

To Be Performed at Every Power-up, Shift Change, and Machine Setup:

For a detailed description of this procedure, see Section 6.4 of your EZ-SCREEN Grid Instruction Manual.

Daily checkout and checkouts after tooling and machine changes must be performed by a Designated Person (appointed and identified in writing by the employer). During continuous machine run periods, this checkout must be performed at regular intervals. A copy of the checkout results should be kept on or near the machine: see OSHA 1910.217(e)(1).

✓ **The Designated Person must:**

- 1) **Verify that:**
 - **Access to the guarded area is not possible** from any area not protected by the EZ-SCREEN Grid System. Hard guarding, or supplemental presence-sensing devices must be installed, wherever needed, to prevent any person from reaching around the light grid or entering into the hazard area.
 - **All supplemental guarding devices and hard guarding are in place** and operating properly.
- 2) **Verify that the minimum separation distance** from the closest hazard point of the guarded machine to the light grid is not less than the separation distance calculated in Section 3.3.1 of the Instruction Manual and recorded here: _____.
- 3) **Verify that:**
 - **It is not possible for a person to stand inside the guarded (dangerous) area, undetected by the EZ-SCREEN Grid System or other supplemental guarding (as described in ANSI/RIA R15.06, or other appropriate standards).**
- 4) **Verify that:**
 - **The Reset switch is mounted outside the guarded area**, out of reach of anyone inside the guarded area and
 - **The key or other means of preventing inadvertent use is in place.**
- 5) **Once all Beam Status indicators are steady Green, test the effectiveness of the EZ-SCREEN Grid System with power ON, using the trip test.**

5a) Trip Test

With power ON, verify that the EZ-SCREEN Grid System is in RUN mode; receiver status indicators should be as follows:

Status indicator	Green
All Beam Status indicators	Green
Reset indicator	ON
Diagnostic Display	“_” (Trip Output mode) or “L” (Latch Output mode)

5b) With the guarded machine at rest, pass the test piece downward through each beam at three points: near the receiver, near the emitter, and midway between them (see Figure 1).

- If the emitter and receiver are far apart, a second person may be needed to monitor the indicators while the test piece is used near the emitter or in the midway position.
- If corner mirrors are used in the application, the beams must be tested at three points on *each leg of the beam path* (between emitter and mirror, and also between mirror and receiver, as shown in Figure 2).

In each case, verify when the test piece is blocking a beam:

- The Status indicator is steady Red while any or all beams are blocked.
- The appropriate Beam Status indicator turns steady Red and remains steady Red while the beam is blocked.
- If the appropriate Beam Status indicator remains steady Green or flickers while the test piece is blocking the beam, check for the presence of reflective surfaces; see the information on the reverse side and/or Section 3.3.4 of the Instruction Manual. **Do not continue with this checkout procedure or operate the guarded machine until the situation is corrected and the indicator turns steady Red whenever the test piece is in the beam path.**

