

**Field Manual**  
**Gravity Wheel Conveyor**  
Installation Procedures, Maintenance,  
and Spare Parts



---

To contact Intelligrated:  
For service: Customer Service and Support (CSS)  
Hotline 1-877-315-3400  
On the World Wide Web: [www.intelligrated.com](http://www.intelligrated.com)

By mail:

Intelligrated  
7901 Innovation Way  
Mason, OH 45040

(513) 701-7300

Read these documents thoroughly before attempting to perform maintenance or repairs to the applicable Intelligrated conveyor system components or devices. Exercise extreme caution when working around moving and rotating conveyor equipment. Wear the proper clothing and safety equipment. DO NOT attempt to perform any maintenance until the equipment is de-energized, locked out and tagged out in accordance with established company procedures.

The information presented in these documents are correct at the time of publication. Intelligrated has made every effort to ensure that the information presented is correct and free from error. However, some errors or misprints may occur. Please contact Intelligrated with any corrections.

This document is copyrighted © 2010 by Intelligrated, all rights reserved. No Part of this manual may be reproduced and/or distributed to parties other than the customer and the customer's employees for whom it was originally produced.

The following terms are trademarks™ of Intelligrated; Accuglide™, BOSS™ UniSort™, EZ-set™. The following terms are registered trademarks® of Intelligrated; Accuzone®, UniSort®, E-Z Set®. Intelligrated® is a registered trademark.

Direct questions and comments concerning the information contained in this manual to:

Documentation Department  
Intelligrated  
7901 Innovation Way  
Mason, OH 45040

Ph (513) 701-7300  
Fax (513)701-7349

[customerservice@intelligrated.com](mailto:customerservice@intelligrated.com)

**Section G Installation Procedures**

Introduction	G-1
Accepting Shipment	G-1
Shortages or Errors	G-1
Lost or Damaged Shipment	G-1
Claims and Returns	G-1
Codes and Standards	G-1
Warning Signs	G-2
Safety Features	G-2
Parts Replacement	G-2
Factory Assistance	G-2
Assembling the Conveyor	G-3

**Section H Maintenance**

Scheduled Maintenance	H-2
-----------------------	-----

**Section I Spare Parts**

Introduction	I-1
Wheel Sections	I-2
Wheel Junctions	I-3
Vertical Gate Sections	I-4
Light Duty Swivel Wheel Switch	I-4
Pallet Storage Rails	I-5
Common Parts	I-6



---

## **SECTION G: INSTALLATION PROCEDURES**

### **Introduction**

#### **Accepting Shipment**

Immediately upon delivery, check that all equipment received agrees with the bill of lading or carrier's freight bill. Any shipping discrepancy or equipment damage should be clearly noted on the freight bill before signing.

#### **Shortages or Errors**

Report any shortages or errors to the Customer Service in writing within ten (10) days after receipt of shipment.

---

**Note:** It is very important that you compare the Order Acknowledgment against the actual material received when you receive the shipment so you have enough lead time to order any missing parts. If you find that a part is missing during assembly, you may have to discontinue assembly while you wait for the part to arrive.

---

#### **Lost or Damaged Shipment**

Report lost shipments to our Shipping Department.

If shipping damage is evident upon receipt of the conveyor, note the extent of the damage on the freight bill and immediately contact the transportation carrier to request an inspection. Do not destroy the equipment crating and packing materials until the carrier's agent has examined them. Unless otherwise agreed by the seller, the Purchaser (user) shall be responsible for filing claims with the transportation carrier. A copy of the inspection report along with a copy of the freight bill should be sent to our Traffic Department.

#### **Claims and Returns**

All equipment furnished in accordance with the Manufacturer's Agreement is not returnable for any reason except when authorized in writing by the Seller. Notification of return must be made to the Customer Service Department, and if approved, a "Return Authorization Tag" will be sent to the Purchaser (user). The return tag, sealed in the "Return Authorization Envelope" should be securely affixed to the exterior surface on any side of the shipping carton (not Top or Bottom), or affixed to any smooth flat surface on the equipment, if not boxed.

Send authorized return shipment(s) transportation charges prepaid to the address indicated on the Return Authorization Tag. If initial shipment is refused, the Purchaser (User) shall be liable for all freight charges, extra cost of handling, and other incidental expenses.

