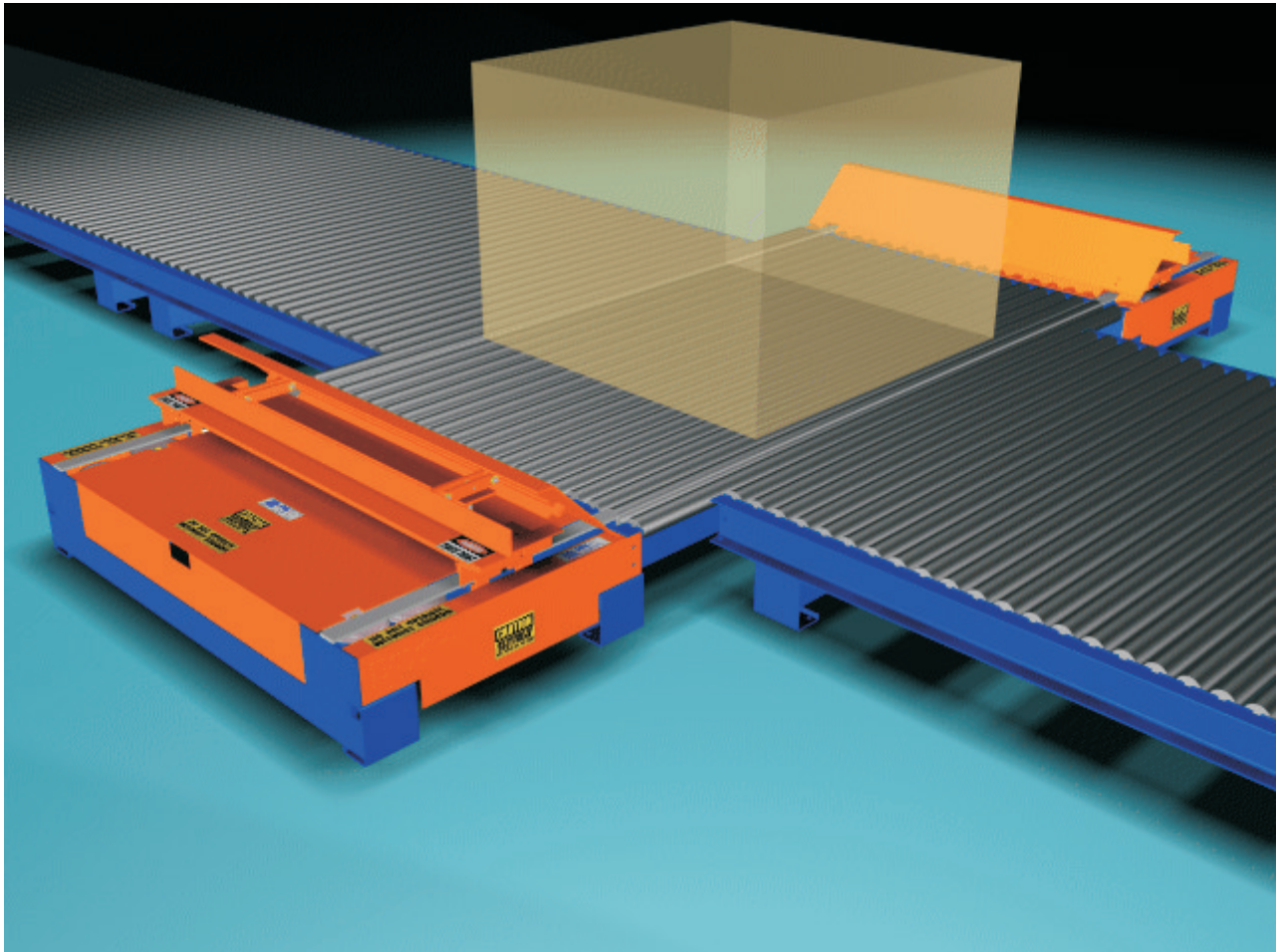


# LOAD CENTERING DEVICE



# SERVICE AND MAINTENANCE MANUAL

## LOAD CENTERING DEVICE

The information within this manual covers SYSTEC's standard Load Centering Device. Within this manual the device will be referred to as an LCD.

The LCD is most commonly used in the mainline conveyor, just prior to the stapping operation. As the device's name implies, it can center and square loads to insure accurate placement of straps on the load and improve strapper operations.

This device can be used as a "midsection" at any location within a conveyor line, to within 2'-6" from the beginning or ending of a line. The unique design of the scalloped and folding heads allows the loads deck sheet, or waster sheet, to be folded up the side of the load, again, improving operations of the strapping operations. The scallops of the head go beneath the rollers surface to ensure the waster sheet is not crushed, or missed in the LCD's operation. As the heads progress forward, toward the load, they push the load to the center of the conveyor line, and force the load to square with the heads as well. Once the heads have made full contact with the load on both sides, the heads then fold up, forcing the waster sheet to conform to the load sides.

