



Protecting you and your property...

Purchasers Guide

Access Control Systems

Your FREE Guide on how to assess and choose the correct System for your premises

Are you covered?

Call us on 0845 257 0090 to talk to one of our advisers

Or email us sales@justicesecurity.co.uk

www.justicesecurity.co.uk



Introduction

Welcome to our purchaser's guide on Access Control Systems. This guide has been put together by our experts who have over 100 years of experience between them. We hope to be able to guide you through what can often be a daunting task of choosing the correct Access Control system for your Business along with the right company to install it.

There are many types and levels of Access Control System, but which one is suitable for your premises? Some of the questions you may be asking yourself are:

- Do I need an Access Control System?
- What type of system do I need?
- What type of equipment is required?
- What areas need to be covered?
- What standards and regulations do I need to comply with?
- How do I choose a reputable company?
- What on-going service and maintenance do I require?

1 | Where to start

You need to determine why you need an Access Control System and what type. You may have been prompted by your insurance company (usually due to having a lot of expensive stock) or you may have a stock shrinkage problem, providing protection to lone workers, health and safety requirements, monitoring customers or you may wish to integrate it with other systems such as fire alarm and CCTV

2 | Your Legal Requirements

All Companies in the UK must comply with the Data Protection Act. Guidance on using Access control is given in the code and this is available from the commissioner's office. Enough signage should be displayed on your premises to warn people coming onto the site that they are being monitored.

3 | Choosing a Competent company

Choosing the right company to design, install and maintain your Access Control System is extremely important. Having a system fitted to your building can be disruptive and involve a lot of work with drilling and running cables throughout the building.

How long has the Company been established?



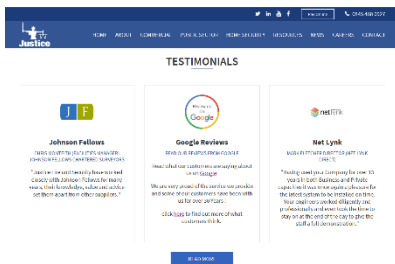
A well-established company that has been trading for many years will have many thousands of installations under their belt and be familiar with your type of premises. They will have a large customer base and be less likely to go out of business during an economic downturn. A privately-owned company will tend to give you a more personal service as opposed to a multi-national one.

What accreditations do they have?

Many companies have set themselves up and claim to be competent Access control installers, electrical contractors, alarm companies and IT companies. The only way to be sure that a company follows the strict guideline of the standards required is to make sure that they are part of a registered inspectorate scheme such as NSI Fire Silver or Gold. Under these schemes which are insurance recognised, the installing company is inspected every six months and has to adhere to strict high standards (NSI Gold companies also benefit from having a quality management system to ISO 9001).



Can the company provide you with testimonials?



A company that can provide testimonials is confident in what they do and keen to show how happy their customers are with the service they received. A quick way to find this information is to search the company on *Google* or social media such as *Twitter*.

Do they employ all their own trained staff?

Some companies use sub-contractors extensively. In fact, some companies are a lot smaller than envisaged and may only employ the surveyor and then sub-contract the actual work as required. Ask if the company employs **ALL** or the majority of their own engineers **directly** and whether they have an extensive training program. Are the installation engineers qualified in what they do?

Do they carry the right level of Insurance?

In the unfortunate event of an accident, or if the system fails after installation and your business suffers, you want to be sure the company carries all the correct insurance. In theory, a company that is part of an inspectorate such as NSI will be checked each year for compliance, but it does no harm to ask for a copy.

Check they have **ALL** the following:

- **Employers liability** to cover their own staff in the event of an accident
- **Public liability** to cover damage or injury to clients and their property
- **Failure to perform and efficiency cover extending to wrongful advice** to cover any failure of the equipment or wrongful advice after installation.



What sort of customer care do they provide. Many contractor type companies will only install the system and want to walk away after this and once they have been paid. Regular monitoring and maintenance of your system is important. Make sure the company you are dealing with have a 24/7 support service and can carry out the required preventative and corrective maintenance if and when required.

4 | Types of Access Control System

There are several different types of Access Control System on the market and these can be defined into 3 types.

