Safety, Operation, Maintenance & Parts Manual

Roller Conveyor

rev. A2.00

Safety is our #1 concern!

Form #2038

Models Effected:

CR9-2.8C, Conveyor, Roller (Roll Case)
CR9-EXT, Conveyor, Roller, Extension (Roll Case)



WARNING! Read and understand this manual before using this machine.

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SECTION 1 SAFETY

1.1 Safety Symbols

The following symbols and signal words call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.



DANGER! indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.



WARNING! suggests a potentially hazardous situation which, if not avoided, could result in serious injury or death.



CAUTION! refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury or damage to equipment.

NOTICE indicates vital information.

1.2 Safety Instructions

NOTE: ONLY safety instructions regarding personal injury are listed in this section. Caution statements regarding only equipment damage appear where applicable throughout the manual.



WARNING! Clean sawdust from all guards, vents, control boxes, or any area where sawdust may gather after every shift. Failure to do so may result in fire, causing death or serious injury.



OBSERVE SAFETY INSTRUCTIONS

NOTICE Read the entire Operator's Manual before operating the conveyor. Take notice of all safety warnings throughout this manual and those posted on the machine. Keep this manual with this machine at all times, regardless of ownership.

Also read any additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions.

Only persons who have read and understood the entire operator's manual should operate the conveyor. The conveyor is not intended for use by or around children.

NOTICE It is always the owner's responsibility to comply with all applicable federal, state and local laws, rules and regulations regarding the ownership, operation of your Wood-Mizer products. All Wood-Mizer product owners are encouraged to become thoroughly familiar with these applicable laws and comply with them fully while using the machine.



KEEP CONVEYOR AND AREA AROUND CONVEYOR CLEAN



DANGER! Maintain a clean and clear path for all necessary movement around the machine and lumber stacking areas. Failure to do so will result in serious injury.

CAUTIONS FOR CONVEYOR SETUP





WARNING! Securely fasten the feet of a conveyor to the floor before operating the machine. Failure to do so may result in serious injury or death.

CHECK CONVEYOR BEFORE OPERATION



DANGER! Make sure all guards and covers are in place and secured before operating the conveyor. Failure to do so may result in serious injury.



KEEP PERSONS AWAY



WARNING! Keep all persons out of the path of moving equipment and boards while operating conveyor. Failure to do so may result in serious injury or death.

Keep hands away from area underneath the table top. Serious injury may result.

USE PROPER PROCEDURE WHEN CONDUCTING MAINTENANCE



DANGER! Make sure all electrical installation, service and/or maintenance work is performed by a qualified electrician and is in accordance with applicable electrical codes.

Hazardous voltage inside the control box and at the motor can cause shock, burns, or death. Disconnect and lock out power supply before servicing! Keep all electrical component covers closed and securely fastened during operation.



WARNING! Consider all electrical circuits energized and dangerous.

Never assume or take the word of another person that the power is off; check it out and lock it out.

Do not wear rings, watches, or other jewelry while working around an open electrical circuit.

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NOTE: ONLY safety instructions regarding personal injury are listed in this section. Caution statements regarding only equipment damage appear where applicable throughout the manual.



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SECTION 2 SETUP & OPERATION

2.1 Overview

The Roller Conveyor (CR9-2.8C) allows you to quickly route finished material and unfinished cants to the desired paths of your processing system. The following manual will guide you in installation, operation, and maintenance of the Roller Conveyor.

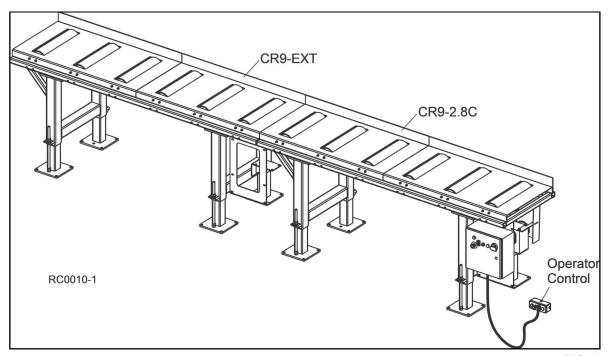


FIG. 2-1

2.2 Installation

1. Prepare a firm, level area where roller conveyor can be anchored next to incline conveyor.

NOTE: A cement pad with 1/2" diameter anchor bolts is recommended.



