14.0 TROUBLESHOOTING

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
|---|---|--|
| WARNING: LABELS LOW. CHECK OR REPLACE MEDIA | Labels are getting low and will soon need to be replaced. Low Label Sensor has reached its sensitivity level. | Replace labels. Adjust sensitivity of Low Label Sensor to desired proximity. Factory preset to activate when there is approximately 3/8" of labels remaining on the label core. |
| WARNING: RIBBON LOW. CHECK OR REPLACE PRINTER RIBBON | Indicates that the thermal transfer ribbon inside your print engine is getting low. (The print engine has activated the RIBBON LOW signal which is passed to the Panther via a discrete signal through the applicator interface cable) | Replace thermal transfer ribbon inside print engine If error is coming on erroneously check the appropriate print engine maintenance manual for adjustment/replacement. Check the Panther PRINTER screen to see if the RIBBON LOW input is ON. Check to ensure that the applicator interface cable connecting the Panther Control Box to the print engine is securely connected and not damaged in anyway. Replace the print engine with your backup unit. |
| ERROR: PRINTER ERROR. CHECK PRINTER STATUS. | The print engine has an error. (The print engine has activated the ERROR signal which is passed to the Panther via a discrete signal through the applicator interface cable) | Check print engine display for error message. Consult appropriate maintenance manual for solutions. Check Panther PRINTER screen to see if print engine ERROR input is ON (NOTE: print engine Error is usually an active high signal, OFF when error is present). Check applicator interface cable and ensure that it is plugged in correctly to the print engine. Replace the print engine with your back up unit. |

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
|---|--|--|
| ERROR: RIBBON OUT. REPLACE PRINTER RIBBON. | CAUSE(S) 1. The print engine indicates your thermal transfer ribbon is out. (The print engine has activated the RIBBON OUT signal which is passed to the Panther via a discrete signal through the print engine interface cable) 1. The print engine indicates that there are no labels in the system. (The print engine has activated the LABEL OUT signal which is passed to the Panther via a discrete signal through the applicator interface cable) | SOLUTIONS Replace thermal transfer ribbon inside print engine. If you have recently replaced the thermal transfer ribbon, remove the thermal transfer ribbon and rethread the thermal transfer ribbon through system (be sure to follow print engine ribbon threading diagram located on the inside cover of the print engine). If using DIRECT THERMAL labels, check print engine settings to ensure that you do not have THERMAL TRANSFER selected. Check Panther PRINTER screen to see if the RIBBON OUT input is on. Check applicator interface cable and ensure that it is plugged in correctly to the print engine. Replace the print engine with your backup unit. Consult appropriate print engine Maintenance/ Service manual for additional solutions. If you have recently replaced your labels, remove labels and rethread them through the print engine (be sure to follow supplied diagram located on the inside cover of the print engine). Check Panther PRINTER screen to see if the LABEL OUT input is on. Check Panther PRINTER screen to see if the LABEL OUT input is on. Check applicator interface cable and ensure that it is plugged in correctly to the print engine. |
| | | additional solutions. |
| ERROR: PRINTER POWER OFF. CHECK PRINTER POWER AND INTERFACE CONNECTION. | The print engine is OFF. Panther is not receiving signal that print engine is ON. (The print engine has de-activated the +VOLTAGE signal which is passed to the Panther via a discrete signal through the applicator interface cable) | Turn print engine ON. Check applicator interface cable and ensure that it is plugged in correctly to the print engine. Check Panther PRINTER STATUS screen to see if +24VDC input is ON. Replace the print engine with your back up unit. If print engine does not power on, check print engine fuse, if necessary call Panther Service at 800-530-6018, ext. 120 for replacement part information |