- **Simple Audio/Video door entry.** These types of system are of the simplest design and easiest to install, they are usually only used when one or two doors need controlling. The system would consist of an outside panel which could have a simple press button and audio device that will ring a telephone type handset within the building and the operator can then release the door to the visitor. These units can be fitted with a keypad or proximity reader so that authorised personnel can let themselves in. these systems can also be fitted with a small camera and the internal handset will have a monitor, so the operator may see who they are talking to.

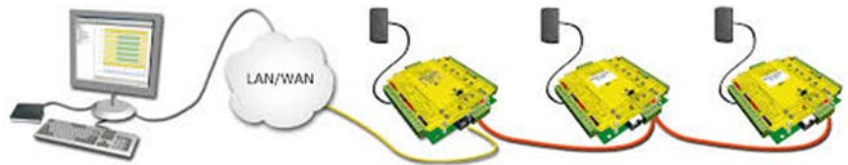


- **Standalone system.**



The simplest standalone system will have a keypad or proximity reader adjacent to the door it controls. Its equipment is located near to the door on the secure side. Authorised users gain access through the door by inputting their code or presenting their card or tag to the reader.

- **Networked system.** These systems are usually recommended when there are more than 3 doors in use and the benefits of a PC



based network system are far superior to the two other types of system above. The system can log who is in the building, what time they entered and left, control different doors at different times and days and limit certain people to certain areas.



They can be linked to your buildings fire alarm system so that in the event of a fire alarm activation all doors on the system will release giving an easier evacuation of the building. CCTV systems can be integrated so that images of who entered a room can be logged into the event log.

These systems can also incorporate biometric (Fingerprint) readers as well as the traditional keypad or tag the advantage with biometrics is whilst a code can be copied, or a tag passed onto another person the finger print cannot be forged and it ensures it is that person that went into the building.

Networked systems can also be used across the internet so that buildings in different geographical areas (even different countries) may be controlled from one central location as one large multi-site system, conversely, they can be operated via smart phone or tablet.

5 | Access Control Devices

A networked system will consist of a Controller above each door and a central interface to the ethernet LAN. In all cases systems require additional devices such as locks and emergency break glass call points.

Electric strike lock

The electric strike lock is basically a normal latch type keep with an electric armature that will release the door once energised. The unit can be set as fail secure (whereby the lock remains locked in the event of a power failure) or fail safe (whereby the lock releases in the event of a power failure). Because the unit is a mechanical design it can wear out frequently when used on a door with a lot of traffic



Maglock



The electromagnetic lock or Maglock for short consists of a metal plate fitted to the door and an electro magnetic armature. These locks are very strong and can be typically fitted with 300-1200 lb breaking strain more often the door or its casing would break before the lock does. They are used in more secure areas or areas with frequent traffic as there are less mechanical moving parts than the traditional strike lock above.

Emergency break glass unit

The emergency break glass unit is fitted on the secure side of the door and is used in an emergency by breaking the glass power is disconnected to the locking mechanism and the door is released enabling egress from the building.



Push to exit (PTE)



In a basic system where the need for logging people out of the building is not required The Push to exit button or PTE is used to egress the building from the secure side. They can also be fitted in office receptions for example to enable staff to release the door to let visitors out.

Proximity Reader

The proximity reader is fitted adjacent to the door and is operated by a proximity tag or card which when presented will release the door for a pre-determined time allowing access before locking again. Proximity readers can be internal type (as illustrated) or more heavy-duty vandal and water-resistant outside units.



Keypad

The keypad is used to release the door when a pre-programmed code is entered. On a stand-alone system only one code is available but on a networked system many codes can be entered and allocated to different users. Keypads can either be internal or external vandal resistant.



Exit PIR



Exit PIRs are often seen in retail situations or in office receptions. They detect people approaching and will release the door without any other intervention.

Gates and Barriers

Gates and Barriers can be integrated into an access control system quite easily in most cases, negating the need for a traditional gates house and the staff to run it.



Biometric readers



Biometric readers are by far the most secure device being able to read fingerprints, Iris or Palms and therefore cannot be defeated like a keypad or tag reader.

