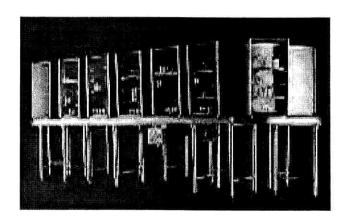


INSTRUCTION & PARTS MANUAL

TRAY ACCUMULATOR



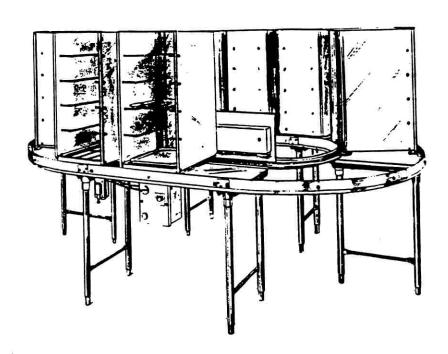
STERO
Dishwashing Machines



STAC STERO TRAY ACCUMULATOR CONVEYOR

This instruction manual covers:

- Installation
- Operation
- Trouble-shooting Guide
- Maintenance
- Parts



The Stero Company

WARRANTY POLICY

This warranty is in lieu of all other warranties, expressed or implied, including without limitation any implied warranty of merchantability, fitness for a particular purpose or non-infringement, and of any other obligation or liability on the part of Stero, whether in contract, strict liability, tort or otherwise.

The Stero Company warrants this equipment to be free from defects in material and workmanship, under normal use and operation, for a period of one (1) year from the date of initial start up or eighteen (18) months from the date of shipment from the factory, whichever comes first. This warranty is conditioned upon the customer's maintenance and care as outlined in the service manual and upon return of the warranty registration card. Repairs will be performed during Stero's authorized service agencie's normal business hours. If the customer requires after hours service the customer will be responsible for the overtime premium.

Machine is warranted only for the initial place of installation. Removal of machine automatically terminates the warranty.

Stero shall have no liability under this warranty unless the customer promptly notifies Stero or it's factory authorized service agent of any alleged defects. All defective parts become the property of Stero and must be returned to Stero, or it's agent, at Stero's expense, within thirty (30) days from the date of the part's replacement. Parts replaced within the warranty carry only the unexpired portion of the machine's warranty. Not covered by this warranty are changes (parts and/or labor) necessitated by or damage resulting from: water conditions, accident, alteration, improper use, abuse, tampering, improper installation or failure to follow operating and maintenance procedures. Examples of the foregoing, but without limitations are: (1) Damage to the machine resulting from excessive concentrations of chlorine or deliming acid solutions; (2) Use with utility service other than designated on the rating plates; (3) Improper connection to utility service; (4) Inadequate or excessive water and/or steam pressure; (5) Leaks caused by faulty installation; (6) Component failures caused by water leaks due to faulty installation; (7) Failure to comply to local building codes; (8) Failures due to deposits resulting from water or steam conditions, detergents, chemicals, or improper cleaning; (9) Resetting breakers, overloads, or safety thermostats; (10) Adjustments of thermostats after 90 days of operation; (11) Improper opening of utility supply valves; (12) Cleaning drain valves, line strainers, rinse nozzles, etc.; (13) Improper installation or malfunction of chemical dispensing equipment supplied by others; and (14) Failure to provide regular maintenance and daily cleaning as outlined in the service manual. In no event will Stero be liable for loss or damage to or loss of use of facilities or other property, additional labor costs, loss of revenue, loss of anticipated profits, or other damages of any kind what so ever, whether direct, indirect, incidental or consequential.

INSTRUCTION & PARTS MANUAL

INTRODUCTION

The information present in this manual is set forth as clearly as possible so that the operator may be able to follow without any difficulty the necessary instruction.

No special training is required.

Careful attention to the instructions outlined herein as to installing, starting, operating, and maintaining the equipment will insure long and satisfactory service from the Stero Tray Accumulator Conveyor.

NOTE

When ordering parts for a specific machine always include the model number and serial number of the machine.

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Section II

Parts Drawings, Parts Numbers & Description, Wiring Diagrams.

STAC



STERO TRAY ACCUMULATOR CONVEYOR

This trouble-free conveyor system offers **true** accumulation. Trays are loaded by the patron and transported to the dishroom, where they are unloaded by the dishmachine operator. If all trays are not unloaded at that time, they continue around the system until they return to the operator. No worry about trays backing up during peak hours. No having to shut down the conveyor during peak periods when the load is greatest.

This system utilizes the "tried and true" components of the Stero Systematic which have proven their reliability for many years.

CONSTRUCTION: Heavy duty #12 gauge stainless steel formed frame. Bolt together construction for ease of assembly. The frame is supported by stainless steel leg sets with adjustable stainless steel bullet feet.

DESIGN: Can be constructed in oval, triangle or "L" shape. Any length from a minimum oval of 9'-8" long to as long as your application requires, or your imagination desires.

TRAY CARRIERS: Unit consists of individual carriers which have a five tray capacity. Carriers are interconnected to complete a continuous circle of transportation. Carriers are each supported on four stainless steel ball-bearing wheels which roll in a formed stainless steel track. Carriers are on approximately 20" centers and are interconnected.

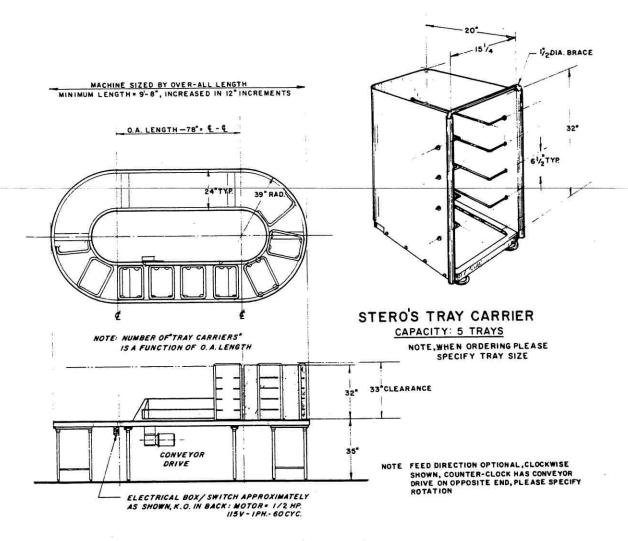
DRIVE: A single 1/2 h.p. 115 volt., variable speed (adjustable) drive unit drives a stainless steel chain which contacts drive pins on each carrier. This propels the entire circle of carriers.

CAPACITY: Tray capacities vary with the size and shape of the system. The following are typical examples:

9'-8" oval unit: 55 tray capacity 15'-8" oval unit: 85 tray capacity 20'-8" oval unit: 115 tray capacity 25'-8" oval unit: 145 tray capacity

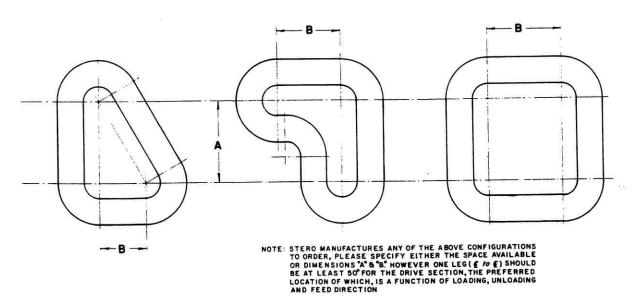
The above lengths are for reference. Conveyors can be built to any length ending with 8 inches.

See reverse side for layout examples.



STAC- OUTLINE DIMENSIONS

STAC - OPTIONAL MACHINE CONFIGURATIONS



INSTALLATION INSTRUCTIONS

1. Start by setting the straight section with mounted conveyor drive and control ox in place. Working from either end of the straight side and in one direction, fasten each section together as marked by the factory.

NOTE: The longer the conveyor, the more straight sections are used. Be sure the last section connected is a radius.

Level the conveyor all the way around. Place your level across the tracks and level front to back.

Place your level along the track and level lengthwise around the machine. Each leg has an adjustable stainless steel foot, screw the feet in or out as necessary.

Each stainless steel foot has a maximum 2F" adjustment.

2. Now that the machine is set in place and leveled you can place the doly cabinet or tray carrier, into the tracks,

Two notches are provided in the inner track and labeled "INSTALL OR REMOVE DOLLIES HERE". Place the two outer wheels into the outside track and lower the two inner wheels through the notches and into the inner tract. The cabinet opening faces out.