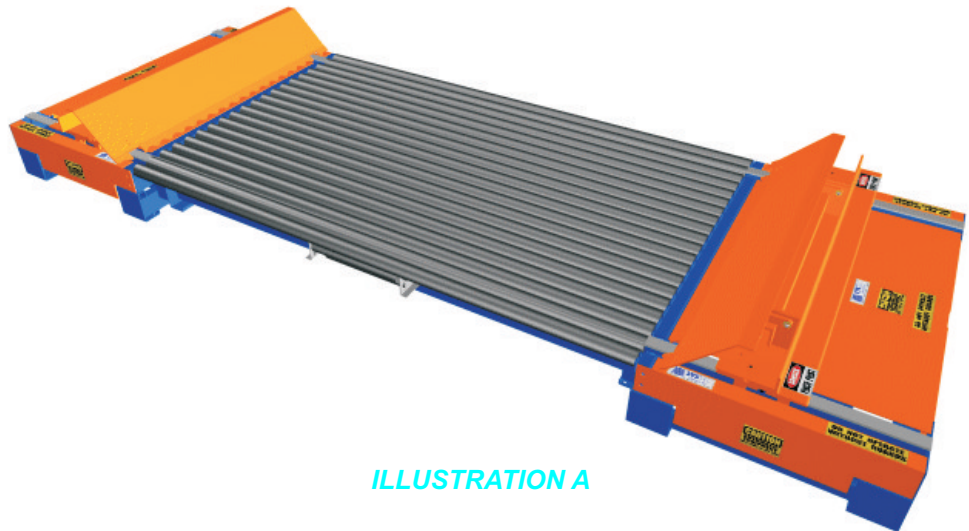


ILLUSTRATION A

**LOAD CENTERING  
AND SQUARING  
DEVICE**

## CONVEYOR SAFETY

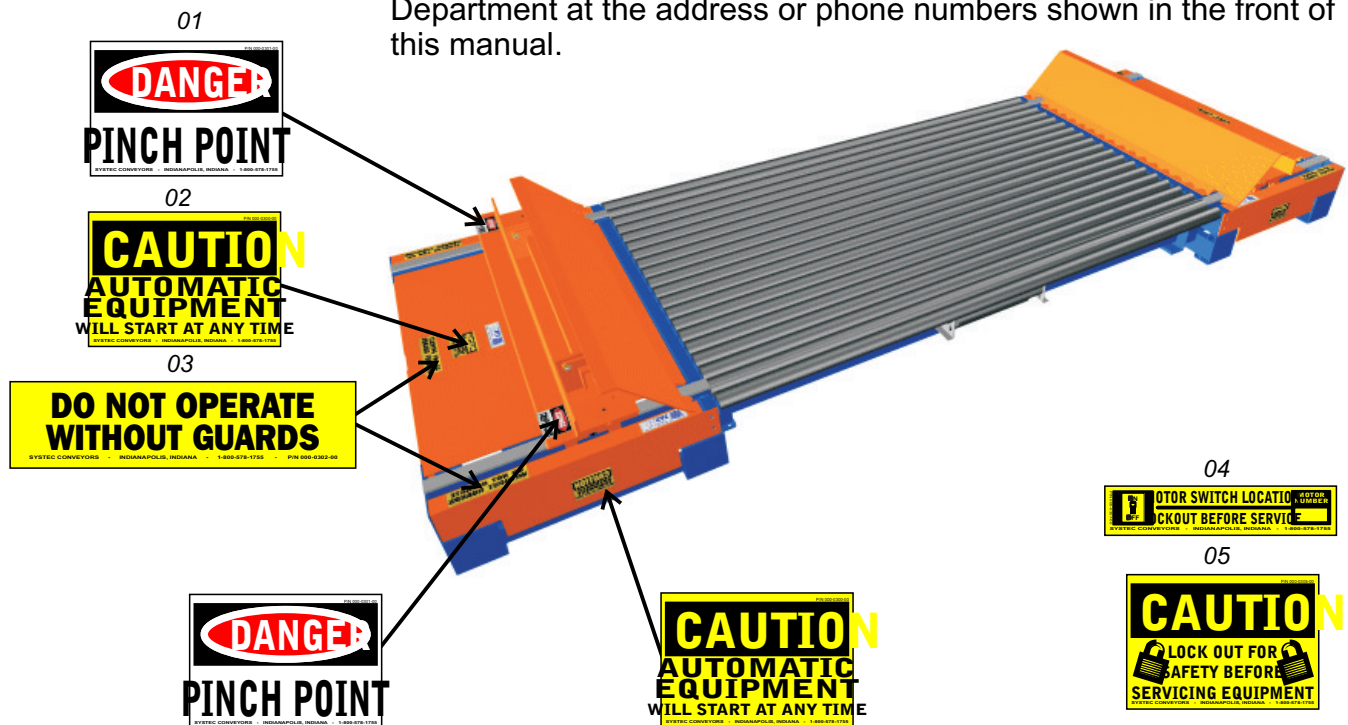
Where safety is concerned, conveyor and its devices are no different from any machinery or processing equipment. In many cases, the conveyor and devices can start running without notice.

