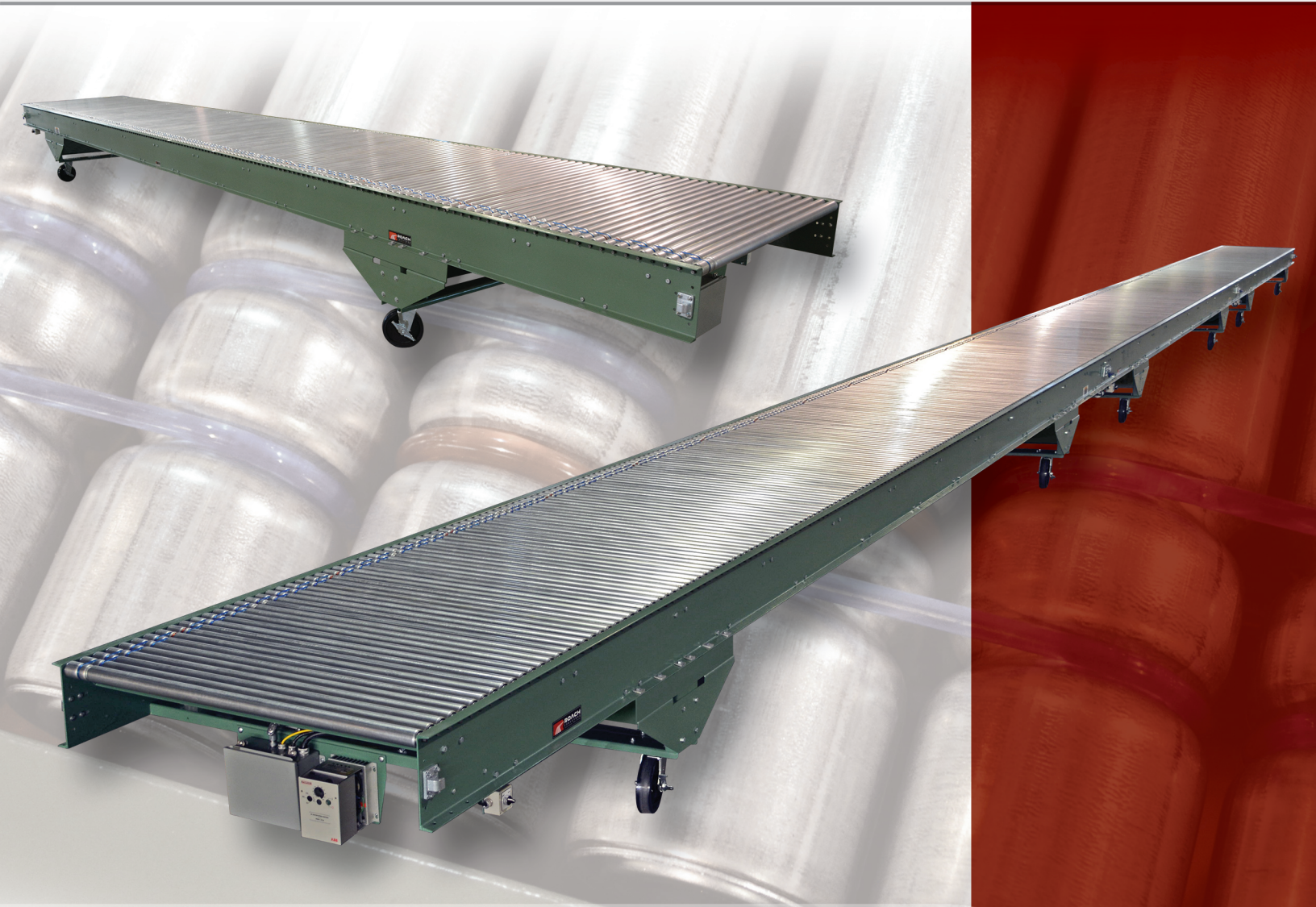




# OWNER'S MANUAL



**Model 1096 RPM**

**DO NOT OPERATE BEFORE READING THIS HANDBOOK  
KEEP IN A SAFE PLACE – DO NOT DISCARD**

# TECH HANDBOOK FOR RPM CONVEYORS

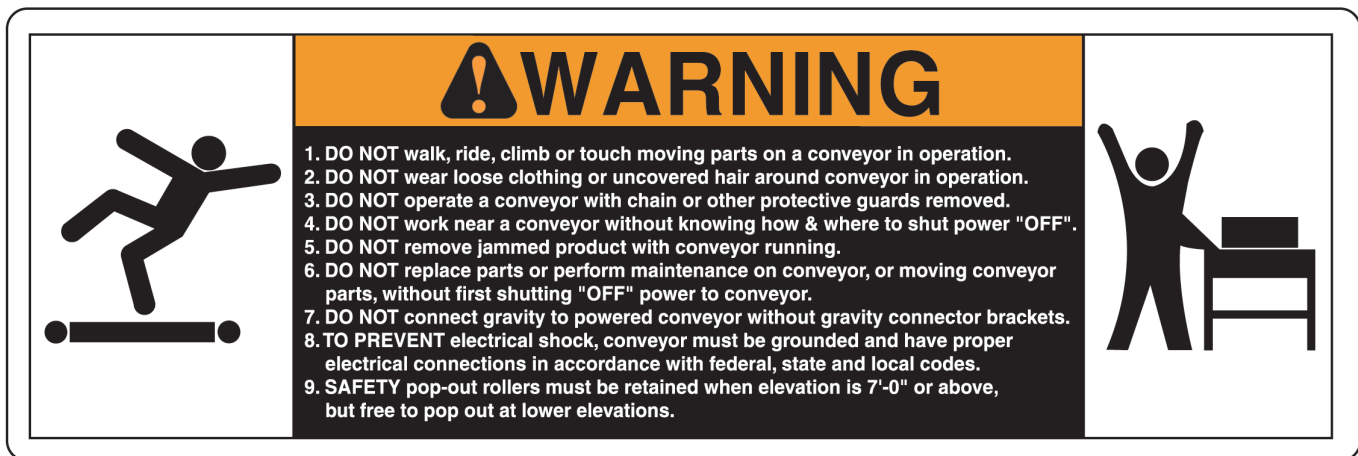
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## WARNING LABELS



ABOVE: Label attached to all protective guards (drives, spool guards, etc.)