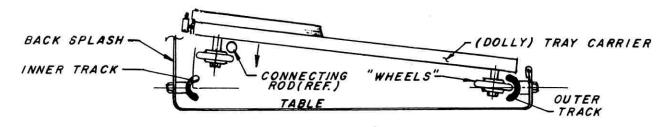


Figure 1

Connect the dollies together as you proceed by placing the connecting links, pin down, into the stationary bar welded to the rear side of the dolly.

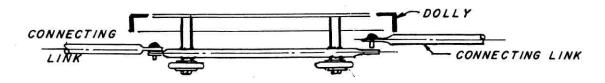


Figure 2

An adjustable flexing connecting link is provided and should be the last link connected. This link is adjusted at the factory and should not be changed.

The adjustable link must be installed so that it flexes toward the center of the table.

NOTE: If adjustment of the flexible link is required, push the two disconnected dollies away from each other taking all the slack out of the conveyor. Meaure the distance between the pin holes in the stationary links of the two separated dollies then pull the two dollies together as close as possible, re-measure between the two pin holes, divide the difference in half and lock the adjustable link by tightening the lock nut.

Example: Dollies spread apart = 12" pin hole to pin hole.

Dollies drawn together = 8" pin hole to pin hole.

Adjust link to 10"

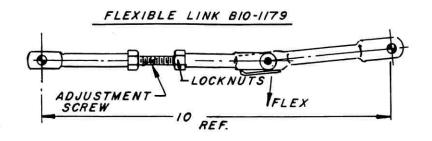
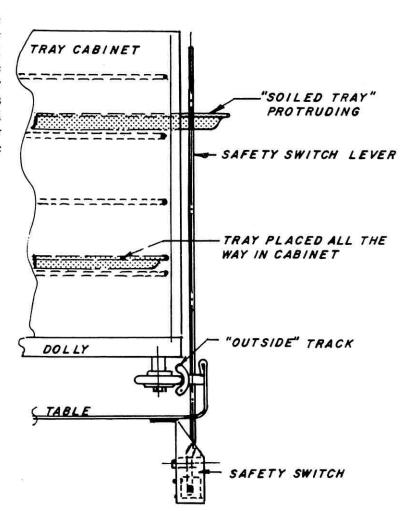


Figure 3

IMPORTANT NOTICE

A safety switch is mounted to the outside tract of the conveyor as a safety feature. If the soiled tray is not placed all the way into the tray cabinet, the tray will come up against the safety switch activating the lever, which stops the conveyor. When the tray is pushed into the cabinet, the activating lever will return to the run position and the conveyor will restart. See Figure 4.



3. Plumbing Connections

COMPLY WITH LOCAL PLUMBING CODES

A drain may be placed in the table and must be connected to drain off any liquids spilled during placement of the trays into the tray cabinet. This drain is an option and your accumulator may not have this feature.

When a drain is supplied the pipe size will be on 2" I.P.S. connection.

UL 73 Grounding Instructions:

This Appliance must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

Electrical connections.

COMPLY WITH LOCAL ELECTRICAL CODES.

All Stero tray accumulators are 115 volts, and a terminal strip marked L1 and N is provided in the control box for your service connection. A knock-out is provided in the control box for your electrical conduit.

NOTE: See the name plate on the control box and size the circuit breaker and wire accordingly.

OPERATION: START-UP

Before starting the conveyor, check the following:

- 1 The machine is properly set in place with all sections firmly fastened together and the entire conveyor leveled.
- 2 The plumbing and electrical connections are properly made.
- 3 The safety switch is in place.
- 4 The dollies with cabinets are properly set in tracks and linked together.
- 5 The circuit breaker is on.
- 6 The toggle switch on control box is in forward position.

When all of the above are correct, push the start switch to "start" and the conveyor will run.

MAINTENANCE:

Daily Maintenance:

Using a good all purpose cleaning detergent, wash away all spills and wipe down the interior of the tray cabinets. Clean up any unsightly spills that occur so that the conveyor cabinets will not appear offensive to your customers.

Weekly Maintenance:

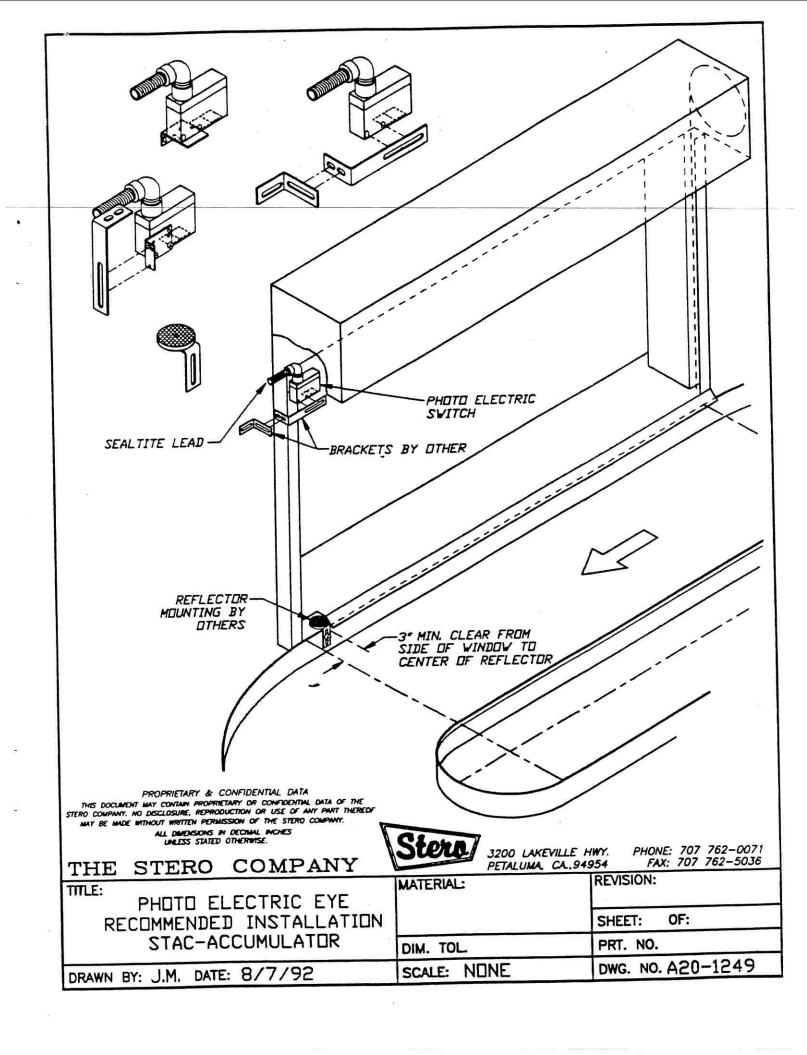
- 1 Wash all cabinets, interior and exterior and apply a good stainless steel polish and wipe off. This will keep your conveyor looking good.
- 2 Check and clean thoroughly the conveyor tracks. Coffee, milk, soft drinks, etc., spilled and allowed to get on the tracks will cause a sticky layer of soil to build up on the tracks and cause overloading and drag on the conveyor drive motor and gear box.
- 3 Using WD-40 or a similar spray lubricant, spray the dolly wheels, directing the lubricant into the ball bearings.