**SYSTEC** designs all its equipment to be as safe as possible by installing guarding, or providing safety labels on all conveyor and devices. These labels are in place to warn personnel working on or around the conveyor system of the inherent dangers that exist with any conveyor or machinery.

**SYSTEC** Conveyors also believes that a conveyor safety session should be incorporated into your existing safety training program to educate all personnel that work on or around conveyor systems of these potential safety concerns.

Below is Illustration B, showing the safety labels provided with **SYSTEC's** LRD. These labels should be installed to alert personnel of the potential hazards caused by improper use of the conveyor equipment. Where foot traffic exists, personnel should be discouraged from walking on a conveyor line.

Should you need additional labels, please contact **SYSTEC's** Parts Department at the address or phone numbers shown in the front of this manual.



**ILLUSTRATION B**

Notes:

Exact location of Motor Switch labels are determined by the mounting location at the time of installation.

## CONVEYOR SAFETY (continued)

Lockout is a very important part of your Maintenance and Service Department procedures. SYSTEC provides a Lockout Switch, as shown in illustration C, for each drive motor.

### LOCKOUT SWITCH FOR SAFETY



*ILLUSTRATION C*

Note: Only authorized personnel should perform service and maintenance on any conveyor equipment and controls.

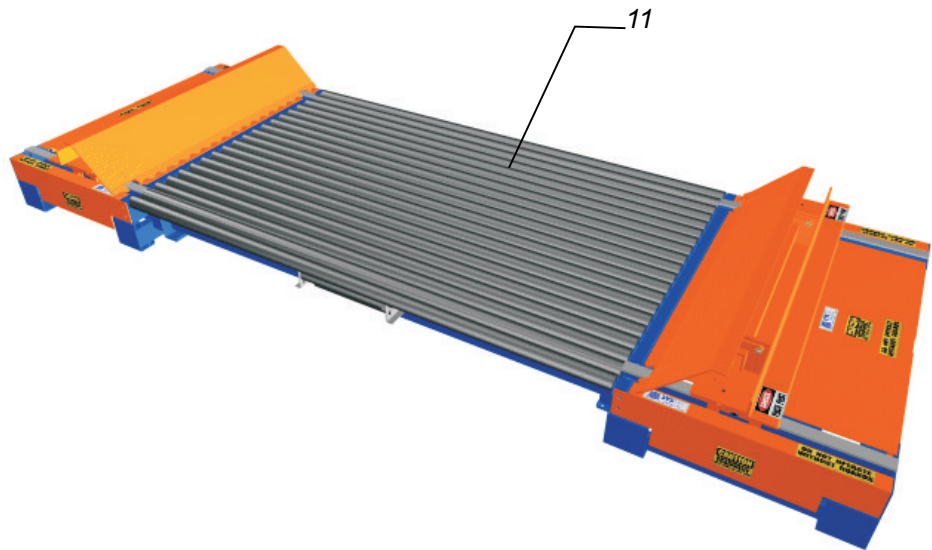
## LCD SERVICE AND PARTS

The drawings within this section are designed to help you understand how components of the LCD are assembled and disassembled. The exploded views also allow you to quickly and easily identify the parts that may need to be serviced and/or repaired.

The parts identification page(s) provide the corresponding part numbers to the drawings, and indicates recommended quantities you should stock for each LCD, along with the parts descriptions, part numbers, and order quantities. This is a faxable form, for your convenience, to order parts for stock or needed replacement parts. Simply fill in the order quantity, the necessary purchase order number and shipping information, then fax the form to **SYSTEC** Conveyor's at the number shown on the form. An Order Acknowledgement will be faxed back with the estimated ship date and pricing information.

The drawing below shows the LCD and the load carrying rollers, which may not match the infeeding and outfeeding conveyor sections. Be sure, when ordering, to specify the exact size of rollers needed and identify for Systec's Parts Department the device type for which the rollers are needed.