Door entry Panel (Audio/Video)

Door entry panels are situated at the entrance to a building where visitors need to gain access. They can be audio only or audio/video. They can have a simple press button or can integrate keypads and proximity readers. They can be a standalone unit or form part of a complex networked system.



Door entry handset (Audio/Video)



The door entry handset is used in conjunction with the external door entry panel. The handset is used to have an audio or video conversation with the visitor outside and can then release the door if required.

External Door Locks

Access control systems should not be the only means of securing an outside door when the building is unoccupied in case of a major system failure the building could be left insecure. Traditional secondary locking should be used on external doors.



Fire alarm Interface

A building with a fire alarm system should be integrated with the access control system so that in the event of a fire alarm activation all doors are released enabling easy egress. Certain security risks (e.g. control rooms, Banks jewellery shops and such like) may be exempt from this due to malicious activation of the fire alarm to enable the intruder into the secure area.

6 | The Survey process

Following your enquiry, the surveyor or designer should make an appointment to visit your premises which should be a **FREE no obligation** consultation. Depending on the size and complexity of the building and the type of business trading from the property, the surveyor will need to spend time with a representative of the business to discuss the risk assessment and any insurance requirements.



The surveyor should carry out a comprehensive walk of the building and make various notes. They should then go away and send you a design proposal and firm quote to install the system. Make sure the quote is fixed and that it includes the cost of ongoing maintenance and monitoring. Some companies will not give this information at the outset and offer a cheaper installation price and then once accepted and installed, will offer a very high maintenance and call out package. You should obtain **ALL** prices up front before contracts are exchanged.

7 | Cost

The cost of the system will vary greatly depending on the number of doors and type of devices. Don't just look at cost when comparing quotes to the layperson one system can look like another but the difference in cost can be enormous due to the features, build quality etc. you should include the cost of annual servicing (its pointless having a system that just when you need it most has failed because it wasn't regularly inspected). The system will be an asset to your business and as such can be written off over many years. Finance facilities are often available for very large systems.

8 | The installation, commissioning and handover process

Installation

Once you have made all of the above checks, received suitable quotes and designs and are happy to go ahead with your chosen provider, the company should be able to give you a firm start date upon acceptance.

Before installation, the company should issue a method statement and risk assessment these may well arrive with the engineer on the first day of installation

On the first day of installation, the engineer(s) should identify themselves to a representative of the customer's company. The engineers should carry ID and would normally be wearing company uniform.

They would discuss with the customer what they intend to do, any risk assessments they should be aware of and what areas they will be working in. They should be as clean and tidy as possible keeping noise down as best as they can (note that a wired system can cause some disruption as the buildings fabric will require holes drilling through and cables clipped extensively).

The installation engineers may need to liaise with other providers such as your electrician, IT support or telecoms provider.

The engineers should start the job and continue each day until the system is fully installed and awaiting commissioning.

Commissioning & Handover



Once physically installed and powered up, the engineers will carry out the various tests on the new system to make sure it complies and is working in accordance with parameters. This will involve activating the system many times.

Once the system is commissioned, the engineer should give a full demonstration of how to use the system and its operation. The engineer should give advice on carrying out any testing and provide a log book for the system. Upon completed handover, the installation and commissioning certificates along with the NSI Certificate of Conformity should be issued.

9 | Ongoing service and maintenance

As mentioned above, before signing any contract to install the system you should be aware of the ongoing maintenance and monitoring costs. An Access Control System will need servicing by a competent company at least once every 12 months (more often with more complex and larger systems). The company should also have a 24/7 emergency service and be capable of attending the premises around the clock within 4 hours.



The routine **preventative maintenance** checks are carried out to ensure your system is working correctly (just like a MOT on a car) however, the system can develop a fault between checks. Faults should be reported to the maintenance company immediately who should arrange a prompt response to the site to carry out **corrective maintenance** of the system.

If your system has been installed and maintained correctly and of good quality products, there is no reason why your investment should not last for 10-15 years.

Conclusion

We hope this guide has been of use to you. If you have any questions or would like some advice, please do not hesitate to contact us. We also provide guides on our other disciplines such as intruder, fire alarm and access control Systems.

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Or email us sales@justicesecurity.co.uk

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