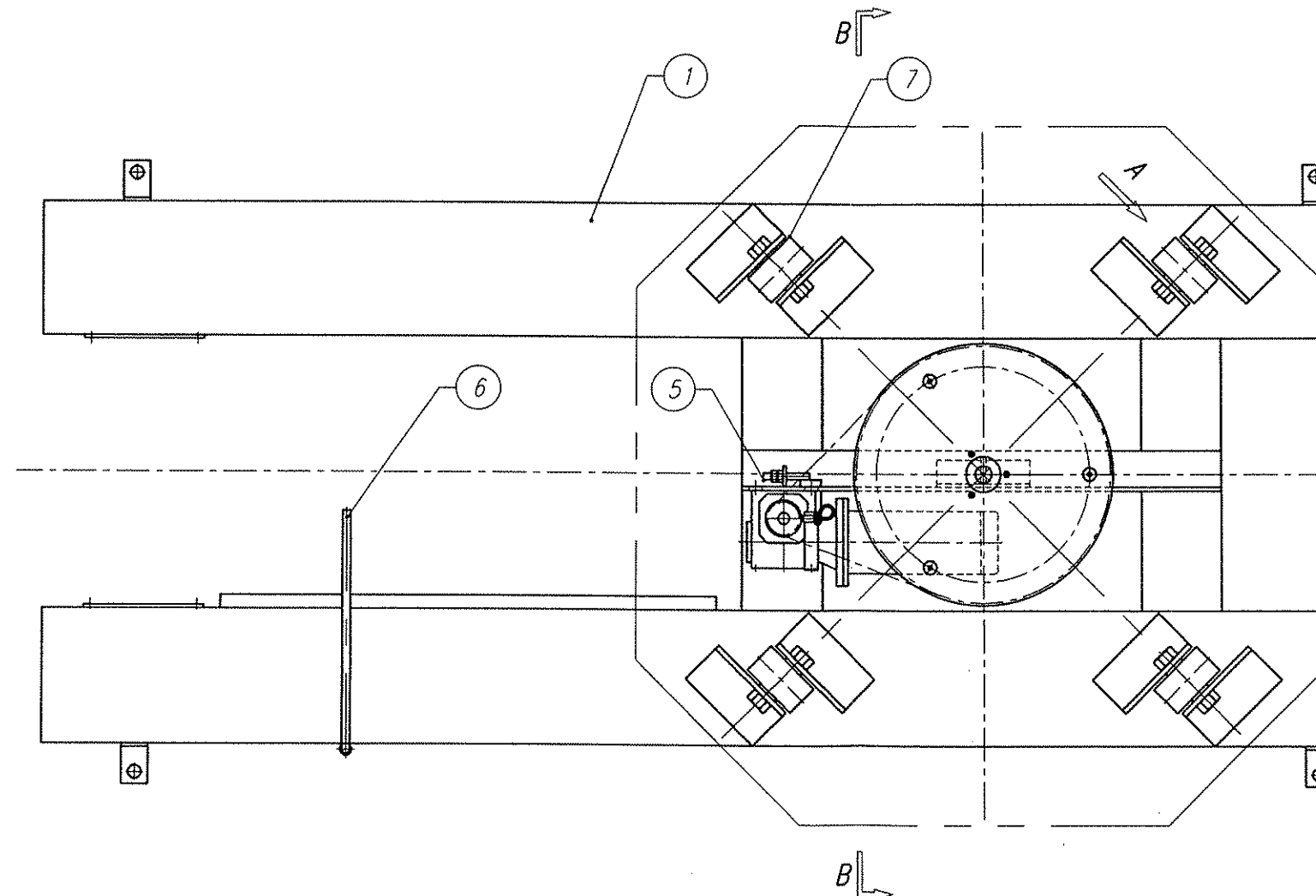
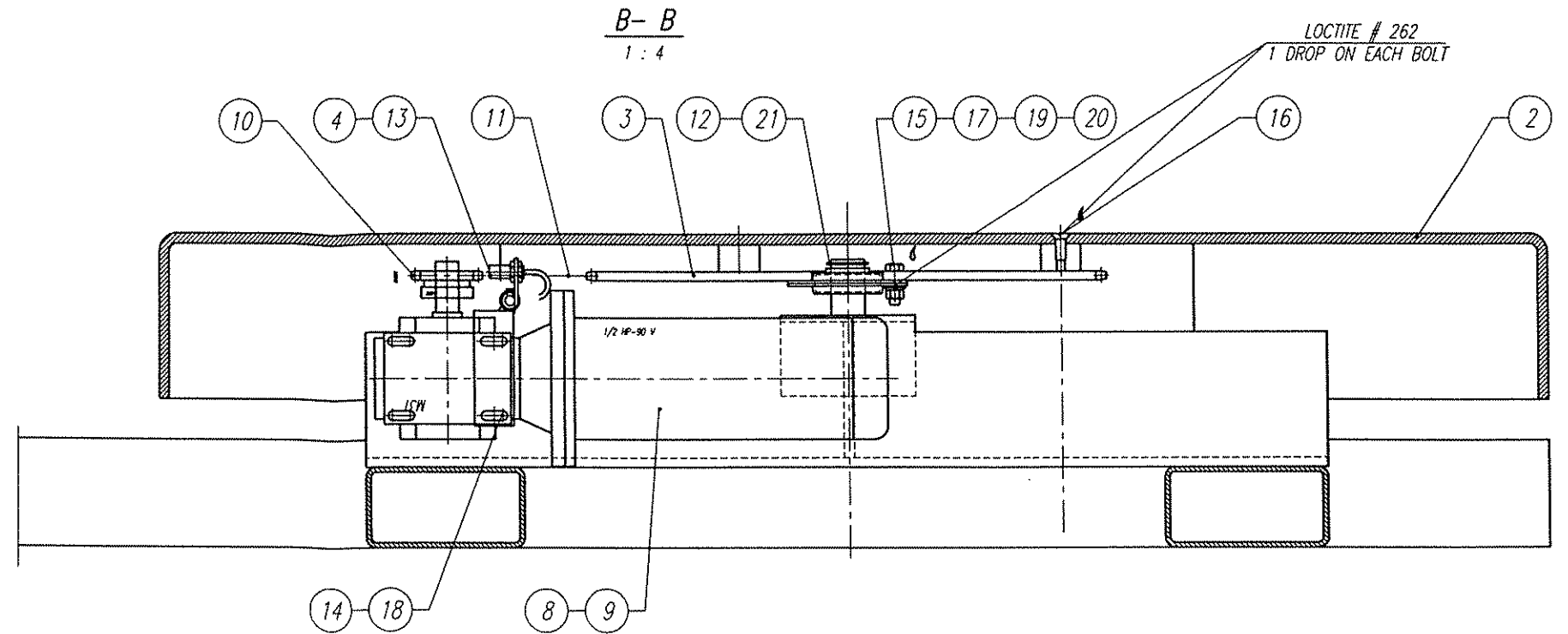
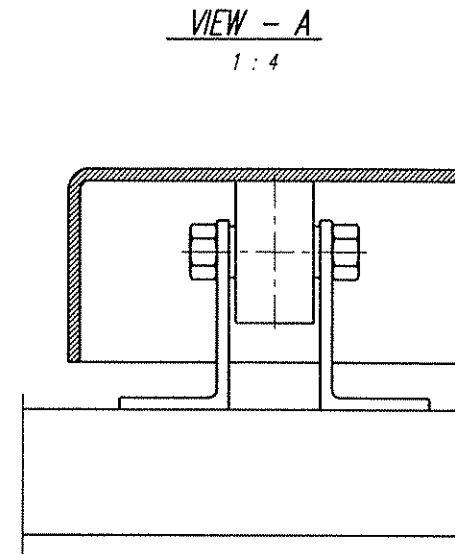
TOTAL WEIGHT : 1263.1 LBS