### LCD LOAD CARRYING ROLLERS



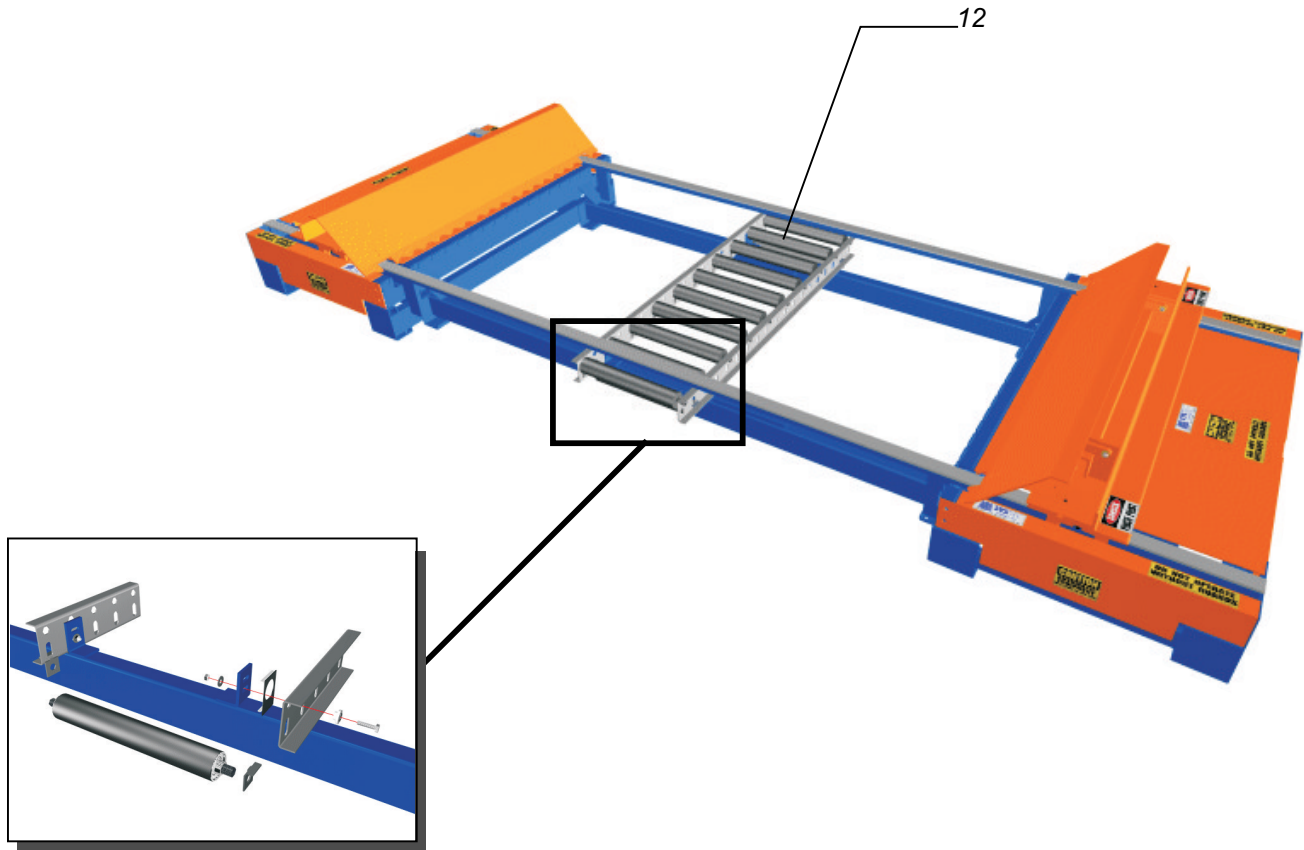
#### ASSEMBLY DRAWING 1

Notes:

*Lockout switch location is determined at time of installation.*



## LCD SERVICE AND PARTS (continued)



### ASSEMBLY DRAWING 2

**Notes:**

*Pressure rollers widths vary based on location. Please be sure exact roller is specified when ordering replacements.*

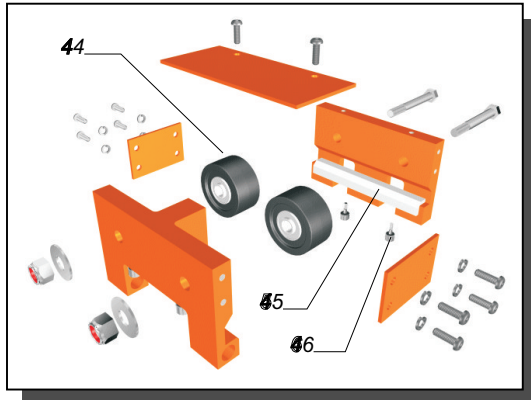
*Pressure roller mounting components are the same as used in standard conveyor midsections. Refer to the Powered Roller Conveyor Manual for all pressure roller parts and mounting hardware.*

