



ACT INSTALLS — FOR BUILDERS

ACT Low Voltage Standards

The rack, cabling, conduit, and labeling specifications our crews hold every project to, printed for the jobsite.

This sheet documents the low voltage standards ACT Installs applies on every project, from a single media room to a full ACT Estate™ build. Framers, electricians, and GCs use it to coordinate rough-in without guesswork. Keep it on the clipboard through rough-in and trim.

Rack & Equipment Standards

- ☐ All active equipment lands in a dedicated rack or wall enclosure — never stacked loose on a shelf or closet floor
- ☐ Minimum 2 rack units of top and bottom clearance for cable bend radius and airflow
- ☐ Front-to-back or bottom-to-top forced ventilation required in any enclosed rack location; passive convection is not acceptable in a closed closet
- ☐ Dedicated, labeled electrical circuit(s) for rack equipment, isolated from general-purpose outlets where the load requires it
- ☐ Rack location requires HVAC conditioning — ambient temperature must stay within manufacturer operating range year-round
- ☐ All rack builds follow The Signature Rack™ layout convention for consistent serviceability across projects

Structured Cabling — Cat6/Cat6A

- ☐ Shielded Cat6A minimum for all new construction; Cat6 acceptable only on approved retrofit runs under 90 meters
- ☐ Maximum permanent link length: 90 meters (295 ft), terminations included
- ☐ Maintain minimum 12 inches of separation from electrical Romex; cross electrical lines at 90 degrees only
- ☐ No cable ties cinched tight enough to deform jacket — velcro wraps only inside the rack and at drop boxes
- ☐ Bend radius: no less than 4x cable diameter at any point in the run



- ☐ One home-run drop per device location — no daisy-chained or field-spliced data runs

Fiber & Conduit

Fiber is specified for any run exceeding 90 meters, any run crossing separate structures or outbuildings, or any run through high-EMI paths such as pool equipment pads or electrical rooms.

- ☐ Single-mode fiber for site-to-site and long-haul backbone runs; multimode acceptable for in-building backbone under 300 meters
- ☐ Minimum 1-inch smooth-wall conduit for all underground and in-slab low voltage pathways, with pull string installed at rough-in
- ☐ Separate conduit runs for low voltage and line voltage — never shared pathway
- ☐ Sweeping 90-degree conduit bends only; no hard elbows on any conduit carrying fiber or Cat6

Device Wiring Conventions

- ☐ TV locations: one Cat6A and one HDMI-rated conduit sleeve minimum, plus dedicated power on a discrete circuit sized for the display type
- ☐ In-ceiling/in-wall speakers: home-run speaker cable to the nearest rack or amplifier location — no in-wall splices
- ☐ Cameras: one Cat6A per camera location for PoE; no shared runs between camera and general network drops
- ☐ Access control (locks, gate, intercom): dedicated low voltage run per device per manufacturer spec, plus conduit sleeve at any masonry or stone penetration
- ☐ All outdoor-rated drops (ACT Outdoor™ locations) use exterior-rated cable and weatherproof, gasketed back boxes

Network & Labeling Standards

Every drop is documented before drywall. A cable that isn't labeled at rough-in gets re-verified at trim, which costs the schedule time nobody has budgeted.

- ☐ Every cable labeled at both ends with room, device type, and drop number before drywall closes
- ☐ Patch panel and rack labeling matches field labeling exactly — no renumbering at termination



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- ☐ Managed network infrastructure required on any project using The Estate Network™ design standard
 - ☐ As-built documentation delivered to the GC and design team at project closeout, matching field labels
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Questions on a specific rough-in condition or spec exception — reach out to your ACT Installs Luxury Technology Advisor before pulling wire.