

MODEL 222C
POWERED MANUAL
HORIZONTAL ROLL WRAPPER



OPERATOR'S
MANUAL

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Introduction

Congratulations! Your purchase of a **Kalamazoo** Model **222C** powered manual horizontal Roll Wrapper System will provide you with years of efficient stretch wrapping service. Your investment will ensure that your products will arrive cleaner, with less damage and pilferage at their destination at a lower cost to you.

Warranty

Kalamazoo Packaging Systems, Inc. (KPS) agrees to furnish the purchaser, without charge, F.O.B. the factory, any part found to be defective in either material or workmanship within one (1) year from date of shipment, provided the purchaser gives immediate notice of any defect and description of that defect to **KPS**. **KPS** reserves the right to inspect any defective part to verify the defect and to determine probable cause of same.

The liability of **KPS** under this warranty is limited to furnishing replacements for defective parts, and unless otherwise agreed to in writing, the purchaser shall bear the expense of installation.

Failure of equipment or parts due to abuse, misuse, neglect, incorrect operating techniques or power line drops or surges shall not constitute failure because of defective material or workmanship, and are expressly excluded from this warranty.

The above is the only warranty with no other guarantees which extend beyond the above and the seller disclaims any implications including but not limited to a warranty of merchantability.

Assembly

Your 222C Roll Wrapper has been assembled and tested at our manufacturing plant and released for shipment by a qualified technician. If the unit was shipped via common carrier, it will be on a pallet. If the unit was delivered by our truck or by your distributor's truck it may not be placed on a pallet. **Any damage done in transit should be reported to the carrier immediately.** All our shipments are sent F.O.B. Grand Rapids, Michigan, therefore; the customer is responsible to settle any damage claims with the transportation company. Kalamazoo Packaging Systems will do everything possible to assist you in these matters.

Once the machine was cleared for shipment at the factory, It was put on a pallet and wrapped completely assembled . No electrical wires were removed or disconnected for shipping.

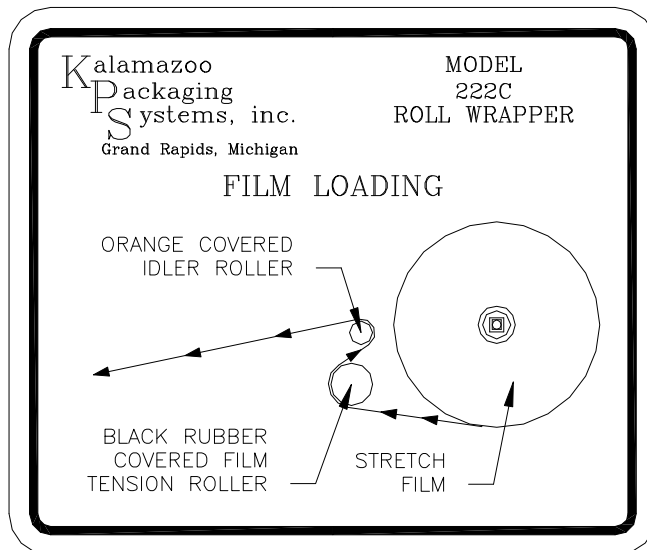
Remove the unit from the pallet. The machine is now ready for operation and should be wired into an independent 460/3/60hz. 20 amp. power source.

Set-Up Procedures

- The carriage module and rollers are designed to run smoothly together. Before wrapping the first roll, check the MANUAL functions of the rollers and the FILM RIGHT and FILM LEFT functions of the carriage.

Loading The film

- Your wrapper is equipped with our **Kalamazoo** Variable Tension Film Delivery system.
1. Remove one film lock collar and slide the film core into the film and replace the lock collar.
 2. Load the film onto the film carriage.
 3. Thread the film counterclockwise around the black rubber covered tension roller
 4. Clockwise around the orange idler roller.
 5. Lay the film across the roll rollers.
 6. Load the product onto the rollers.
 7. Tape the film to the product.



**Program
Controls**

- 1) E-STOP - Turns off the main control relay. The system will not run.
- 2) ROLLER SPEED– Changes the speed of the product roller.
- 3) ROLLER OFF/ON– Turns the product roller on.
- 4) FILM TENSION– Changes the film tension.
- 5) CARRIAGE SPEED– Changes the speed of the film carriage.
- 6) CARRIAGE LEFT/OFF/RIGHT– Moves the film carriage left or right.

**Easy
operating
instructions**

- 1) Load the film and lay the film across the product rollers.
- 2) Place the product onto the product rollers.
- 3) Raise the front swinging product holder upright and lock it.
- 4) Slide the front swinging product holder into place.
- 5) Slide the back product holder into place.
- 6) Tape the film to the product.
- 7) (STAND CLEAR)
- 8) Turn the Rollers ON and place the reinforcing wraps onto the front edge of the product.
- 9) Adjust the FILM TENSION CONTROL knob to obtain the correct amount of film stretch.
- 10) Move the film carriage back and forth until the product is wrapped.
- 11) Cut and secure the film.
- 12) Move the front roll holder out of the way.
- 13) Remove the product.
- 14) End of wrap cycle.

Maintenance

- 1) Check and tighten any loose fasteners.
- 2) Check all electrical connections and replace any worn or frayed cords.
- 3) Clean and lubricate the tower channels where the rollers run with #2 grease every three months, more frequently if the unit is in an especially dirty location.
- 4) Lubricate and adjust the roller drive and carriage drive chain every three (3) months. Chain should be lubricated with a penetrating type commercial chain lube.
- 5) Lubricate pillow blocks with #2 grease every six months.
- 6) Check the main control relay for burning or arcing replace if necessary.
- 7) Check all push buttons and limit switch for shorts or sticking.

Troubleshooting

When any problem develops, review the operating instructions. Diagnose specific problems and review the options below.

Push the E-STOP button in wait 1 min.. Turn the button to reset.

This will denegize the AC drives and reset a fault.

Machine not running at all

- ✓ Check wall receptacle for power.
- ✓ Check Power cord for cut. (Fork Lift Trucks damage cords.)

① STOP the carriage and the rollers.

DISCONNECT POWER FROM MACHINE

- ✓ Check both right and left limit switches for damage, sticking, or internal shorts.
- 🔧 Open the control cabinet. Visually inspect for loose wires and for signs of arcing or burning of any of the components.
 - Check chain tension .
 - Check brake controller for AC in and DC out.
 - Check for damage cords.
 - Check the AC drive for errors.
 - Check brake pads.

☎ It is advisable to call for technical assistance at this point.

Technical and Customer Service is available from Kalamazoo Packaging Systems, Monday through Friday 7:30 A.M. to 4:00 P.M. (EST). Stock is maintained on parts to allow us to ship the same day on most orders.

If you have a problem, we want to know about it! Please call and report any difficulties you may encounter.