WARNING! Securely fasten the feet of the roller conveyor to the floor before operating the machine. Failure to do so may result in serious injury or death.

- 2. Position the first roller conveyor in line with the incline conveyor. The end of the roller conveyor should be no further than 18" from the outfeed roller on the Incline Conveyor.
- 3. Position the roller conveyor so the rollers are centered with the incline conveyor roller.

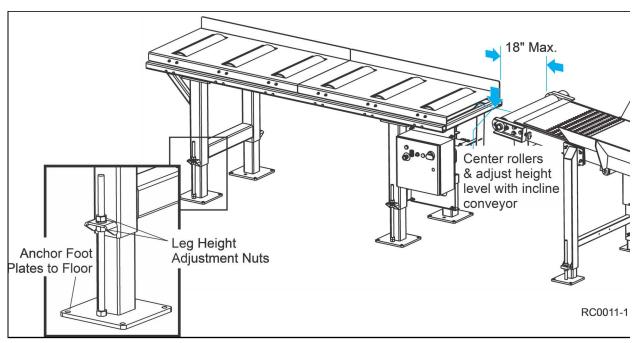


FIG. 2-2

- 4. Adjust the roller conveyor legs so the height of the roller conveyor is level with the height of the incline conveyor.
 - Turn the adjustment nuts to raise or lower the leg as desired.
 - Tighten the adjustment nuts when the adjustment is complete.
- **5.** Secure the roller conveyor to the floor with 1/2" anchor bolts. Use at least two anchors in each foot plate.

ROLLER CONVEYOR EXTENSION INSTALLATION (OPTIONAL)

- 1. Position the extension roller conveyor behind the primary roller conveyor and align the conveyors.
- 2. Adjust the extension roller conveyor legs if necessary to the same height as the primary roller conveyor.

3. Secure the conveyors to the floor with 1/2" anchor bolts. Use at least two anchors in each foot plate.

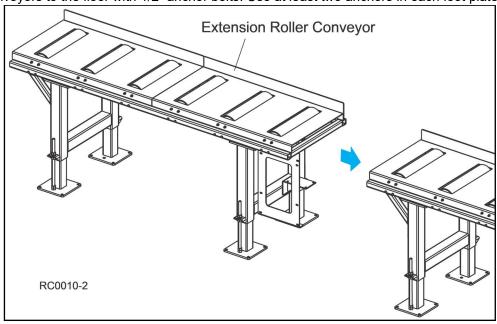


FIG. 2-3

ELECTRICAL INSTALLATION



DANGER! Make sure all electrical installation, service and/or maintenance work is performed by a qualified electrician and is in accordance with applicable electrical codes.

Have a qualified electrician install the power supply before receipt of your machine. The power supply must meet the provided specifications concerning wire size, fused disconnect, and voltage. The electrical installation must also meet local codes.

Install a fused disconnect switch for each conveyor control within sight of the machine. Typical minimum switch, fuse, and wire sizes are shown. All electrical installation must meet local electrical codes. Fuses are sized for short-circuit protection only.

3-Phase Volts	Fuse Disconnect	Time Delay Fuse	Suggested Wire Size
460 VAC	30 Amps	5 Amps	16AWG up to 50'

TABLE 2-1

The Roller Conveyor electrical specifications are shown below.

Model	FLA of Largest Load	FLA	IR (AIC)	SCCR	Voltage	Hz	Phase
CR9	3.1A	3.1A	25kA	5kA	460V	60	3

TABLE 2-2

- 1. Make a hole in the main control enclosure for the power supply cables.
- 2. Route the incoming power supply from the disconnect switch to the main control box.
- 3. Secure the power supply cable to the enclosure.
- 4. Connect the ground wire to the ground stud in the main control box.