## LCD SERVICE AND PARTS (continued)

### ASSEMBLY DRAWING 3

#### Notes:

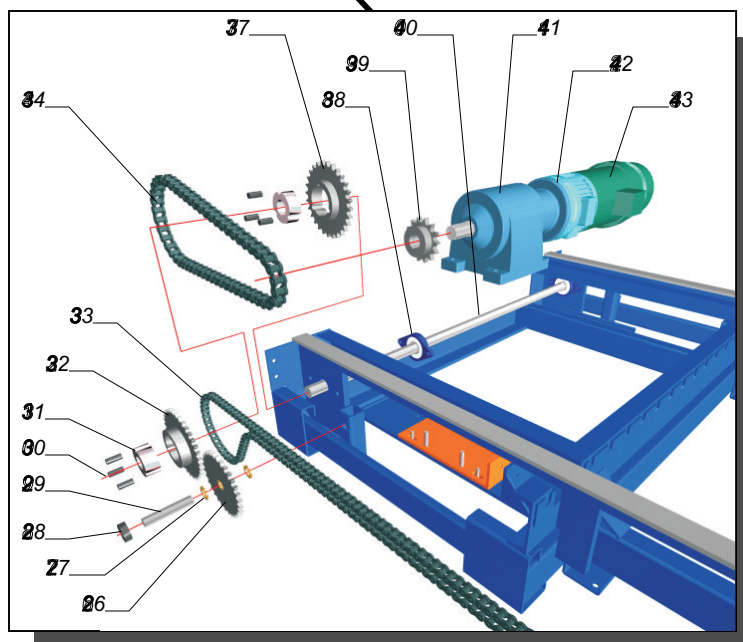
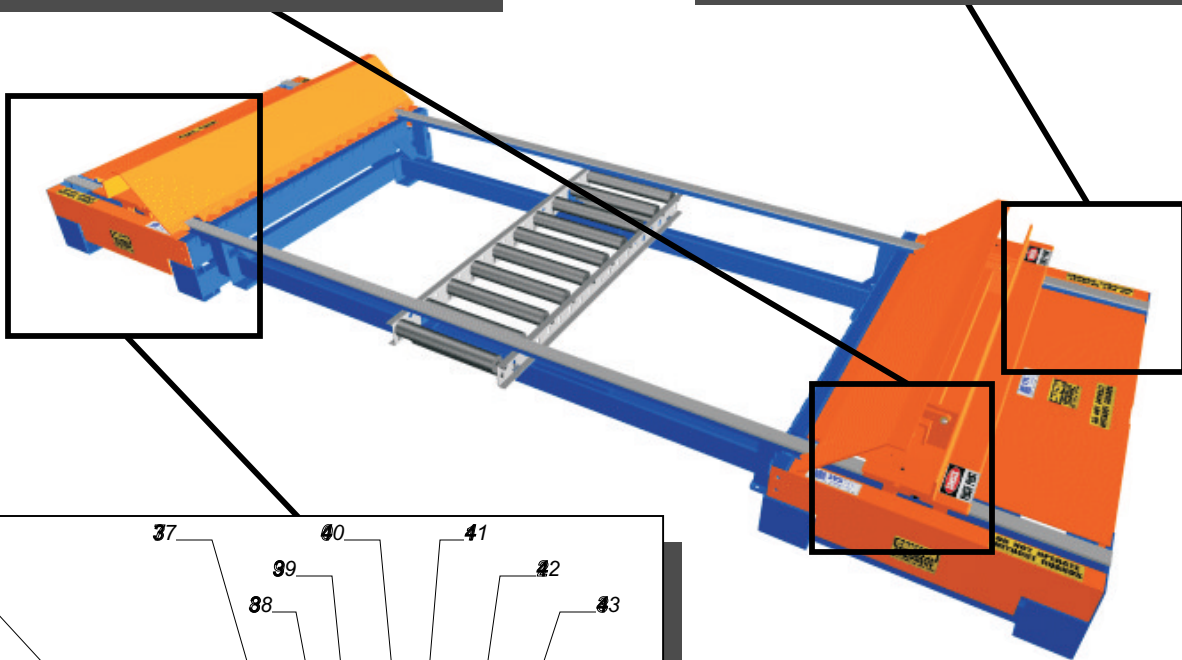
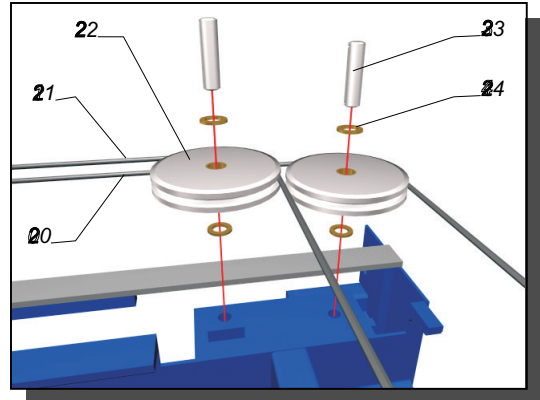
For best performance, the trolley T-rails must be kept clean and NEVER lubricate with grease or oil.