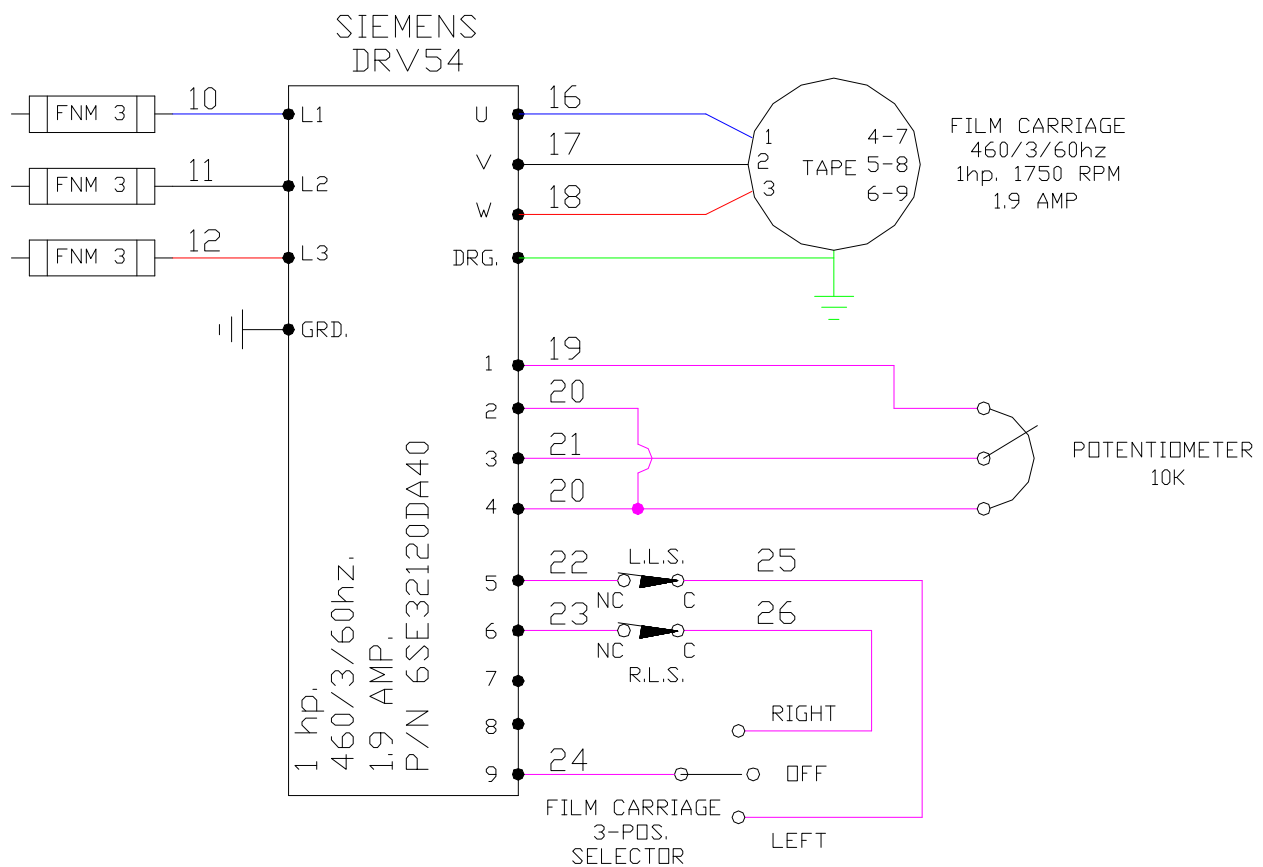
- **Local - (616) 534-2600**
- **National - (800) 253-4625**

222C Film Carriage Drive Siemens 1hp.AC Drive

P001	(0)	DISPLAY MODE
P002	(2.5)	ACCELERATE
P003	(0.5)	DECELERATE
P004	(0.0)	SMOOTHING TIME
P005	(60)	FREQUENCY SETPOINT
P006	(1)	EXT. POT.
P007	(0)	EXT. CONTROL
P009	(3)	ALL PARAMETER
P013	(60)	MAXIMUM MOTOR FREQUENCY
P022	(60)	MAXIMUM ANALOGUE FREQUENCY