5		CONTROL PANEL					1	-
4		INSTA-THREAD - 30 - FRL/13					1	-
3		INSTA-THREAD - 20 - FRL/13					1	120.2
2		HINGE TOWER 8 x 2 - ASSEMBLY					1	216.0
1		H-55/13 H BASE ASSEMBLY					1	926.9
No.		DESCRIPTION				PART No.	Q'ty	WEIGHT
SOURCE								
SOURCE								
		H-55/13 H WRAPPER						
		DATE	MAR-08-1999		SCALE	1 : 10		
		DESIGNED BY	ROGER F.		WORKING TYPE	H55/13 H		
		CHECKED BY			DRAWING SIZE	C		
		JOB NO.	STD		DRAWING NO.	423064		
		ASSEMBLY PICS:						
		orlon						
		2210 INDUSTRIAL LANE, MILFORD, CT 06455 TEL: (814) 667-0700						
		LAYOUT						

  
 2270 INDUSTRIEL L'AVENUE  
 QUEBEC, CANADA, H3S 1P9  
 TEL: (514) 667-9708  
 FAX: (514) 667-9709



12	WASHER		012725	4	
11	LOCK WASHER		012724	4	
10	HEX SCREW		010291	4	
9	CHAIN		010009	1	
8	SPROCKET		010235	1	
7	EL. MOTOR		010036	1	
6	REDUCER		010344	1	
5	ELECTRICAL PANEL BRACKET	B	414021	1	
4	IDLER SPROCKET ASSEMBLY	A	420809	1	
3	CHAIN GUARD	A	421023	1	
2	LIMIT SWITCH STRIKER - A	A	422057	1	
1	HINGE TOWER 8 x 2 - WELDING	C	422050	1	
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT
REMARKS:					
REMARKS:					
HINGE TOWER 8 x 2 - ASSEMBLY					
 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (514) 667-9769		DATE:	JAN-29-1999	SCALE:	1 : 6
		DRAWN BY:	ROGER F.	MACHINE TYPE:	H, L55/13H
		CHECKED BY:		DRAWING SIZE:	C
		JOB No.:	STD	DRAWING No.:	422046
ASSEMBLY DWG.: 423064					



21	SNAP RING		013655	1	
20	HEX NUT		011128	3	
19	SPRING WASHER		011390	3	
18	SPRING WASHER		012724	4	
17	FLAT WASHER		010948	6	
16	FLAT SOCKET CAP SCREW		013363	3	
15	HEX HEAD SCREW		012406	3	
14	HEX HEAD SCREW		010291	4	
13	PROXIMITY SWITCH			1	
12	STAMP HOUSING FLANGE BEARING		013654	1	
11	CHAIN		010009	1	
10	SPROCKET		010343	1	
9	EL. MOTOR		010036	1	
8	REDUCER		010093	1	
7	SOLID STEEL CASTER 4 1/2 DIA - ASS'Y	B	422485	4	
6	ROPING BAR	A	413868	1	
5	CHAIN TIGHTENER	A	412261	1	
4	PROXIMITY SWITCH BRACKET	B	412316	1	
3	SPROCKET	A	406338	1	
2	TURNTABLE 52" OCTAGONAL	B	412978	1	
1	H-55/13 H BASE WELDING	C	423066	1	
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT

REMARKS:

REMARKS:

### H-55/13 H BASE ASSEMBLY

**orion**  
PACKAGING INC.  
2270 INDUSTRIEL, LAVAL  
QUEBEC, CANADA, H7S 1P9  
TEL.: (514) 667-9769

DATE: MAR-08-1999

SCALE: 1 : 8

DRAWN BY: ROGER F.