ABOVE: Label placed near all drive assemblies and at 30' intervals

--All specifications are subject to change without notice--  
 --Drawings are intended for illustration ONLY and are not to scale--

# CAUTIONS, WARNINGS AND HAZARDS

## INTRODUCTION

This manual was prepared as a “how-to-guide” for installers, end-users and maintenance personnel. It is also intended to educate both owner (purchaser) and all individuals working around the unit, of potential hazards.

With proper installation and maintenance, conveyors are essential for achieving a variety of functions essential in today’s industrial marketplace. By following a simple, periodic maintenance schedule, the life of a typical conveyor (or, most any type of machinery-including our automobiles!) will increase when com-

pared to a similar unit in an application receiving little or no maintenance. You may find that a conveyor can become your best workplace friend by following simple safety guidelines. Failure to follow even the most basic safety suggestions can result in serious personal injury.

Conveyors contain many moving parts-pulleys, belting, chains, sprockets, shafts, rollers, etc. Therefore, it is imperative to become familiar with basic unit operation and know all points of potential hazards.

Remember, when working around or near conveyors (and any industrial machinery) it is your responsibility to become familiar with the unit, to know potential hazards (many are noted with caution labels) and to operate unit in strict accordance with the safety guidelines in this manual.

Keep this manual in a safe place for future reference. It should be placed where appropriate personnel may maintain proper maintenance and records.

This manual must be read by all new users before operating or working near this unit.




# WARNING

**DO NOT OPERATE BEFORE READING THIS MANUAL!  
KEEP IN SAFE PLACE--DO NOT DISCARD!**

## CAUTIONS, WARNINGS AND HAZARDS

# WARNING

-  Before conveyor is placed into operation, all operators and other personnel coming in contact with conveyor must be properly trained and must have read accompanying Tech Handbook.
-  Never move RPM conveyor by holding ANY part of conveyor other than handles. Handles are provided at both ends and both sides of RPM conveyors.
-  DO NOT wear loose clothing or unprotected long hair around RPM conveyors, powered conveyors or machinery with moving parts.
-  When RPM conveyor is being moved, set up or when conveyor is being adjusted by expanding or contracting overall unit length, keep hands, clothing, long hair or other objects clear of scissor grid framework on conveyor to avoid serious injury.

-  Never connect belt conveyors directly to gravity conveyors, RPM conveyors, machinery or fixtures without using connector brackets & pop out roller.
-  It is the responsibility of the customer and installation personnel to supply and install net or mesh guarding on overhead mounted conveyors to prevent product and/or debris from falling to floor in areas where required.
-  Only trained personnel shall perform maintenance functions. Before maintenance operations are performed, shut conveyor “OFF” and lock out power source to prevent unauthorized start-up. When maintenance is completed, only authorized personnel shall be permitted to start conveyor following maintenance or other emergency shut-off.



# SAFETY INFORMATION / RECEIVING AND INSPECTION

## IMPORTANT SAFETY GUIDELINES

### **WARNING**

**WARNING:** All personnel coming in contact with this conveyor should be aware of the following safety guidelines **BEFORE USING OR WORKING AROUND CONVEYOR.** **NOTE:** ALWAYS notify Roach whenever any conveyor is used in an application or condition other than was originally intended. Failure to notify Roach may allow conveyor to be operated in a hazardous operating condition. Injuries resulting from negligence or violation of safety instructions hereby removes responsibility of product liability claims from Roach.



Do not walk, ride, climb, or touch moving parts on a conveyor in operation.



Do not connect gravity to powered conveyor without safety gravity connector brackets.



Any violation of above safety instructions hereby removes all product liability claims from Roach



Do not wear loose clothing or uncovered hair around conveyor.

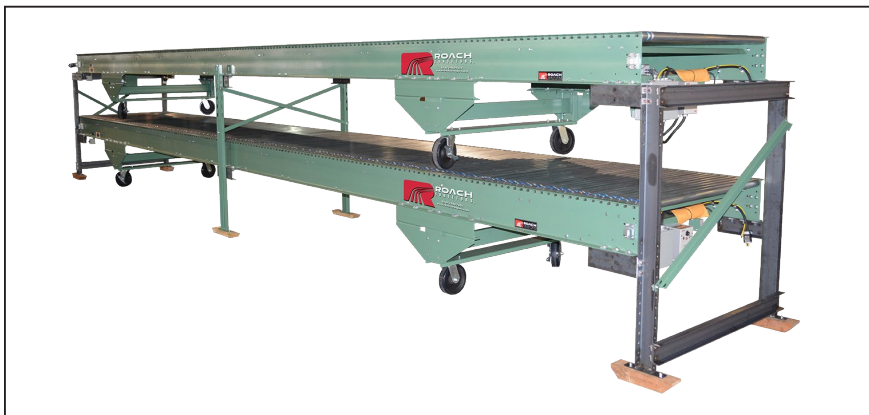


It is the responsibility of conveyor end-user to comply with all safety standards including OSHA and other federal, state, and local codes or regulations. Install protective guarding and other related safety precautionary equipment to eliminate hazardous operating conditions which may exist when two or more vendors supply machinery for related use.



Do not replace parts or perform maintenance on conveyor, or moving conveyor parts, without first shutting "OFF" power to conveyor and locking out power source.

## SHORTAGES, DAMAGES, RETURNS AND UNCRATING



**NOTE:** Do not return goods to factory without prior, written return authorization. Unauthorized returns are subject to refusal at factory.

