

# The Ten Biggest Access Control Installation Mistakes You Can Make and How to Avoid Them



- 1. NOT INSTALLING SURGE PROTECTION.** We recommend surge protection on all data lines and reader cables, as well as for plug-in power supplies at each panel. Remember that surge protectors need a good path to Earth Ground to work properly. While nothing can prevent damage from a direct lightning hit, surge protectors will prevent damage from nearby lightning strikes, which can disable your system.



- 2. POWERING DOOR STRIKES AND MAG LOCKS FROM THE SAME SUPPLY AS THE PANEL** (or standalone unit). Strikes and maglocks can send voltage spikes back through the power supply into an access control panel, causing circuit damage or data errors. Purchase separate power supplies for each door locking device.

- 3. NOT ORDERING SPARES.** For every 10 doors in a system, we recommend having one control panel PCBA and two readers on hand, in case of a direct lightning hit or other catastrophic problem. This will get your system back on line, without waiting for equipment to be ordered and shipped. This also reduces trips back to the shop for the installer.



- 4. USING THE WRONG CABLE.** With Secura Key, you can use twisted pair cable such as CAT5 or CAT6 for RS-485 communications (from panel to panel or back to the PC). Wiegand communications (from reader to panel) requires non-twisted cable, such as 6-cond shielded (the same as for RS-232 connections). System installation manuals will call out the correct cable for every application.

- 5. NO EXPERIENCE WITH DOOR HARDWARE.** If you are experienced with electronics, software, alarm systems, CCTV, and other low voltage equipment, don't assume that you can competently install an electric strike, mag lock or electrified lockset. You can make a mess of an expensive commercial door frame or door, if you have no hardware installation experience. When in doubt, subcontract a locksmith to handle the door hardware.



- 6. NO EXPERIENCE WITH ELECTRONICS.** If you are experienced with door hardware, etc, but not familiar with electronics, software, and low voltage equipment, don't try to fake your way through the installation. When in doubt, subcontract an access control installer to handle the wiring, software installation and any network interfaces. If you can't find an access control installer, home automation or alarm installers are generally familiar with similar types of equipment.

**7. ORDERING WRONG READERS.** If you are adding on to an existing system, you need to be 100% certain of the make, model and part number of the existing readers. Don't send the manufacturer or distributor a picture of the reader, because a lot of different readers use the same plastic housing. Go to the jobsite or get someone at the jobsite to find a screwdriver, remove the reader from the wall or mounting plate and read the ID label on the inside of the reader. Get all of the information, including firmware versions and output formats.



**8. ORDERING WRONG CARDS.** If you are adding cards to an existing system, knowing the data format, facility code and card ID Number range of the existing cards is critical. The technology (prox, contactless, Wiegand, mag stripe, etc) and brand of the new cards must be identical or guaranteed compatible with the existing cards. The facility code of the new cards should match the existing ones. While some systems will allow you to mix different facility codes, the ID numbers of the new cards cannot duplicate any of the existing ID numbers, and should not exceed the upper limit of the system (many systems only accept cards up to 65535). If you make a mistake when ordering cards, most companies will not take custom encoded cards back, so you may get stuck with some very expensive cards.



**9. NOT PRE-STAGING THE SYSTEM.** Experienced installers never go to the jobsite without first trying to hook up and test the equipment at their shop or offices, especially if it is the first time they have installed a particular brand of equipment. Unpack all the equipment, place it on a large table, get out the manual, and connect all the components together using short cables. If you encounter difficulties, or if the products don't work the way you anticipated, this gives you enough time to contact tech support and resolve the issues. This way, when you get to the jobsite, your customer will think you are the best in the business!

**10. NOT BUYING SECURA KEY.** With Secura Key, you get all the basic access control features, plus integrated badge printing and integrated video for 30-70% less than the competition. **If you're not installing Secura Key, you're paying too much!**

Product	Description	Dealer Price*
<b>Secura Key e*ACCESS 1</b>	<b>Panel, 2 readers, power supply, software</b>	<b>\$620.99<sup>1</sup></b>
Honeywell Rocket Box NC-Rocket 2P	Panel, 2 readers, power supply, software	<b>\$1,960.99<sup>1</sup></b>
Keyscan 2-KitSM	Panel, 2 readers, power supply, software	<b>\$1,573.34<sup>3</sup></b>
Paxton Access 634-112-US	2 Panels, 2 readers, power supply, software	<b>\$1,465.00<sup>2</sup></b>
GE Security TPZSYSA	Panel, 2 readers, power supply, software	<b>\$1,285.99<sup>1</sup></b>
IEI™ Hubmax III, w/2 door modules	Panel, 2 readers, power supply, software	<b>\$1,054.99<sup>1</sup></b>
Keri TDK500 2-door kit	Panel, 2 readers, power supply, software	<b>\$955.07<sup>3</sup></b>

\* This comparison illustrates relative pricing for a complete 2-door access control kit, with panel, software, power supply, and 2 card readers. If the manufacturer did not offer a complete kit, we added the missing components. We obtained pricing from major security equipment distributor catalogs and websites – these prices were not provided by the manufacturers themselves. You may find any of the systems above for a lower or higher price than listed. The systems listed above are full-featured products – you can buy a system with reduced capabilities for less. Price Sources: 1 – ADI, 2 – Fairfax Electronics, 3 – Gemini Computers. • All trademarks or registered trademarks are the property of their respective owners.

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