MACHINE TYPE: H55/13

CHECKED BY:

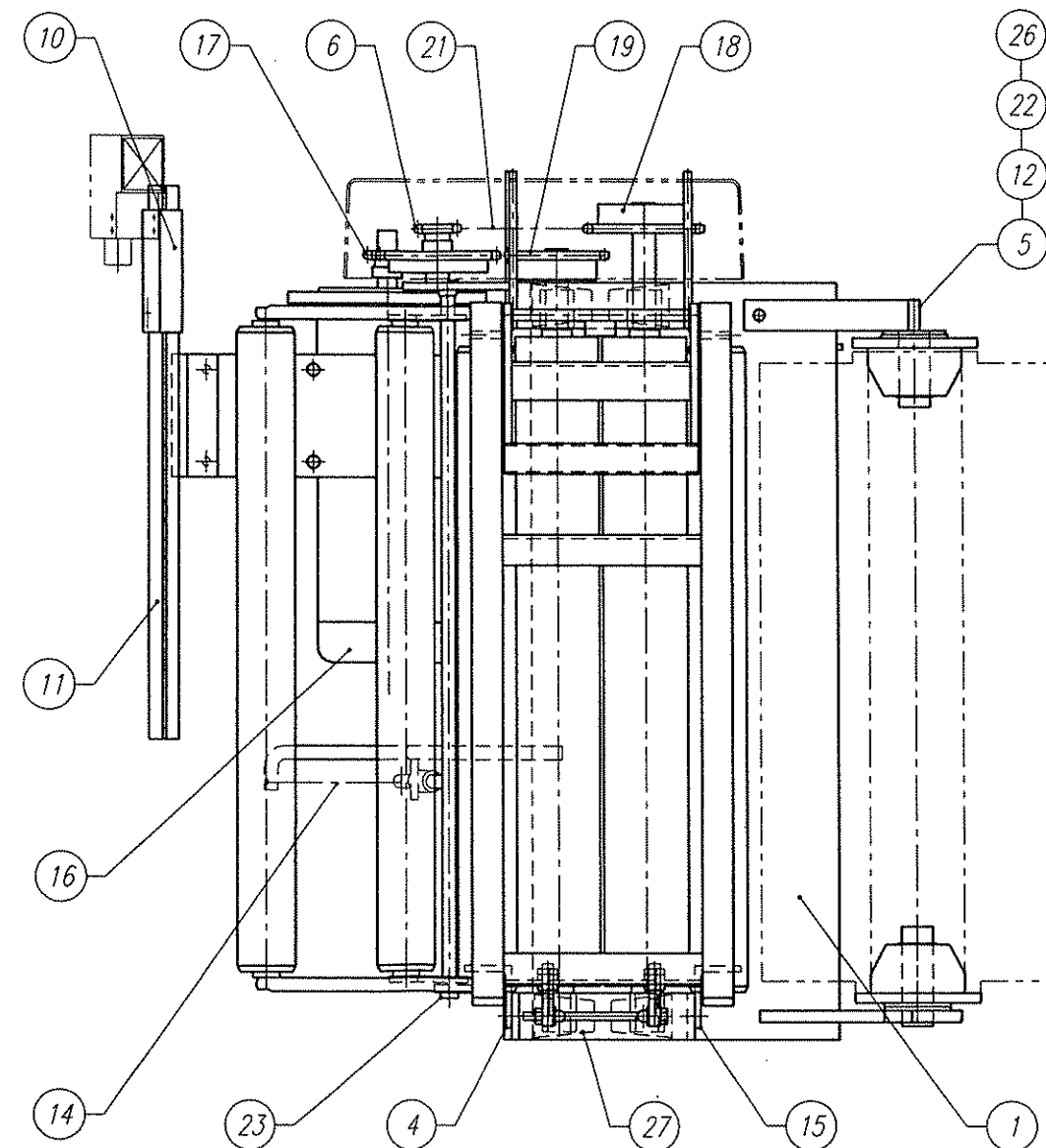
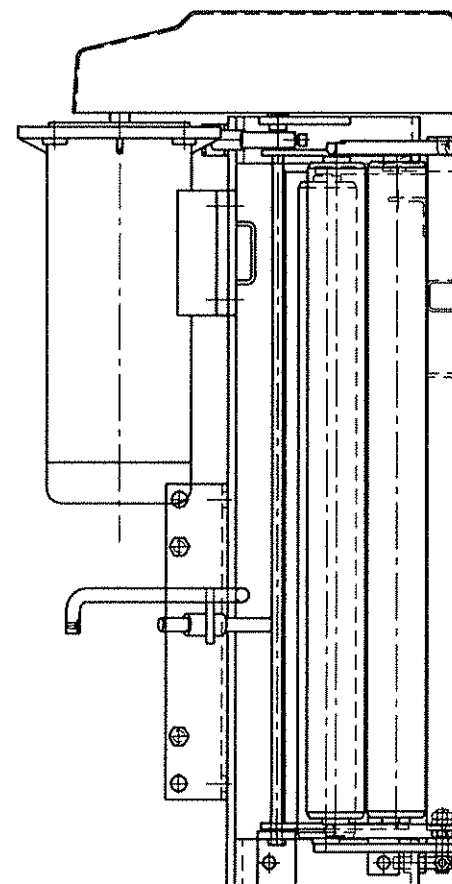
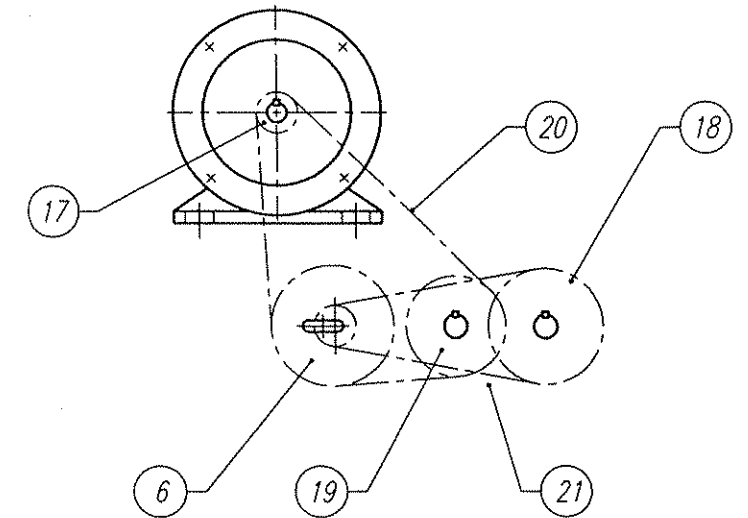
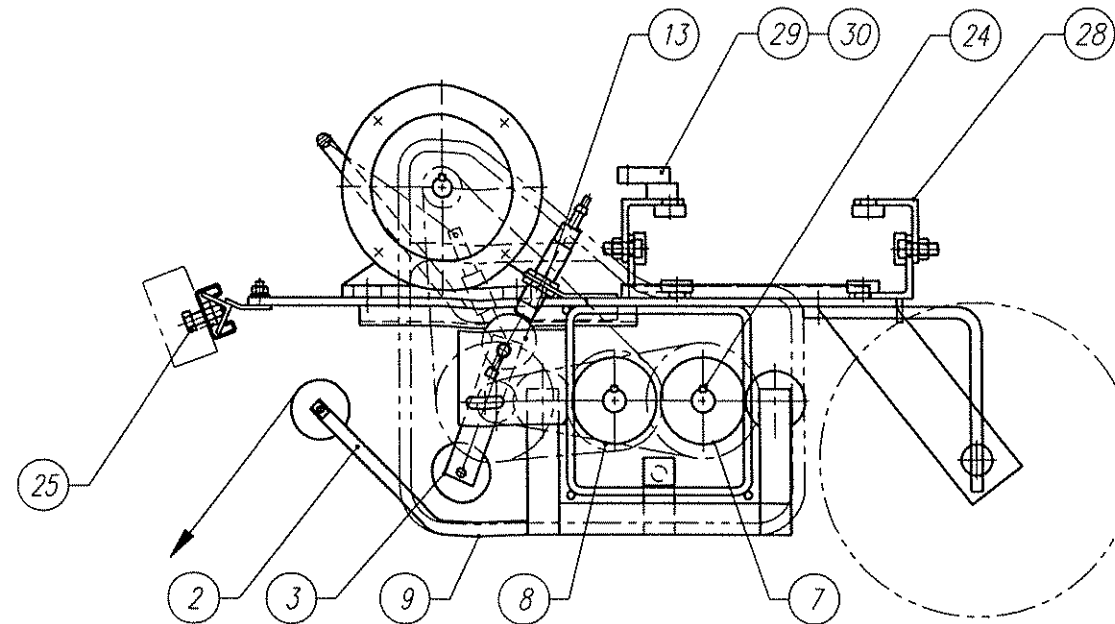
DRAWING SIZE: C