Before uncrating, check quantity of items received against bill of lading to confirm that all material has been received. Examine the condition of equipment to determine if any damage has occurred.

Damage and/or shortage in shipment should be reported immediately to both vendor and carrier. Obtain a signed damage report from carrier agent and

send copy to vendor. Do not repair any damage before obtaining this report. For damaged shipments, consult factory to determine if entire shipment must be returned to factory for repair or if an immediate order should enter production to produce a new, replacement shipment. Carefully remove crating and look for essential components and specific

accessories that may have been boxed and attached (or 'banded') to crating material. Save all hardware for subsequent use by installation personnel.

It is possible that some items may become separated from original shipment. Check bill of lading (or, accompanying freight documentation) to ensure receipt of ALL units ordered including ALL accessories.

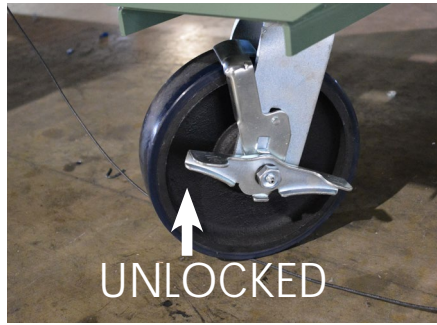


# GENERAL INSTALLATION INFORMATION

## SET-UP / CONNECTION OF INTERMEDIATE SECTIONS

Once initial inspection and uncrating are completed, unlock casters and move conveyor into actual operational area. While moving, be sure to keep hands, clothing, hair and other objects clear to avoid serious injury. Once relocated, lock casters to secure RPM.

(see illustration on the right)



## LATCHING RPM SECTIONS TOGETHER

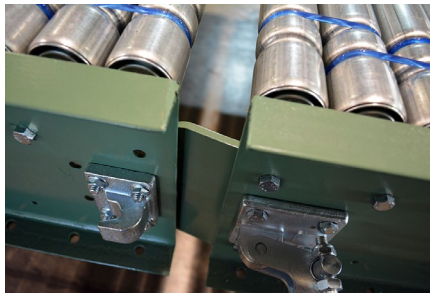
To connect up to 3 sections the conveyors must be latched together. Follow the steps below to latch conveyors together. Repeat steps 1-6 for both sides of the conveyors.

DO NOT CONNECT MORE THAN 3 UNITS TO A SINGLE OUTLET!

MAX 3 UNITS CONNECTED TO A SINGLE OUTLET



Step 1 Align the discharge end of the 1st section with the infeed end of the 2nd section.



Step 2 Using the "Guide Flare" move the units together.

*Note: Casters must be unlocked*



Step 3 The 2 units should be butted together.

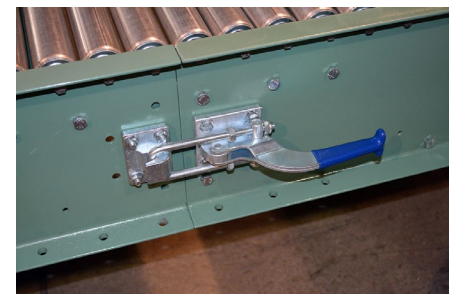


Step 4 Place the latch inside the hook



Step 5 Pull the latch toward the conveyor frame.

*Note: Tension should be tight*



Step 6 Lock latch down to secure the connection.

*Note: Repeats Steps for both sides*

**⚠ DO NOT OPERATE UNTIL ALL LATCHES HAVE BEEN SECURED**

**⚠ DO NOT CONNECT MORE THAN 3 UNITS TO A SINGLE OUTLET!**

# MAINTENANCE SAFETY PRECAUTIONS BEFORE PERFORMING MAINTENANCE

## **WARNING**

Only trained personnel shall perform maintenance functions. Before maintenance operations are performed, conveyor must be shut "OFF" and disconnects locked in the "OFF" position to prevent unit from unauthorized start-up.

One of the most important guidelines for maximizing conveyor operation and personnel safety is to implement a regular maintenance schedule and train personnel on the appropriate needs of the specific unit.

Only trained personnel shall perform maintenance functions. Before maintenance operations are performed, conveyor must be shut "OFF" (if applicable) and disconnects locked in the "OFF" position to prevent unit from unauthorized start-up during maintenance. All personnel should be informed of the safety procedures associated with unit maintenance and performance.

Do not perform any work on conveyors or conveyor system while in operation unless it is impossible to otherwise conduct adjustment, lubrication or other maintenance function. Only experienced, trained personnel possessing advanced hazards-training should attempt such critical operations.

## MAINTENANCE AND FOLLOW-UP DETAILS

## **WARNING**

Only trained personnel shall perform maintenance functions. When maintenance is completed, only authorized personnel shall be permitted to start conveyor following maintenance or other emergency shut-off.

While performing maintenance do not wear loose clothing. Immediately report any hazardous conditions-sharp edges, pinch (or nip) points or other conditions that may result when several manufacturers supply machinery which may create operating hazards.

When using mechanical aids such as hoists, cables, or cranes exercise extreme caution to prevent damage to conveyors or other integrated machinery which may create a working hazard when maintenance is completed and units are in operation.

Clean up any spilled lubricants or other materials used in the maintenance process or those which may be deposited during unit operation. Eliminating poor housekeeping practices increases unit efficiency while creating safer personnel working conditions.