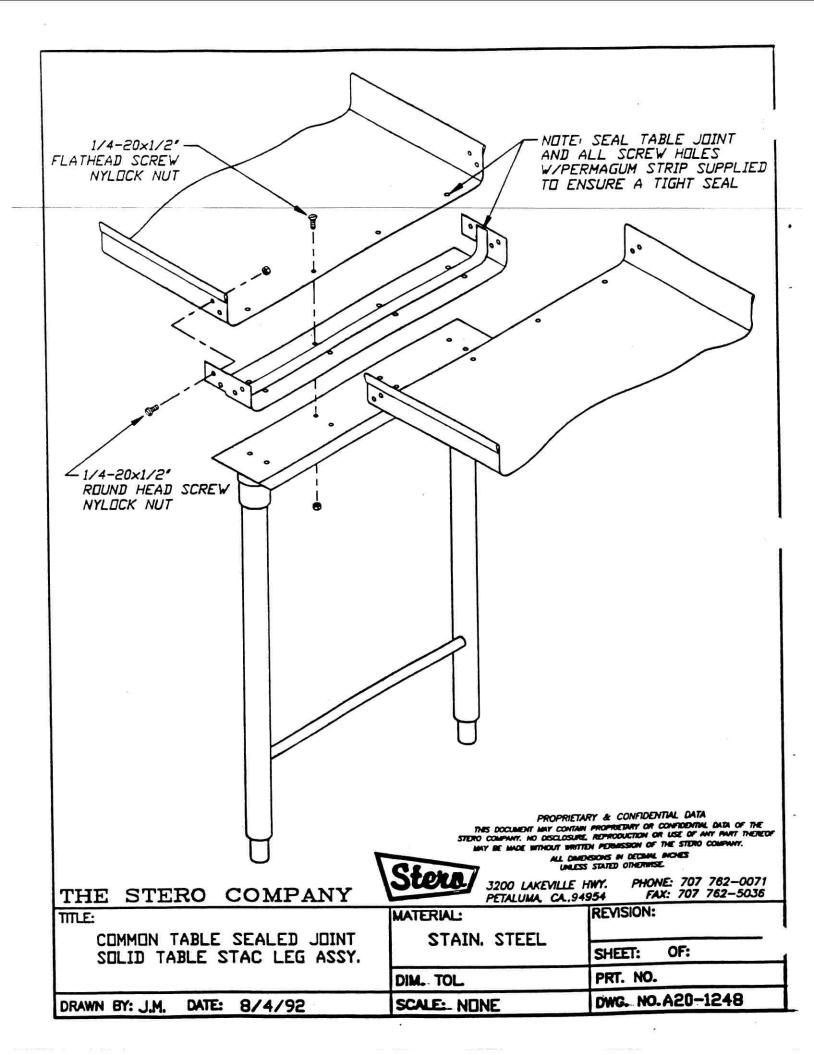
Monthly Maintenance:

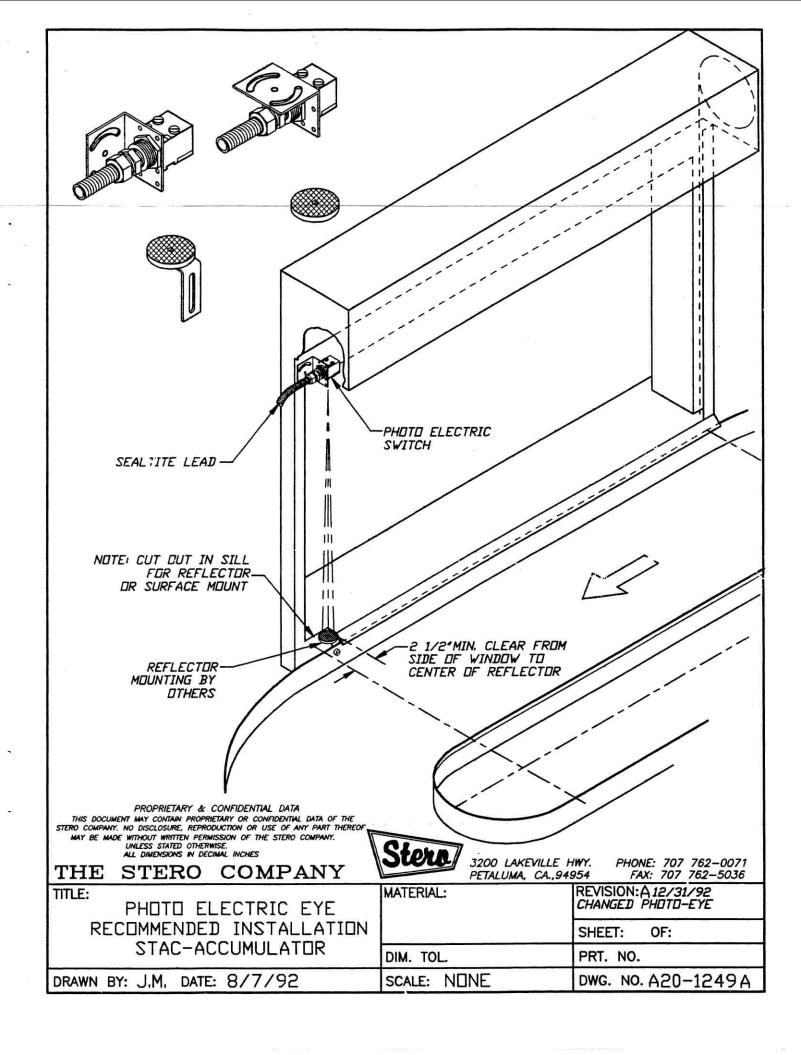
- 1 Check gear box oil level. If gear lubricant level is low add all purpose gear lube SAE 90.
- 2 Locate the hole punched in the stainless steel conveyor drive chain cover and using a hand operated grease gun, shoot a small amount of #2 all purpose grease into the grease fitting (see #24 page 15). This lubricates the needle bearings that ride on the shaft.

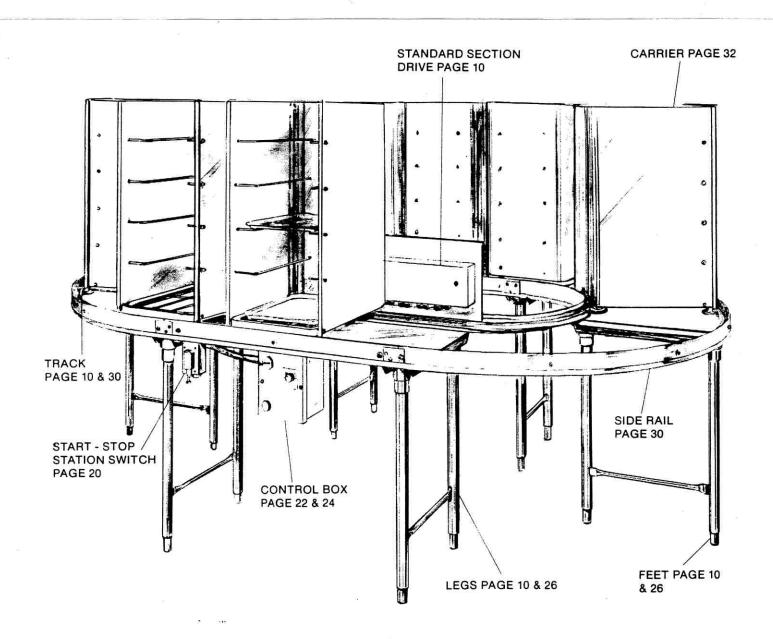
CORRECTION	 Find circuit breaker panel & turn on circuit breaker. Check reset fuse & reset. Replace if necessary. Replace if faulty. Place switch in Forward position. Check Safety switch - activating lever should be free. Check switch - replace if necessary (see #5 page 28). Check switch, replace if necessary (see #5 page 28). 	1) Return dolly to installation point - labeled "INSTAL.I. OR REMOVE DOLLIES HERE". You may have to disconnect the dolly by removing the two connecting links in order to free up the dolly and physically move the dolly to the installation point on the conveyor. NOTE: "DO NOT FORCE THE DOLLY WHEEL(S) INTO THE TRACK WITH A CROW BAR OR ANY OTHER FORCING BAR". The use of a forcing bar will bend the track dolly frame, or wheels and compound the track jumping problem. Be sure to look for & remove any obstruction that caused the dolly to jump the track.	Clean track of any tacky substance that may have been spilled, causing a drag on the dolly wheels. Lube dolly wheels - use WD-40 or equal. Reduce speed so sollies will travel 5 to 10 feet per minute. Re-check wiring for shorts and shorts to ground.
LOOK FOR	 Circuit breaker not on. Fuse blown. Check circuit board. Forward - Off - Reverse Safety switch tripped to open position or faulty. Tray against safety stop switch. Tray sagainst safety stop switch. 	1) Dolly wheel forced out of track. NOTE: When placing the Forward-Off-Reverse switch in the reverse position you will have to physically reverse the conveyor. The reverse position will run the motor and chain drive only in reverse. The pawls will not lock into the chain. This is a safety feature built-in to prevent damage to the dolly, wheel, or track when the track is obstructed.	Dolly wheels dragging. Dolly wheels not lubricated. Conveyor running at maximum speed. Check wiring.
PROBLEM	CONVEYOR MOTOR WILL NOT START	CONVEYOR JAMMED	CONVEYOR DRIVE MOTOR TRIPPING OUT ON OVERLOAD