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
|---|--|--|
| ERROR: NO PRINTER MODEL SELECTED! GO TO SYSTEM CONTROL TO SELECT PRINTER. | 1. No print engine model is selected in the Panther SYSTEM CONTROL screen. | 1. Go to the Panther SETTINGS screen and select the appropriate print engine manufacturer (may be located under PRINTER SETTINGS in icon mode). |
| ERROR: APPLICATOR NOT HOME, CHCEK APPL AIR PRESSURE AND APPL HOME SENSOR. | Applicator is not in the HOME position. The applicator has fallen or been pushed away from the HOME position and the APPLICATOR HOME timer has timed out. Applicator HOME SENSOR is not functioning properly. Applicator is jammed away from the HOME position. | Return the applicator to the HOME position and ensure that the HOME sensor LED turns ON. Check "Applicator 1 Home input on the SYSTEM INPUTS screen (located under I/O) to see if the signal is getting to the Panther Controller (PLC) Remove any obstructions preventing the applicator from returning HOME. Ensure the motor is seated properly with the applicator rack. Check the set screws on the applicator gear to ensure they are tight and centered on the flat spot on the motor shaft. Check connection to applicator HOME sensor. Repair or replace applicator HOME sensor. Cycle power to the whole system and wait for the applicator to complete the homing process. |
| ERROR: PRINTING WHILE APPL IS NOT HOME. CHECK PROD SPACING. | The print engine has been signaled to print before the applicator was in the HOME position. NOTE: This error should never take place with the interlocking that the Panther does. It can happen due to "jogging" the system via the F3 PRINT and F4 APPLY buttons on the Panther display. | Return the applicator to the HOME position then reprint the label. If you applicator appears to be HOME, check your applicator HOME sensor and ensure that it is being made (LED is ON). Check to make sure that the "Applicator 1 Home" input is ON in the Panther SYSTEM INPUTS screen. This signal should be ON prior to the PRINT NOW (PRINTER screen) output being signaled. Check "Enable Applicator Home Error" Status in the Panther SETTINGS screen. Double check the print engine settings to ensure print engine will not print a label unless triggered to do so by the Panther system. |

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
|---|---|---|
| ERROR: PRODUCT SENSOR TRIGGERED BEFORE LABEL READY TO APPLY. PRESS F1 THEN F3 KEY. | You have triggered the Panther (either via photoeye or external trigger) to apply a label prior to the print process being complete. If your product is reflective or base | Ensure that the product spacing is great enough to allow the print process to finish. This may require physically spacing out the products more or slowing down your conveyor speed. Ensure that the host system has provided data to |
| | been stretch wrapped ensure that your photoeye is not "double triggering" off of the product | the print engine so the Panther system can perform the PRINT and APPLY function. |
| | | 3. Make sure a label is READY and staged on the applicator head (if necessary press the PRINT key to print the label) before running the product (PRINT FIRST THEN APPLY OFF). |
| | | Increase your print speed in order to lower the printing process time. |
| | | Check that your data transmission time is fast enough in order to keep up with your product speed. |
| | | To prevent or compensate for double triggering, increase the PHOTOEYE DEBOUNCE timer in the Panther TIMER screen. |
| | | 7. If the system is being triggered by an external source (not the product detect photocell) make sure that the signal does not trigger more than once (Can be checked via EXTERNAL TRIGGER input on the Panther INPUT screen). |
| | | 8. It may be necessary to take corrective actions on your photoeye positioning or your PRINT/APPLY cycle time. Adjustments for the total cycle time can include: Print Speed, Data Transmission Time, PRINT DELAY, APPLY DELAY, APPLY DWELL, and also the Applicator Air Pressure. |
| | | 9. If the system was working and all of a sudden you encounter this error, look closely at format changes, print speed changes, data transmission time, or air pressure changes. |
| ERROR: PRODUCT JAM. PHOTOEYE IS BLOCKED | 1. The photoeye attached to the Panther has been blocked for an extended amount of time | 1. Remove the product blocking the photoeye and press the RESET key. |
| | extended amount of time. | 2. Ensure that the connection to the photoeye is secure. |
| | | 3. Check the PRODUCT DETECT 1 status on the Panther INPUT screen. |