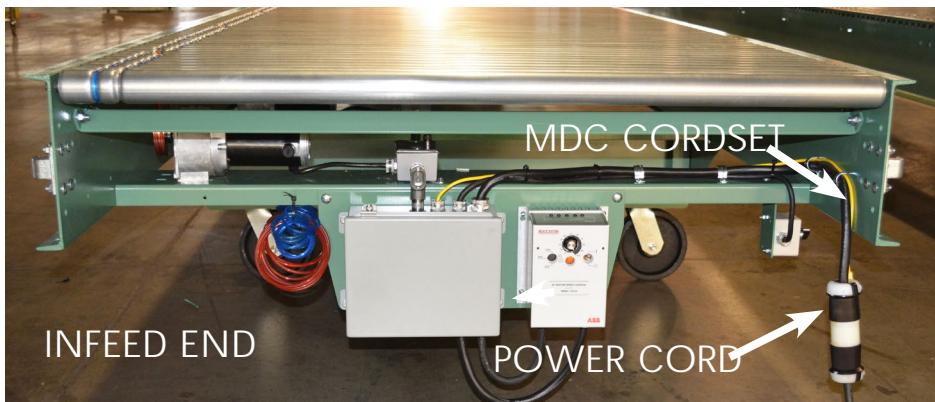
After maintenance, conduct visual inspection to ensure that all safety devices and guards have been replaced. Confirm that all units are clear of tools, debris or other items. Before starting conveyor, check condition of RPM conveyor warning labels (see "WARNING LABELS" at front of handbook). If labels have been destroyed or are not clearly legible, contact Roach Corporation® to receive replacement labels. Placement of warning labels is critical to avoid unauthorized unit operation which may result in hazardous working conditions for all related personnel coming in contact with conveyor.



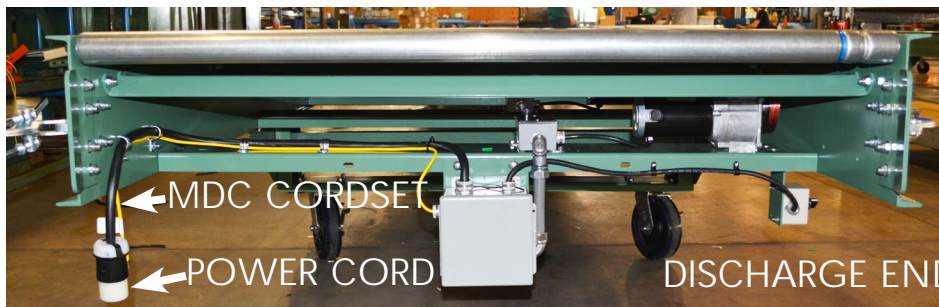


# START-UP PROCEDURES

## SEQUENCE OF OPERATION



MDC CORDSET



The power cord for the unit is at the infeed end of the conveyor. This input is a twist lock connector (see twist lock connector at bottom of the page) and should only be connected by authorized personnel. The power cord should be connected to a dedicated 120v power source.

If multiple units are latched together the power supply and the Yellow MDC Cordset for each unit must be connected. The individual units have male twist lock connectors and female MDC cordset connectors at the infeed end. The discharge end has a female twist lock connector and male MDC cordset connectors. Connect

these 2 sets of cable to provide power to the subsequent conveyor and interface all of the Start/Stop switches.

The MDC Cordset cables should be connected by aligning the tabs and screwing the two connector barrels together.

**MAX 3 UNITS CONNECTED TO A SINGLE OUTLET**

**⚠ DO NOT CONNECT MORE THAN 3 UNITS TO A SINGLE OUTLET!**

### TWIST LOCK CONNECTOR



Align the connector blades with the plug inlets.



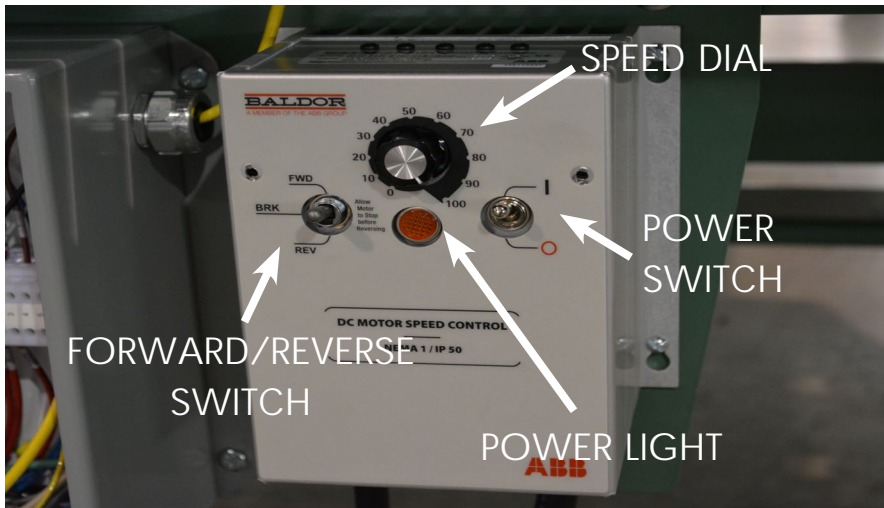
Insert blades into inlets



Twist connectors to lock in place

# START-UP PROCEDURES

## SEQUENCE OF OPERATION



Once the power cord is connected the unit is ready to power on. The controls are at the infeed end of the unit at the enclosure mount. The power switch is OFF in the down position and ON in the up position. Turning the switch ON the amber power light should illuminate indicating the unit

has been activated and is ready to run.

The conveyor speed can be adjusted by rotating the SPEED DIAL left to right from 0 - 100. 0 being the slowest speed and 100 the maximum.



