



**MODEL 4065T-PM-CART
POWERED MANUAL
STRETCH WRAP SYSTEM**



**OPERATOR'S
MANUAL**

Table of Contents

| | |
|---|-------|
| Introduction | 3 |
| Warranty | 3 |
| Modular Design | 3 |
| Assembly | 4 |
| Set-up | 4 |
| Film loading Constant Prestretch | 4 |
| Controls | 5 |
| Operating Instructions | 5 |
| Maintenance | 6 |
| Trouble Shooting | 6 |
| Programming the AC Drives (Telemecanique) | 7 |
| Turntable and Tower parts list | 8-11 |
| Control Panel parts list | 12 |
| Sub Panel parts list | 13 |
| Film Constant Prestretch parts list | 14-17 |
| Wring Diagram | 18 |

Introduction

Congratulations! Your purchase of a **Kalamazoo Model 4065T-PM Powered Manual Spiral Stretch Wrapping 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

Effective on all machines built January 1, 2007 and later

Kalamazoo Packaging Systems, Inc. (KPS) agrees to furnish the purchaser, without charge (up to \$1000.00), F.O.B. the factory, any part found to be defective in either material or workmanship within five (5) years 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, power line drops and/or surges shall not constitute failure because of defective material or workmanship, and are expressly excluded from this warranty. This system is supplied with solid state AC drives. A clean power source must be supplied to the system without voltage drops or spikes.

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.

Modular Design

All **Kalamazoo** stretch wrap equipment is of modular design to grow and adjust to your specific packaging requirements. Your system has the ability to grow with you in the future. You can change modules to adjust to whatever your packaging requirements may be.

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Assembly

Your **4065T-PM** Stretch Wrap System 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 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 plugged into an independent 115 volt, 20 amp. power source.

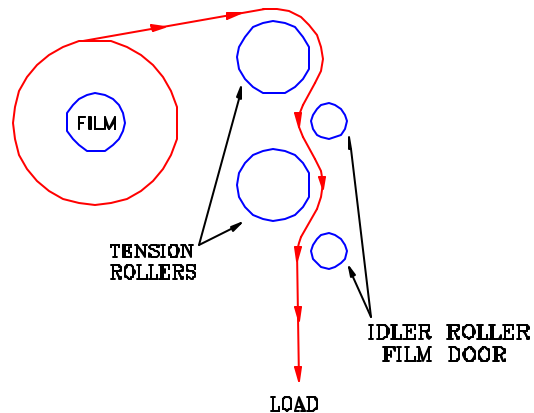
NOTE: The use of an extension cord may reduce the efficiency and life of the machine and is not recommended.

Set-up Procedures

The spiral module and turntable are designed to run smoothly together. Before wrapping the first pallet, check the AUOT/MANUAL functions of the turntable and the FILM RAISE and FILM LOWER functions of the spiral. Then center a load on the turntable and jog to check clearances.

Loading the film Constant Prestretch

If your wrapper is equipped with our **Kalamazoo** Constant Prestretch Film Delivery System, place a roll of 20" stretch film on the film core holder and open the film door. Thread the film clockwise around the back rubber covered tension rollers and close the film door.



**CONSTANT
PRESTRETCH**

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Controls

- 1) E-STOP - Turns off the main control relay. The system will not run.
- 2) TABLE OFF/ON – Turns the turntable and optional variable tension brake on.
- 3) FILM CARRIAGE RAISE/OFF/LOWER-Runs the film carriage up and down.
- 4) Optional Film Tension Control. Turn the knob clockwise to increase film tension.
- 5) Film Lift Speed Control. Turn the knob clockwise for less over wrap and counter clockwise for more over wrap.
- 6) Turntable Speed Control. Turn the knob clockwise to make the table rotate faster and counter clockwise to slow the table down.