ASSEMBLY DWG.: 423064

JOB No.: STD

DRAWING No.: 423065





30	SLIDE BOTTOM	A	420001	12	
29	CARRIAGE CHAIN ATTACH. ANGLE	A	420000	1	
28	CARRIAGE ATTACHMENT ANGLE	A	419999	1	
27	PILLOW BLOCK		011192	4	
26	FLAT WASHER		012323	2	
25	BLACK KNOB		010092	1	
24	SQ. KEY		010227	3	
23	FL.BRONZE BUSHING		014247	2	
22	SELF SEATING RETAINING RING		013860	2	
21	CHAIN		010583	1	
20	CHAIN		010583	1	
19	SPROCKET		011454	1	
18	SPROCKET (245 %)		011457	1	
17	SPROCKET	A	415109	1	
16	ELECTRIC MOTOR		010036	1	
15	CRADLE ROLLER OPENING LOCK	A	409469	2	
14	EXTENSION SPRING	B	403118	1	
13	PROXIMITY SENSOR CAM	A	413744	1	
12	SPOOL	A	405855	2	
11	PHOTOCELL CHANNEL - 20, CW ROT'N	A	414304	1	
10	PHOTOCELL BRACKET	A	416832	1	
9	FIBERGLASS COVER - CW ROT'N	B	414305	1	
8	RUBBER ROLLER - 2 (20" FILM)	A	420917	1	
7	RUBBER ROLLER - 1 (20" FILM)	A	420916	1	
6	DOUBLE SPROCKET	A	414546	1	
5	TOP MANDREL	A	414193	1	
4	DANCER ROLLER BRACKET	A	413745	1	
3	DANCER ROLLER ASSEMBLY - 20 (FRL)	A	414194	1	
2	CRADLE ROLLER ASSEMBLY - 20 (FRL)	C	422327	1	
1	INSTA-THREAD BACK PLATE (20-FRL)	C	422058	1	
No.	DESCRIPTION	OWG. SIZE	PART No.	Q'ty	WEIGHT

REMARKS:

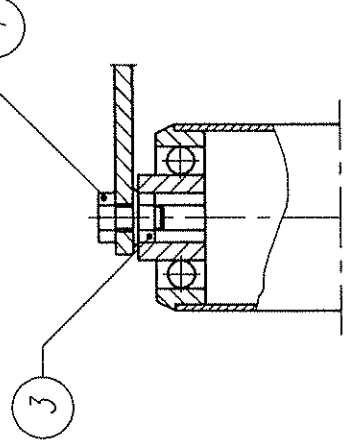
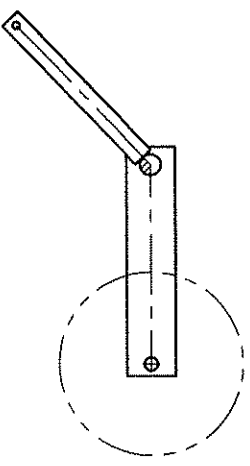
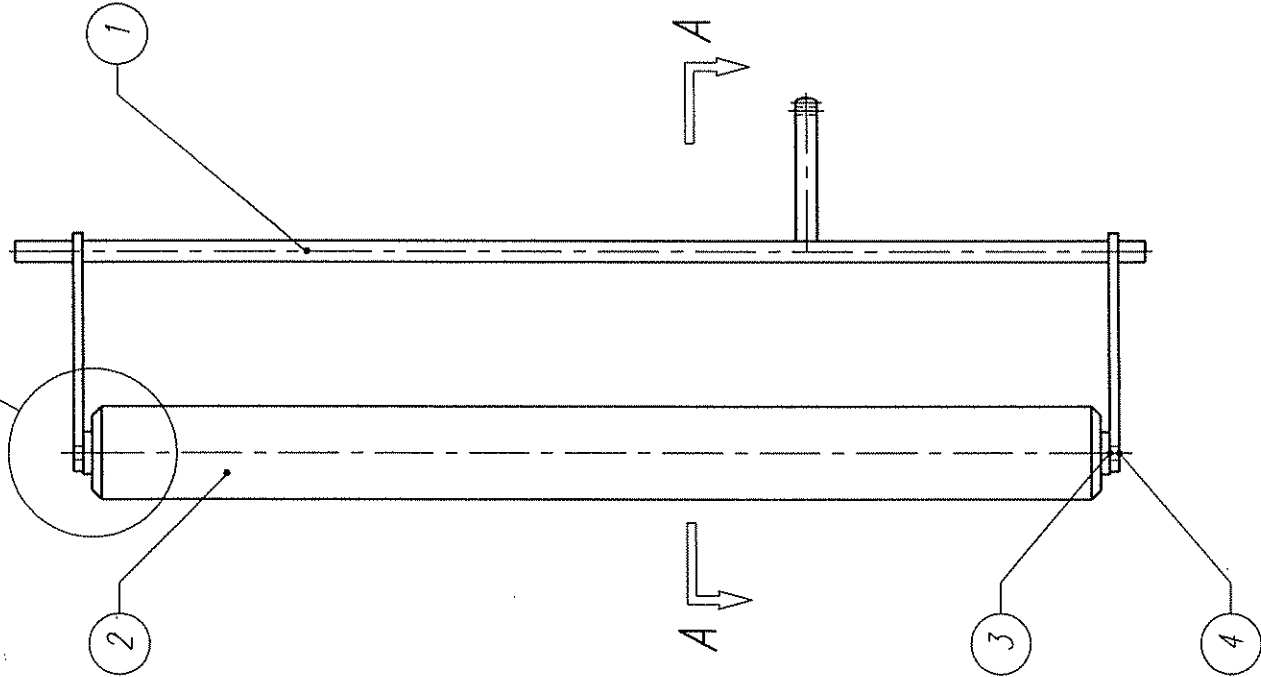
REMARKS:

**20" INSTA-THREAD ASSEMBLY (FRL)**

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P8 TEL.: (514) 667-9789</p>	DATE:	JAN-14-1999	SCALE:	1 : 4	
	DRAWN BY:	ROGER F.	MACHINE TYPE:	H,L55/13	
	CHECKED BY:		DRAWING SIZE:	C	
	ASSEMBLY DWG.:	423064	JOB No.:	STD	DRAWING No.:

A - A

DETAIL "B"  
1 : 2




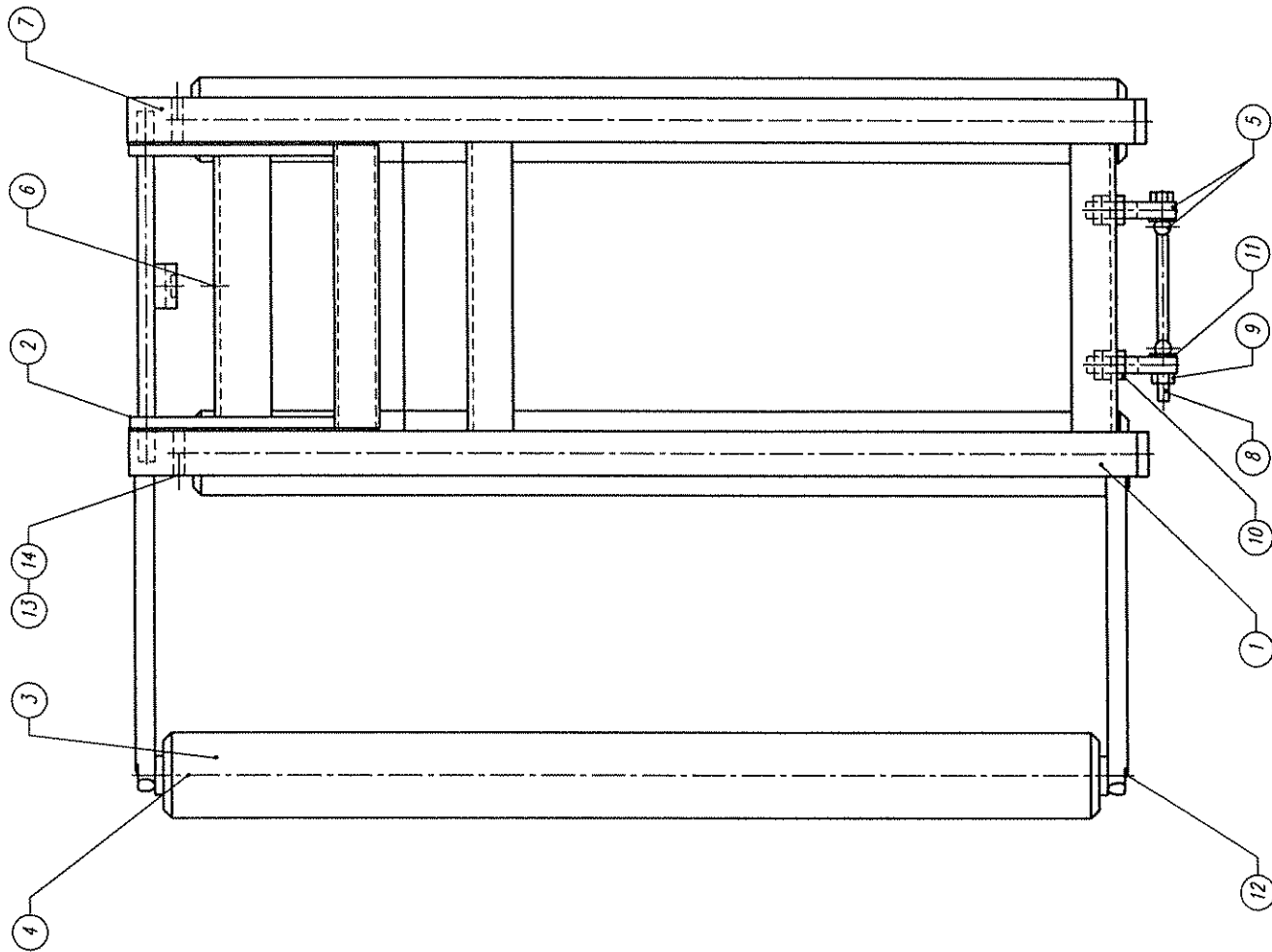
4	HEX HEAD SCREW		012475	2	
3	FLANGE NUT		014164	2	
2	ALUMINIUM ROLLER - 20	A	402789	1	
1	DANCER ROLLER CRADLE - 20 (FRL)	A	414195	1	
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT

