SECURA KEY
NOVA.16 Access Control System Worksheet

The SECURA KEY access control system using one or more NOVA.16 control panels supports up to 16 smart readers per panel. The system is programmed using SK-NET™ software running on a Windows computer (XP, Vista, Windows® 7 and 8). The numbered steps below will help you design a system, develop an equipment list and a total cost. This worksheet allows you to build a system based on our 4-door system kits, or by ordering individual components.

HOW MANY READERS? Typically you will need one reader per controlled door – cardholders will exit using a Push bar, Touch bar, REX push-button, or REX PIR. When using Anti-Passback to track and control cardholder IN/OUT movement, TWO readers will be required per door, one on either side, but you must still comply with local fire safety regulations regarding emergency exits.

Build a System with NOVA.16 4-door Kits (Steps 1-4)

Save up to 20% on hardware costs by using our 4-door kits to configure your system. NOVA.16 4-door kits feature either Secura Key's e*Tag® smart card technology, or Radio Key® proximity technology. Each kit has a control panel, four readers, a power supply and SK-NET-DM basic software. The panel will connect directly to your TCP/IP network.

To build a system, choose a four-door kit, and then add a Smart Reader for each additional door. Cards are purchased separately. Note: If you are using 4-door kits, please review the rest of the Worksheet, which discusses other components not included in the kits, such as spares, Wiegand interface modules, lightning suppression, network modules, power supplies, cable and door locking devices.

1) Select a 4-door kit

To select a kit, choose the appropriate card technology (e*Tag® – more security, Radio Key® RKDT – compatibility with HID® and other SECURA KEY products), and then determine if you need mullion or switchplate sized readers.

Kit Part Number	Kit Description
SK-MRCP-4RKDT-M	Control Panel, SK-NET-DM software, manual, power supply, 4 RKDT Mullion Readers, Secura Key Radio Key® Proximity Technology also HID Prox compatible*
SK-MRCP-4RKDT-S	Control Panel, SK-NET-DM software, manual, power supply, 4 RKDT Switchplate Readers, Secura Key Radio Key® Proximity Technology also HID Prox compatible*
SK-MRCP-4ET8SR-M	Control Panel, SK-NET-DM software, manual, power supply, 4 ET8SR Mullion Readers, Secura Key e*Tag® Contactless Smart Card Technology – DES Encrypted data
SK-MRCP-4ET8SR-M	Control Panel, SK-NET-DM software, manual, power supply, 4 ET8SR Decora Readers, Secura Key e*Tag® Contactless Smart Card Technology – DES Encrypted data

(_____) X (_____) = (_____)
# of kits cost each Total Cost

* HID® Compatible with 26-bit or 34-bit card data formats.

2) Smart Readers

If you have more than 4 doors, purchase additional smart readers with the same card technology as the kit you ordered, and select either Mullion or Switchplate readers as appropriate. If you have more than 16 doors, order additional NOVA.16 4-door kits and smart readers as required.

RKDT-SR-M	Reads Secura Key 26/32 bit prox cards or HID 26/34 bit cards – mullion/doorframe
RKDT-SR-S	Reads Secura Key 26/32 bit prox cards or HID 26/34 bit cards – Switchplate/US J-box
ET8-SR-X-M	Reads Secura Key 26/32 bit e*Tag® contactless cards– mullion/doorframe
ET8-SR-X-D-W	Reads Secura Key 26/32 bit e*Tag® contactless cards– Decora® Switchplate/White, US J-box, indoor only

(_____) X (_____) = (_____)
# of readers cost each Total cost

3) Cards

Minimum order quantity for cards and tags is 50. (Packs of 25 are available from stock, but you have no choice of the facility code or card numbering.) Match the card technology to the reader technology ordered. Cards have various form factors – see the table below. Purchase one card for each person who will use the system, plus about 10% spares (to replace lost or damaged cards or to add new cardholders).