DIP SELECTOR SWITCHES

1)ON 2)OFF 3)OFF 4)ON 5)OFF

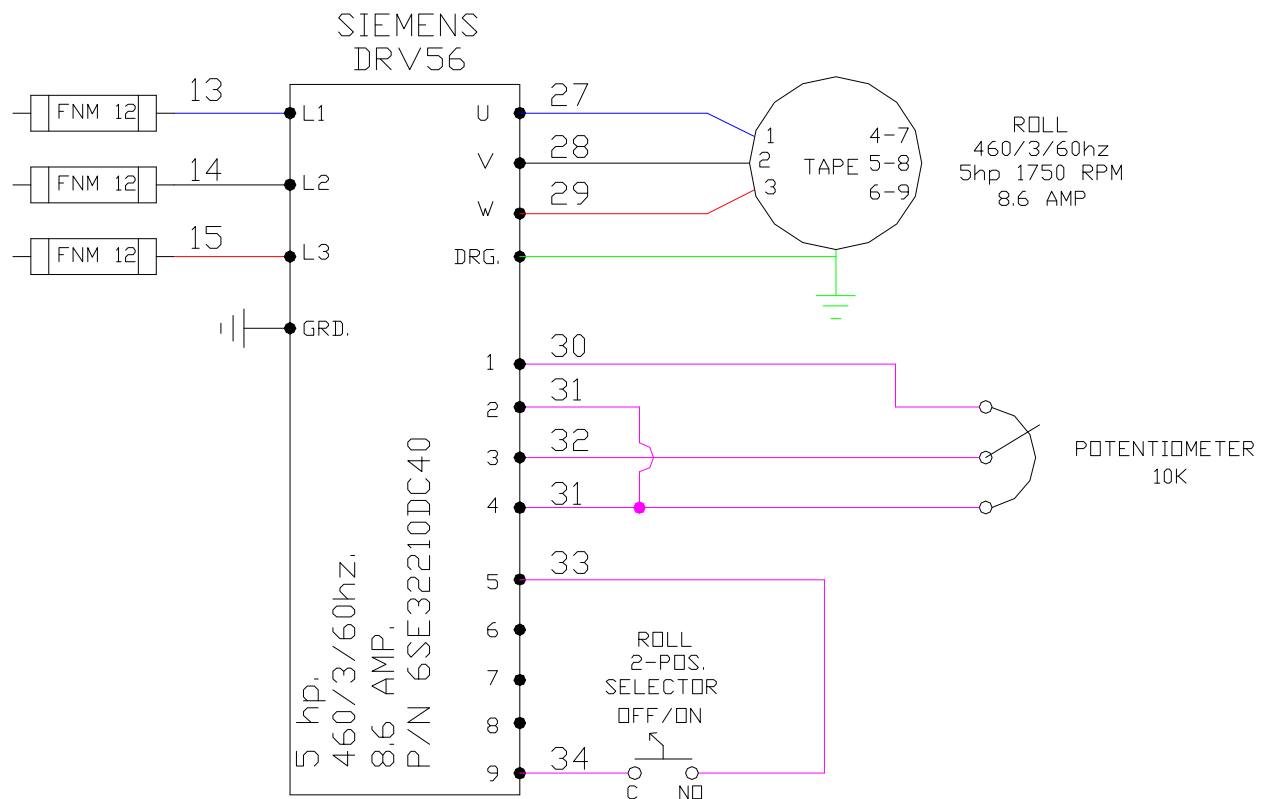


222C Roll Drive Siemens 5hp.AC Drive

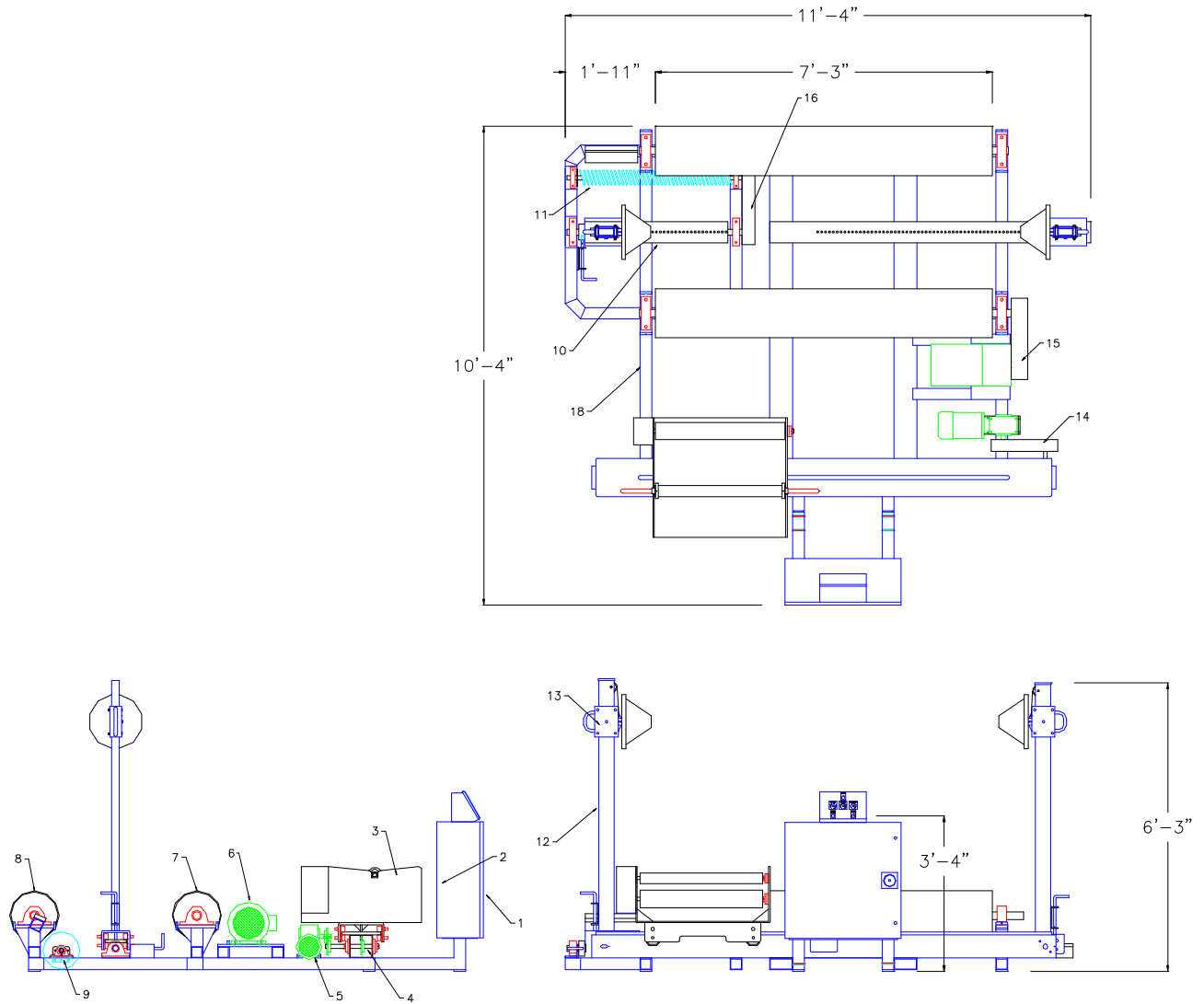
P001	(0)	DISPLAY MODE
P002	(2.5)	ACCELERATE
P003	(0.5)	DECELERATE
P004	(0.0)	SMOOTHING TIME
P005	(60)	FREQUENCY SETPOINT
P006	(1)	EXT. POT.
P007	(0)	EXT. CONTROL
P009	(3)	ALL PARAMETER
P013	(60)	MAXIMUM MOTOR FREQUENCY
P022	(60)	MAXIMUM ANALOGUE FREQUENCY

DIP SELECTOR SWITCHES

1)ON 2)OFF 3)OFF 4)ON 5)OFF



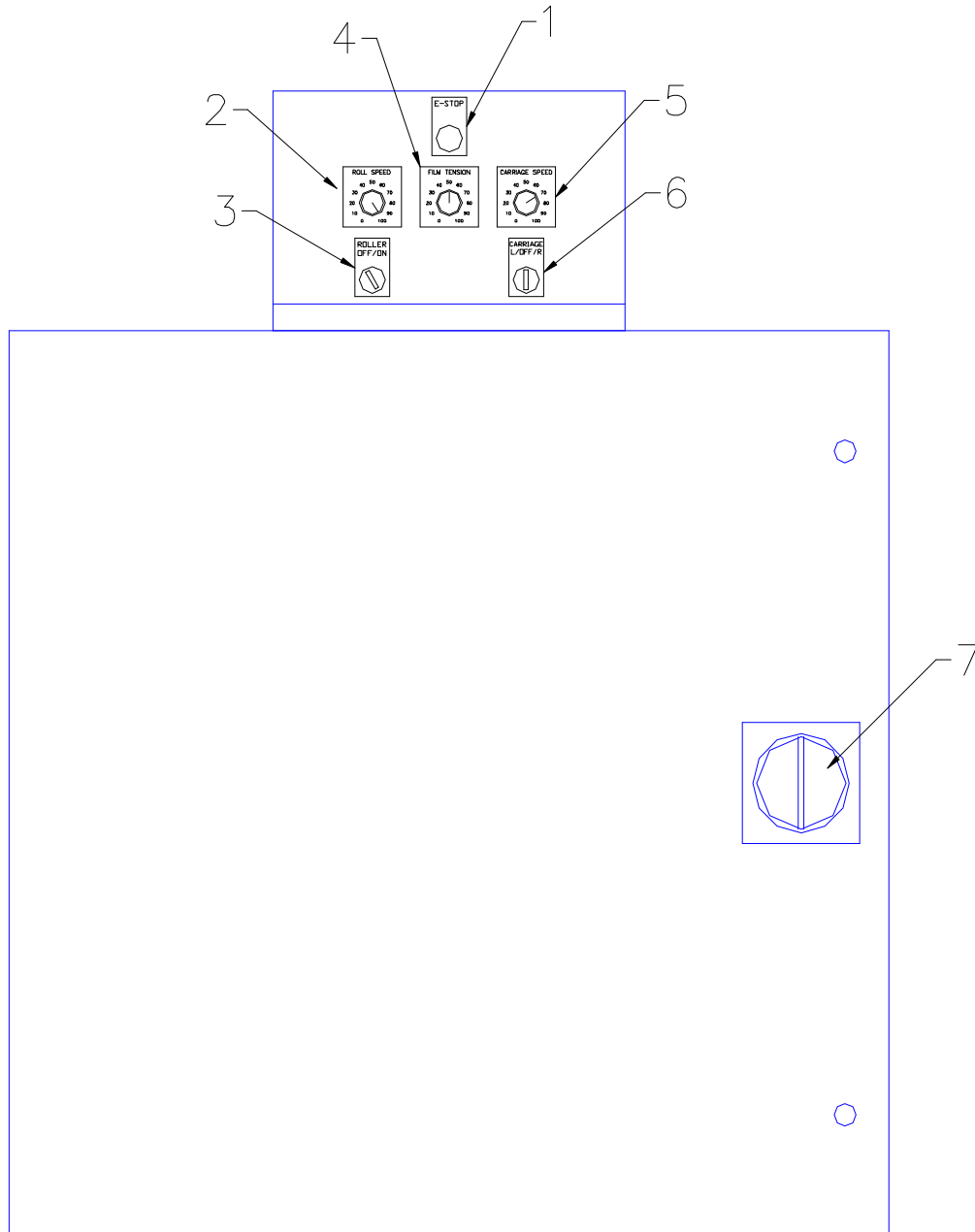
KALAMAZOO PACKAGING SYSTEMS MODEL 222C BASE



Kalamazoo Packaging Systems
PARTS MANUAL:
222C HORIZONTAL ROLL WRAPPER

ITEM	PAGE # /PART #	DESCRIPTION	QTY
1	p-11-12	CONTROL CABINET	1
2	p-13-14	CONTROL CABINET SUB PANEL	1
3	p-15-16	30" VARIABLE TENSION FILM DELIVERY	1
4	p-17	FILM CARRIAGE TOWER	1
5	105552	FILM CARRIAGE MOTOR 480/3/60hz. 1hp. (RELIANCE)	1
5	106590	FILM CARRIAGE 60:1 R/A REDUCER (BOSTON)	1
5	50B12x1-1/8	FILM CARRIAGE DRIVE SPROCKET	1
6	105560	ROLL ROLLER MOTR 480/3/60hz. 5hp. (RELIANCE)	1
6	106080	ROLL ROLLER 99RPM INLINE REDUCER (HUB CITY)	1
6	60SK30 SPR. SK 1-5/8" BUSH.	ROLL ROLLER DRIVE SPROCKET AND BUSHING	1 1
7	p-18	ROLL DRIVE ROLLER	1
8	p-19	ROLL IDLER ROLLER	1
9	222C-BASE-15	SWINGING ROLL CORE HOLDER SPRING MOUNT	1
10	p-20	SWINGING ROLL HOLDER BASE	1
11	p-21	SWINGING ROLL HOLDER COUNTER SPRING	1
12	p-22-23	ROLL HOLDER UPRIGHT	2
13	p-24	ROLL HOLDER HANDLE & PLASTIC CORE	2
14	222C-FC-05	FILM CARRIAGE CHAIN GUARD	1
15	222C-BASE-16	ROLL ROLLER CHAIN GUARD	1
16	222C-RH-11	SWINGING CORE HOLDER SPRING GUARD	1
17	222C-BASE-01	ROLL BASE	1