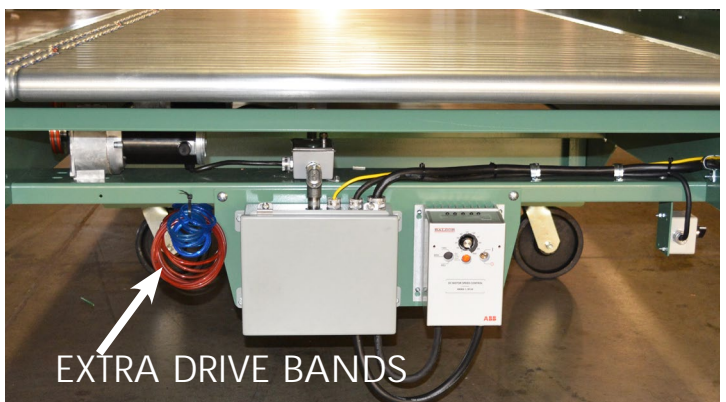
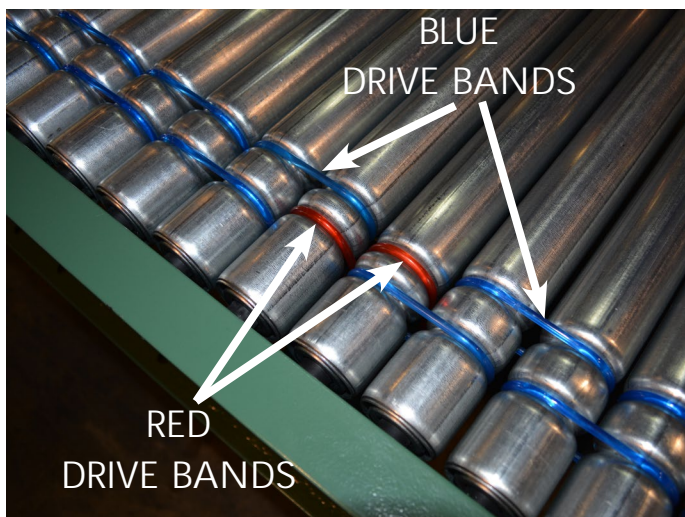
### START / STOP SWITCH

A START/STOP switch is located on the right side of the conveyor at the infeed end and a second switch on the left side at the discharge end allowing operators to control the conveyor from either side. Both switches need to be in the START position to run. The conveyor will not run if any of the switches are in the STOP position.



Finally, the infeed end Power On button must also be pressed and illuminated for the conveyor to run.

## DRIVE BANDS



There are 2 types of drive bands for the RPM conveyor. The first is a red band for the rollers driven by the motor. The second is a blue band which is for the rollers that are slave driven.

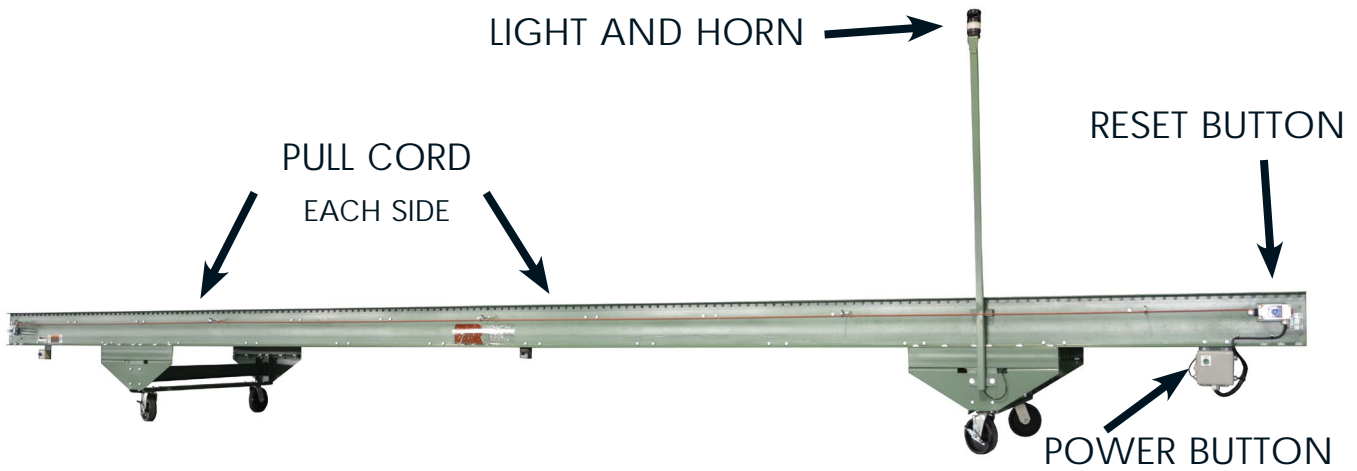
Should one of these drive bands break, extra bands have been

included with each conveyor. These bands are zip tied to the frame at the infeed end of the conveyor.



# START-UP PROCEDURES

## SAFETY START/STOP PROCEDURE



### SAFETY START/STOP PROCEDURE

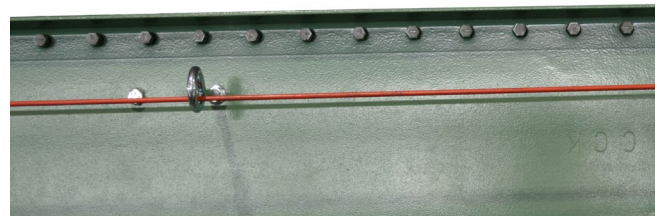
Pull the pull cord to stop the conveyor unit.

A light will flash and a horn will sound while the unit is stopped.

To restart the conveyor again the pull cord must be reset by pressing the Reset button.

After that, the Power On button must be pressed. This will resume power to the conveyor and stop the flashing warning light and horn.