### ASSEMBLY DRAWING 4

#### Notes:

There are two (2) sizes of cable on the LCD. Be sure to specify exact cable length when ordering.



### ASSEMBLY DRAWING 5

#### Notes:

Gearbox, Motor, and Clutch Data Plate information must be provided when ordering replacement/stock gearmotors

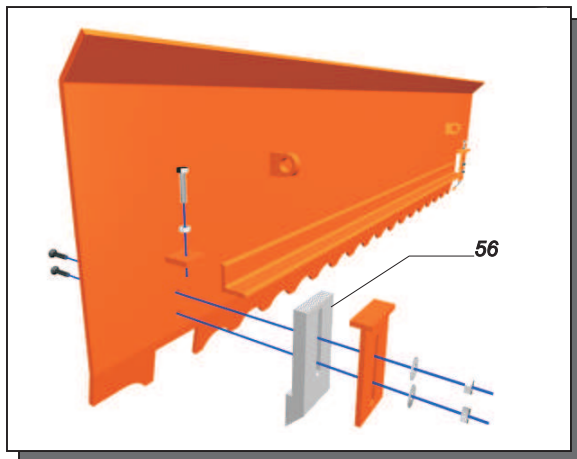
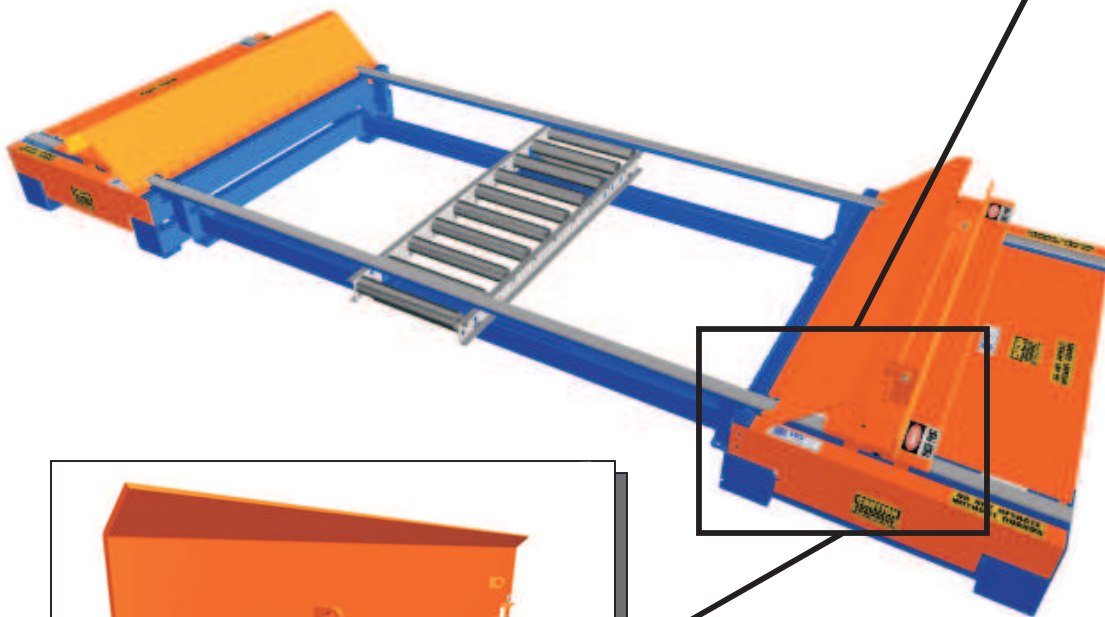
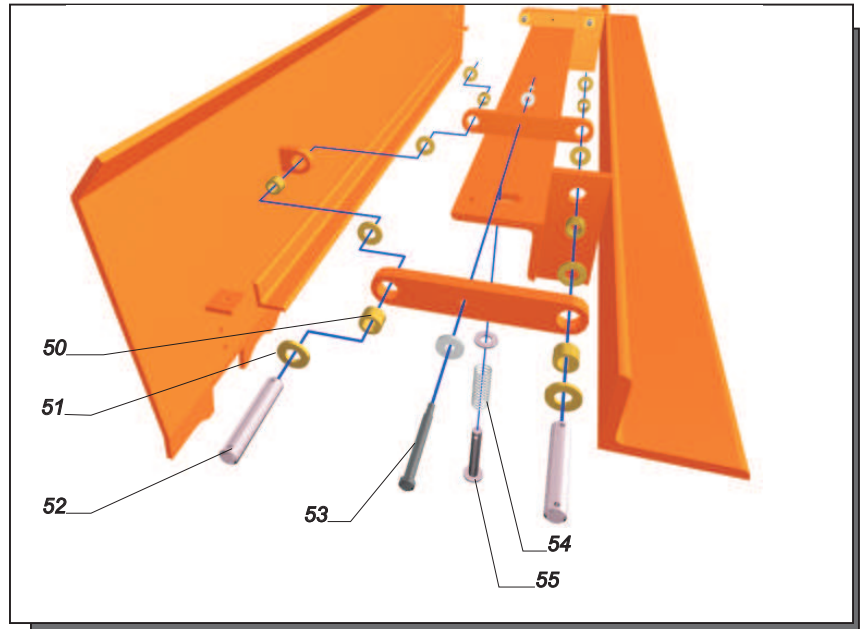
## LCD SERVICE AND PARTS (continued)