KALAMAZOO PACKAGING SYSTEMS
MODEL # 222C
CONTROL CABINET

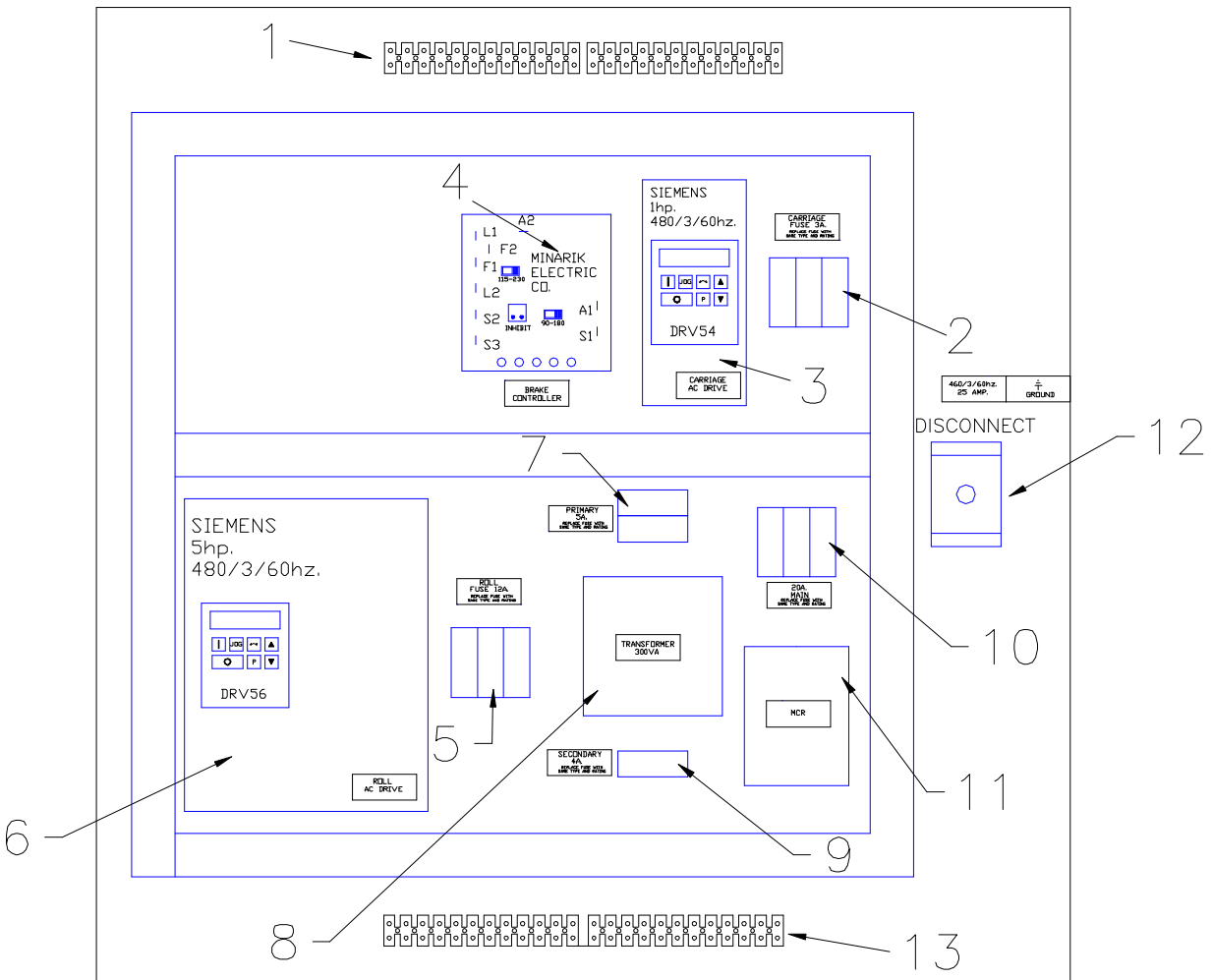


Kalamazoo Packaging Systems
PARTS MANUAL:
222C CONTROL CABINET

ITEM	PART #	DESCRIPTION	QTY
1	207990	30mm PUSH/PULL BUTTON (E-STOP)	1
1	208020	30mm E-STOP LEGEND PLATE	1
1	208006	1 N.C. CONTACT BLOCK	1
2	131205	10K POTENTIOMETER w/ KNOB (ROLL SPEED)	1
2	206940	ROLL SPEED DIAL PLATE	1
3	208001	30mm 2-POSITION SELECTOR SWITCH (ROLL OFF/ON)	1
3	208025	30mm ROLL OFF/ON ENGRAVED PLATE	1
3	208005	1 N.O. CONTACT BLOCK (ROLL)	1
3	208006	1 N.C. CONTACT BLOCK (FILM TENSION)	1
4	131205	10K POTENTIOMETER w/ KNOB (FILM TENSION)	1
4	206700	FILM TENSION DIAL PLATE	1
5	131205	10K POTENTIOMETER w/ KNOB (CARRIAGE SPEED)	1
5	206944	CARRIAGE SPEED DIAL PLATE	1
6	208003	30mm 3-POSITION SELECTOR SWITCH (CARRIAGE LEFT/OFF/RIGHT)	1
6	208025	30mm CARRIAGE LEFT/OFF/RIGHT ENGRAVED PLATE	1
6	208006	1 N.C. CONTACT BLOCK	2
7	210746	DISCONNECT HANDLE	1

KALAMAZOO PACKAGING SYSTEMS MODEL # 222C SUBPANEL

39	40	19	20	21	24	25	26							30	31	32	33	34	43	44	45	46	47	GRD	
E-STOP		FILM CARRIAGE																ROLL				FILM TENSION			