Operating Instructions

- 1) Roll the cart up the ramp and into the turntable fixture.
- 2) Lock the wheels of the cart.
- 3) Attach the film to the cart securely.
- 4) (STAND CLAR)
- 5) Start the turntable with the OFF/ON selector switch.
- 6) After one or two complete wraps on the bottom of the cart, turn the film carriage switch to the RAISE position.
- 7) When the carriage reaches the top limit switch or you have wrapped the load as high as desired, stop the film carriage by moving the switch to the center OFF position.
- 8) The Stretch wrapper will now apply the reinforcing wraps to the top of the load.

**The sequence may be stopped at this point if the load is adequately secured.
Place the Turntable and Carriage controls to the OFF position,
cut and secure the film.**

**You may return the film carriage to the bottom home position or wrap the next
load from the top to the bottom.**

- 9) After step (8) turn the Film Carriage selector switch to the LOWER position and lower the film carriage to the home position.
- 10) The film carriage will stop at the lower limit switch and you should then place both controls switches to the OFF position.
- 11) Cut the film and smooth the end against the load. The film's inherent cling will hold it in place. If you are using a vented film you may need to tie the film or use cable ties to hold to film.
- 12) 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 turntable drive chains every three (3) months. Chain should be lubricated with a penetrating type commercial chain lube. (Do not over tight the turntable chain)
- 5) Check the main control relay for burning or arcing replace if necessary.
- 6) Check all push buttons and limit switch for shorts or sticking.
- 7) Keep the area clean around the system and all moving parts.
- 8) Remove film built up under the turntable disc.

Troubleshooting

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

Push the E-STOP button in, wait for 1 min.. This will denegerize the AC drives and reset a fault.

Pull the E-STOP button out to reset.

Check wall receptacle for power.

Check all fuses. You must replace fuse with same type and size

Check all cords for cut. (Fork Lift Trucks damage cords.)

Check under the turntable disc to make sure film is not wrapped around the center shaft and/or sprocket.

DISCONNECT POWER FROM MACHINE

- ✓ Check both top and bottom limit switches for damage, sticking, or internal shorts.
- ✓ Check to make sure limit switch arm is making contact with the limit switch bracket.
(adjust the limit switch arm as needed.)
- ✍ Remove panel cover. Visually inspect for loose wires and for signs of arcing or burning of any of the components.
- Check belt tension.
- Check for damage cords.
- Check the AC drive for errors.

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
E-mail –kzoo@iserv.net

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Telemecanique ATV 11 AC Drive Programming

To change a parameter in the AC Drive.

1. Press the up or down key to get into the parameter you would like to change.
2. Press the ENT key.
3. Use the up/down arrow key to change the value.
4. Press the ENT key.
5. Press the ESC key until the drive read (rdy) .

4065T-Turntable Drive

1st. Level Adjustments

| Code | Assignment | Setting |
|------|-------------------|---------|
| ACC | Acceleration time | 5.0 |
| dEC | Deceleration time | 6.0 |
| SP4 | Preset speed 4 | 15.0 |

drC Settings

StA Frequency loop stability 50%

FUn Settings-AdC

tdC Auto DC injection time 0.1

FUn Settings-SFt

SFr Switching Frequency 2khz.

4000-PM Film Carriage Drive

1st. Level Adjustments

| Code | Assignment | Setting |
|------|-------------------|---------|
| ACC | Acceleration time | 2.5 |
| dEC | Deceleration time | 0.1 |