Radio Key® Credentials	
RKCM-02	Secura Key proximity molded clamshell cards with portrait slot (26 or 32-bit)
RKCI-02	Secura Key proximity ISO dye-sub printable cards, glossy, white (26 or 32-bit)
RKKT-02	Secura Key proximity key fobs with key ring slot, Black plastic (26 or 32-bit)
E*Tag® Credentials	
ETCI-04	Secura Key contactless ISO dye-sub printable cards, glossy, white (26 or 32-bit)
ETST-03	Secura Key contactless PVC keytags with key ring hole, (26 or 32-bit)

(_____) X (_____) = (_____)
# of cards/tags cost each Total cost

4) Components by Others

CABLING :

- CAT5 cable to interconnect additional NOVA.16 panels
- CAT5 and 18/2 cable to run data and power from the NOVA.16 panel to all Smart Readers
- Any network hookup cables with RJ45 connectors required to connect NOVA.16 panels to the Network
- Additional 18/2 cable for lock, power and accessory connections.

(_____) X (_____) = (_____)
Ft. of CAT5 / twisted pair cost / foot Total cost

(_____) X (_____) = (_____)
RJ45 hookup cables cost each Total cost

(_____) X (_____) = (_____)
Ft. of 18-2 cable cost each Total cost

LOCKS / OPERATORS:
Purchase locks or gate operators and their separate power supplies and cabling for all controlled doors in the system. Auxiliary controls, such as request-to-exit buttons, or door monitor sensors, can also be obtained from your gate, security or low-voltage equipment supplier. Secura Key only sells US power supplies -International customers must purchase power supplies locally.

(_____) X (_____) = (_____)
Locks/Operators cost each Total Cost

(_____) X (_____) = (_____)
additional components cost each Total Cost

Total System Cost (Using Kits)
Add all the numbers in all Total Cost lines together

TOTAL SYSTEM COST: $_____

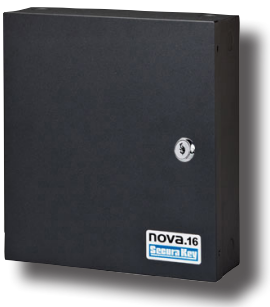
Build a System Using Individual Components. (Steps 1-8)

1) Control Panels

Purchase one NOVA.16 control panel for every 16 controlled doors (readers). Select the SK-MRCP–NE model if you are mounting control panels in a larger enclosure that you are providing.

SK-MRCP-LE	Control Panel, with enclosure, connectors
SK-MRCP-NE	Control Panel, no enclosure, with connectors

(_____) X (_____) = (_____)
# of panels cost each Total cost



2) Smart Readers

Purchase one smart reader per controlled door with the desired card technology, and choose either a Mullion or Switchplate configuration as appropriate. Optional: Purchase 10% spare readers to have units on hand in case of reader failure due to vandalism, lightning, etc.

RKDT-SR-M	Reads Secura Key 26/32 bit prox cards or HID 26/34 bit cards – mullion/doorframe
RKDT-SR-S	Reads Secura Key 26/32 bit prox cards or HID 26/34 bit cards – switchplate/J-box
ET8-SR-X-M	Reads Secura Key 26/32 bit e*Tag® contactless cards– mullion/doorframe
ET8-SR-X-D-W	Reads Secura Key 26/32 bit e*Tag® contactless cards– Decora® White switchplate/J-box, indoor only
SK-WIO-1	To connect a keypad, long-range reader, or non-Secura Key brand Wiegand-output reader to the NOVA.16 panel, use the SK-WIO-1.
	Wiegand Interface allows non-Smart Readers (SK-KPM/S, RK-WL, ET9-RO-MR) or 26-bit non-Secura Key brand Wiegand Output readers to be used with NOVA.16- fits in standard J-Box

(_____) X (_____) = (_____)
# of readers cost each Total cost

3) Cards

Minimum order quantity for cards and tags is 50. (Packs of 25 are available from stock, but you have no choice of the facility code or card numbering.) You must order the correct card/tag type to match the readers selected. Purchase one card for each person who will use the system. Optional: order about 10% spare cards (to replace lost or damaged cards or to add new cardholders).

Radio Key® Credentials	
RKCM-02	Secura Key proximity molded clamshell cards with portrait slot (26 or 32-bit)
RKCI-02	Secura Key proximity ISO dye-sub printable cards, glossy, white (26 or 32-bit)
RKKT-02	Secura Key proximity key fobs with key ring slot, Black plastic (26 or 32-bit)
E*Tag® Credentials	
ETCI-04	Secura Key contactless ISO dye-sub printable cards, glossy, white (26 or 32-bit)
ETST-03	Secura Key contactless PVC keytags with key ring hole, (26 or 32-bit)

(_____) X (_____) = (_____)
# of cards/tags cost each Total cost

4) Power Supplies

Order one power supply for each panel. These supplies power the panel and smart readers. They do not provide power for door locking devices or gate operators. These supplies are for 120VAC US power only. International customers must purchase power supplies locally.