### ASSEMBLY DRAWING 6

**Notes:**

Moving head parts do not require lubrication.

To check head for proper operation, simply push the head into the vertical position. It should fall back to slanted position under its own weight.



### ASSEMBLY DRAWING 7

**Notes:**

If replacement of any part is required, inspect all parts for wear and replace as needed.

When replacing the UHMW T-rail wear block, adjust so that the scallops are beneath the rollers surface.



Some items on this parts list require "fill-in" or additional information to receive the needed part. Please be sure to provide all information requested on this list, or within this manual to assure that you do in fact get exact replacement parts. Systec's Parts Department will assist you in obtaining the proper part information, or answering any questions by calling 1-800-578-1755.

Item	Qty.	Rec. Spare	Description	Part Number	Gr.	Order Qty.
1	4		Safety Label - Pinch Point	000-0301	-00	
2	5		Safety Label - Automatic Equipment	000-0300	-00	
3	5		Safety Label - Do Not Operate Without Guards	000-0303	-00	
4	1		Safety Label - Motor Switch Location	000-0307	-00	
5	1		Safety Label - Lockout For Safety	000-0305	-00	
10	1	1	Lockout Switch	000-0118	-95	
11	20		96" Roller, 2-1/2" Dia., 11/16" HEX, 11GA L.O., Galvanized	10D0019	00	
12	10		18" Roller, 2-1/2" Dia., 11/16" HEX, 11GA S.L.	10D0150	05	
20	1	1	Centering Device Cable Assembly X 197-3/8" L.	22C0040	01	
	1	1	Centering Device Cable Assembly X 210-3/8" L.	22C0040	02	
21	1	1	Centering Device Cable Assembly X 221-3/8" L.	22C0040	03	
	1	1	Centering Device Cable Assembly X 234-3/8" L.	22C0040	04	
22	4	1	Centering Device Cable Sheave	22C0045	00	
23	4	1	Centering Device Cable Sheave Shaft	22A0031	00	
24	8	2	Oilite Washer 3/4" I.D. X 1-1/4" O.D. X 1/8" TK.	560-2010	-00	
26	2	1	Sprocket, 50/30 W/ 3/4" I.D. Oilite Insert	550-0300	-00	
27	4	2	Oilite Washer 3/4" I.D. X 1-1/4" O.D. X 1/8" TK.	560-2010	-00	
28	2	1	Locking Collar, 2-Piece W/ 3/4" I.D.	580-9015	-00	
29	2	1	Centering device Idler Sprocket Shaft	22A0038	00	
31	3	1	Bushing, 2012 TL 1-3/8" I.D. W/ 5/16" Keyway	560-0100	-00	
32	2	1	Sprocket, 50TL35 Taper Lock	500-0400	-00	
33			Chain #50 Domestic	540-0400	-00	
34			Chain #60 Domestic	540-0350	-00	
37	1	1	Sprocket, 60TL27 Taper Lock	550-1100	-00	
38	2	1	Bearing, Flange Block 2-Bolt 1-3/8" Bore W/ Setscrew	580-2030	-00	
39	1	1	Sprocket, 60B14 1-1/4" Bore 1/4" Keyway	550-0800	-00	
40	1	1	Centering Device Driveshaft X 55-5/8" L.	22D0036	00	
41	1	1	Gearmotor, LCD	500-1700	-00	
42	1	1	LCD Clutch	530-1700	-00	
43	1	1	LCD Reduce 40/60 FPM	500-8000	-00	
44	4	2	Wheel, 2-1/2" Dia. X 1-1/4" Face X 1/2" Bore	985-1175	-00	
45	2	1	Pusher Trolley Bottom Wear Block X 6-1/2" L.	21B0031	00	
46	8	2	Cam Follower 1/2" O.D. W/Socket Head & Stud	985-9150	-00	
50	24	1	Oilite Bushing 3/4" O.D. X 1/2" I.D. X 1/2" L.	560-0150	-00	
51	32	2	Oilite Washer 1/2" I.D. X 1" O.D. X 1/8" Thick	560-2000	-00	
52	8	2	Centering Device Linkage Pin X 2-5/8" L.	22A0028	00	
53	4	1	Bolt, Shoulder 1/4" Dia. X 2" L.	835-1012	-00	
54	4	1	Spring, Compression - .970" O.D. X .085" G X 3" L.	000-0512	-00	
55	4	1	Centering Device Spring Guide Shaft W/dment	22B0101	00	
56	4	2	Centering Device Fold-Up Head Adjustment Block	22B0011	00	
57	36		11" Roller, 2-1/2" Dia., 11/16" HEX, 11GA L.O.	10D0020	MU	

\* Please specify Quantity and/or Length for any bill-of-material items with an asterisks.