drC Settings

StA Frequency loop stability 10%

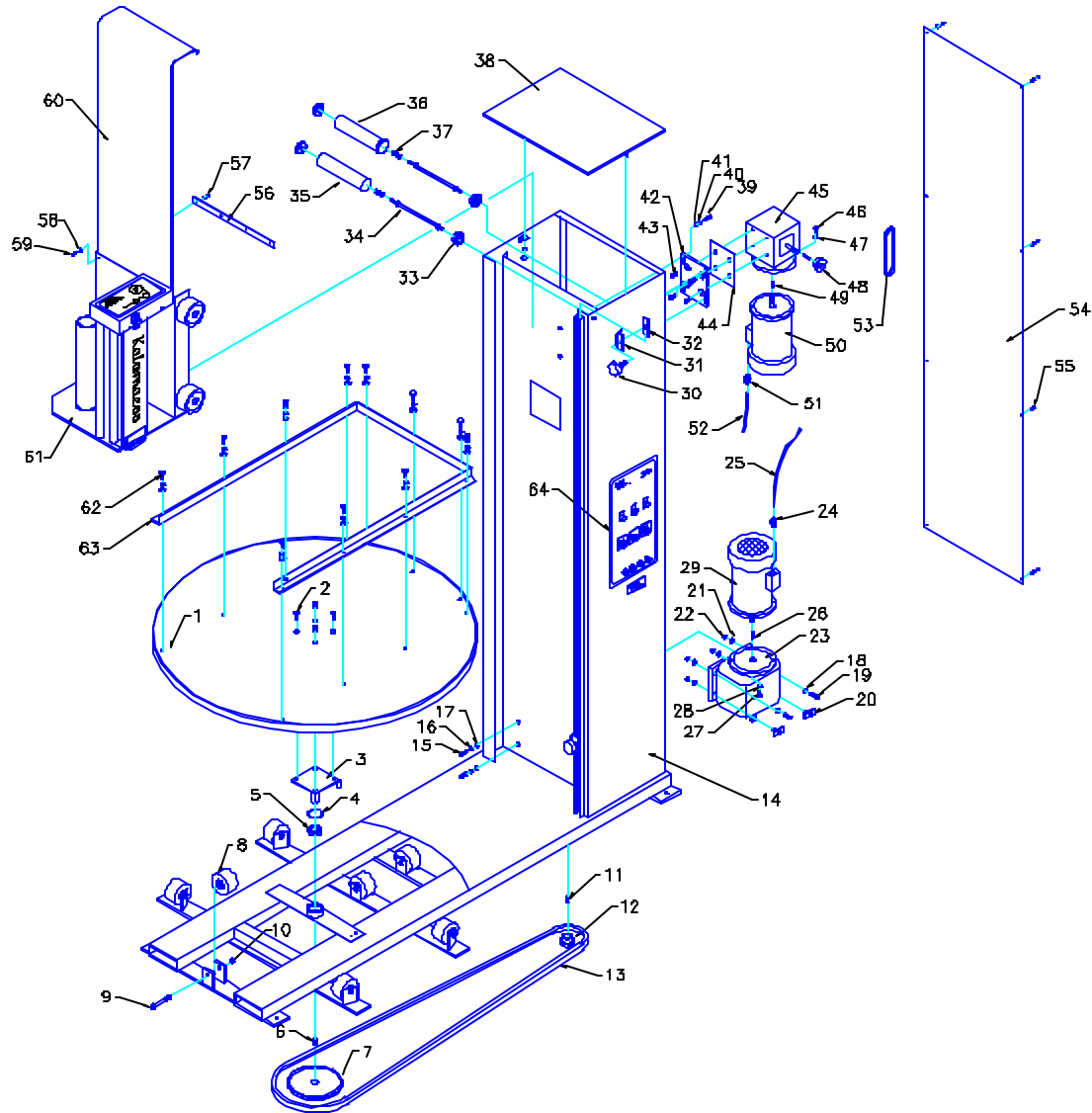
FUn Settings-AdC

tdC Auto DC injection time 0.1

FUn Settings-SFt

SFr Switching Frequency 2khz.