STAC TROUBLE SHOOTING GUIDE





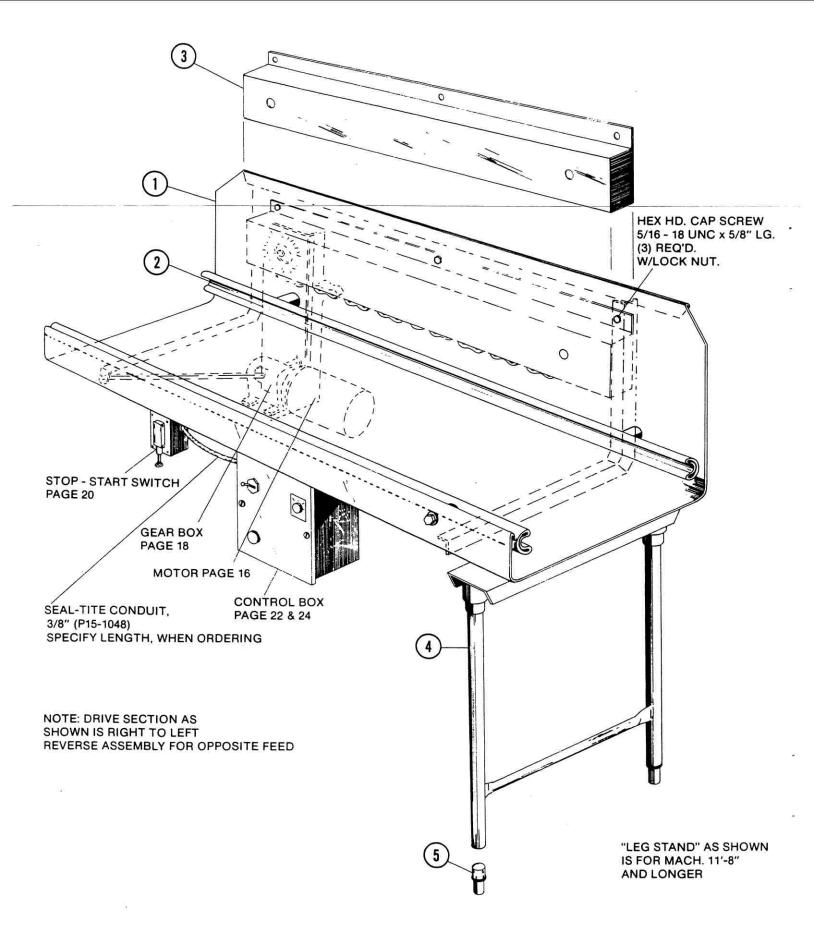




NOTE: INTER-WIRING I.E. BOX TO MOTOR, TO SWITCHES USE 3/8" SEAL-TITE: STERO № P15-1048.

SWITCHES ARE LOCATED TO CUSTOMERS REQUIRE-MENTS THEREFORE SPECIFY SEAL-TITE LENGTH IF REPLACEMENT IS ORDERED.

GENERAL ASSEMBLY (Clockwise Rotation Shown)

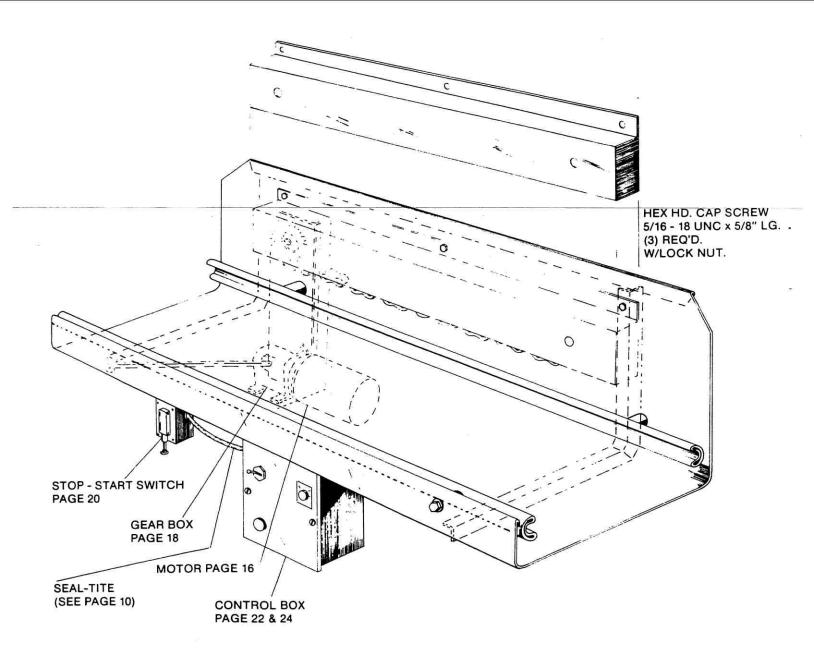


STAC STANDARD DRIVE SECTION

STAC STANDARD DRIVE SECTION

ITEM			
NO.	DESCRIPTION	REMARKS	PART NO.
1	STAC DRIVE MOUNT. TABLE	RIGHT TO LEFT	C10-1782
1	STAC DRIVE MOUNT. TABLE	LEFT TO RIGHT	C10-1783
2	DOLLY TRACK (STAND. CUT 50" LG.)	2 REQ'D	A10-1638
3	CHAIN GUARD "COVER"		B10-1646
4	LEG STAND		B10-1635
5	ADJUSTABLE FOOT	2 REQ'D/STAND	P15-1101
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NOTE: DRIVE SECTION, AS SHOWN, IS RIGHT TO LEFT, REVERSE ASSEMBLY FOR OPPOSITE FEED DIRECTION

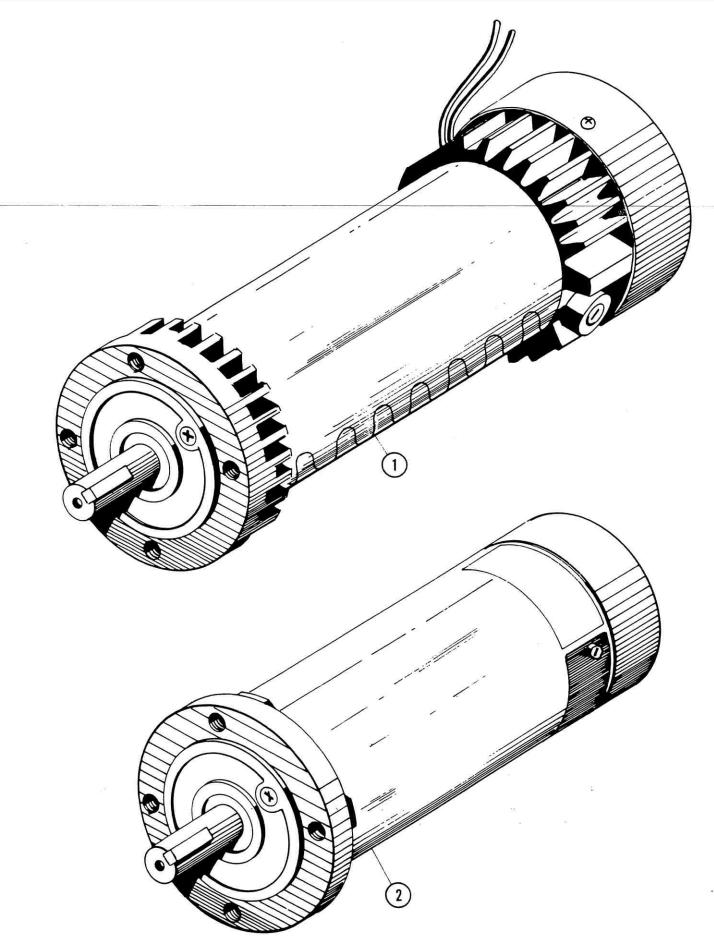
STAC - 9'-8" MACHINE ONLY 38" DRIVE SECTION

ITEM NO.	DESCRIPTION	REMARKS	PART NO.
1	STAC DRIVE MOUNT. TABLE	RIGHT TO LEFT	C10-1786
1	STAC DRIVE MOUNT. TABLE	LEFT TO RIGHT	C10-1787
2	DOLLY TRACK - 38" LONG	2 REQ'D	A10-1638
3	CHAIN GUARD "COVER"	W	B10-1788
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CONVEYOR DRIVE ASSEMBLY