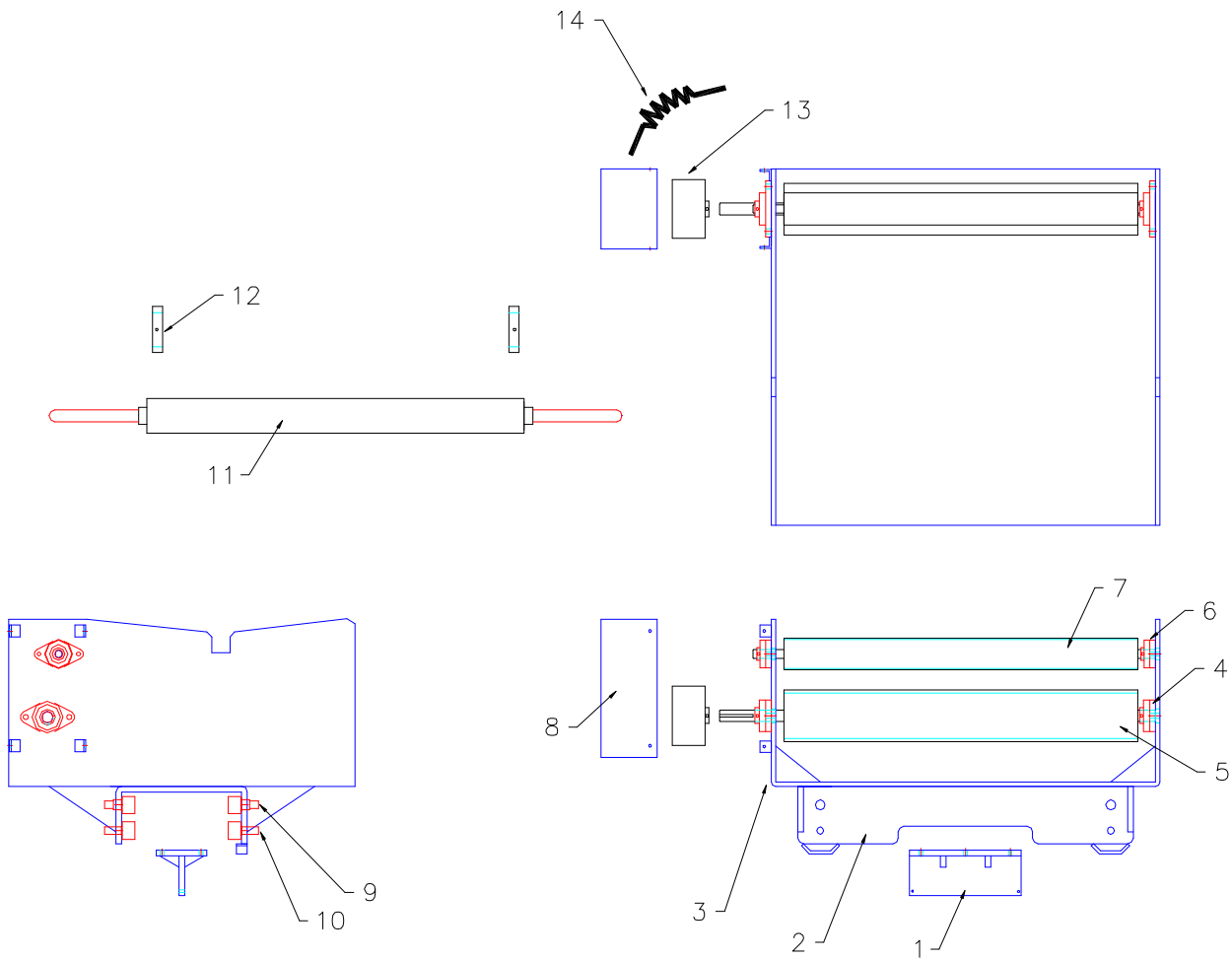
41	GRD	42	22	25	GRD	23	26	GRD						16	17	18	GRD	27	28	29	GRD				
FILM BRAKE		LEFT LIMIT SW.		RIGHT LIMIT SW.														FILM CARRIAGE MOTOR				ROLL MOTOR			

Kalamazoo Packaging Systems

PARTS MANUAL: 222C SUBPANEL

ITEM	PART#	DESCRIPTION	QTY.
1	209700	12 TERMINAL STRIP	2
2	210773	3-POLE FUSEBLOCK	1
2	210777	3 AMP. FUSE (FILM CARRIAGE)	3
3	DRV54	1hp. SIEMENS AC DRIVE 460/3/60HZ.	1
4	131200	90/180 v. DC CONTROLLER	1
5	210773	3-POLE FUSEBLOCK	1
5	210783	12 AMP. FUSE (ROLLER)	3
6	DRV56	5hp. SIEMENS AC DRIVE 460/3/60hz.	1
7	210772	2-POLE FUSEHOLDER	1
7	210778	5 AMP. FUSE (TRANS. PRIMARY)	2
8	209105	300va TRANSFORMER	1
9	210771	1-POLE FUSEHOLDER	1
9	210777	3 AMP. FUSE (TRANS. SECONDARY)	1
10	210773	3-POLE FUSEBLOCK	1
10	210790	20 AMP.FUSE (MAIN)	3
11	208083	3-POLE 40 AMP MAIN RELAY	1
12	210744	40 AMP. DISCONNECT	1
13	209700	12 TERMINAL STRIP	2

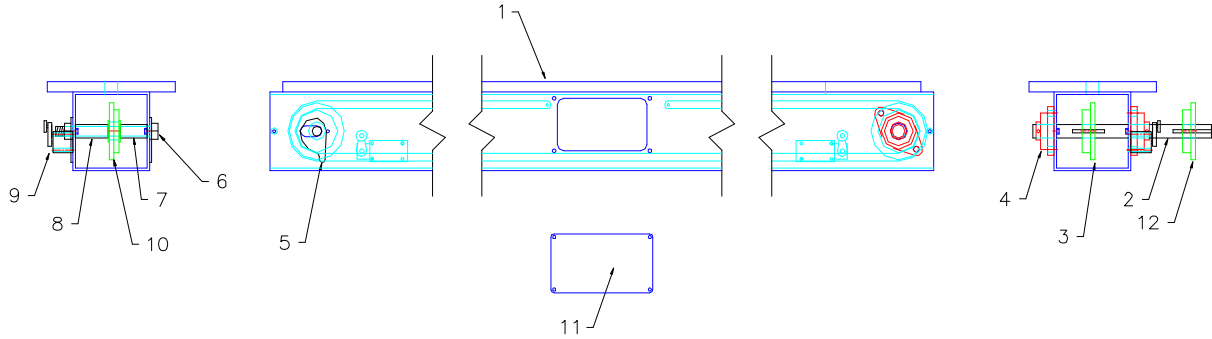
KALAMAZOO PACKAGING SYSTEMS
MODEL # 222C
VARIABLE TENSION FILM HEAD



Kalamazoo Packaging Systems
PARTS MANUAL:
222C VARIABLE TENSION FILM HEAD

ITEM	PART#	DESCRIPTION	QTY.
1	222C-VTFH-04	FILM HEAD CHAIN PLATE	1
2	222C-VTFH-02	FILM HEAD CAM ROLLER PLATE	1
3	222C-VTFH-01	FILM HEAD BASE PLATE	1
4	121055	1" 2-BOLT FLANGE BEARING	2
5	222C-VTFH-07	4" BRAKE ROLLER (BLACK RUBBER COVERED)	1
6	121050	3/4" 2-BOLT FLANGE BEARING	2
7	222C-VTFH-08	2-1/2" IDLER ROLLER (ORANGE COVERED)	1
8	222C-VTFH-03	FILM HEAD BRAKE COVER	1
9	121765	1-1/2" ECCENTRIC TRACK ROLLERS	4
10	121766	1-1/2" FLANGEDTRACK ROLLERS	4
11	222C-VTFH-06	30" REMOVABLE FILM CORE	1
12	222C-VTFH-06a	REMOVABLE FILM CORE SHAFT COLLARS	2
13	130500	3-3/4" 90v DC BRAKE 5/8" BORE	1
14	210050	16/3 COILED CORD	1

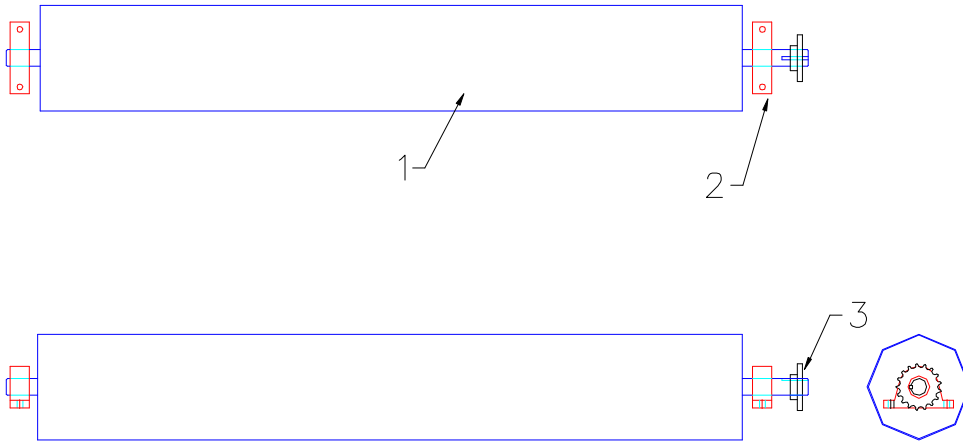
KALAMAZOO PACKAGING SYSTEM
 MODEL # 222C
 FILM CARRIAGE TOWER



Kalamazoo Packaging Systems
PARTS MANUAL:
222C FILM CARRIAGE

ITEM	PART#	DESCRIPTION	QTY.
1	222C-BASE-06	FILM CARRIAGE TOWER	1
2	222C-FC-01	DRIVE SHAFT	1
3	108050	50B20-1" SPROCKET	1
4	121055	1" 2-BOLT FLANGE BEARING	2
5	107993 107994	LEFT CHAIN ADJUSTER (3/4") RIGHT CHAIN ADJUSTER (3/4")	1 1
6		3/4-10x 7-1/2 BOLT w/ NUT	1
7	222C-FC-03	TAKE-UP SPROCKET SPACERS (SHORT)	1
8	222C-FC-03a	TAKE-UP SPROCKET SPACERS (LONG)	1
9	210890 210891	SQ.D LIMIT SWITCH SQ.D LIMIT SWITCH 1-1/2" ARM	2 2
10	222C-FC-02 120700	50B20 SPROCKET MODIFIED 3/4"x 1-3/8" FLANGED BEARINGS	1 2
11	222C-BASE-06b	FILM CARRIAGE TOWER CHAIN COVER	1
12	50B12x 1" SPR.	FILM CARRIAGE DRIVEN SPROCKET	1