Kalamazoo Packaging Systems Model #4065T-PM-CART Turntable and Tower



Kalamazoo Packaging Systems
Parts Manual: 4065T-TURNTABLE & TOWER

| ITEM | PART# | DESCRIPTION | QTY. |
|------|------------|---|------|
| 1 | 4065M-DISC | 4065M Disc | 1 |
| 2 | F1351 | 3/8-16x 1" F.H.C.S. | 4 |
| 3 | 3670620 | 4000M Center Shaft | 1 |
| 4 | 1209050 | 2" Snap Ring | 1 |
| 5 | 1209000 | 1" Turntable Center Bearing | 1 |
| 6 | F20x1 | 1/4"x 1/4"x 1" Keyway | 1 |
| 7 | 1081000 | 50B40x 1" Sprocket | 1 |
| 8 | 1221500 | 3-1/4"x 2."x 1/2" Turntable Wheel | 7 |
| 9 | 1221550 | 1/2"X 3-1/2" Wheel Axle | 7 |
| 10 | F1905 | 1/2-13 Nylock Nut | 7 |
| 11 | F20x1 | 1/4"x 1/4"x 1" Keyway | 1 |
| 12 | 1080300 | 50B18x 1" Sprocket | 1 |
| 13 | 1085000 | #50 Chain | 1 |
| 14 | 4065T-PM | 4065T Turntable & Extra Height Tower Weldment | 1 |
| 15 | F1090 | 5/16-18x 1-1/2" Set Screw | 2 |
| 16 | F1000 | 5/16-18 Nut | 2 |
| 17 | F1017 | 5/16 SAE Washer | 2 |
| 18 | F1316 | 3/8 USS Washer | 4 |
| 19 | F1335 | 3/8-16x 1-1/2" H.H.C.S. | 2 |
| 20 | F1335a | 3/8-16x1-1/2" H.H.C.S. w/ Locking Plate | 2 |
| 21 | F1316 | 3/8 USS Washer | 4 |
| 22 | F1305 | 3/8-16 Nylock Nut | 4 |
| 23 | 1059800 | 58:1 Inline Reducer (Dodge) | 1 |

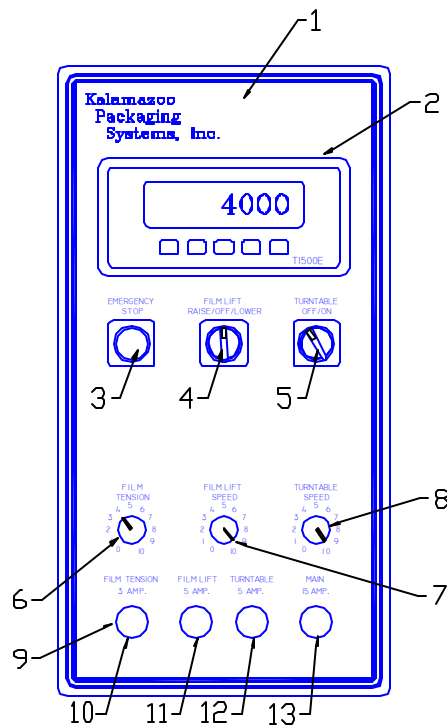
Kalamazoo Packaging Systems
Parts Manual: 4065T-TURNTABLE & TOWER

| ITEM | PART# | DESCRIPTION | QTY. |
|------|----------|--------------------------------------|------|
| 24 | 2103400 | Cord Grip | 1 |
| 25 | 2099050 | 14/4 STO Cord | 3' |
| 26 | F10x3/4 | 3/16"x 3/16"X 3/4" Keyway | 1 |
| 27 | F1333 | 3/8-16x 1" H.H.C.S. | 4 |
| 28 | F1315 | 3/8 Lock Washer | 4 |
| 29 | 1053130 | 1/2hp. AC Motor | 1 |
| 30 | 8000951 | 3/8-16 Knob x 3/4" | 2 |
| 31 | 4060040 | 4000M-LSB Outer Limit Switch Bracket | 2 |
| 32 | 4060050 | 4000M-LSB Inter Limit Switch Bracket | 2 |
| 33 | 1214050 | 1.9" Conveyor Roller Bearing | 4 |
| 34 | 4060060 | 4000M-STRHS Roller Hex Shaft | 2 |
| 35 | 4060070 | 4000M-STIR Idler Belt Roller | 1 |
| 36 | 4060090 | 4000M-STDR Drive Belt Roller | 1 |
| 37 | 1214450 | Roller Spring | 2 |
| 38 | 4060010 | 4000M-STTC-01 Tower Top Cover | 1 |
| 39 | F1033 | 5/16-18x 1" H.H.C.S. | 4 |
| 40 | F1015 | 5/16 Lock Washer | 4 |
| 41 | F1016 | 5/16 USS Washer | 4 |
| 42 | 4060030 | 4000M-STMM1 Film Lift Motor Mount | 1 |
| 43 | L39x1 | 1/4-20x 1" Flat Head | 4 |
| 44 | 4060030a | 4000M-STMMS1 Film Lift Motor Spacer | 1 |
| 45 | 1061000T | 60:1 R/A Reducer (Tigear) | 1 |
| 46 | F1333 | 3/8-16x 1" H.H.C.S. | 4 |