CONVEYOR DRIVE ASSEMBLY

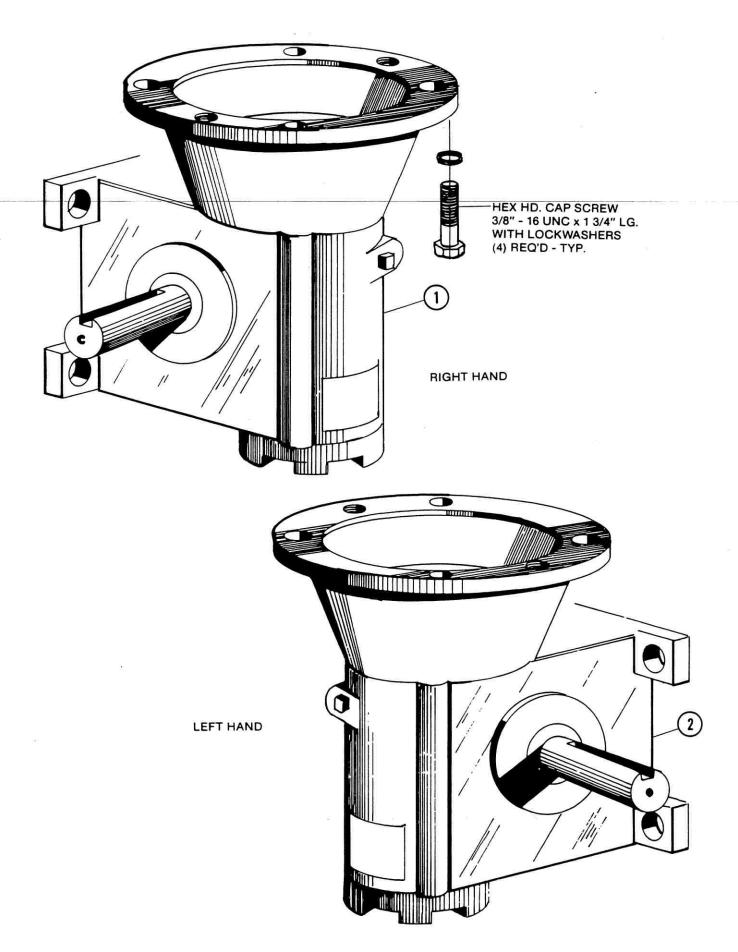
ITEM NO.	DESCRIPTION	REMARKS	PART NO.
1	"V" BELT COVER		B10-1653
2	MOUNTING FRAME	" " " " " " " " " " " " " " " " " " " "	B10-1654
3	PULLEY BRACKET		A10-1655
4	DRIVEN PULLEY		A10-1848
5	DRIVE PULLEY		P15-1210
6	V BELT	2 REQ'D	P15-1287
7	COVER BOLT		A10-1656
8	BRACE W/LOCKWASHERS & NUTS		A10-1657
9	MOTOR MOUNT BRACKET	RIGHT HAND	A10-1658
10	MOTOR MOUNT BRACKET	LEFT HAND	A10-1779
11	SPROCKET ADAPTER		A10-1075
12	SPACER BUSHING		P15-1211
13	SPROCKET		B10-1327
14	NEEDLE BEARING	2 REQ'D	P15-1208
15	ALLEN HEAD CAPSCREW	3 REQ'D	P15-1212
16	PHENOLITE SHIELD		B10-1688
17	DRIVE SHAFT		A10-1766
18	CHAIN MOUNT. PLATE: 50" SECT.	CLOCK	B10-1791
18	CHAIN MOUNT. PLATE: 50" SECT.	COUNTERCLOCK	B10-1792
18	CHAIN MOUNT. PLATE: 38" SECT.	CLOCK	B10-1793
18	CHAIN MOUNT. PLATE: 38" SECT.	COUNTERCLOCK	B10-1794
19	ADJUSTING LUG		A10-1692
20	IDLER WHEEL		A10-1693
21	IDLER WHEEL BEARING		P15-1207
22	IDLER RETAINER		A10-1694
23	DRIVE CHAIN - MASTER LINK		P15-1220
24	GREASE FITTING	ж	P15-1221
25	ALLEN HEAD SET SCREW		P15-1282
26	UPPER PULLEY BRACE		B10-1778
27	DRIVE CHAIN - 50" SECTION	84" LONG	A10-1851
27	DRIVE CHAIN - 38" SECTION	64" LONG	A10-1852
*	PULLEY/SPROCKET ASSEMBLY		B10-1846



MOTOR IDENTIFICATION

MOTOR IDENTIFICATION

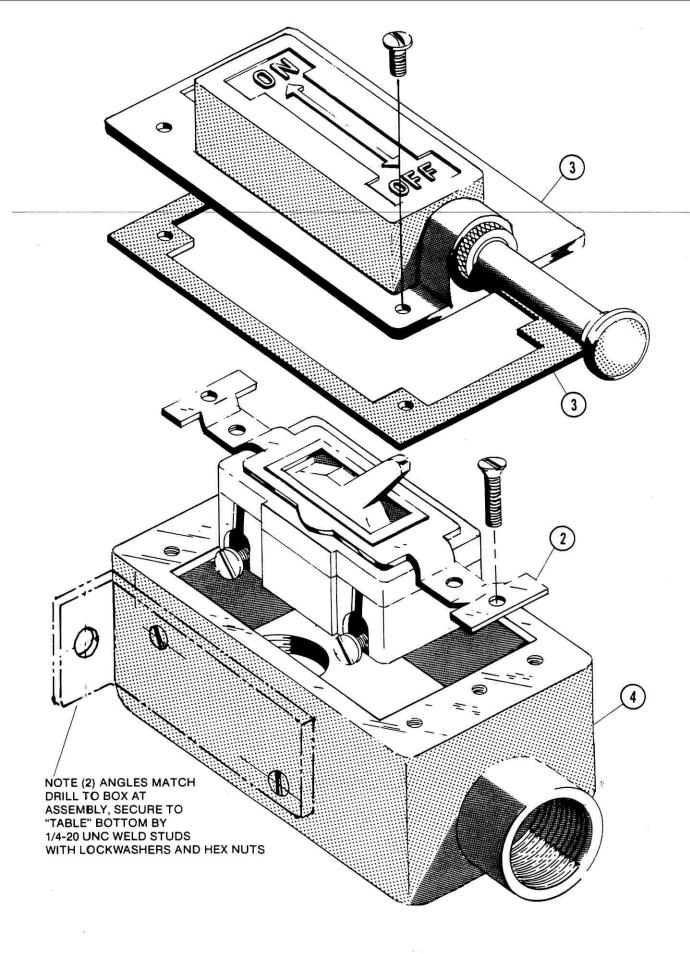
TEM NO.	DESCRIPTION	REMARKS	PART NO.
1	1 HP. CONVEYOR DRIVE V.D.C. MOTOR		P15-1214
2	1/2 HP. CONVEYOR DRIVE V.D.C. MOTOR		P15-1213
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GEAR BOX ROTATION IDENTIFICATION