5. Route the three power lines to the disconnect block at the top of the cabinet...

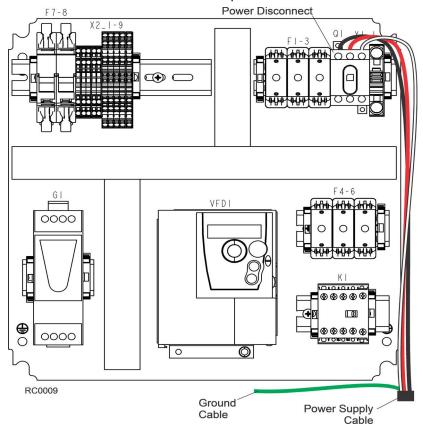


FIG. 2-4

2.3 Control Installation



DANGER! Disconnect and lock out power supply before servicing! Failure to do so will result in shock, burns or death.

- 1. Place the operator control at the operation location and route the cable to the main control box.
- 2. Connect the operator control cable to the connector at the bottom of the main control box.

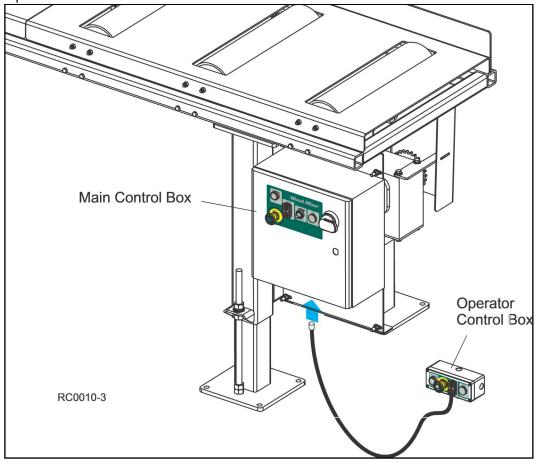


FIG. 2-5

2.4 Operation



DANGER! Make sure all guards and covers are in place and secured before operating the conveyor. Failure to do so may result in serious injury.



WARNING! Keep all persons out of the path of moving equipment and boards while operating conveyor. Failure to do so may result in serious injury or death.

The roller conveyor can be operated from the conveyor location with the switches on the conveyor main control box. The conveyor can also be controlled from the operator control box connected to the main control box.

The roller conveyor main control and operator control box switches are shown below.

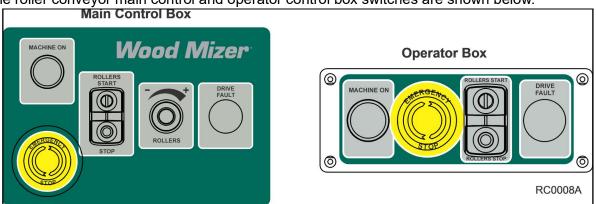


FIG. 2-6

MACHINE ON - Push the MACHINE ON button to turn the conveyor power on. This allows operation of the roller conveyor.

ROLLERS START/ROLLERS STOP - Push START to start rollers spinning. Push STOP to stop the rollers.

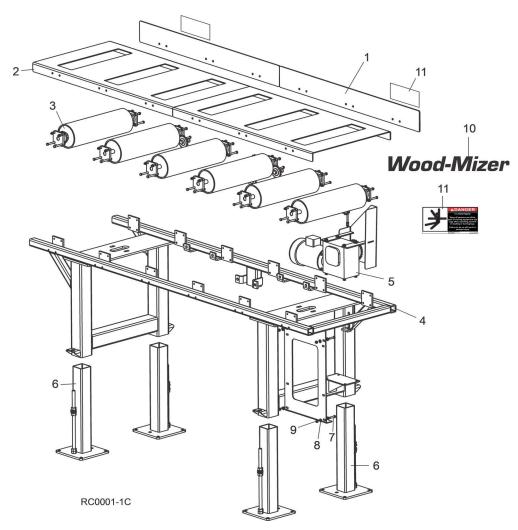
ROLLERS - Use the speed potentiometer to set the rollers feed speed.

DRIVE FAULT - Lights when an error has occurred.

EMERGENCY STOP - Push to stop all conveyor functions. Turn clockwise to release the stop.