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
|---|---|--|
| (OPTIONAL HARDWARE REQUIRED) ERROR: BAD OR NO SCAN. MAX BAD SCANS REACHED. PRESS F1 KEY. | 1. The setpoint for the maximum number of bad scans has been exceeded. | Press the RESET key to reset the BAD READ COUNTER to "0". Check the print engine media. Has the print quality suddenly diminished? Replace the thermal transfer ribbon or label stock. Make sure that the scanner is properly mounted and has not been bumped or mis-aligned. If necessary increase the maximum number of bad scans allowed by your system. Ensure that your scanner settings (SCANNER DWELL, SCAN TRIG DELAY) are set appropriately (in the Panther TIMERS screen) for your application. Replace the scanner with your backup unit. Consult your scanner maintenance manual for troubleshooting tips concerning your scanner. |
| ERROR: NO APPLICATOR MOVEMENT | The applicator motor was triggered but there was no movement of the applicator, or the applicator HOME sensor did not change states from ON to OFF. | Check APPLICATOR DISTANCE/SPEED settings under SERVO MOTOR SETTINGS to ensure they are set properly. Check that applicator moves a sufficient distance when triggered to allow home sensor to switch states. Check the APPL HOME SENSOR on the Panther SYSTEM INPUTS screen and ensure that when the applicator moves the HOME sensor switches between ON and OFF. Check that the motor is properly seated with the applicator rack and that no teeth are damaged. Check that the set screws are tight on the applicator gear and that they are secured on the flat spots on motor shaft. |

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
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| ERROR: PRINT REQUEST WITH PRINT ENGINE OFFLINE OR NO DATA. CHECK STATUS - RESEND DATA. | This error occurs when the print engine is triggered to print a label when either the print engine was turned offline (paused) or had no data or format to print. | Check your print engine status and ensure that the print engine is not paused or offline. Check to see if you have any data in your print engine. You may not have completely transmitted your label format to the print engine. Resend the data and try to print the label again. Check the communication settings on your print engine and the host computer from which you are sending the data. If you are using a serial connection you may need to add a null modem or a crossover cable to ensure proper communication. If you are using a dispenser, make sure that DISPENSER MODE is selected |
| ERROR: PRINTER HAS DATA IN BUFFER. CHECK DATA TIMING AND BATCH MODE STATUS | 1. There is still a format in the print engine memory (DATA READY bit from print engine is being signaled) when the applicator returns to the HOME position and the BATCH MODE option is not selected in your SETTINGS screen. | You cannot have memory in the buffer when the applicator returns home unless you have BATCH MODE enabled (ON). Your labeling operation may be out of sequence! Clear the line and clear the print engine data buffer. If you are intending to send a batch of labels (more than one format) to the print engine go to the Panther SETTINGS screen and turn BATCH MODE to ON. If you are not intending to send a batch of labels to the print engine ensure that you have printed and applied the label in the print engine's memory prior to sending it the next label's data. Check your data transmission timing to see if something has changed. |
| ERROR: LABEL REQUEST WITH A LABEL ALREADY ON THE APPLICATOR HEAD. PRESS F1 | The print engine was triggered to print a label and there is already a label on the tamp head, or the PLC believes there is a label on the tamp head. | This usually occurs during "jogging" of the machine. Someone has probably pressed the PRINT key while there was already a label on the applicator head. Press RESET to reset this error. If you have a LOTAR (Label on Tamp and Ready) Sensor: You can check the Panther INPUTS screen to see if the LOTAR signal is ON. This signal comes on after the print cycle is complete and remains on until the applicator has cycled. |