REMARKS:

REMARKS:

### DANCER ROLLER ASSEMBLY - 20 (FRL)

 PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (514) 667-9769	DATE:	SEP. 29/1998	SCALE:	1 : 4
	DRAWN BY:	ROGER F.	MACHINE TYPE:	ALL/12
	CHECKED BY:		DRAWING SIZE:	A
	ASSEMBLY DWG.:		JOB No.:	STD - 12.1
		DRAWING No.:		414194



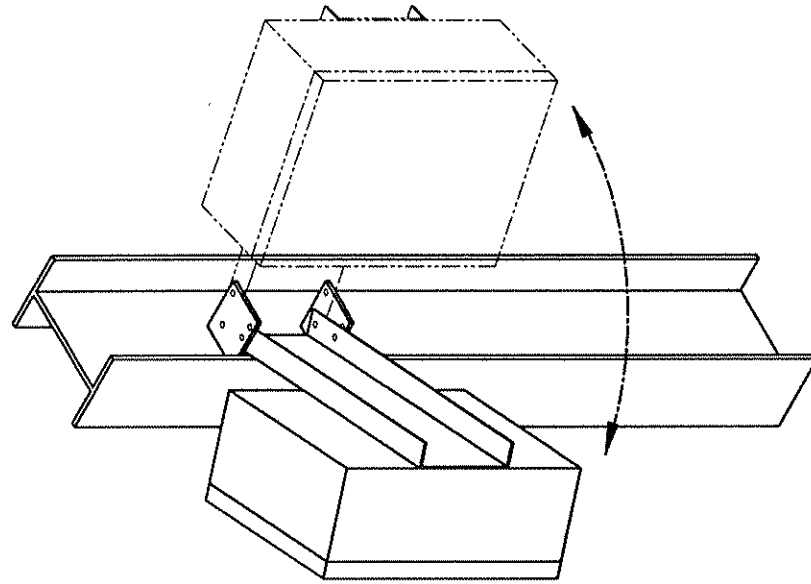
No.	DESCRIPTION	QTY	WEIGHT
14	HEX NUT	015451	2
13	HEX SOCK CAP SCREW	015020	2
12	HEX SOCK BUTT HEAD SCREW	015133	2
11	FLAT WASHER	012221	2
10	HEX JAW NUT	012582	12
9	HEX SELF-LOCKING NUT	015088	1
8	HEX HEAD SCREW	015099	1
7	POLYETHYLENE	015023	2
6	SPRING 1/40	015994	1
5	SPECIAL BOLT	A 415938	4
4	IDLE ROLLER SHAFT	A 413249	3
3	ALUMINUM ROLLER - 20 LG	A 402789	3
2	LOCK	A 412542	1
1	CRADLE ROLLER FRAME - 20" (FRL)	B 422328	1
TOTALS			
PART No.		QTY	WEIGHT

<b>CRADLE ROLLER ASSEMBLY - 20" (FRL)</b>	
DATE	JAN-25-1999
SCALE	1 : 2
DESIGNER	ROGER F.
CHECKED BY	
DATE	
ASSEMBLY NO.	422047
STD	
WORKING NO.	422327

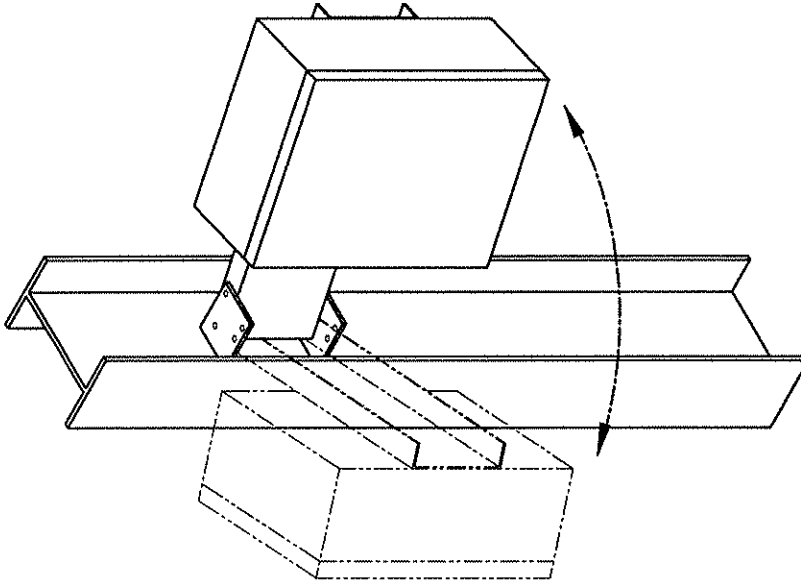
**orion**  
 PACKAGING INC.  
 2270 MIDLAND AVE.  
 GOREE, CANADA, H7S 1P9  
 TEL: (514) 657-9768