GEAR BOX ROTATION IDENTIFICATION

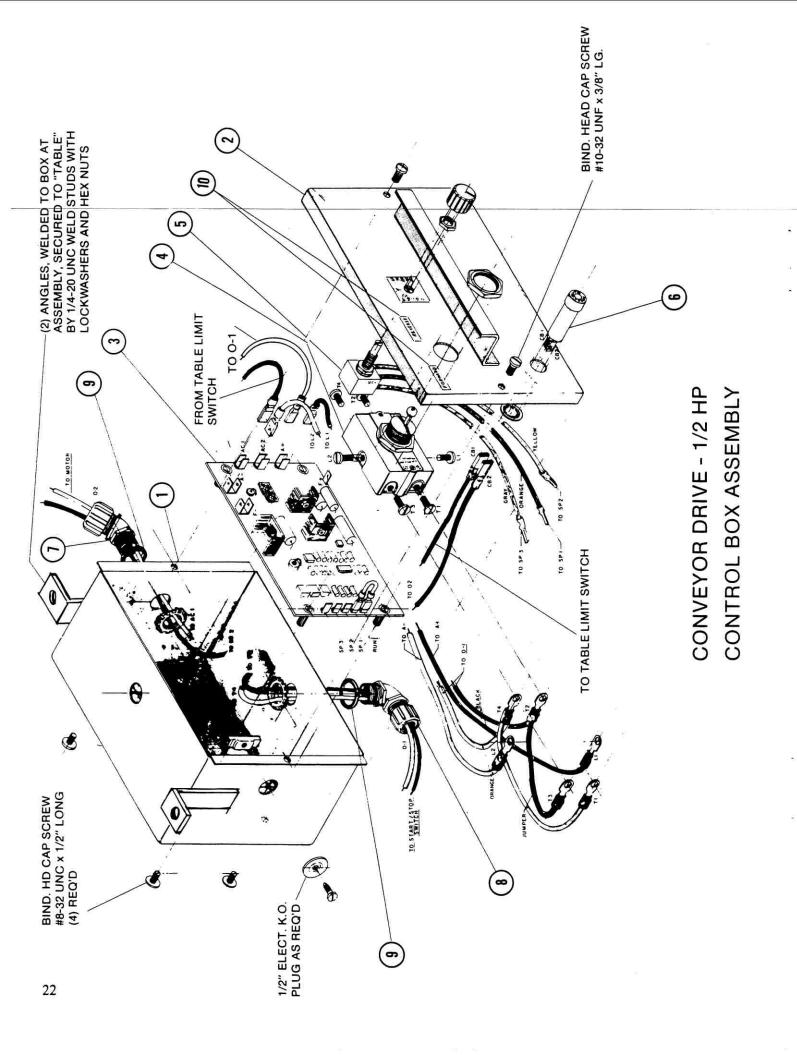
ITEM NO.	DESCRIPTION	REMARKS	PART NO.
1	CONVEYOR DRIVE GEAR BOX (Right Hand Drive)		P15-1215
2	CONVEYOR DRIVE GEAR BOX (Left Hand Drive)	ž.	P15-1216
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STOP - START STATION SWITCH

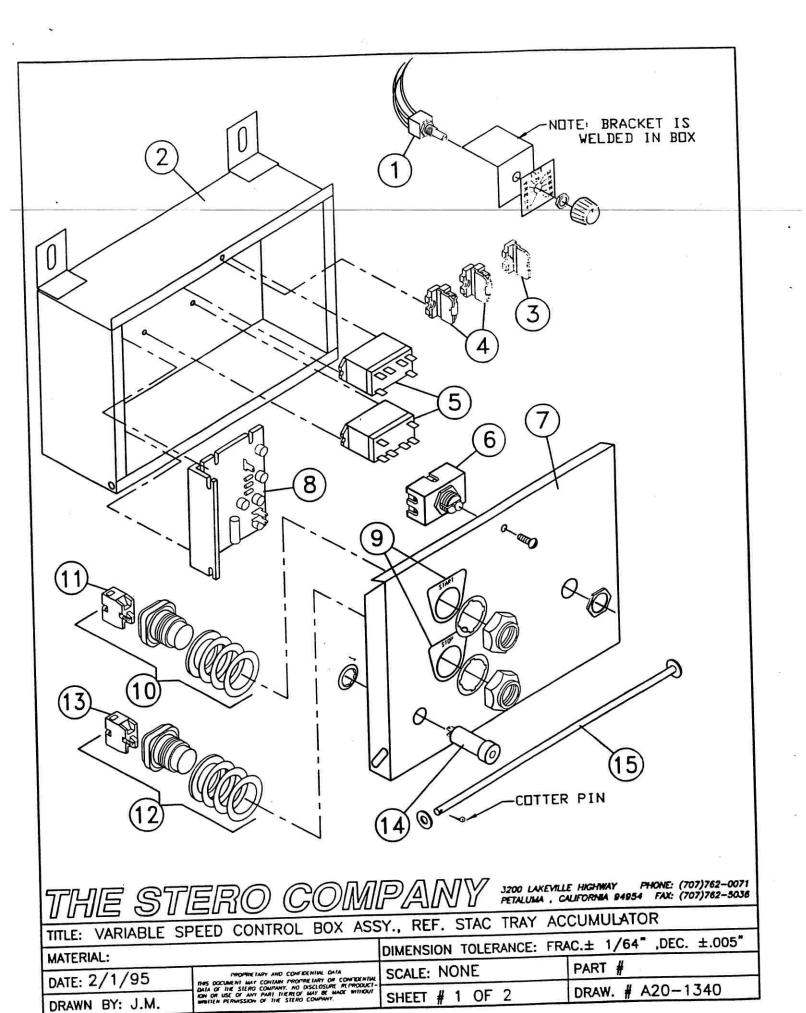
STOP - START STATION SWITCH

ITEM NO.	DESCRIPTION	REMARKS	PART NO.
1	COMPLETE SWITCH ASSEMBLY	AS SHOWN	B10-1796
2	START - STOP STATION SWITCH		P15-1219
3	SWITCH COVER, GASKET & SCREWS		P15-1217
4	SWITCH BOX		P15-1218
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CONVEYOR CONTROL BOX

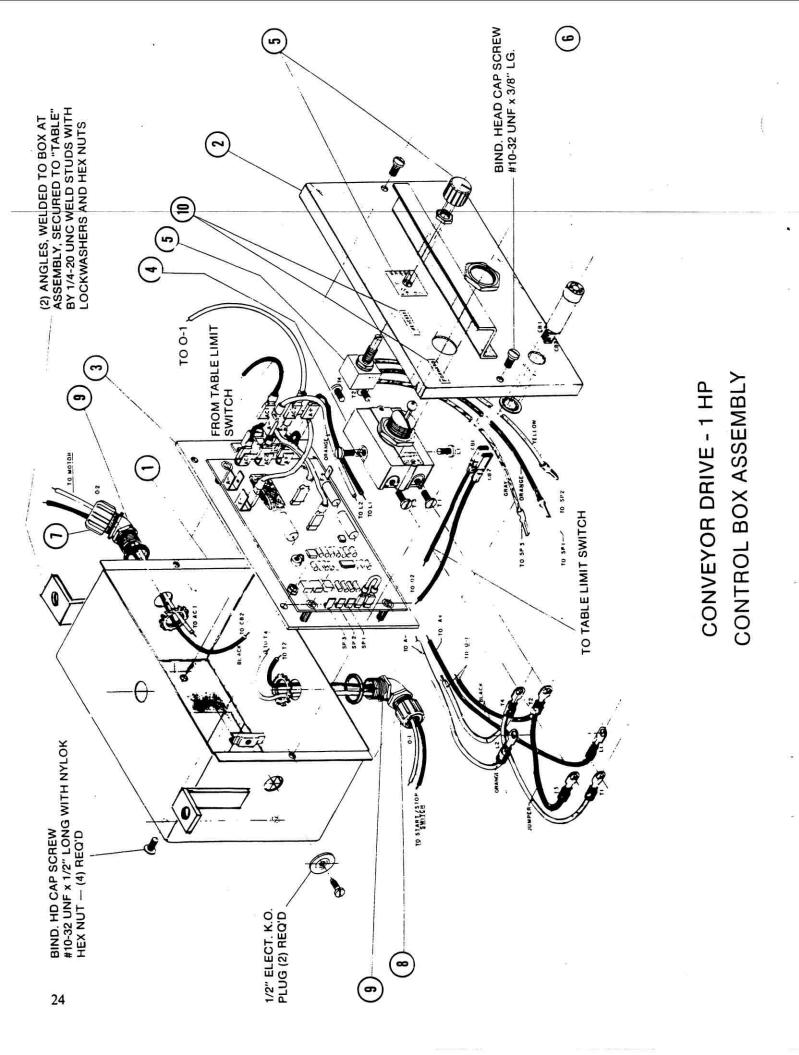
ITEM NO.		REMARKS	PART NO.
	CONTROL BOX		B10-1798
2	CONTROL BOX COVER		B10-1797
3	P.C. CONTROL BOARD 1/2 HP.	İ	P15-1248
4	FORWARD - OFF - REVERSE - SWITCH		P15-1263
5	VARIABLE SPEED, POTENTIOMETER		P15-1264
6	CIRCUIT BREAKER		P15-1265
7	SEALTITE 3/8" 45° ELBOW 1/2" NPT		P15-1227
8	SEALTITE 3/8" 90° ELBOW 1/2" NPT		P15-1018
9	SEALING RING 1/2" NPT	2 REQ'D	P15-1038
10	CABLES		A10-1464
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VARIABLE SPEED CONTROL BOX STAC TRAY ACCUMULATOR