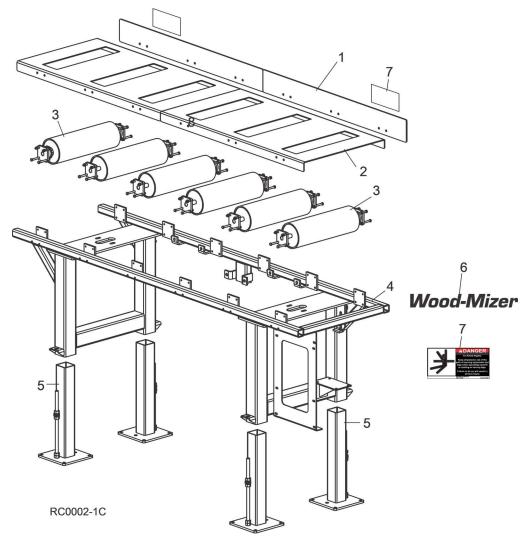
SECTION 3 REPLACEMENT PARTS

3.1 Roller Conveyor



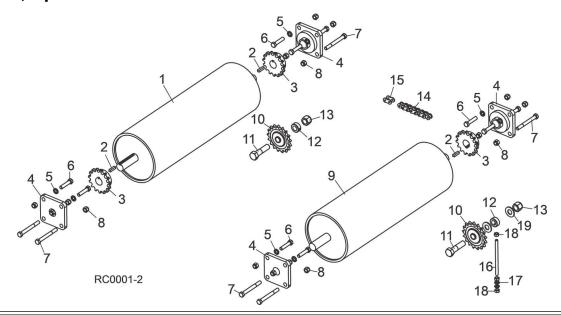
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	CR9-2.8C	TABLE ASSEMBLY, ROLL CASE DRIVE		1
	065715	Table Assembly, Three-Way Drive		1
1	071063	Plate, Roll Case Fence		2
2	071062	Top, Roll Case		2
3		Table Roller/Sprocket Parts	(See Section 3.3)	
4	065714	Frame Weldment, Roll Case Drive Table		1
5		Drive Parts	(See Section 3.5)	
6		Table Leg Parts	(See Section 3.4)	
7	F05007-17	Bolt, 3/8-16 x 1 1/2" HH Full Thread		4
8	F05011-3	Washer, 3/8" SAE Flat		8
9	F05010-10	Nut, 3/8-16 Hex Nylon Lock		4
10	052287	Decal, 10" Wood-Mizer Logo		1
11	S09851	Decal, Keep Away Danger		2
	F05008-131	Bolt, 1/2 x 5 1/2" Concrete Wedge Anchor		16
		Electrical Control Parts	(See Section 3.6)	

3.2 Extension Roller Conveyor



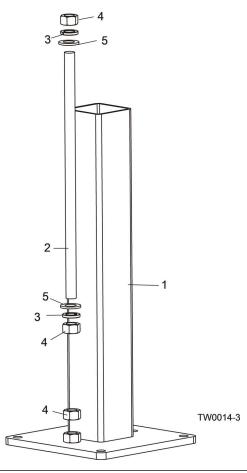
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	CR9-EXT	TABLE ASSEMBLY, ROLL CASE EXTENSION		1
	065713	Table Assembly, Three-Way Extension		1
1	071063	Plate, Roll Case Fence		2
2	071062	Top, Roll Case		2
3		Table Roller/Sprocket Parts	(See Section 3.3)	
4	065714	Frame Weldment, Roll Case Drive Table	(See Section 3.4)	1
5		Table Leg Parts		
6	052287	Decal, 10" Wood-Mizer Logo		1
7	S09851	Decal, Keep Away Danger		2
	F05008-131	Bolt, 1/2 x 5 1/2" Concrete Wedge Anchor		16