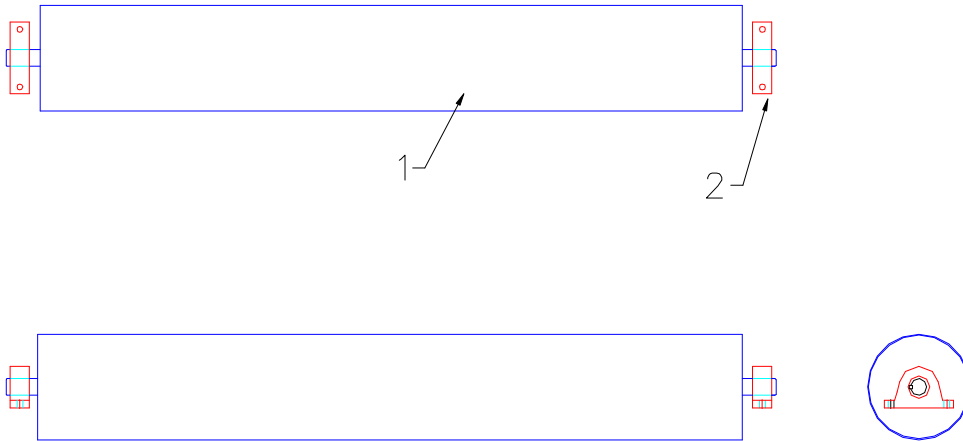
KALAMAZOO PACKAGING SYSTEMS
 MODEL # 222C
 ROLL DRIVE ROLLER



Kalamazoo Packaging Systems
PARTS MANUAL:
222C ROLL DRIVE ROLLER, BEARINGS, AND SPROCKET

ITEM	PART #	DESCRIPTION	QTY
1	222C-BASE-12	ROLL DRIVE ROLLER	1
2	121320	2" PILLOW BLOCK	2
3	60SK30 SPR. SK 2" BUSH.	60SK30 SPROCKET SK 2" BUSHING	1 1

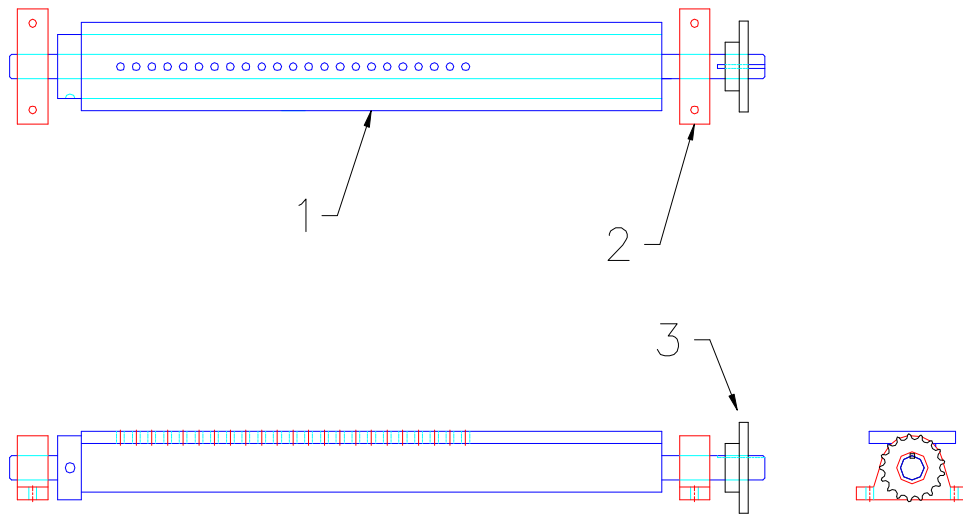
KALAMAZOO PACKAGING SYSTEMS
 MODEL # 222C
 ROLL IDLER ROLLER



Kalamazoo Packaging Systems
PARTS MANUAL:
222C ROLL IDLER ROLLER

ITEM	PART #	DESCRIPTION	QTY
1	222C-BASE-13	ROLL IDLER ROLLER	1
2	121320	2" PILLOW BLOCK	2

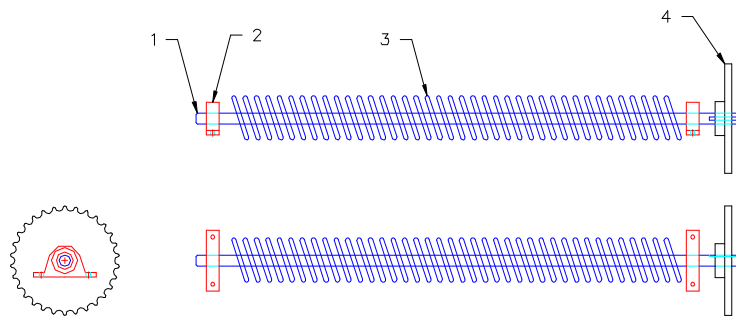
KALAMAZOO PACKAGING SYSTEMS
 MODEL # 222C
 SWINGING ROLL HOLDER BASE



Kalamazoo Packaging Systems
PARTS MANUAL:
222C SWING ROLL HOLDER BASE

ITEM	PART #	DESCRIPTION	QTY
1	222C-RH-05	SWING ROLL HOLDER BASE	1
2	121300	1-1/2" PILLOW BLOCK	2
3	35BS54x1-1/2"	35B54x 1-1/2" SPROCKET	1