# **APPENDIX 1**

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



Position 1

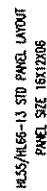
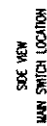
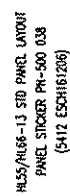


Position 2

## CONTROL PANEL MOUNT TWO POSITIONS

UPDATED FEB-15-99

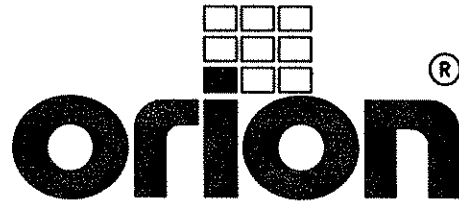
DWG #418390



- 1: SCR-2 (168-4) IS LOCATED ON ENCLOSURE DOOR
- 2: FU-2 & FUS
- 3: MOL-8A (20" CARTRIDGE)
- 4: MOL-10A (30" CARTRIDGE OR HEAVY FILM GAUGE UPGRADE)
- 5: 336-9 (30" CARTRIDGE)
- 6: 336-7 (30" CARTRIDGE OR HEAVY FILM GAUGE UPGRADE)

**START**

**FILM TENSION**



**STOP**

**SPIRAL  
UP UP/DOWN**

**TOP WRAPS**

**1x  
PAUSE**

**2x  
RESET**

**1 2 3**



**REINFORCE  
WRAP**

**TOWER  
T.TABLE  
JOG**

**PHOTOCELL  
OFF ON**

**BOTTOM WRAPS**

**1 2 3**



**CARRIAGE**

**POWER**

**CARRIAGE  
SPEED UP**



**LOWER**

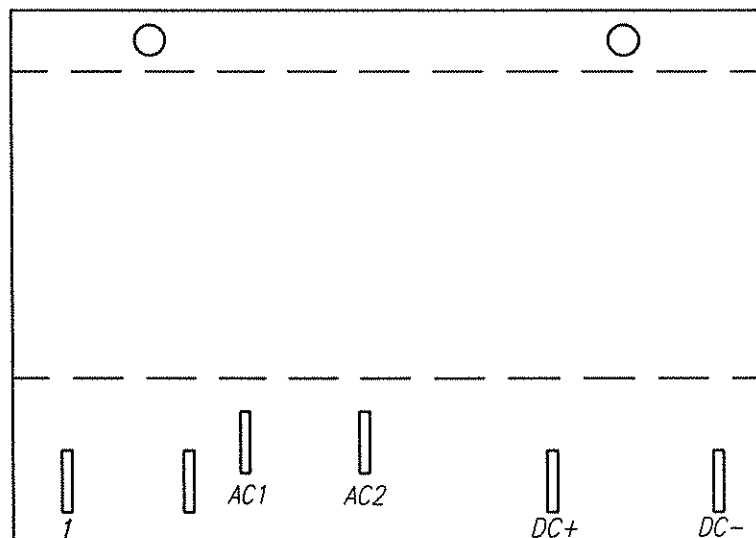
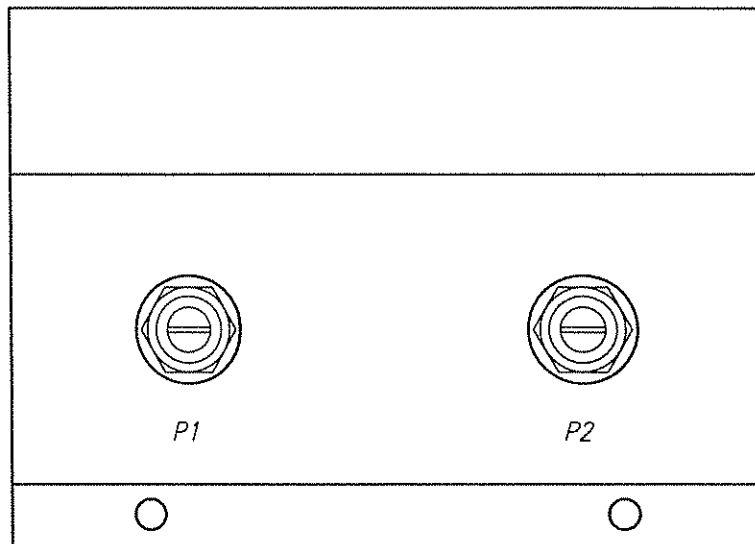
**RAISE**