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
|--|---|---|
| ERROR: NO RESPONSE FROM PRINT ENGINE. CHECK PRINT ENGINE STATUS AND RESEND DATA | 1. This error has been given because the Panther has requested action (print or feed) from the print engine and did not receive a response from the print engine. | Make sure that the printer has data in it by looking at the print engine display. Press the PRINT button. If the print engine prints the label and this error still occurs, the signal from the print engine to the Panther is lost. This may be due to the applicator interface cable between the Panther and the print engine, or the printer configuration may be incorrect for use in an applicator. Check the print engine configuration. Check to make sure the applicator interface cable is securely connected to the back of the print engine. Hit FEED (or PRINT key if you have data in the printer) on the printer and watch the PRINTER INPUTS screen. Ensure that PRINTING NOW signal from the print engine turns ON for the duration of the Label Feed or Print. Ensure that you have the correct print engine selected in the SETTINGS screen. Replace the print engine with your spare/backup unit. (If purchased) The print engine may be defective. It may have blown a fuse on the applicator control board. Call Depther Table Surger to 200 C010 and Call |
| (OPTIONAL HARDWARE REQUIRED) ERROR: NO RESPONSE FROM SCANNER. CHECK SCANNER CONNECTION OR DISABLE SCANNER. | You have requested action from the scanner and the Panther did not receive a response back from the scanner. | Check the LED on the scanner to see if it is powered ON. Check the cable that connects the scanner to the Panther and ensure that the connection is secure and the cable is not damaged in anyway. Check to make sure that you have SCANNER ENABLE turned ON in the Panther SETTINGS screen. If you are NOT using a scanner for your application, or there is no barcode scanner present, turn this feature OFF in the SETTINGS screen. Check that each time you cycle the applicator the scanner turns ON. Check the Panther SYSTEM INPUTS screen and make sure that when the scanner turns ON that you are receiving either a SCAN GOOD READ input or a SCAN BAD READ input. If it is a new or replacement scanner, the configuration of the scanner may be incorrect. Call Panther Tech Support at 800-530-6018 ext120 |

| ERROR SHOWN ON DISPLAY | CAUSE(S) | SOLUTIONS |
|---|---|--|
| (OPTIONAL HARDWARE REQUIRED) ERROR: LABEL NOT ON TAMP HEAD. CHECK LABEL ON TAMP SENSOR | You have requested the applicator to apply when the Label On Tamp Sensor indicates that there no label on the tamp head. | Press the RESET key. Reprint the last label and cycle the applicator. Check the Panther SYSTEM INPUTS screen and see if your LOTAR sensor signal is OFF. While watching the SYSTEM INPUTS screen, Check the LOTAR Sensor by feeding a label onto the applicator head and then removing it by hand. It should changes states from OFF to ON to OFF again in this example. You may need to adjust the vacuum sensor if your machine is so equipped. Call Panther Tech Support at 800-530-6018 ext 120 |
| (OPTIONAL HARDWARE REQUIRED) ERROR: LABEL IS ON TAMP HEAD. CHECK LABEL ON TAMP SENSOR | The applicator has returned back to the home position and the Label On Tamp Sensor indicates there is still a label on the tamp head. | Ensure that you are applying the label to the product and that after each application the Label On Tamp Sensor is no longer made. Check the Panther SYSTEM INPUTS screen and see if your LOTAR (Label On Tamp And Ready) sensor signal is ON. While watching the SYSTEM INPUTS screen, Check the LOTAR Sensor by feeding a label onto the applicator head and then removing it by hand. It should changes states from OFF to ON to OFF again in this example. You may need to adjust the vacuum sensor if your machine is so equipped. Call Panther Tech Support at 800-530-6018 ext 120 |
| ERROR: SERVO MOTOR ERROR OR MOTOR HAS MOVED UNEXPECTEDLY | The applicator has been moved away from the home position by hand. The servo motor has gone into an error | Return the applicator to the home position and press the RESET key. Check the status of the SERVO ALARM input in the SYSTEM INPUTS screen. This should be ON when there is no error preset and OFF when a servo motor error occurs. Check that the applicator is in the home position and the home sensor is ON when pressing the RESET to clear this error. Cycle power to the system and let the applicator go through its homing sequence. All errors should be reset. Check servo connections between the motor and the Panther control box. Check I/O connections between servo controller and Panther I/O. Contact Panther technical support at 800-530-6018 ext 120 |