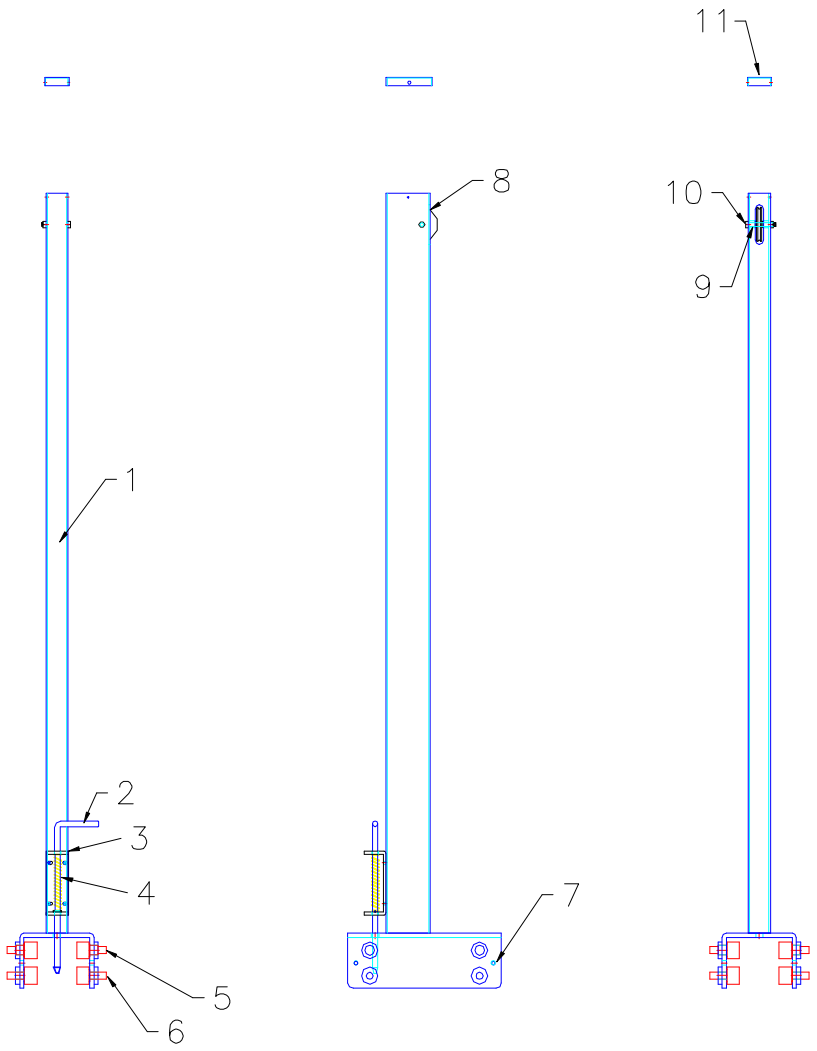
KALAMAZOO PACKAGING SYSTEMS
 MODEL # 222C
 SWINGING ROLL HOLDER COUNTER SPRING



Kalamazoo Packaging Systems
PARTS MANUAL:

ITEM	PART #	DESCRIPTION	QTY
1	222C-RH-10	1" SWINGING ROLL HOLDER SPRING SHAFT	1
2	121250	1" PILLOW BLOCK	2
3	35BS20-1"	35B20x 1" SPROCKET	1

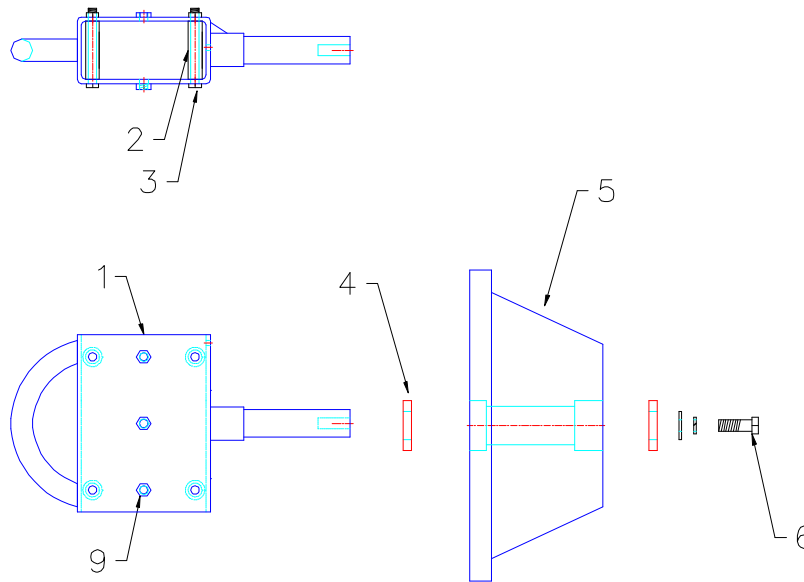
KALAMAZOO PACKAGING SYSTEMS
MODEL # 222C
ROLL HOLDER UPRIGHT



Kalamazoo Packaging Systems
PARTS MANUAL:
222C ROLL HOLDER UPRIGHT

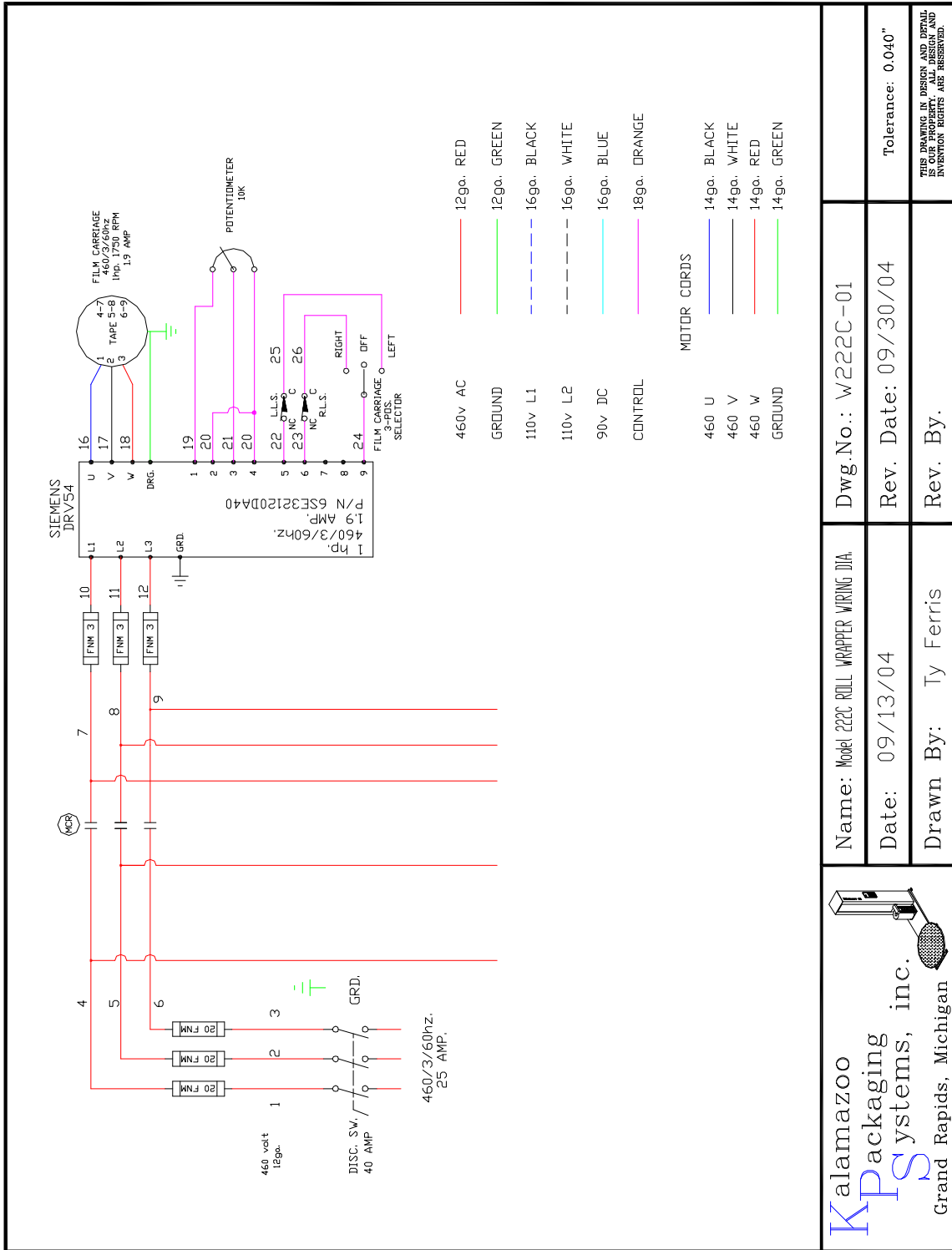
ITEM	PART #	DESCRIPTION	QTY
1	222C-RH-06	ROLL HOLDER UPRIGHT	2
2	222C-RH-02-a1	ROLL HOLDER LOCK PIN	2
3	222C-RH-02	ROLL HOLDER LOCK PIN BRACKET	2
4		ROLL HOLDER LOCK PIN SPRING	2
5	121765	1-1/2" ECCENTRIC TRACK ROLLER	8
6	121755	1-1/2" TRACK ROLLER	8
7		3/8-16 x 1-1/2" BRASS WEAR SCREWS	8
8	129000	3" PULLEY	2
9		PULLEY SPACER	4
10		3/8-16 x 2-1/2" H.H.C.S. w/ WASHER & NUT	2
11	222C-RH-02	ROLL HOLDER UPRIGHT COVER	2