Kalamazoo Packaging Systems
Parts Manual: 4065T-TURNTABLE & TOWER

| ITEM | PART# | DESCRIPTION | QTY. |
|-----------|------------------------|--|--------|
| 47 | F1315 | 3/8 Lock Washer | 4 |
| 48 | 1079760 | 40B13x 5/8" Sprocket | 1 |
| 49 | F10x3/4 | 3/16"x 3/16"X 3/4" Keyway | 1 |
| 50 | 1053130 | 1/2hp. AC Motor (Reliance) | 1 |
| 51 | 2103400 | Cord Grip | 1 |
| 52 | 2099050 | 14/4 STO Cord | 4-1/2' |
| 53 | 1084000 | # 40 Chain x 20-1/2" w/ Master Link | 1 |
| 54 | 4060020 | 4000M-STD Tower Back Cover | 1 |
| 55 | F740 | 1/4-20x3/4" Button Head Screw | 8 |
| 56 | 4060110 | 4000M-H-BP Carriage Belt Plate | 1 |
| 57 | F420 | 10/24 Keps Nut | 4 |
| 58 | F400 | #10 Washer | 8 |
| 59 | F440 | 10/24x 3/4" Truss Head | 4 |
| 60 | 4060100-120 | Extra Height 4000M-Belt #120 Black PVC 18"x 118.5" | 1 |
| 61 | | Film Delivery Head | 1 |
| 62 | F1031, F1015, F1017 | 5/16-18x 5/8" H.H.C.S. 5/16 Lock Washer, 5/16" SAE Washer | 11 |
| 63 | 4065T-CF | Cart Fixture | 1 |
| 64 | | 4000M-PM Control Panel | 1 |
| | | Optional Ramp | |
| Not Shown | 4065M-R-01 | 4065M Ramp | 1 |