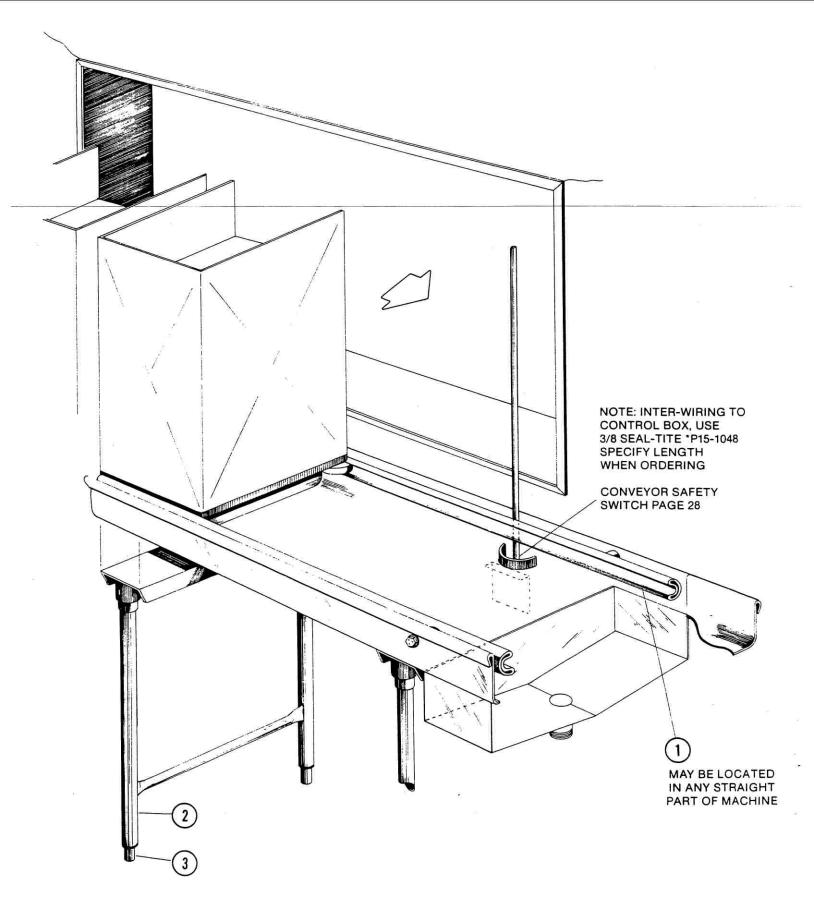
DWG # A20-1340 SHT. 2 OF 2

	DWG	# A20-1340 S	H1. 2 OF 2
ITEM	DESCRIPTION	REMARKS	PART NO.
1	POTENTIOMETER		P41-1264
2	CONTROL BOX		B10-1798
3	TERMINAL END SECTION		P52-1100
	TERMINAL END SECTION TERMINAL SECTION		P52-1099
5		2 REQ'D	P47-2672
	RELAY FORWARD / OFF / REVERSE SWITCH	Z INCO D	P49-1263
6			B10-4950
7	CONTROL BOX COVER		P42-1247
8	P.C. BOARD 1 HP		P42-1248
	P.C. BOARD 1/2 HP		A69-4138
9	DECAL, START		B69-1429
	DECAL, STOP		P49-5064
10	PUSH BUTTON SWITCH, START ASSY.		
11	CONTACT BLOCK N/C		P49-5067
12	PUSH BUTTON SWITCH, STOP ASSY.		P49-5065
13	CONTACT BLOCK N/O	8	P49-5066
14	CIRCUIT BREAKER KDI TYPE 1 HP		P48-1266
	CIRCUIT BREAKER KDI TYPE 1/2 HP		P48-1265
15	COVER HINGE	<u> </u>	A10-4889
	1/2 HP CONTROL BOX COMPLETE ASSY.		A10-3441
	1 HP CONTROL BOX COMPLETE ASSY.	<u> </u>	A10-3442
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	 TO ORDER SUPPLY MACHINE MODEL AND SERIAL 	NUMBER	23A



CONVEYOR DRIVE - 1 HP. CONTROL BOX ASSEMBLY

ITEM NO.	DESCRIPTION	REMARKS	PART NO.
1	CONTROL BOX		B10-1800
2	CONTROL BOX COVER		B10-1799
3	P.C. CONTROL BOARD 1 HP.		P15-1247
4	FORWARD - OFF - REVERSE - SWITCH		P15-1263
5	VARIABLE SPEED POTENTIOMETER		P15-1264
6	CIRCUIT BREAKER 15 AMP		P15-1266
7	SEALTITE 3/8" 45° ELBOW 1/2" NPT		P15-1227
8	SEALTITE 3/8" 90° ELBOW 1/2" NPT		P15-1018
9	SEALING RING 1/2" NPT	2 REQ'D	P15-1038
10	CABLES		A10-1464
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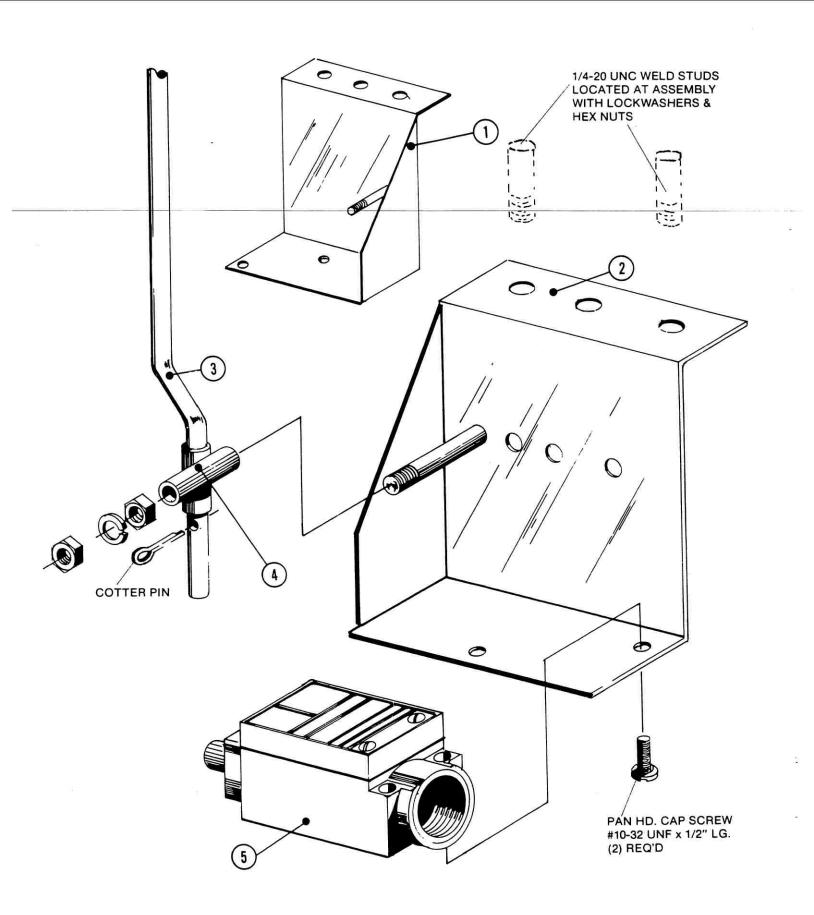


TYP. PASS THRU WINDOW WITH SAFETY SWITCH LOCATION

TYP. PASS THRU WINDOW WITH SAFETY SWITCH LOCATION

TEM NO.	DESCRIPTION	REMARKS	PART NO.
1	DOLLY INSERTION SECTION		B10-1817
2	LEG STAND		B10-1635
3	ADJUSTABLE FOOT		P15-1101
		9	