For gearmotor information refer to Page 8, as indicated in this material list, to identify the motor and gearbox data plate information needed to order exact replacement parts.

This Maintenance Schedule is intended to cover all basic types of conveyor and the related devices and components. Although your system may not have all the parts listed below this schedule should help in identifying those components or parts that may require service or inspection that may otherwise be neglected. Should you need assistance in identifying the location of some of these components, contact SYSTEC's Customer Service Department at **1-800-578-1755**.

ITEM	INSPECTION OR SERVICE REQUIRED	HOURS IN SERVICE				
		500	1,000	2,500	5,000	10,000
<b>Gearmotor</b>	Clean, Check for Noise, Leaks, and Mounting	X				
	Check Oil Level			X		
	Change Oil					X
<b>Bearings</b>	Check Roller Bearings for Noise				X	
	Check Pillow Block (PB) and Flange Block (FB) bearings for Noise, Mounting, and *Lubrication	X				
<b>Belt</b>	Check for Belt Wear, Tracking and Tension		X			
<b>Chains</b>	Check Tension, Wear, Lube and Adjustment	X				
<b>Wire Cables</b>	Check Tension, Wear, and Adjustment	X				
<b>Springs</b>	Check Tension, Wear, and Adjustment	X				
<b>Sprockets</b>	Check Alignment, Wear and Mounting	X				
<b>Pulleys</b>	Check Alignment, Wear and Mounting	X				
<b>UHMW Blocks and Pads</b>	Check for Wear and Fit			X		
<b>Cams and Rollers</b>	Check for Wear and Alignment	X				
<b>Transfer Rails</b>	Clean with Degreaser	X				
<b>Photoeyes</b>	Clean with Soft Cloth or Dry High Pressure Air	X				
<b>Limitswitches</b>	Clean debris and Check Arm for Free Movement	X				
<b>Proximity Switch</b>	Clean Debris and Check for Proper Operation	X				
<b>Pendant Switch</b>	Check for Proper Operation			X		
<b>Lockout Switch</b>	Check for Proper Operation and Safety Labels			X		
<b>Foot Switch</b>	Check for Proper Operation			X		
<b>Foot Valve</b>	Check for Proper Operation			X		
<b>Strobe Light</b>	Check for Proper Operation			X		
<b>Sound Alert</b>	Check for Proper Operation			X		
<b>Motion Detector</b>	Check for Proper Operation			X		
<b>Load Measuring Device</b>	Check for Proper Operation			X		
<b>Air Filter/Regulator</b>	Check and Clean Trap and Adjust Pressure	X				
<b>Solenoid Valve</b>	Check for Air Leaks			X		
<b>Air Mount (air bag)</b>	Check for Air Leaks	X				
<b>Air Supply Line</b>	Check for Air Leaks	X				

\* Check bearing type for regreasable (zerk) fitting. Some bearings may be "sealed-for-life" and do not require regreasing.

## TABLE OF CONTENTS

<b>DESCRIPTION</b>	<b>PAGE NO.</b>
Load Centering Device	2
Conveyor Safety	3
LCD Service and Parts	5
Parts Information	9
Maintenance Schedule	10

<b>LIST OF ILLUSTRATIONS</b>	<b>PAGE NO.</b>
A Load Centering and Squaring Device	2
B Safety Label Locations	3
C Lockout Switch for Safety	4

<b>LIST OF ASSEMBLY DRAWINGS</b>	<b>PAGE NO.</b>
1 LCD Load Carrying Rollers	5
2 Pressure Rollers	6
3 Head Trolley Assembly	7
4 Drive Cables & Sheaves Assembly	7
5 Drive Package, Chains & Sprockets Assembly	7
6 Head Assembly	8
7 Head Wear Bock Assembly	8

When order parts, please call, fax or e-mail Systec at the address and/or the numbers shown below.

**SYSTEC** Conveyors Parts Department  
10010 Conveyor Drive  
Indianapolis, IN 46236

Tel 317.890.9230  
1.800.578.1755  
Fax 317.890.9232

On The Net @ <http://www.systec-online.com/>