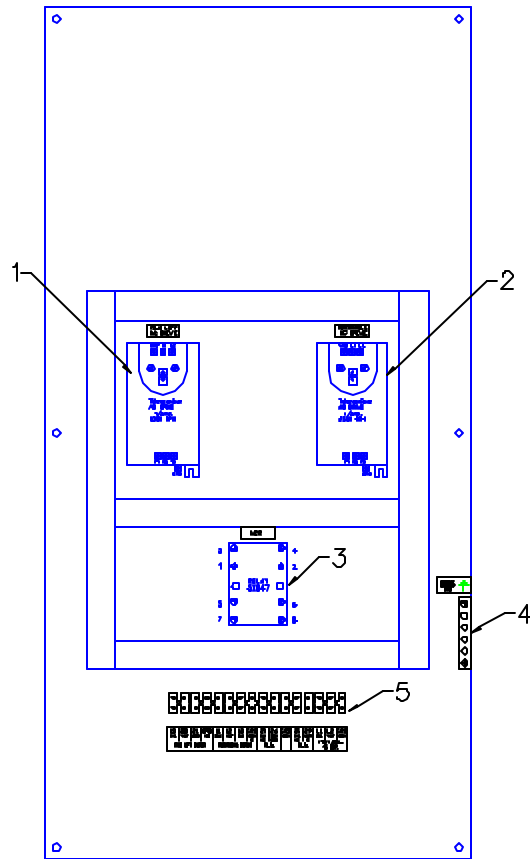
**4000M-PM
CONTROL PANEL**



**Kalamazoo Packaging Systems
Parts Manual: 4000M-PM CONTROL PANEL**

| ITEM | PART# | DESCRIPTION | QTY |
|------|----------|---|-----|
| 1 | 4000M-PM | 4000M-PM Decal | 1 |
| 2 | 2410120 | Scale Display TI-500E (Optional Scale) | 1 |
| 3 | 2071100 | E-Stop Button (Push Off/Pull On) | 1 |
| 4 | 2071070 | 3-Position Selector Switch (Film Raise/Off/Lower) | 1 |
| 5 | 2071000 | 2-Position Selector Switch (Turntable Off/On) | 1 |
| 6 | 1312050 | 10K Potentiometer w/ Knob (Optional Film Tension) | 1 |
| 7 | 1312050 | 10K Potentiometer w/ Knob (Film Lift Speed) | 1 |
| 8 | 1312050 | 10K Potentiometer w/ Knob (Turntable Speed) | 1 |
| 9 | 2107700 | Panel Mount Fuse Holder | 4 |
| 10 | 2107770 | 3AMP. Fuse (Optional Film Tension) | 1 |
| 11 | 2107780 | 5AMP. Fuse (Film Lift) | 1 |
| 12 | 2107780 | 5AMP. Fuse (Turntable) | 1 |
| 13 | 2107860 | 15 AMP. Fuse (Main) | 1 |

