16 Troubleshooting Guide

16.1 Disclaimer

IMPORTANT: Please read this document, all manuals for each individual piece of equipment, and other relevant manuals carefully to understand safe maintenance procedures before performing any routine maintenance on any part of the system.

- First and foremost, no maintenance should be performed until the system has been properly powered down and LOTO procedures followed.
- Risk of electric shock, pinch point injury, robotic system energizing and contacting personnel, among other injuries, could occur if the system is operated or maintenance work is performed in an unsafe manner. Care should always be taken when working with moving, rotating, and electrically energized machinery.
- All operation and maintenance should be performed by trained and competent individuals.
- The Troubleshooting Guide is intended to provide operators and supervisors assistance in resolving issues while operating the CASI system. Written in an "if-then" style, each problem identified during the installation and start-up of the system is included.
- Additional, specific instructions are provided for several systems and sub-systems as separate documents.
- If this first level troubleshooting does not return the system to operation, CASI technical support is available.

CASI Technical Support 800-930-3788

The following tables serve as reference for common issues. For issues not listed, call CASI Technical Support.

16.2 Troubleshooting Boxes

Table 13 – Troubleshooting Boxes

Issue	Correction
Communication Error	1. Exit and restart SolidSuite™. 2. Exit SolidSuite™. 3. Wait 5 seconds. 4. Restart SolidSuite™.
Box Jam	Most box jams should clear themselves. If the box jam does not clear itself, complete the following steps: 1. Press **Stop**. 2. Press and hold the **Stop** button while opening the door. 3. Put the robot in a safe position, such as the following: • Middle of where a box would be while being cut • Shaft of robot in a middle position • To move robot shaft, press and hold the **square button** on top of the robot to release the brake while moving the shaft 4. Remove the jammed box. 5. Close the door. 6. Reset the E-Stop circuit by pressing the green **Reset** button. 7. Press **Start**.
Boxes are cutting poorly	1. Stop machine by pressing **Stop**. 2. Check for missing or broken blades. 3. Check blade for dullness. 4. If the blade is dull, change the blades. 5. Restart machine. 6. Run boxes and check to see that the tool is traveling where the cut needs to be. **Note:** Always check a minimum of 20 boxes before making any adjustments to the tool path. 7. If the path needs to be adjusted, log in and make the appropriate adjustments to the recipe offsets.

Issue	Correction
Boxes are being rejected for width but are within specifications	1. Close out of CASi-IBOD software user interface. 2. Push the snugger all the way open. 3. Open the front system cabinet. 4. While in zero position, reboot the PLC using the circuit breaker immediately to the right of the PLC, so that it resets the count to zero. 5. Reopen and restart CASi-IBOD software user interface.
CASi-IBOD not sending boxes to outfeed conveyor	1. Verify that all photo eyes are free from debris and functioning properly 2. Check to see that the takeaway conveyor is moving. If it is not moving, the CASi-IBOD will not let the box out of the cut zone. 3. Step2 (if conveyor is running) 4. Press the **Stop** button and wait five (5) seconds. 5. Press **Start**.
CASi-IBOD not bringing boxes in from infeed conveyor	If the conveyor is running: 1. Verify that all photo eyes are free from debris and functioning properly 2. Press the **Stop** button and wait five (5) seconds. 3. Press **Start**.

16.3 Troubleshooting Conveyors

Table 14 – General Conveyor System Troubleshooting

Issue	Check	Correction
No Zones on the conveyor will run	1. No power to the Power Supply unit 2. No lights on Power supply	1. Ensure system power is ***ON*** 2. Ensure power supply is properly connected. Check for loose connections and repair or replace any loose or damaged power supplies. 3. Check output power of the power supply
Individual Zone will not run	1. Drive card problem 2. Bad cable connection to drive card 3. Roller motor defective	1. Check all drive cards in affected conveyor section. Replace any defective drive cards as necessary. 2. Check all connections on the drive card for any loose or disconnected wires. Repair or replace any wire or connectors, as necessary. 3. Check all roller motors in affected conveyor section. Replace any defective roller motors, as necessary.
	Check Photoeyes	1. Ensure photoeye cable is fully connected to drive card. Inspect cable for cuts or abrasions. Repair or replace as necessary. 2. Ensure photoeye is aligned with the reflector opposite it. Realign, as necessary. 3. Ensure there is no debris or foreign object interfering with the operation of each photoeye.
A zone will not start after accumulation	Check O-rings and/or Poly-V belts	Ensure belts are not stretched, worn or cut. Replace any and all defective belts.

16.4 Troubleshooting Software

Table 15 – General Software Troubleshooting

Issue	Check	Correction
Program Nonresponsive	A computer, operating system, software program or driver may stop responding or cause other programs to stop responding because of several possible reasons, such as a confliction of software or hardware resources between two programs, lack of system resources, or a bug in the software or drivers.	To recover from a program that has stopped responding, a user can generally press the **CTRL + ALT + DEL** keys on his or her keyboards to open the ***Close Program*** window or open the ***Task Manager*** window and click the **End Task** button to terminate the program. If another window opens, click the **End Task** button again to confirm stopping the program.
Runtime Error 53	The runtime message can be caused by: File required by the program to run is not found. Program needs to be reinstalled or missing file(s) need to be copied back to the computer.	To recover from a runtime error, first close all open programs associated with CASI software. Reopen programs and, if the issue persists, reboot the CASI CORE controller. If Runtime errors remain unresolved, contact the CASI support staff for further assistance.
Software responsive but conveyor system not responsive	Possible causes: • E-Stop has been activated • Communication between CASI software and PLC has been disrupted • System hardware issue	To resolve this issue: 1. Ensure the E-Stop circuit has been reset. 2. Restart all CASI software. 3. Reboot CASI CORE controller. 4. Verify power is being applied to the system (check the breaker in PWD power cabinet).

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