#### **Codes and Standards**

The conveyor equipment is designed and manufactured to comply with the American National Standard Institute's "SAFETY STANDARDS FOR CONVEYORS AND RELATED EQUIPMENT" (ANSI B20.1) and with the National Electrical Code (ANSI/ NFPA70).

The Purchaser/User shall be familiar with, and responsible for, compliance with all codes and regulations having jurisdiction regarding the installation, use, and maintenance of this equipment.

---

## Warning Signs

Warning signs and labels posted on or near the conveyor equipment shall not be removed, painted over, or altered at any time. All safety devices, warning lights, and alarms associated with the conveyor system should be regularly tested for proper operation and serviced as needed. If the original safety item(s) become defective or damaged, refer to the conveyor parts list or bills-of-materials for replacement part numbers.

## Safety Features

- Do turn off conveyor power source(s) and affix appropriate lockout/tagout device(s) to operating controls before servicing the equipment. ONLY trained and qualified personnel who are aware of the safety hazards should perform equipment adjustments or required maintenance while the conveyor is in operation.
- Do observe all warning signs, lights, and alarms associated with the conveyor operation and maintenance, and be alert at all times to automatic operation(s) of adjacent equipment.
- Do use extreme caution near moving conveyor parts to avoid the hazard of hands, hair, and clothing being caught.
- Do not sit on, stand on, walk, ride, or cross (over or under) the conveyor at any time except where suitable catwalks, gates, or bridges are provided for personnel travel.
- Do not attempt to repair any equipment while the conveyor is running, replace any conveyor component without appropriate replacement parts, or modify the conveyor system without prior approval by the manufacturer.
- Do not operate the conveyor until all safety guards are securely in place, all tools and non-product materials are removed from or near the conveying surfaces, and all personnel are in safe positions.
- Do not remove or modify any safety devices provided on or with the conveyor.
- Do not clear jams or reach into any unit before first turning off the equipment power source(s) and affixing appropriate lockout/tagout device(s).

## Parts Replacement

To minimize production downtime, selected conveyor spare parts should be stocked for replacement of defective components when required. If quantity requirements or code numbers are not indicated on the conveyor parts list, refer to the equipment bill(s)-of-materials. For added convenience, a list of selected spare parts is included in this manual (see Section I).

## Factory Assistance

Contact Field Service for installation, operation, or maintenance assistance, or Customer Service and Support for replacement parts.

## Assembling the Conveyor

1. Before starting installation, remove any shipping braces and filler blocks and check the alignment of the frames and wheels of each section. Corner-to-corner diagonal frame measurements of each conveyor section should be equal within 1/16".
2. Starting at one end of the conveyor, position the floor supports or overhead hangers to the first conveyor section, and fasten into place. For additional information, refer to *Product Manual 5310*.





---

## **SECTION H: MAINTENANCE**

Recommended service checks and equipment maintenance are outlined below for typical, intermittent-duty conveyor applications. Additional maintenance and servicing schedule adjustments may be required for continuous-duty operation or extreme environmental conditions.

All newly installed equipment should be frequently inspected and serviced as needed during the first 40 hours of operation; thereafter, an appropriate maintenance program should be established and followed (see Table H-1).

Maintaining separate service log sheets on each type of conveyor is recommended for plants operating more than one shift. Each log sheet should show dates, detailed inspection service information, and name or initials of person(s) performing the equipment inspection or service for future reference.

---

**CAUTION:** Before performing maintenance on a conveyor, make certain that the conveyor's power disconnect is locked in the OPEN position and tagged to prevent accidental or unexpected application of power. Do not perform maintenance while the conveyor is running unless specifically instructed to do so in this manual.

---

---

**Note:** Other than checking of chain tension, it is NOT necessary to have the conveyor turned ON in order to perform any of the work described in this section. Maintenance must be performed only by qualified personnel who are trained in normal and emergency operations of the conveyor and who are knowledgeable of all safety devices, their locations, and functions.

---

Before restarting a conveyor:

- Remove all foreign objects from the conveyor.
- Be sure that all guards and safety devices are properly installed and working.
- Make sure that all persons are clear of the conveyor and are aware that the conveyor is about to be restarted.