3.3 Rollers, Sprockets & Chain



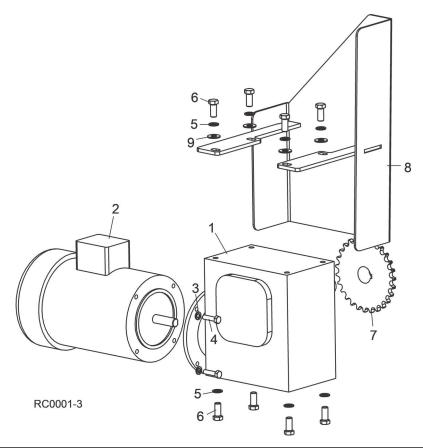
REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	051464	ROLLER WELDMENT, DUAL KEY TABLE		1
2	S21486	KEY, 1/4" X 1"		7
3	054172	SPROCKET, #50 15 TOOTH X 1" BORE		7
4	014090	BEARING, VF4S-216		12
5	F05011-4	WASHER, 3/8" SPLIT LOCK		24
6	F05007-129	BOLT, 3/8-16 X 1 3/4" HEX HEAD GRADE 5		24
7	F05007-6	BOLT, 3/8-16 X 3 1/2" HEX HEAD GRADE 8		24
8	F05010-10	NUT, 3/8-16 NYLON LOCK		48
9	051464	ROLLER WELDMENT, DUAL KEY TABLE		5
10	P21504	SPROCKET, #50BB X 17H TOOTH X 5/8" BORE IDLER		8
11	F05009-20	BOLT, 5/8-11 X 2 1/2" HEX HEAD GRADE 5		8
12	P05035	COLLAR, 5/8" LOCK		8
13	F05010-34	NUT, 5/8-11 NYLON LOCK		8
14	054182	CHAIN, #50 X 45" (CONNECTS EXTENSION/DRIVE TABLES)		1
	036643	CHAIN, #50 X 220" (EXTENSION TABLE)		1
	054194	CHAIN, #50 X 230" (PRIMARY/SECONDARY DRIVE TABLE)		1
15	P20208	LINK, #50 MASTER		2
	036648	LINK, #50 HALF		3
16	036743	ROD, 5/16-18 X 5" THREADED		1
17	F05011-13	WASHER, 5/16" SPLIT LOCK		2
18	F05010-17	NUT, 5/16-18 HEX		3
19	F05011-5	WASHER, 5/8" SAE FLAT (FRONT SPROCKET ONLY)		2

3.4 Legs



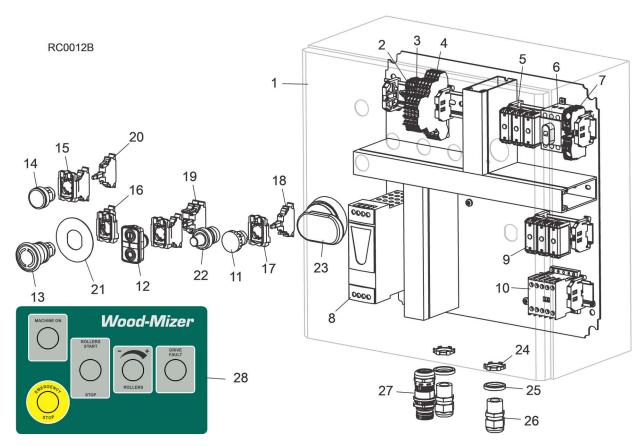
REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	051478	LEG WELDMENT, THREE-WAY DECK TABLE		4
2	054147	ROD, THREADED LEG ADJUSTMENT		4
3	F05011-6	WASHER, 3/4" SPLIT LOCK		8
4	F05010-7	NUT, 3/4-10 HEX		12
5	F05011-62	WASHER, 3/4" SAE FLAT		8

3.5 Drive



REF	PART#	DESCRIPTION	COMMENTS	QTY.
1	047417	GEARBOX, 90° RIGHT BMQ230		1
2	079197	MOTOR, 2HP 3P 230/460 56C PREMIUM EFF		1
3	F05011-13	WASHER, 5/16" SPLIT LOCK		4
4	F05006-93	BOLT, 5/16-18 X 1 1/4" HEX HEAD GRADE 5 FULL THREAD		4
5	F05011-48	WASHER, 7/16" SPLIT LOCK		8
6	F05007-145	BOLT, 7/16-14 X 1" HEX HEAD GRADE 5		8
7	047418	SPROCKET, #50 X 27T X 1 1/4" BORE		1
8	047376	GUARD WELDMENT, DRIVE CHAIN		1
9	F05011-43	WASHER, 7/16" SAE FLAT 15/16 OD		4

