EZ-SCREEN® LS Safety Light Screen

Semi-Annual Checkout Procedure

Perform the procedure contained on this semi-annual checkout card every six months following system installation, or whenever changes are made to the system (either a new configuration of the EZ-SCREEN LS or changes to the machine.) Semi-annual checkouts must be performed by a Qualified Person (appointed and identified in writing by the employer). Keep a copy of the checkout results on or near the machine (see OSHA 1910.217(e)(1)).

Perform the following procedure every six months following system installation:		
☐	1	Prepare for this checkout, configure the EZ-SCREEN LS as it will be during machine operation.
☐	2	Examine the guarded machine to verity it is compatible with the EZ-SCREEN LS. See the Instruction Manual (p/n *179480*) for a list of inappropriate applications.
☐	3	Calculate and record the safety distance (minimum distance) according to the formula provided in the EZ-SCREEN LS Instruction Manual (p/n *179480*). Safety Distance (minimum distance): _____
☐	4	Verify that the safety distance (minimum distance) from the closest hazard point of the guarded machine to the defined area is not less than the distance calculated above.
☐	5	Verify that: • Access to the guarded area is not possible from any area not protected by the EZ-SCREEN LS. Hard guarding or supplemental presence-sensing devices must be installed, wherever needed, to prevent any person from reaching over, under or around the defined area or entering into the hazard area. • All supplemental guarding devices and hard guarding are in place and operating properly.
☐	6	Verify that it is not possible for a person to stand inside the guarded (dangerous) area, undetected by the EZ-SCREEN LS or other supplemental guarding (as described in appropriate standards).
☐	7	If used, verify that: • The Reset switch is mounted outside the guarded area, out of reach of anyone inside the guarded area; and • The means of preventing inadvertent use, such as rings or guards), is in place.
☐	8	Examine the electrical wiring connections between the EZ-SCREEN LS OSSD outputs and the guarded machine's control elements to verify the wiring meets the requirements stated in the Instruction Manual.
☐	9	Inspect the area near the defined area (including work pieces and the guarded machine) for reflective surfaces. Reflective surfaces may cause the System beams to reflect around a person in the light screen, preventing the person from being detected and not stopping the machine motion. Remove the reflective surfaces as possible by either relocating, painting, masking, or roughening them. Remaining problem reflections will become apparent during step 13.
☐	10	Apply power to the EZ-SCREEN LS. Ensure that power to the guarded machine is off. Remove all obstructions from the defined area.
☐	11	Observe the Diagnostic Display and status indicators on the receiver to determine the system status: • Clear: Status—Solid green or flashing (if blanking is used) All alignment indicators—Solid green or flashing (if blanking is used) Run—Solid yellow Diagnostic display: — • Blocked: Status—Solid red One or more alignment indicators—Solid red Run—Solid yellow Diagnostic display: "C" "H" "1" (sync beam blocked) or the number of blocked beams • Lockout: Status—Flashing red All others: Off Diagnostic display: Error code
☐	12	If the machine is in a Clear condition, go to step 13. If the machine is in a Lockout condition, refer to the Troubleshooting section of the Instruction Manual. If the machine is in a Blocked condition, one or more beams is misaligned or interrupted. To correct this situation: 1. Check carefully for any obstruction in the beam path. 2. Check for contamination. Clean the emitter and receiver windows as required. 3. If the defined area is completely clear of obstructions, realign the emitter and receiver, as described in the Instruction Manual.

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Perform the following procedure every six months following system installation:		
☐	13	Once the Status indicator and all alignment indicators are solid green, perform the trip test (see the Daily Checkout card) to verify proper System operation and to detect possible reflection problems. **WARNING: If Trip Test Indicates a Problem** If the EZ-SCREEN LS System does not respond properly to the trip test, do not attempt to use the System. If this occurs, the System cannot be relied on to stop dangerous machine motion when a person or object enters the defined area. Serious bodily injury or death could result. **WARNING: Before applying power to the machine, verify that the guarded area is clear of personnel and unwanted materials (such as tools). Failure to do so may result in serious bodily injury or death.**
☐	14	Apply power to the guarded machine and verify the machine does not start up. Insert the test piece into the defined area and verify that it is not possible for the guarded machine to be put into motion while a beam is blocked.
☐	15	Initiate machine motion of the guarded machine, and while it is moving, insert the supplied test piece into the defined area. Do not attempt to insert the test piece into the dangerous parts of the machine. Verify that, whenever the test piece is in the defined area the dangerous parts of the machine come to a stop with no apparent delay. Upon removal of the test piece from the defined area, verify that the machine does not automatically restart and that the initiation devices must be engaged to restart the machine.
☐	16	Remove electrical power to the EZ-SCREEN LS. All OSSD outputs should immediately turn off and should not be capable to turning on until power is re-applied.
☐	17	Test the machine stopping response time, using an instrument, such as an oscilloscope, to verify that it is the same or less than the overall system response time specified by the machine manufacturer. **Important: Do not continue with this checkout procedure or operate the guarded machine until the situation is corrected and the indicators respond properly as described above.**
☐	18	If any decrease in machine braking ability has occurred, make the necessary clutch/brake repairs, readjust safety distance (minimum distance) appropriately, record the new distance calculation on the appropriate Daily Checkout Procedure card and/or in the manual, and perform the Daily Checkout procedure again.
☐	19	Examine and test the machine primary control elements (MPCEs) and any intermediary controls (such as interface modules) to verify they are functioning correctly and are not in need of maintenance or replacement.
☐	20	Inspect the guarded machine to verify that no other mechanical or structural problems could prevent the machine from stopping or assuming an otherwise safe condition when signalled to do so by the EZ-SCREEN LS.
☐	21	Examine and inspect the machine controls and connections to the EZ-SCREEN LS to verify that no modifications have been made that adversely affect the System.

Important: Do not continue operation until the entire checkout procedure is complete and all problems are corrected.

WARNING: Do not use machine until the system is working properly. If any of these checks cannot be verified, do not attempt to use the EZ-SCREEN LS/guarded machine until the defect or problem has been corrected (see the Troubleshooting section of the Instruction Manual). Attempts to use the guarded machine under such conditions may result in serious bodily injury or death.