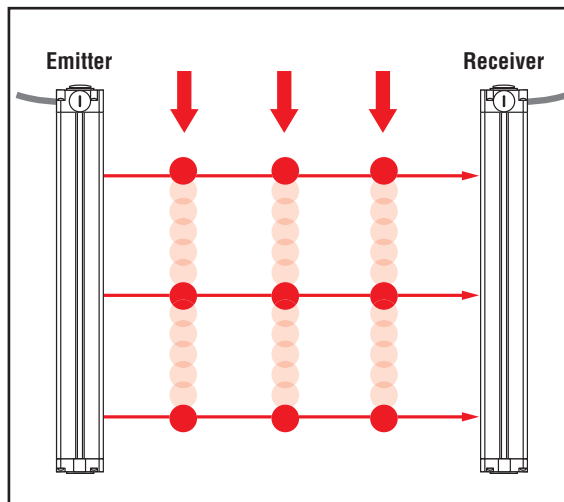


Figure 1. EZ-SCREEN Grid System trip test

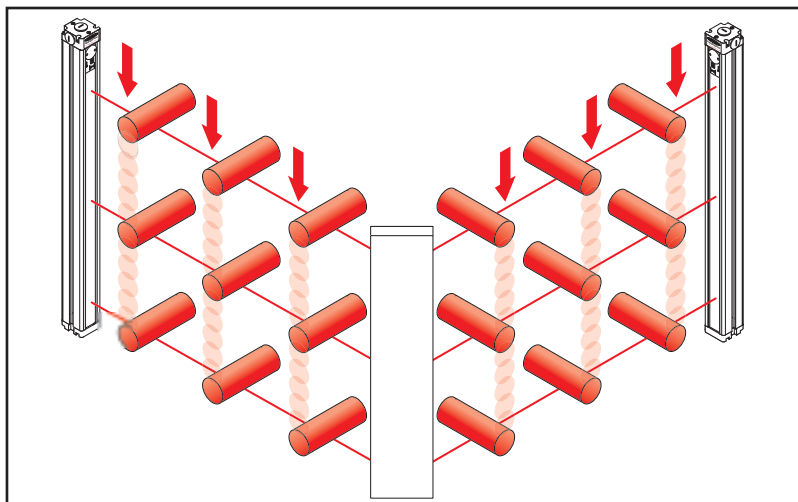


Figure 2. EZ-SCREEN Grid System trip test for corner mirror applications

NOTE: If beam 1 is blocked, all other Beam Status indicators will be OFF, because beam 1 provides the synchronization signal for all the beams.

Verify when the test piece is removed from the beam:

- The appropriate Beam Status indicator turns steady Green.
- If any Beam Status indicator is flickering, the signal is weak.
 - First, clean the lenses.
 - If cleaning the lenses does not correct the problem, realign the sensors as needed (see Section 3.6 of the Instruction Manual).
 - If the System is operating in Latch Output mode, perform a manual receiver reset.
 - Verify that the receiver Status indicator is steady Green.



WARNING . . . If Trip Test Indicates a Problem

If the EZ-SCREEN System does not respond properly to the trip test, do not attempt to use the System. If this occurs, the System cannot be relied upon to stop dangerous machine motion when a person or object enters the light grid. **Serious bodily injury or death could result.**

- 6) **Initiate machine motion of the guarded machine**, and while it is moving, use the supplied test piece to block one of the grid beams. **Do not attempt to insert the test piece into the dangerous parts of the machine.**

Verify that, when any beam is blocked:

- **The dangerous parts of the machine come to a stop with no apparent delay.**

Remove the test piece from the beam, and verify that:

- **The machine does not automatically restart, and**
- **Initiation devices must be engaged to restart the machine.**



WARNING . . . Before Applying Power to the Machine

Verify that the guarded area is clear of personnel and unwanted materials (such as tools) before applying power to the guarded machine.

Failure to do so could result in serious bodily injury or death.

- 7) **With the guarded machine at rest, block one of the grid beams and verify:**
- **The guarded machine cannot be put into motion while the test piece is blocking a beam.**
- 8) **Check carefully for external signs of damage or changes to the EZ-SCREEN Grid, the guarded machine, and their electrical wiring.** Any damage or changes found should be immediately reported to management.

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



WARNING . . . Do Not Use Machine Until System Is Working Properly

If all of these checks cannot be verified, do not attempt to use the EZ-SCREEN System/guarded machine until the defect or problem has been corrected (see Section 5 of the manual).

Attempts to use the guarded machine under such conditions could result in serious bodily injury or death.

To Eliminate Problems With Reflective Surfaces

- **If possible, relocate the emitter and/or receiver** to move the light grid beams away from the reflective surface(s), being careful to maintain adequate separation distance (see step 2).
- **Otherwise, if possible, paint, mask or roughen the surface** to reduce the reflectivity.
- **Where these are not possible (as with a shiny workpiece),** include a means of restricting the receiver's field of view or the emitter's spread of light in the sensor mounting.
- **Repeat the trip test** to verify that these changes have eliminated the problem reflection(s). If the workpiece is especially reflective and comes close to the light grid, perform the trip test with the workpiece in place.