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CABLING
RECOMMENDATIONS FOR
CATEGORY 5 CABLING
INSTALLATIONS

Standards which will be adhered to when carrying out Category 5 cabling installations.

- All cables and connectors used by ES Systems comply with EIA/TIA 568 Category 5 specifications, and conform with Commercial Buildings Wiring Standards.
- All cables are tied and dressed tidily.
- The same type of cable is used throughout one job.
- Health and Safety dictates that cables cannot run within 6cm of high power electrical cables unless a non-conducting barrier is used.
- Likewise, cables must not run within 0.5m of electrical devices such as fluorescent light fittings.
- Cable length is recommended to be no more than 100 meters.

Installation

- All multiple interconnections must be within TSB specifications. This is ensured as copper cabling is within TSB36 specifications, and hardware such as patch panels and wall outlets is within TSB40 specifications.
- Each outlet installed can be used for either data or voice as the same cable specification is used.
- All cables are fixed securely so that there are no loose cables.
- If trunking is used to fix cabling, it will not be filled to over 75% capacity in order that any future expansion may take place.
- All cables are installed flat where possible.
- No cabling will exceed the recommended length for that particular type of cable or usage.
- Cables will not be put in lift shaft or near lighting conductors.
- Fire barriers are used when cables enter ventilation shafts or areas which house water pipes.
- Cables are never run through air-conditioning plenums (metal box where the air is channelled).
- Cables are laid with a minimum number of crossovers so that they are of neat and tidy appearance.

Wiring

- In order to support cables, cable trays and/or trunking is used.
- Nylon tie wraps are used to tie vertical cables to the cable tray.
- Cables are supported within 250mm of final termination.
- Fire barriers are installed if cables pass between floors, enter ventilation shafts or areas which house water pipes.

Patch Panels (a panel of network ports contained together)

- In order to guarantee multiple interconnections, all patch panels must be within TSB40 specifications.
- A fully integrated voice and data communications system is provided as all Twisted Pair horizontal cables (2 wires twisted around one another) are terminated around one patch panel.
- Each socket can be recognised as all will be labelled.
- All patch panels are housed within plastic trunking or cable guides, and are close to each other, to ensure cables are neat and tidy.

Testing

- All copper cables are tested on the completion of each job .
- All cables are tested to ensure they are functioning properly.
- ES Systems Ltd will provide documentation of cable lengths and test results which is accepted by ES Systems.
- Prior to installation, the customer must agree to the test procedure.
- ES Systems Ltd is responsible for supplying the materials on time.
- ES Systems Ltd is responsible for providing the test equipment and any spares required for the job.

For all work carried out, a warranty and a maintenance contract will be supplied (this needs to be agreed).

Any spares left on site must be accounted for.

Labelling and Documentation

- All outlets are uniquely labelled. Corresponding patch panel sockets are also labelled.
- Labelling is hardwearing and readable at all times.
- All cables, information outlets and patch panel configuration is detailed on drawings which also contain evidence of testing that has taken place.

Training

Training will be provided to the customer on the use of patch panels and other equipment.