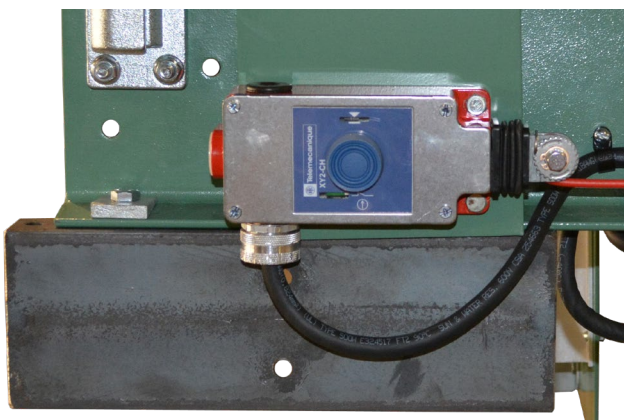
1) pull cord



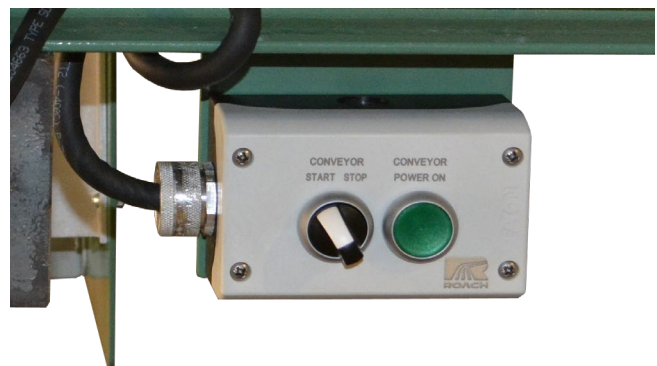
2) light flashes  
horn sounds



3) reset pull cord



4) power on





# START-UP PROCEDURES

## GEAR REDUCER ADJUSTMENTS

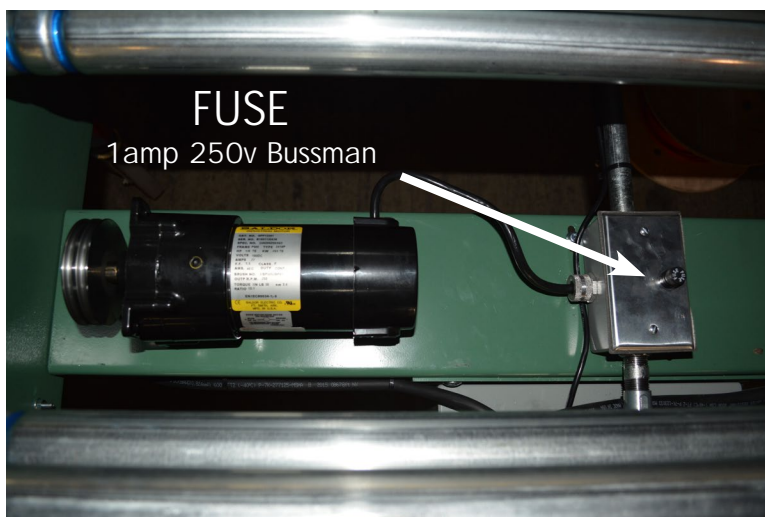
### DC MAGNET MOTORS BRUSH MAINTENANCE

- Remove cap (shown at right) from both sides of motor to access the brushes.
- With cap removed, brush may be removed by pulling on the spring.
- Visually inspect brushes for chips or grooves.
- The shunt wire should not have any frays.
- Reinsert with the brass tabs facing the front and rear of the motor.

**⚠ DANGER**

WARN ALL PERSONNEL TO KEEP CLEAR OF CONVEYOR DURING UNIT START-UP

Electrical controls must be designed by a qualified electrical engineer to ensure that appropriate safety features (emergency stops, pull cords, switches, etc.) are installed on unit for safe operation. Before conveyor start-up, all operators and other personnel coming in contact with unit must be properly trained and must have read accompanying Owners Manual.



Rollers have been removed for clarity

A fuse has been included at each motor for protection. The fuse is a 1 amp 250v Bussman fuse. If a fuse is blown a qualified technician should determine the cause of the surge before replacing the fuse.



# TROUBLE SHOOTING AND REPLACEMENT PARTS

## TROUBLE SHOOTING / SERIAL PLATE

TROUBLESHOOTING		
TROUBLE	PROBABLE CAUSE	REMEDY
Product stops on conveyor or will not flow smoothly	<ul style="list-style-type: none"> <li>A. Floor supports out of adjustment</li> <li>B. Wheels are locked</li> <li>C. Conveyor damaged</li> </ul>	<ul style="list-style-type: none"> <li>A. Adjust supports as previously outlined in the Owners Manual.</li> <li>B. Remove debris from wheels and/or replace wheels as necessary.</li> <li>C. Visual inspection required to identify worn or damaged parts. Replace worn or damaged parts as necessary.</li> </ul>
Conveyor will not open or roll smoothly	<ul style="list-style-type: none"> <li>A. Casters are locked</li> <li>B. Casters are frozen due to debris or dirty environment</li> <li>C. Bolts and nuts are over tightened</li> <li>D. Conveyor is damaged</li> </ul>	<ul style="list-style-type: none"> <li>A. Unlock casters before moving conveyor.</li> <li>B. Clear debris from casters until casters are readily mobile. Replace damaged or worn casters as necessary</li> <li>C. Loosen bolts and nuts that may have been over tightened during maintenance procedures.</li> <li>D. Replace ALL components damaged to return unit to proper operating condition.</li> </ul> <p>NOTE: All damaged parts should be replaced immediately to promote safe work environment</p>

## ORDERING REPLACEMENT PARTS



**ROACH CONVEYORS**  
 808 HIGHWAY 463  
 TRUMANN, AR 72472  
 TEL 870-483-7631

SERIAL NO.

