

AX Series

Category 5E Installation Do's and Don'ts.

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| Do | Use underground grade Cat5e cable for all underground cable runs. This includes runs in concrete slabs where the conduit is prone to filling up with water. |
| Do Not | Use standard Cat5e cable for underground runs. The jacket is not waterproof and the performance of the cable will degrade over time effecting the quality of the signal transmission. |
| Do | Run all cables in a "Star" configuration. That is to say that they all emanate from, and are "homerun" to, one central location, where the AX-CCU will be installed. |
| Do | Keep all cable runs to a maximum of 300 meter (for each run). IMPORTANT! This is an AX Series specific distance. |
| Do | Maintain the twists of the pairs all the way to the point of termination, or no more than 12mm untwisted |
| Do Not | Skin off more than 25mm of jacket when terminating |
| Do | Make gradual bends of the cable, where necessary. No sharper than a 25mm radius. |
| Do Not | Allow the cable to be sharply bent, or kinked, at any time. This can cause permanent damage to the cables' interior. |
| Do | Dress the cables neatly with cable ties. Use low to moderate pressure. |
| Do Not | Over tighten cable ties. Hook and Loop (Velcro) Cable Ties work very well for commercial installations. |
| Do | Cross-connect cables (where necessary), using cat 5E rated punch blocks and components. |
| Do Not | Splice or bridge category-5E cable at any point. There should never be multiple appearances of category 5E cable. |
| Do | Use low to moderate force when pulling cable. |
| Do Not | Use excessive force when pulling cable. |
| Do | Use cable pulling lubricant for cable runs that may otherwise require great force to install. (You will be amazed at what a difference the cable lubricant will make) |
| Do Not | Use oil, or any other lubricant, not specifically designed for cable pulling. Oil, or other lubricants, can infiltrate the cable, causing damage to the insulation. |
| Do | Keep cat 5E cables as far away from potential sources of EMI (electrical cables, transformers, light fixtures, etc.) as possible. |
| Do Not | Tie cables to electrical conduits, or lay cables on electrical fixtures. |
| Do | Install proper cable supports, spaced no more than 1.5 meter apart. |
| Do Not | Install cable that is supported by the ceiling tiles (this is unsafe, and may be a violation of building codes). |
| Do | Always label every termination point. Use a unique number for each cable segment. The idea here, is to make any changes and troubleshooting as simple as possible. |
| Do | Always test every installed segment with a cable tester. "Toning" alone, is not an acceptable test. |
| Do | Always install jacks in such a way as to prevent dust and other contaminants from settling on the contacts. The contacts (pins) of the jack should face up on flush mounted plates, or left, right, or down (never up) on surface mount boxes. |
| Do | Always leave extra slack on the cables, neatly coiled up in the ceiling or nearest concealed place. It is recommended that you leave at least 2 meter at the door station side, and 3 meter at the CCU side. |
| Do Not | Never install cables "taught" in the ceiling, or elsewhere. A good installation should have the cables loose, but never sagging. |
| Do | Always use grommets to protect the cable where passing through metal studs or anything that can possibly cause damage to them. |
| Do | Choose either 568A or 568B wiring standard, before you begin your project. Wire all jacks and patch panels for the same wiring scheme (A or B). |
| Do Not | Mix 568A and 568B wiring on the same installation. |
| Do Not (1 exception) | Use staples on category-5E cable that crimp the cable tightly. The common T-18 and T-25 cable staples are not recommended for category 5E cable. The T-59 insulated staple gun is ideal for fastening cat5 & 6 and fiber optic cabling as it does not put any excess pressure on the cable. |
| Do | Always obey all local, and national, fire and building codes. Be sure to "firestop" all cables that penetrate a firewall. |