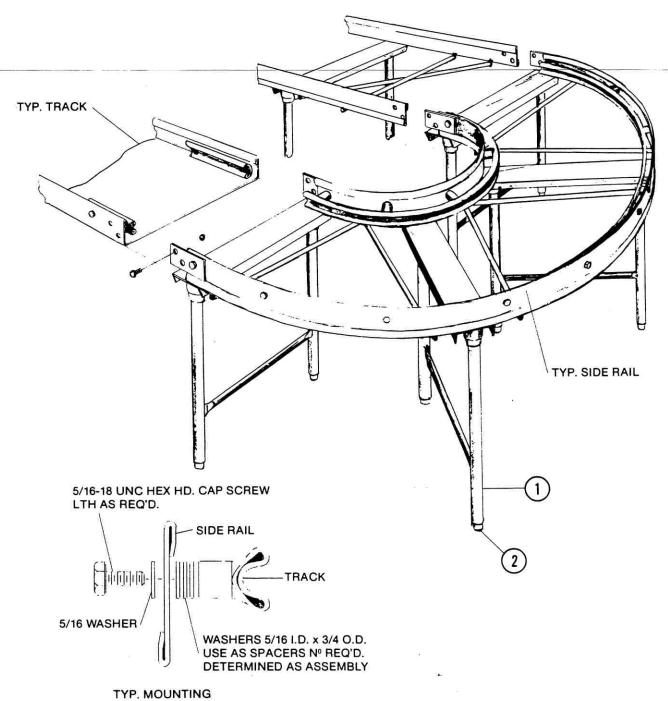
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CONVEYOR SAFETY SWITCH

CONVEYOR SAFETY SWITCH

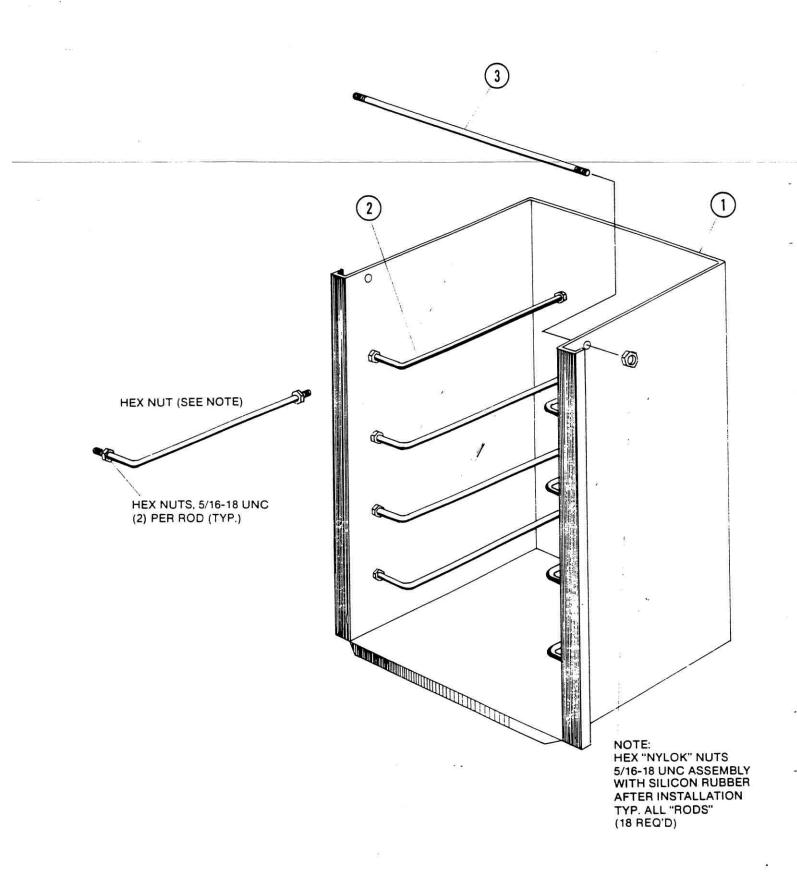
ITEM NO.	DESCRIPTION	REMARKS	PART NO.
1	SWITCH MOUNTING COUNTER CLOCKWISE		B10-1629
2	SWITCH MOUNTING CLOCKWISE		B10-1628
3	SWITCH LEVER		B10-1630
4	PIVOT GUIDE		A10-1320
5	LIMIT SWITCH		P15-1261
		E)	



TYP. MOUNTING TRACK TO SIDE

CURVED SECTION

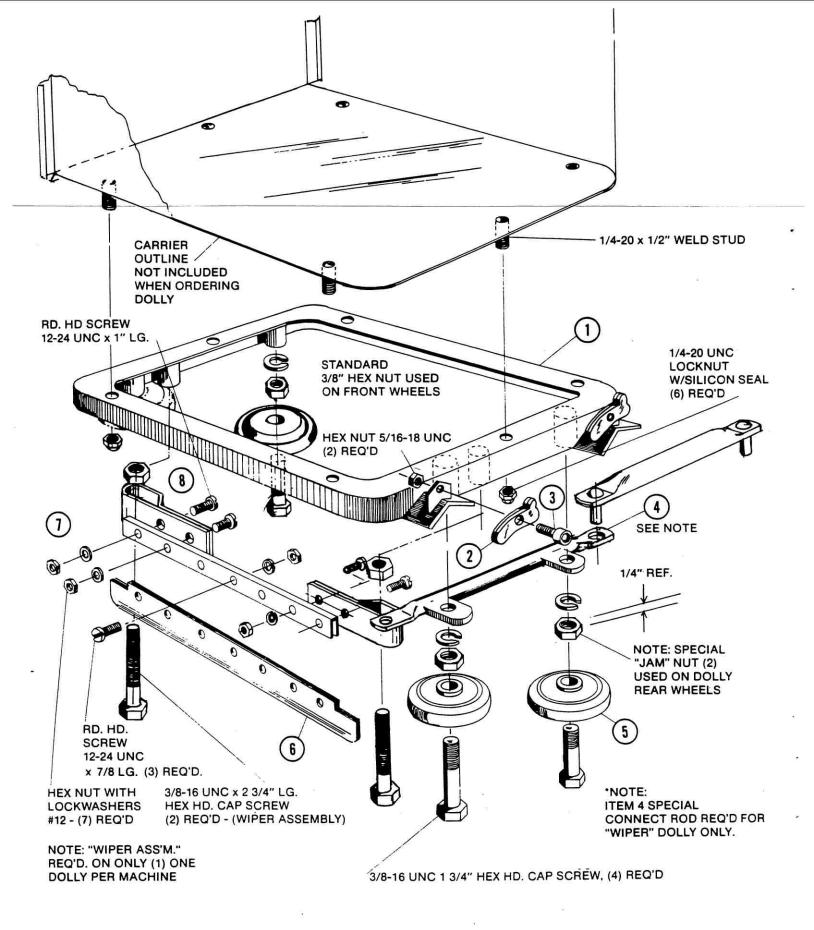
ITEM NO.	DESCRIPTION	REMARKS	PART NO:
1	LEG STAND		B10-1635
2	ADJUSTABLE FOOT 2/STAND.		P15-1101
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DISH RACK CARRIER

DISH RACK CARRIER

ITEM NO.	DESCRIPTION	REMARKS	PART NO.
1	ACCUMULATOR - STAC TRAY CARRIER		A10-1640
2	ACCUMULATOR CARRIER TRAY SUPPORT'S	8 REQ'D	B10-1639
-3	CROSS ROD		B10-1691
	,		



TYPICAL DOLLY ASSEMBLY

TYPICAL DOLLY ASSEMBLY

ITEM		T	
NO.	DESCRIPTION	REMARKS	PART NO.
1	DOLLY FRAME		C10-1689
1	DOLLY FRAME FOR WIPER ASSEMBLY		C10-1812
2	DOLLY DRIVE DOG	2 REQ'D	A10-1642
3	RETAINING BOLT		A10-1644
4	DOLLY CONNECTING ROD		B10-1645
4	DOLLY CONNECTING ROD/WIPER BLADE	* NOTE	B10-1690
5	RACK DOLLY WHEEL	4 REQ'D.	A10-1813
6	TABLE WIPER BLADE		B10-1651
7	WIPER BRACKET/GUARD		B10-1652
8	WIPER BLADE/HANGER	2 REQ'D	A10-1650
9	DOLLY CONNECTING ROD	6" ROD	B10-1772
9	DOLLY CONNECTING ROD	6½" ROD	B10-1773
9	DOLLY CONNECTING ROD	7½" ROD	B10-1774
	NOTE:		
	COMPLETE DOLLY - "WITHOUT WIPER"		B10-1815
	COMPLETE DOLLY - "WITH WIPER"	AS SHOWN	B10-1816
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The Stero Company 3200 Lakeville Highway Petaluma, CA 94954

(800) 762-7600

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