KALAMAZOO PACKAGING SYSTEM
 MODEL # 222C
 ROLL HOLDER HANDLE & PLASTIC CORE



Kalamazoo Packaging Systems
PARTS MANUAL:
222C ROLL HOLDER HANDLE & PLASTIC CORE

ITEM	PART#	DESCRIPTION	QTY
1	222C-RH-07	ROLL HOLDER HANDLE	2
2	222C-RH-07a	PLASTIC ROLLERS	8
3		3/8-16x 4" H.H.C.S. w/ NYLOCK NUTS	8
4	120780	1-1/4" SHAFT BALL BEARING	4
5	222C-RH-08	PLASTIC ROLL CORE	2
6		1/2-13x 1-1/2" H.H.C.S. w/ WASHER & LOCK WASHER	2



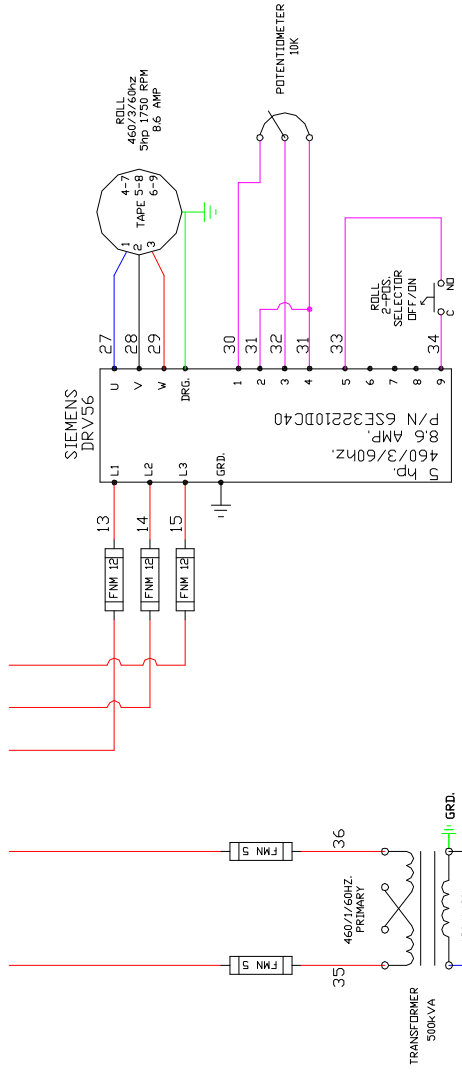
Kalamazoo
Packaging
Systems, inc.
Grand Rapids, Michigan

Name: Model 222C ROLL WRAPPER WIRING DIA.
Date: 09/13/04
Drawn By: Ty Ferris

Dwg.No.: W222C-01
Rev. Date: 09/30/04
Rev. By:

Tolerance: 0.040"

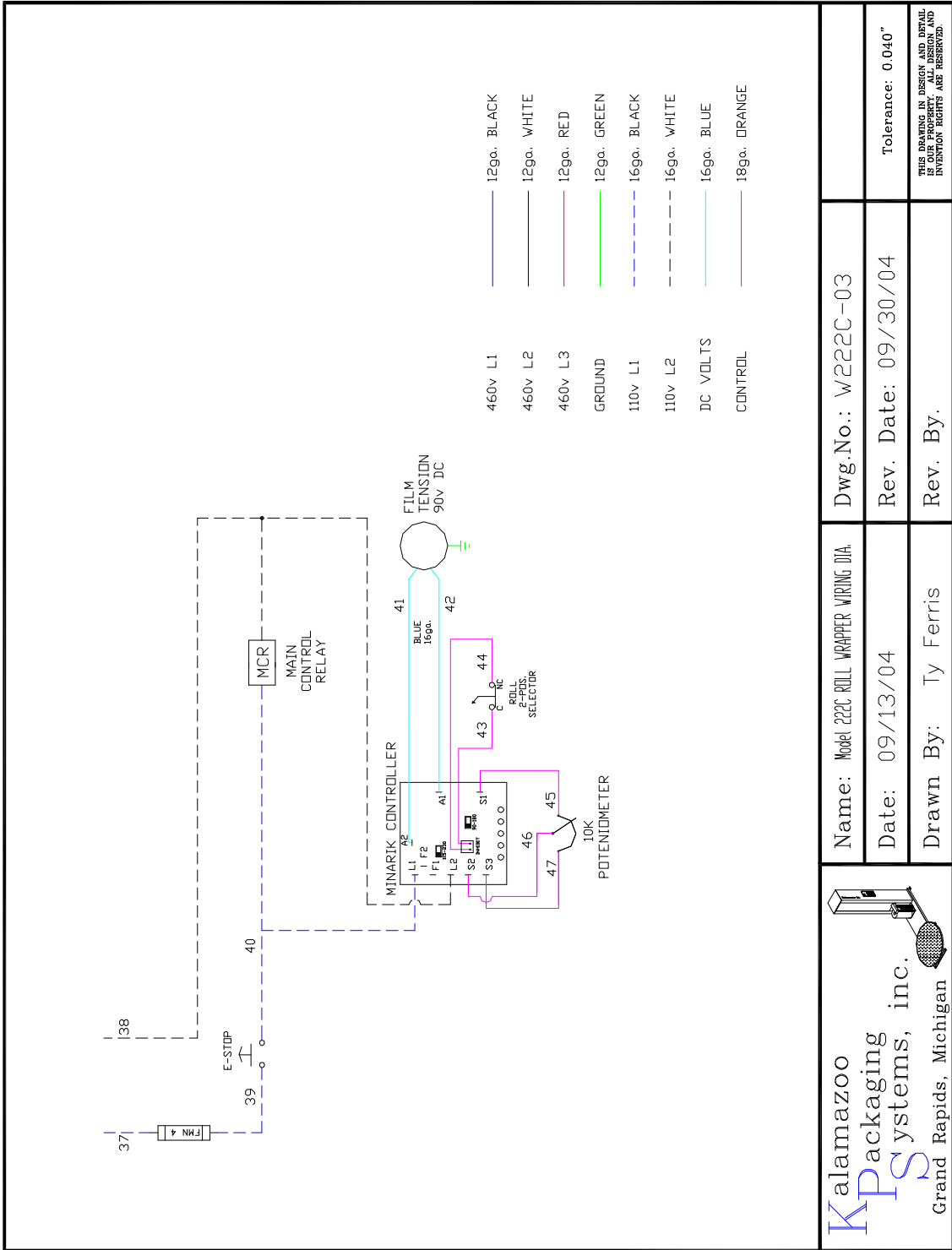
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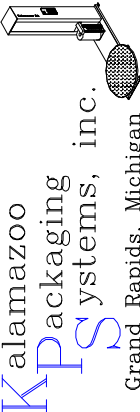


- 460v L1 — 12ga. BLACK
- 460v L2 — 12ga. WHITE
- 460v L3 — 12ga. RED
- GROUND — 12ga. GREEN
- 110v L1 — 16ga. BLACK
- 110v L2 — 16ga. WHITE
- DC VOLTS — 16ga. BLUE
- CONTROL — 18ga. ORANGE

Kalamazoo
PS Packaging Systems, inc.
 Grand Rapids, Michigan

Name: Model 222C ROLL WRAPPER WIRING DIA.	Dwg.No.: W222C-02
Date: 09/13/04	Rev. Date:09/30/04
Drawn By: Ty Ferris	Rev. By.
	Tolerance: 0.040"
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 <p>Kalamazoo Packaging Systems, Inc. Grand Rapids, Michigan</p>	Name: Model 222C ROLL WRAPPER WIRING DIA.	Dwg.No.: W222C-03	<p>Tolerance: 0.040"</p> <p>THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY. ALL DESIGN AND INVENTION RIGHTS ARE RESERVED.</p>
	Date: 09/13/04	Rev. Date: 09/30/04	
	Drawn By: Ty Ferris	Rev. By:	