**123456**



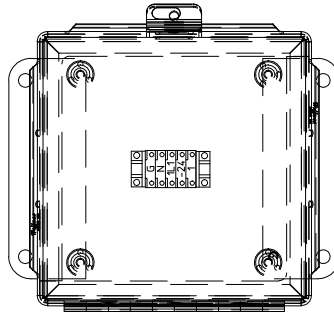
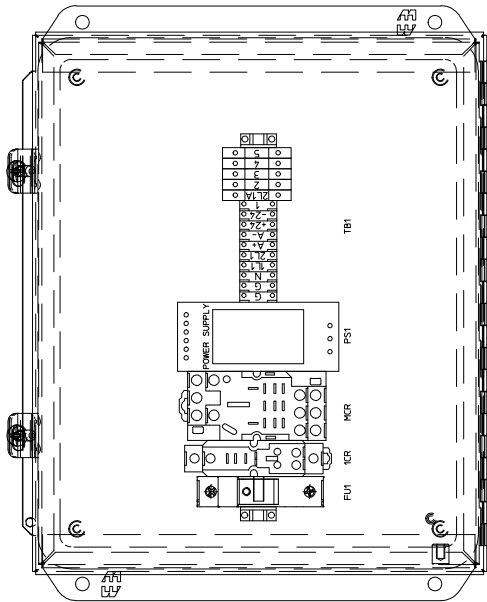
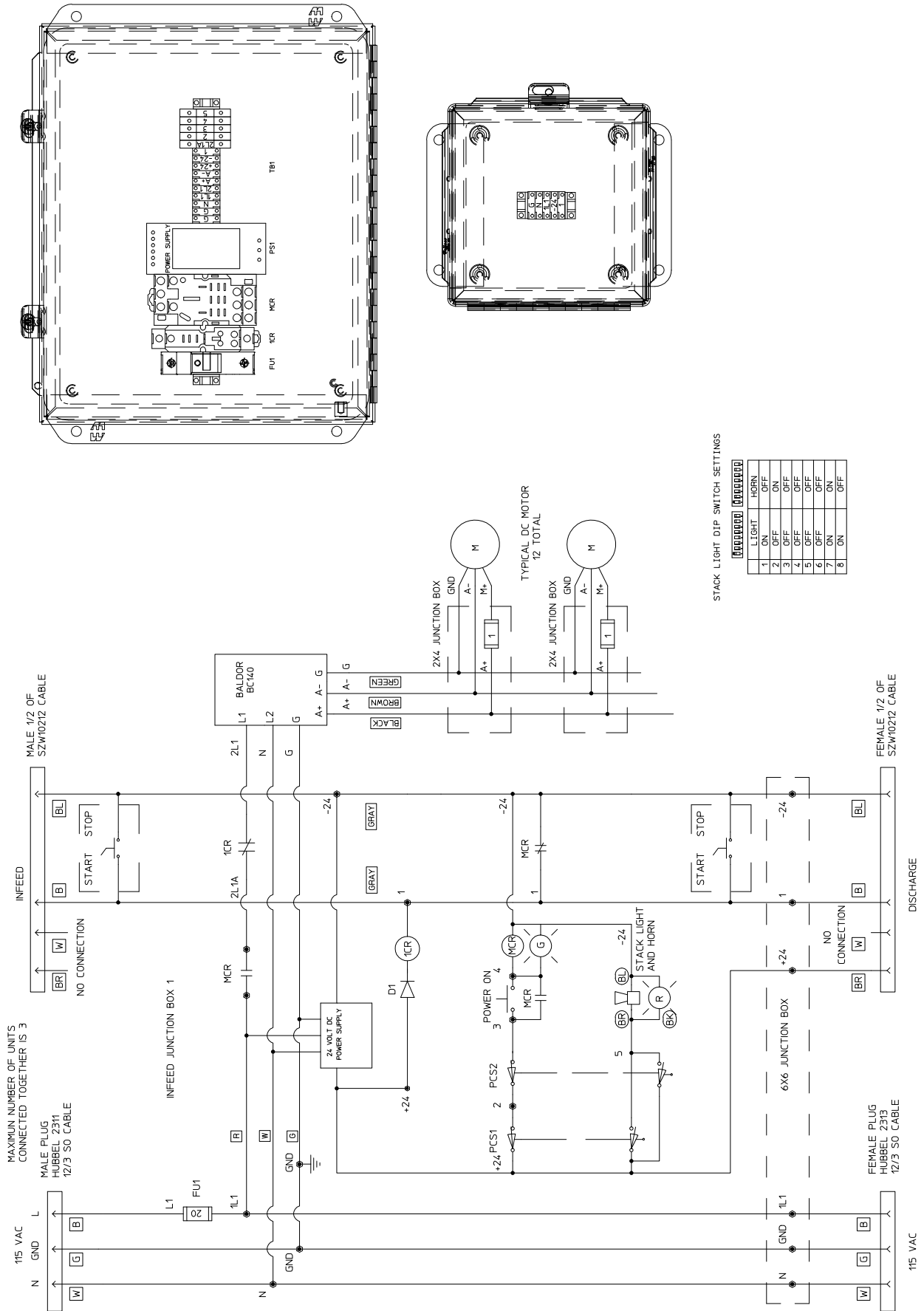
**SERIAL NUMBER**

To order any replacement parts or when calling for assistance with any powered conveyor, ALWAYS provide the unit serial number. Shown at actual size, this aluminum plate is placed on enclosure mount at the infeed end of the conveyor.

To order replacement parts or add-on components, contact the Roach distributor who originally furnished the unit if possible. If this is not possible, contact the national sales office at 870.483.7631 for the name of the authorized Roach distributor in your area. Have unit model number and serial number BEFORE calling. Refer to unit drawings (in rear section of handbook) for part numbers if ordering replacement parts.