Further Mechanical and Electrical Troubleshooting

| PROBLEM | CAUSE(S) | SOLUTIONS |
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| No Power To Printer | 1. The print engine power is not ON. | 1. Turn power switch on the print engine to ON position. |
| Pantner Display does not snow an error | | 2. Check printer power cable from Panther system to the print engine. |
| | | Check or replace printer fuse, refer to print engine manual. If fuse blows again, replace printer with backup unit. |
| | | 4. Still No Power: Bypass Panther power by using a "computer" cable and power the printer directly. If this corrects the problem, and the Panther unit is ON and working, there is an electrical problem with the Panther unit. Diagnose power feed to print engine and repair or Call Panther Tech Support at 800-530-6018 ext 120. |
| No power to entire unit, including print engine | 1. The Panther unit is not getting power. | 1. Make sure that the plug on the back of the Panther units is fully plugged in. |
| Panther Display does not show an error | | 2. Check the Power switch located next to the plug on the Panther system control box. Switch it to the ON position. |
| | | Make sure that the outlet that the Panther unit is plugged into is "hot" or "live". Check voltage and polarity. |
| | | 4. Check or Replace the fuse on the Panther unit. It is located in the "Fuse Drawer" next to the power entry plug that the power cable plugs into. (5 Amp, 120/240VAC Fast Acting). |
| No Power to Panther system, but print engine is still powered ON | 1. The 24VDC Power supply in the Panther system is not providing power to the Panther unit although the 120VAC circuit to the printer is still "het" | 1. Call Maintenance or a qualified electrician. Replace the 24VDC, 2.5A power supply unit with the exact part number and rating as supplied in your Panther system. |
| | Still Hot . | 2. The Panther Screen is malfunctioning. Check connection between screen and power supply/PLC. |
| | | 3. Call Panther Tech Support at 800-530-6018 ext 120 |
| Display does not turn on, but there is power to the Predator | The ethernet/power cable connecting the PLC to the display has been disconnected. Your display has been damaged. | 1. Reconnect the ethernet/power cable extending from the PLC to the back of the display. If cable is damaged replace with a similar cable, or call Panther for a replacement part. |
| | | 2. Replace display with like part. Call Panther Tech Support for replacement information at 800-530-6018 ext 120. |

| PROBLEM | CAUSE(S) | SOLUTIONS |
|--|---|---|
| Power to the component(s) on the Predator is sporadic. Vibrations cause power to drop out/come on | Wiring to component(s) is loose. Terminal block jumpers on +24VDC/0VDC bus are loose. | Check wiring to component(s). Reseat as necessary. Reconnect terminal block jumpers on appropriate bus. It may be necessary to replace slice I/O card. Call Panther Tech Support for replacement information at 800-530-6018 ext 120. |
| Take-Up motor is not running when label feeds/prints | END PRINT signal is not being signaled or not being received by the Panther. Power is not connected to the Take-Up motor. Fuse has fallen out of Solid State Relay. | Check applicator interface cable from Panther to printer. Ensure that it is securely connected and not damaged. Check appropriate wiring for the Take-Up Motor, both from the PLC and to the SSR Relay. Check AC wiring to the Take-Up Motor. Contact your Panther Tech Support at 800-530-6018 ext 120 for wiring instructions. Replace fuse on SSR Relay with like component. Replace motor with spare motor. |
| Labels not feeding onto applicator head correctly | 1. Applicator is incorrectly positioned. | Reposition applicator so that applicator head is lined up evenly with label feed position. Applicator head should be positioned ~1/16th of an inch below the printer peel bar and ~ 1/8th of an inch away from the printer peelbar. Adjust applicator assembly position by loosening the blue handle on the back and sliding assembly vertically. |
| Labels are falling off of the tamp head after feed/print | Vacuum fan is not running. Vacuum fan has debris stuck in it. | Check power wires on the vacuum fan and ensure they care connected properly. Check that the spade connector is properly seated on vacuum fan terminals. Check that there is not any debris preventing the fan from turning, blow out fan or turn system off and remove guarding to clear debris. |
| Labels following liner (not feeding onto tamp head) | Labels incorrectly routed through printer. Die strikes on label are too deep. | Ensure that your labels are fed through the printer's nip assembly (lower drawer on printer) and wound securely around Take-Up Roller. Replace labels with a new roll. If problem persists contact your label supplier. |