Table H-1 Scheduled Maintenance

	Components	Item Check									
		Lubrication	Oil Level	Tension	Wear	Alignment	Fasteners	Set Screws	Proper Position	Physical Condition	Operation
Weekly	Carrier Wheels								X	X	X
	Electrical Devices								X	X	X
	General Structure						X			X	X
	Safety Guards & Devices								X	X	X
Monthly	Supports & Hangers						X			X	
	Vertical Gates								X		X

### Scheduled Maintenance

Intervals indicated for performing maintenance should be considered for an 8 hour per day operation. An application may subject the equipment to conditions that would necessitate more frequent maintenance. This may best be determined by performing maintenance more frequently when the conveyor is first put into operation, and then lengthening the intervals based on experience.

---

***SECTION I: SPARE PARTS*****Introduction**

The purpose of this section is to identify parts for a quality preventative maintenance program and to minimize the chances for extended down time.

The following pages illustrate the location of these parts as they apply to each particular unit. Keep in mind that these illustrations apply only to the standard product line. These items will show on the bill-of-material as a coded item.

# Wheel Sections

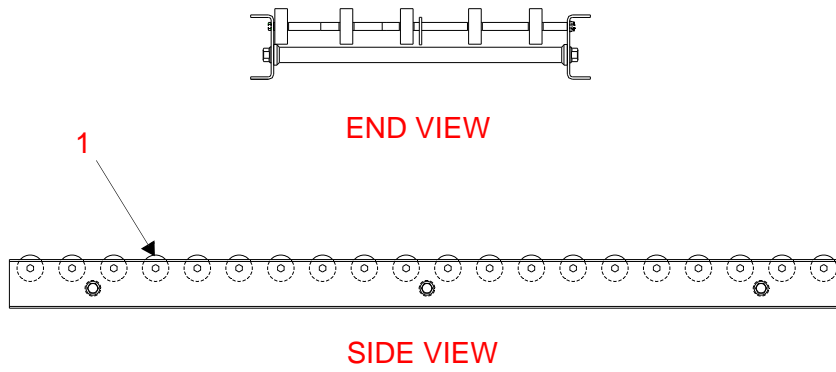


Figure I - 1 – Straight Wheel Section

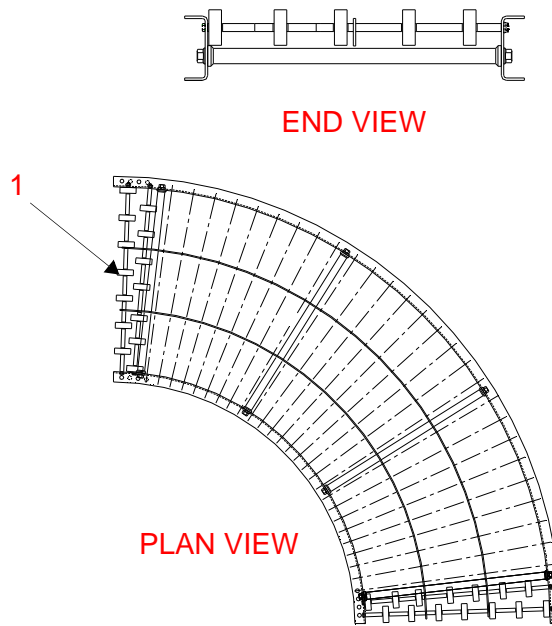


Figure I - 2 – Curve Wheel Section

# Wheel Junctions

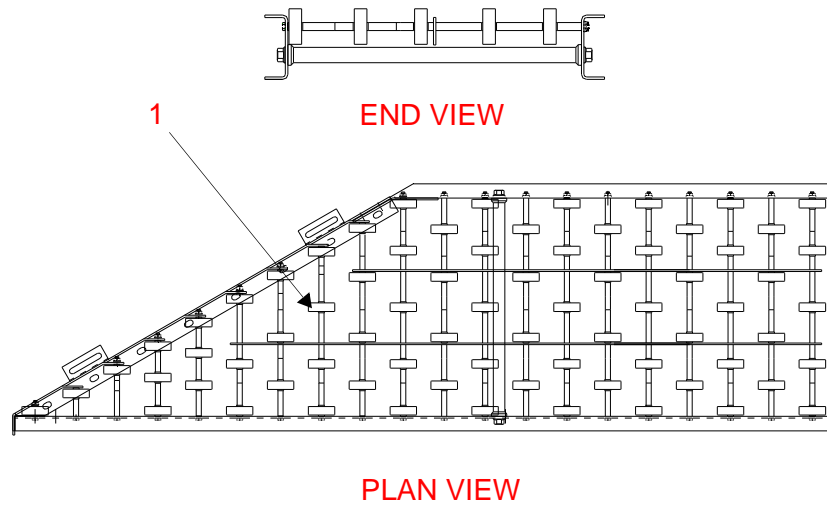


Figure I - 3 – Straight Wheel Junction

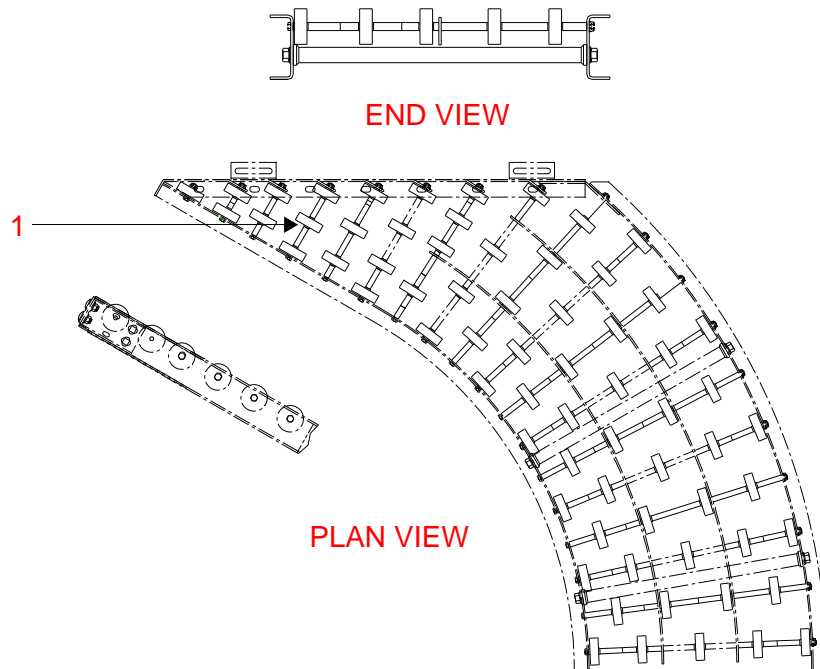


Figure I - 4 – Curve Wheel Junction

## Vertical Gate Sections

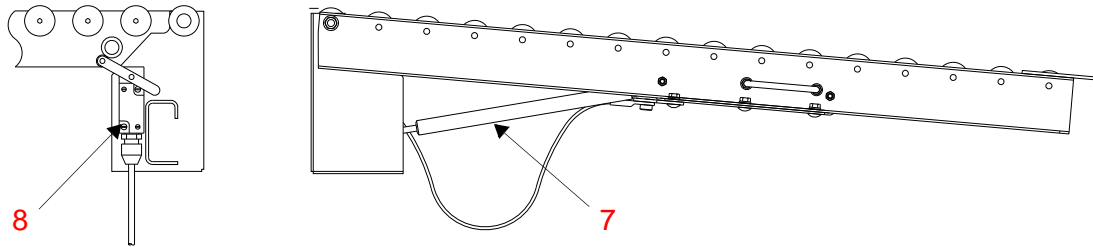


Figure I - 5 – Vertical Gate Sections

## Light Duty Swivel Wheel Switch

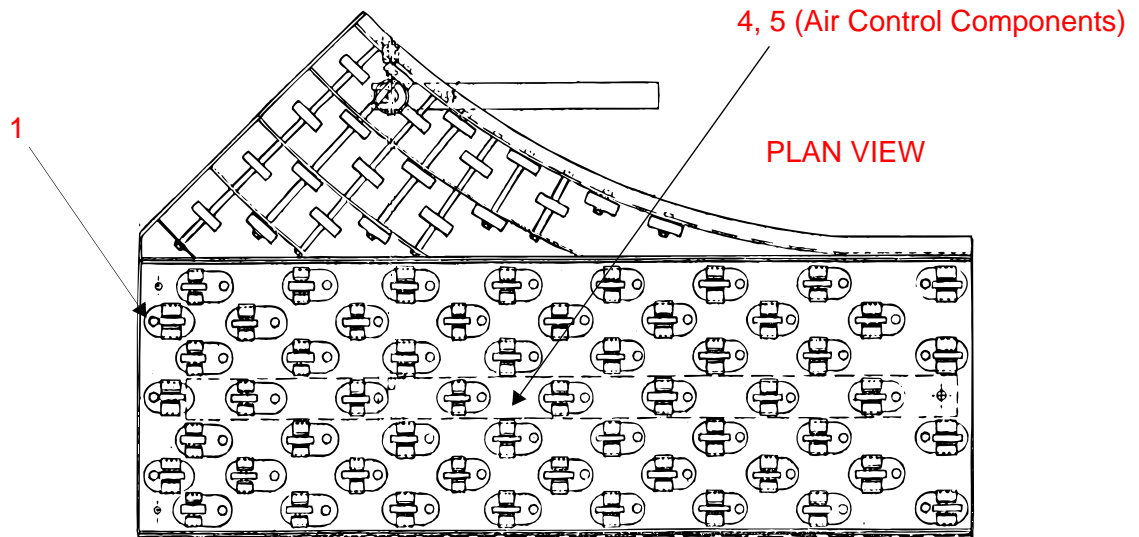


Figure I - 6 – Light Duty Swivel Wheel Switch

---

## Pallet Storage Rails

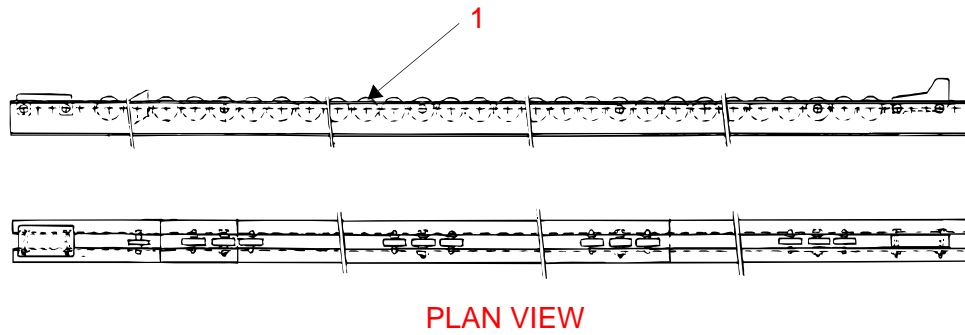


Figure I - 7 – Pallet Storage Rails

---

**Common Parts**

<b>Key No.</b>	<b>Part Description</b>	<b>Part Numbers</b>