# ELECTRICAL DIAGRAMS

## CONVEYOR CONTROL SYSTEM WIRING DIAGRAM





# PARTS LIST

## PARTS LIST FOR RPM

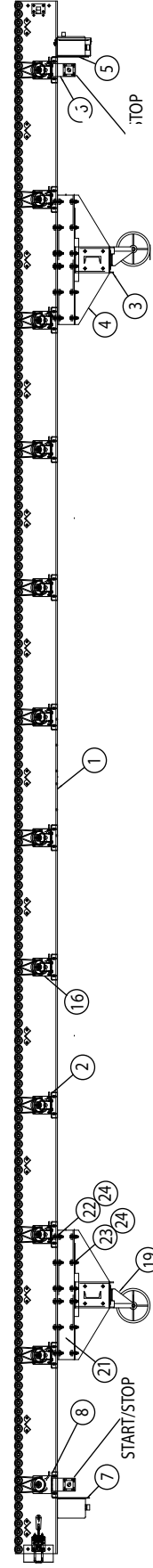
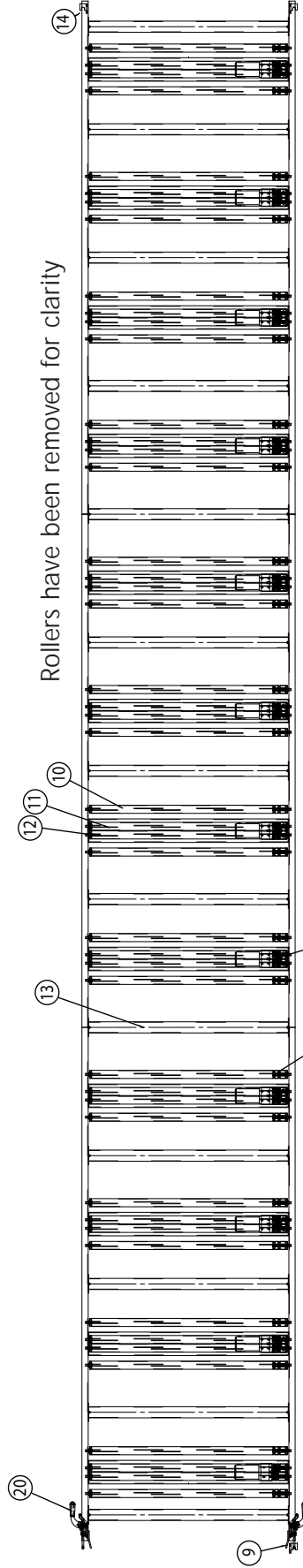
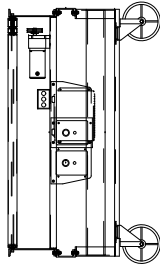
ITEM	QTY	DESCRIPTION	DWG. NO.	PART NO.
13	13	48" B/F FRAME CROSSBRACE	GC-1000	M00119-48
14	2	CLAMP LATCH WELD ASS'Y.	PP.	SMCW531038-03
15	12	DOUBLE DRIVE SHEAVE	404830-2	404830-2
16	12	1/8HP GEAR MOTOR FWA-GIL-200	PP.	RBW28100
17	168	3/16" DIA. X 7.5" HT85A BLUE DURA-BELT	PP.	SVBW452465-01
18	24	201" X 13.875" HT RED 85A BELT DURABELT	PP.	SVBW531038-01
19	4	8" DIA. SWIVEL CASTER W/ BRAKE	PP.	SMCW531038-02
20	2	MODEL #328-5882 PULL-ACTION LATCH CLAMP	PP.	SMCW531038-01
21	4	4" STRU. CHANNEL SPACER	531038-26	531038-26
22	24	3/8"-16 X 1 3/4" H.H.C.S.	PP.	FSW000360
23	24	3/8"-16 X 1 1/2" H.H.C.S.	PP.	FSW000359
24	72	3/8" BEVELED WASHER	PP.	FSW09308

ITEM	QTY	DESCRIPTION	DWG. NO.	PART NO.
1	2	30"-0" SIDE CHANNEL	531038-1	531038-1
2	10	INTER. MOTORBASE WELD ASS'Y.	531038-2	531038-2
3	2	SUPPORT WELD ASS'Y.	531038-5	531038-5
4	4	SUPPORT GUSSETT	531038-10	531038-10
5	1	CONTROLLER MOUNT BRACKET	531038-11	531038-11
6	2	START/STOP MOUNT BRACKET	531038-12	531038-12
7	1	6" SQ. ENCLOSURE MOUNT	531038-13	531038-13
8	2	MOTORBASE WELD ASS'Y-"END SECTION"	531038-18	531038-18
9	2	END GUIDE PLATE	531038-19	531038-19
10	156	196G-48" DOUBLE GROOVED ROLLER	PC-053D	196G-48-ED2438
11	12	196G-48" DOUBLE GROOVED ROLLER	531038-22	531038-22
12	12	196G-48" DOUBLE GROOVED ROLLER	531038-23	531038-23

Specify Unit Serial Number ensure proper allocation of components.

Recommended Spare Parts are shown in red.

**MAX 3 UNITS CONNECTED TO A SINGLE OUTLET**



**DO NOT CONNECT MORE THAN 3 UNITS TO A SINGLE OUTLET!**



# WARRANTY

- Materials used by Roach are of good quality.
- Any part proving to be defective in materials or workmanship upon Roach inspection, will be replaced at NO cost, FOB, Trumann, Arkansas, for one year. Installation expense will be paid by others.
- Roach liability includes furnishing said part or parts; Roach is not liable for consequential damages, such as loss of profit, delays or expenses incurred by failure of said part or parts.
- Failure due to abuse, incorrect adjustments, exposure to corrosive or abrasive environment or operation under damp conditions does not constitute failure due to defects in workmanship or materials.
- Component parts not manufactured by Roach (motors, gear reducers, etc.) will be repaired or replaced at the option of their manufacturer. Contact nearest authorized service center for all warranty claims.

NOTE: Motors or gear reducers tampered with before inspection shall be considered free of ALL Warranty Claims.

--All specifications are subject to change without notice--  
--Drawings are intended for illustration ONLY and are not to scale--

808 HIGHWAY 463 NORTH  
TRUMANN, ARKANSAS 72472-1310  
Tel 870-483-7631 Fax 870-483-7049  
info@roachconveyors.com  
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[roachconveyors.com](http://roachconveyors.com)