| PROBLEM | CAUSE(S) | SOLUTIONS |
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| Data is not transferring to printer | Communication Settings are incorrect. Label formatting is incorrect | Check the printers communication settings and ensure that they match your computer's/network's settings. If you are using a serial cable to communicate you may need a null modem or a crossover cable. Check your label format and ensure that the code/ formatting is correct. Call your Panther Tech Support for help at 800-530-6018 ext 120. |
| Take-up belts continually breaking | Take-up pulleys are misaligned. Take-up pulley is loose. You are using the incorrect take-up belt for your system. | Align take-up pulleys. This can be accomplished by loosening the pulley on the motor, turning the motor (allowing pulley to float) the pulleys should self align. Tighten the pulley back in place. Tighten take-up pulleys. Verify that you are using Panther approved take-up belts (P/N: PA-TU-11333.C, PA-TU-11335.C, PA- TU-11337.C). |
| Labels are not free flowing/over flowing off of the Let-Off Reel | 1. Your brake arm is too tight/loose. | Adjust the spring connecting the brake arm to the Predator main plate, according to your needs. |
| Labels are tracking incorrectly | Labels are wound incorrectly. Let-Off Cover is not correctly positioned. Printer rollers are out of alignment. | Adjust label guides on brake/guide rollers, to correctly position labels for infeed to the printer. Ensure that Let-Off Cover is firmly placed on Let- Off Roller and firmly against labels. Consult the appropriate printer manual for tracking adjustments. |
| (OPTIONAL HARDWARE REQUIRED) Tower lamp is not turning on | Bulbs are burned out. Tower lamp is not receiving signals from the Predator. | Replace bulb. Check OUTPUT SCREEN on Panther display to see if tower lamp signals are ON. Check tower lamp cable and ensure that it is not damaged or disconnected. Contact Panther Tech Support at 800-530-6018 ext 120. |
| (ELECTRIC MODELS ONLY) Vacuum fan is not running | Fan is unplugged. Fan is blocked by debris or label | Check wire connectors connecting Panther control box to internal power wires of fan. Ensure that internal power wires are securely connected to power terminal on fan. Clear any debris preventing the fan from spinning (ensure power is off prior to removing debris). |

| PROBLEM | CAUSE(S) | SOLUTIONS |
|--|--|--|
| (ELECTRIC MODELS ONLY) Applicator rack is "short stroking". Applicator moves away from HOME position and then returns to the HOME position without reaching the DISTANCE setpoint in SERVO SETTINGS menu of the Panther display. | Label Material or Debris is preventing rack from moving by clogging the rack or pinion gear. Servo motor is pressed too tightly against rack. TAMP THRESHOLD setting is too low. | Check for label material or debris in the rack "teeth". Clean with wire brush. If this is a new rack/applicator assembly, lower the binding pressure on the rack by moving the servo motor slightly away from the rack. Pressure needs to be snug, just not overly tight. Increase the tamp threshold setting percentage in the SERVO SETTINGS menu of the Predator. Tamp Threshold needs to 20 or greater to ensure proper movement of applicator rack. Settings of 200 or greater may indicate a problem with the rack assembly mechanical system. |

14.1 Electric Troubleshooting

Labels falling off of the vacuum box

- 1. A label could be stuck in the vacuum box restricting air flow.
- 2. The fan could be "OFF" (The fan is ON whenever the Panther P9 Predator is powered ON)
- 3. If the FAN is off while the Panther P9 Predator is powered ON, check the wiring and/or replace the fan.

System Always "Short-Strokes"

- 1. APPLY FORCE could be set too low
- 2. Debris caught in the rack or pinion gear
- 3. Re-check APPLY DISTANCE VALUE

Error Display: "No Response From Servo Motor" or "Unexpected Motor Movement"

- 1. Applicator "home" sensor is not sensing. Check or replace applicator HOME sensor
- 2. Check connection of stepper motor to controller
- 3. CAN Connection from Panther Predator PLC to stepper controller is disconnected-check connection
- 4. Check the pinion gear for loose set-screws
- 5. Check the applicator rack guide assembly for binding
- 6. Stepper motor is bad
- 7. Stepper controller is bad-replace controller

Applicator Strokes, but Stops about 1" away (down) from HOME position

1. Check the pinion gear for loose set-screws

Pressing the APPLY key does NOT make the applicator cycle

1. Make sure the "Manual APPLY Enable" is ON in the "SETTINGS" Screen