<b>1</b>	Wheel - Steel, No. 100 (35# Cap.)	34-0420
	Wheel - Alum., No. 100AL (35# Cap.)	34-0430
	Wheel - Nylon, No. N-97 (35# Cap.)	34-0380
	Wheel - Polypropylene, No. 100P (25# Cap.)	34-0491
	Wheel - H.D. Steel, No. 100HD, Plain (100# Cap.)	34-0442
<b>2</b>	Roller - No. 187PL / Gate Pivot - 10" (no axle)	50-9875
	Roller - No. 187PL / Gate Pivot - 16" (no axle)	50-9870
	Roller - No. 187PL / Gate Pivot - 22" (no axle)	50-9871
	Roller - No. 187PL / Gate Pivot - 28" (no axle)	50-9872
	Roller - No. 187PL / Gate Pivot - 34" (no axle)	50-9873
	Roller - No. 187PL / Gate Pivot - 40" (no axle)	50-9874
<b>3</b>	Limit Switch E50BRI - Rotary, Spring Ret.	30-2673
	LS Actuator Arm E50KL201	30-9523
<b>4</b>	Valve, 4-Way, Dbl. Solenoid-Actuated (120 VAC, 60 Hz)	27-9529
<b>5</b>	Cylinder (for 2-Way Switch), 1-1/8" Bore x 1" Stroke (1 Required)	27-1400
	Cylinder (for 3-Way Switch), 1-1/8" Bore x 1" Stroke (2 Required)	27-1402
<b>6</b>	Gas Spring	381033
<b>7</b>	Limit Switch, 10W – 34W	562972
	Limit Switch, 40W	562973