**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 THE PANEL.

**CARRIAGE  
SPEED DOWN**

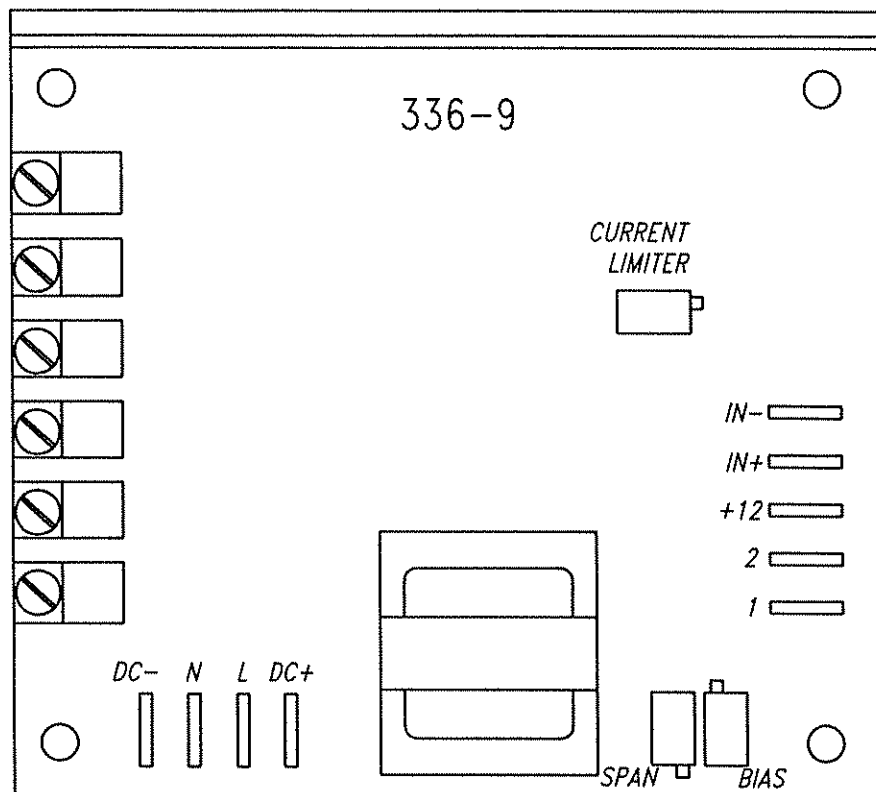




*1 : CONTROL*  
*AC1: AC INPUT*  
*AC2: AC INPUT*  
*DC+: ARMATURE CONTROL*  
*DC-: ARMATURE CONTROL*  
  
*POTS: SPEED ADJUSTEMENT.*

*168-4 CARRIAGE*  
*DOUBLE SPEED BOARD*





*DC+:* ARMATURE CONTROL

*N:* AC NEUTRAL

*L:* AC LINE

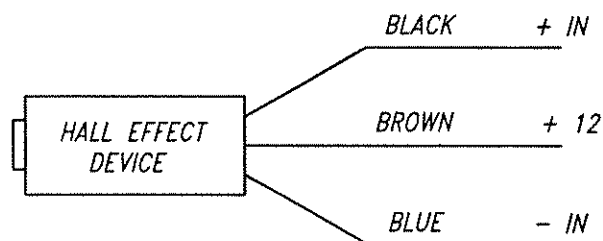
*DC-:* ARMATURE CONTROL

POTENTIOMETER

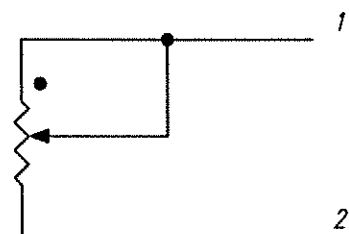
*SPAN:* HALL EFFECT SENSITIVITY CONTROL

*BIAS:* SYSTEM BIAS (FACTORY SET)

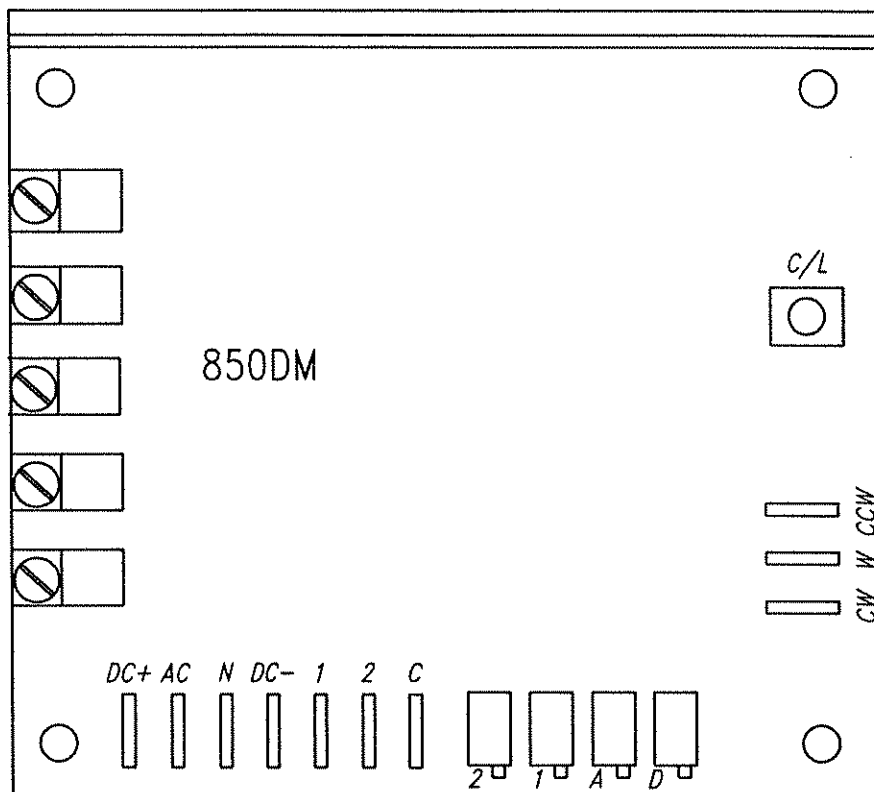
*CURRENT LIMITER:* (FACTORY SET)



FILM TENSION ADJUSTMENT  
REMOTE POTENTIOMETER



**336-9**  
**MULTISTRETCH BOARD**



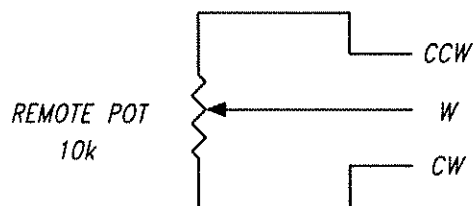
2-ND SPEED (HIGH)  
REMOTE ADJUSTMENT  
(IF NOT USED-PUT JUMPER  
BETWEEN "CW" & "W").

#### 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*