LED Screen Earthing and Electrical Safety Checklist

Poor earthing and overloaded wiring cause shocks, fires and many 'mystery' faults such as flicker and failing power supplies. Go through this list on every installation, and get the electrical work done or checked by a qualified electrician.

When to use: During installation, before first power-on, and after any electrical change.

PROJECT / CUSTOMER _____ SITE _____

DATE _____ CHECKED BY _____

EARTH RESISTANCE READING _____ MEASURED BY _____

Supply and protection

- ☐ Screen fed from a dedicated circuit, not shared with heavy loads such as AC units or motors
- ☐ MCB rating matched to the cable size and the screen's load
- ☐ RCCB (earth leakage protection) fitted on the screen supply
- ☐ Load spread across phases on three-phase supplies
- ☐ Supply voltage measured at the screen end with the screen on full white

Earthing

- ☐ Proper earth pit or building earth available, not a water pipe or neutral
- ☐ Every cabinet and the steel structure bonded to earth
- ☐ Earth wire continuous to every power supply's earth terminal
- ☐ Earth resistance tested by an electrician and recorded below
- ☐ Neutral-to-earth voltage checked at the screen end

Cabling and power supplies

- ☐ Cable sizes suit both the current and the run length (voltage drop checked)
- ☐ Power supplies loaded with headroom below their rated output, as per the power supply datasheet
- ☐ Mains input of each power supply connected live, neutral and earth to the correct terminals
- ☐ All terminals tight, no loose strands, no exposed copper
- ☐ Power cables kept away from data cables where possible
- ☐ Cable glands, ties and clamps fitted so cables cannot rub on sharp metal edges

Safe working

- ☐ Supply isolated and locked or tagged before working inside cabinets
- ☐ Power supplies allowed time to discharge before touching terminals

- [ ] Insulated tools used, and no working alone at height
- [ ] Fire extinguisher suitable for electrical fires available on site

Notes

Signature

Date

Free to use, print and share. These checklists are shared only to help the LED screen trade: no charge, no sign-up, nothing to buy. They are general guidance, not professional or engineering advice. Always follow the manufacturer's datasheets and instructions, local electrical rules and the advice of a qualified electrician or engineer. MG TechLink accepts no responsibility or liability for any loss, damage or injury arising from their use.

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