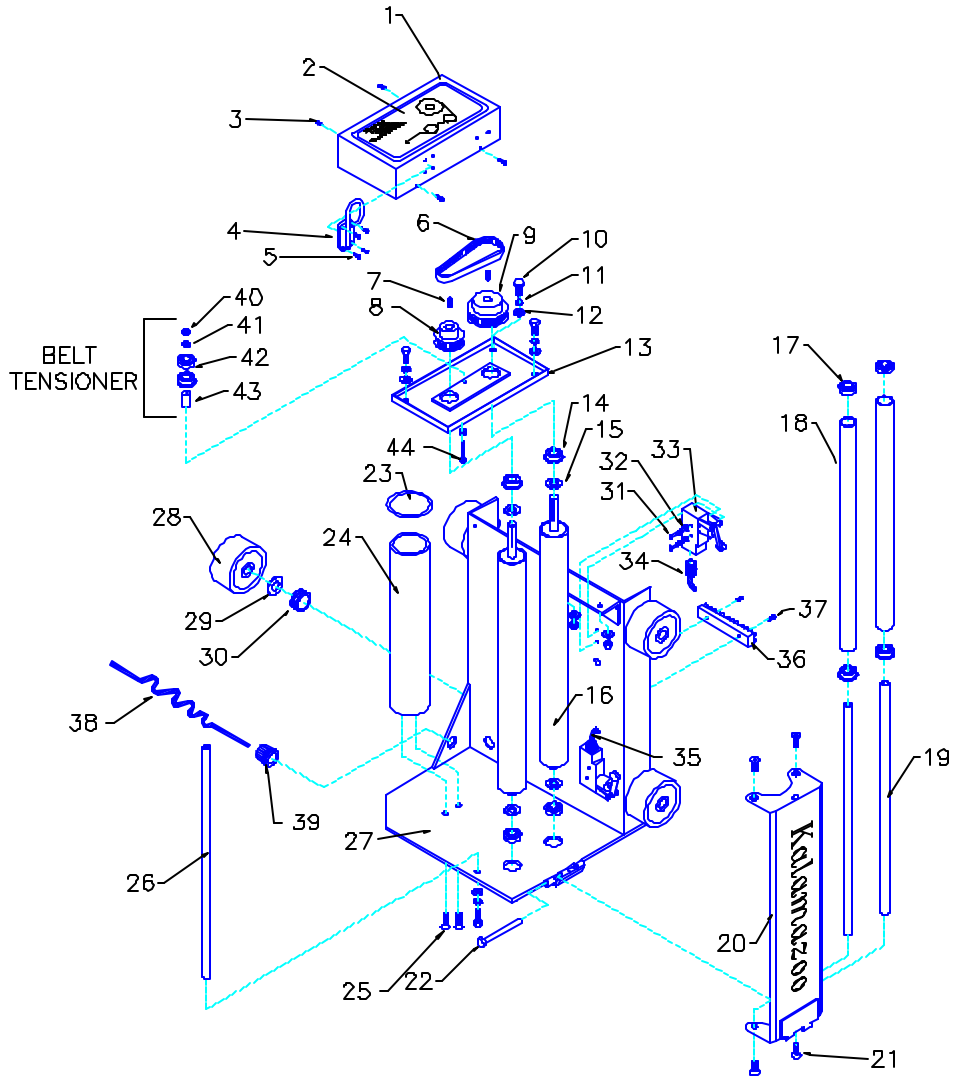
4065T-PM
SUBPANEL



Kalamazoo Packaging Systems
Parts Manual: 4065T-PM SUB PANEL

| ITEM | PART# | DESCRIPTION | QTY |
|------|---------|--|-----|
| 1 | 1318500 | Telemecanique 1/2 hp. AC Drive (FILM LIFT) | 1 |
| 2 | 1318500 | Telemecanique 1/2 hp. AC Drive (TURNTABLE) | 1 |
| 3 | 2080500 | 2PDT 30a. Main Control Relay (MCR) | 1 |
| 4 | 2104360 | Grounding Bus | 4 |
| 5 | 2097000 | 12 Terminal Strip | 16 |

4065T-CP-H2 CONSTANT PRESRTETCH FILM DELIVERY



1/24/04 *

Kalamazoo Packaging Systems
Parts Manual:
CONSTANT PRESTRETCH FILM DELIVERY

| ITEM | PART# | DESCRIPTION | QTY |
|------|---------|--|-----|
| 1 | 4060232 | 4000M-H2-C Film Cover | 1 |
| 2 | 4060240 | Constant Prestretch Film Delivery Decal | 1 |
| 3 | L25 | 10/32 x 3/4" Truss Head | 4 |
| 4 | 8134980 | D-Handle Film Door Latch | 1 |
| 5 | L7 | 8/32 x 3/4" Machine Screw w/ Lock Nut | 4 |
| 6 | 1073890 | 185H100 Timing Belt 1"x 18.5" | 1 |
| 7 | L2 | 3/16" x 3/16" x 1-1/4 "Keyway | 2 |
| 8 | 1073964 | 14H100 Timing Pulley | 1 |
| 9 | 1073970 | 20H100 Timing Pulley | 1 |
| 10 | L80 | 3/8-16x 1 H.H.C.S. (2 with 3/8-16 Nuts) | 4 |
| 11 | L64 | 3/8 Lock Washer | 4 |
| 12 | L66 | 3/8 SAE Washer | 4 |
| 13 | 4060252 | 4000M-H2-TP-R1 Film Top Plate | 1 |
| 14 | 120650 | 5/8 x 1-3/8 Flange Bearing | 4 |
| 15 | L145 | 5/8 Spring Washer | 4 |
| 16 | 6230652 | 4000M-H2-R 20" Brake Roller | 2 |
| 16 | 6230653 | 4000M-H2-R 30" Brake Roller | 2 |
| 17 | 1206000 | 5/8 x 1-3/8 Flange Bearing | 4 |
| 18 | 4060282 | 4000M-H2-D 20" Film Door Roller | 2 |
| 18 | 4060283 | 4000M-H2-D 30" Film Door Roller | 2 |
| 19 | 4060272 | 4000M-H2-D 20" Film Door Roller Shaft | 2 |
| 19 | 4060273 | 4000M-H2-D 30" Film Door Roller Shaft | 2 |
| 20 | 4060262 | 4000M-H2-D 20" Film Door | 1 |
| 20 | 4060263 | 4000M-H2-D 30" Film Door | 1 |
| 21 | L58b | 5/16-18x 1 B.H.C.S. | 4 |
| 22 | 338712 | Hinge Pin | 1 |
| 23 | 1208600 | 3" Thrust Washer | 1 |