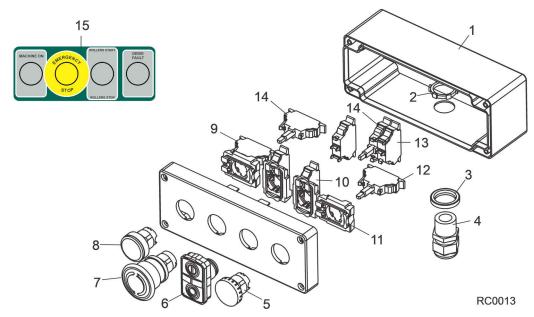
3.6 Electrical Controls



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	068080	CONTROL ASSEMBLY, ROLL CASE		1
1	068063	Box, Roll Case Control Enclosure		1
	068079	Panel Assembly, Roll Case Control		1
2	068104	Terminal Block, 4Pos 2.5mm GND Clamp		1
3	068103	Terminal Block, 4Pos 2.5mm Com Clamp		4
4	068109	Terminal Block, 3 Tier 4mm Clamp		5
5	068064	Fuse, 15A Class J Cube		3
6	050903-1	Disconnect, 40A 3Ph Non-Fused 6mm Shaft		1
7	068111	Terminal Block, 2Pos 16mm Clamp		1
8	068068	Power Supply, 24VDC 3A 100-120/200-500V		1
9	069914	Fuse, 10A Class J Cube		3
10	050442	Contactor, 6A 3P 24VDC Low Power Coil		1
	068082	Drive Assembly, Roll Case (w/AC Drive & Software)		1
11	068930	Pilot Light, Red ZB5		1
12	068909	Push Button, Flush Marked ZB5		1
13	068940	Push Button, Red ZB5		1
14	052503	Switch Head, PB Green Flush ZB5		1
15	068952	Collar, Mount 1NO ZB5		2
16	068950	Switch Collar Assembly, Mount 1NC ZB5		1
17	068951	Switch Collar, Mount ZB5		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
18	068911	Light Module, Red ZB5		1
19	068921	Switch Block, Contact NC ZB5		1
20	068910	Light Module, Green ZB5		2
21	050992	Legend, E-Stop Round Yellow		1
22	068077	Switch, Potentiometer 22mm 5k		1
23	050907-1	Operator, Red/Yellow Pistol Grip		1
	050908-1	Shaft, 290mm Pistol Grip Disconnect		1
24	E20461	Nut, 1/2" NPT Connector Lock		2
25	E20460	Ring, 1/2" Sealing		2
26	051299	Connector, 1/2" NPT .1747		2
27	068001	Connector, M23 Panel Rear Mount Make Thread		1
28	069646	Decal, Roll Case Main		1
	068087	Cable Assembly, Roll Case Motor		1
		Roll Case Operator Control Parts	(See Section 3.7)	

3.7 Operator Control



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	068081	OPERATOR ASSEMBLY, ROLL CASE		1
1	068069	Enclosure, 22mm Buttons 4 Holes		1
2	E20461	Nut, 1/2" NPT Connector Lock		1
3	E20460	Ring, 1/2" Sealing		1
4	051299	Connector, 1/2" NPT .1747		1
5	068930	Pilot Light, Red ZB5		1
6	068909	Push Button, Flush Marked ZB5		1
7	068940	Push Button, Red ZB5		1
8	052503	Switch Head, PB Green Flush ZB5		1
9	068952	Collar, Mount 1NO ZB5		1
10	068950	Switch Collar Assembly, Mount 1NC ZB5		2
11	068951	Switch Collar, Mount ZB5		1
12	068911	Light Module, Red ZB5		1
13	068920	Switch Block, NO ZB5		1
14	068910	Light Module, Green ZB5		2
15	069647	Decal, Roll Case Operator		1
	068083	Cable Assembly, Roll Case Operator		1

SECTION 4 ELECTRICAL INFORMATION

See Form #2220 Appendix A Electrical Information for complete electrical information.