Kalamazoo Packaging Systems
Parts Manual:
CONSTANT PRESTRETCH FILM DELIVERY

| ITEM | PART# | DESCRIPTION | QTY |
|------|---------|--|-----|
| 24 | 6230800 | 2.95" Diameter x 15" Film Core | 1 |
| 24 | 6230810 | 2.95" Diameter x 20" Film Core | 1 |
| 25 | L55 | 5/16-18x 1-1/2 F.H.C.S. | 2 |
| 26 | 4060222 | 4000M-H2-R 20" Film Head Support Shaft | 1 |
| 26 | 4060223 | 4000M-H2-R 30" Film Head Support Shaft | 1 |
| 27 | 4060212 | 4000M-H2-FHBP-CP 20" Film Base Plate | 1 |
| 27 | 4060213 | 4000M-H2-FHBP-CP 30" Film Base Plate | 1 |
| 28 | 1222500 | 4"x 1-1/2"X 3/4" Carriage Wheels | 4 |
| 29 | L161 | Carriage Wheel Springs | 4 |
| 30 | 1222500 | Carriage Wheel Spacer 0.840' | 4 |
| 31 | L6 | 6/32x1-3/4" Machine Screw | 4 |
| 32 | L6a | #6 Washer | 4 |
| 33 | 2108500 | Limit Switch (ROLLER ARM) | 2 |
| 34 | 2103400 | Cord Grip | 2 |
| 35 | 2098500 | 16/3 SJ Cord | 2 |
| 36 | 2097000 | 12 Terminal Strip | 1 |
| 37 | | #6 x 3/4" Sheet Metal Screw | 2 |
| 38 | 2100520 | 16/5 Coiled Cord x 2' | 1 |
| 39 | 2103570 | 1" Cord Grip | 1 |
| 40 | L29 | 1/4-20 Nylock Nut | 1 |
| 41 | L32 | 1/4 USS Washer | 2 |
| 42 | 1207000 | 3/4 x 1-3/8 Flange Bearing | 2 |
| 43 | 1073110 | Belt Tensioner Shaft | 1 |
| 44 | L38x2 | 1/4-20x 2" H.H.C.S. | 1 |

Kalamazoo Packaging Systems
Parts Manual:
CONSTANT PRESTRETCH FILM DELIVERY
OPTIONAL TENSION PULLEYS AND BELTS

| ITEM | PART# | DESCRIPTION | QTY |
|-------|---------|---|-----|
| | | 120% @ 28 Pounds of Pull | |
| 8 | 1073120 | 12 Tooth Pulley | 1 |
| 9 | 1073280 | 28 Tooth Pulley | 1 |
| 40-43 | 1073110 | Belt Tensioning Kit | 1 |
| | | 110% @ 27 Pounds of Pull | |
| 8 | 1073120 | 12 Tooth Pulley | 1 |
| 9 | 1073240 | 24 Tooth Pulley | 1 |
| 40-43 | 1073110 | Belt Tensioning Kit | 1 |
| | | 90% @ 25 Pounds of Pull | |
| 8 | 1073120 | 12 Tooth Pulley | 1 |
| 9 | 1073220 | 22 Tooth Pulley | 1 |
| 40-43 | 1073110 | Belt Tensioning Kit | 1 |
| | | 70% @ 19 Pounds of Pull | |
| 8 | 1073140 | 14 Tooth Pulley | 1 |
| 9 | 1073240 | 24 Tooth Pulley | 1 |
| 40-43 | 1073110 | Belt Tensioning Kit | 1 |
| | | 50% @ 17-3/4 Pounds of Pull | |
| 8 | 1073160 | 16 Tooth Pulley | 1 |
| 9 | 1073240 | 24 Tooth Pulley | 1 |
| | | 40% @ 16 Pounds of Pull(STANDARD) | |
| 8 | 1073140 | 14 Tooth Pulley | 1 |
| 9 | 1073200 | 20 Tooth Pulley | 1 |
| 40-43 | 1073110 | Belt Tensioning Kit | 1 |
| | | 20% @ 11 Pounds of Pull | |
| 8 | 1073160 | 16 Tooth Pulley | 1 |
| 9 | 1073200 | 20 Tooth Pulley | 1 |
| 40-43 | 1073110 | Belt Tensioning Kit | 1 |