SK-ACP-PS	Plug-in 24VDC Power Supply w/ 12V, 4AH Standby Battery (powers up to 12 smart readers)
SK-24VDC	Plug-in power supply only with screw terminals (powers up to 12 smart readers)
SK-XFRMR	Plug in 40VA 16.5VAC transformer with screw terminals (powers up to 16 smart readers)

(_____) X (_____) = (_____)
# of power supplies cost each Total cost

5) Software

Which software version do you need? Basic SK-NET™ provided in the 4-door kit, manages one location from one, locally connected computer. Upgrade versions allow multiple locations, remote sites and multiple workstations.

		Cost Each
SK-NET-DM	Basic software, one PC, one LAN connection or one location.	_____
SK-NET-MLD	Multiple locations via dial-up modem or multiple TCP/IP connections	_____
SK-NET-MLD-C/Sx	Client/Server version has features of SK-NET-MLD plus multiple Workstation access and five software user levels. 'x' = number of workstations, select 2, 5, 10, 15	_____

Total Cost: _____

6) PC Connection

You can choose to hard-wire the system to a PC or just plug in a laptop when you want to do programming. NOVA.16's built-in Ethernet port addresses most PC connection issues by placing the panel on the same network as the PC running the SK-NET software. Additional NOVA.16 panels can be daisy chained from first panel using RS485 over twisted pair (CAT5), or all panels can be connected via TCP/IP by upgrading to SK-NET-MLD software. In cases where a wired TCP/IP connection is unavailable, other methods such as a wireless LAN adapter, serial communications (RS-232 up to 100 feet, or RS-485 for 100 to 4000 feet), modems, or temporary connections can be made using the following accessories.

SK-USB	USB-to-Serial Adapter for PC's with no serial COM port
SK-RS232E	Cable for temporary connection to panel from laptop COM port.
SK-PLUG9	DB9 plug + pigtail for permanent RS-232 connection from PC COM port.
NETCONV-P	RS-232 to RS-485 converter w/power supply, panel over 100' away from PC
SK-MDM	External 56K modem, configured for SK-NET™ - for remote panel location. Requires upgrade to SK-NET-MLD software
SK-WLSE-MOD	Plug-in module for connection of a panel to a wireless LAN

(_____) X (_____) = (_____)
# of units cost each Total Cost

7) Lightning Protection (optional)

In areas with high lightning activity, we recommend lightning protection devices for data cables connecting between panels and from Smart Readers to the panels. Surge protection will minimize circuit damage from nearby lightning strikes. At a minimum, we recommend: 1 DTK-XR per Smart Reader and 1 DTK-XR per panel (if using an RS-485 connection).

(_____) X (_____) = (_____)
# of readers cost DTK-XR Total Cost

8) Cabling, Components by Others

CABLING:

- CAT5 cable to interconnect all NOVA.16 panels (no connectors required)
- CAT5, (CAT5e or CAT6) and 18/2 cable to run data and power from the NOVA.16 panel to all Smart Readers (no connectors required)
- Any 6-conductor, 20 or 22AWG shielded cable required to make Wiegand connections with SK-WIO-1 adapters, or RS-232 serial connections from the PC to NOVA.16
- Any network hookup cables with RJ45 connectors required to connect NOVA.16 panels to the Network
- Additional 18/2 cable for lock, power and accessory connections.

(_____) X (_____) = (_____)
RJ45 Hookup cables cost each Total Cost

(_____) X (_____) = (_____)
Ft. of CAT5 / 2 twisted Pair cost / foot Total Cost

(_____) X (_____) = (_____)
Ft. of 18-2 cable cost / foot Total Cost

(_____) X (_____) = (_____)
6-conductor shielded cable cost/foot Total Cost

LOCKS / OPERATORS:
Purchase locks or gate operators and their separate power supplies and cabling for all controlled doors in the system. Auxiliary controls, such as request-to-exit buttons, or door monitor sensors, can also be obtained from your gate, security or low-voltage equipment supplier. Secura Key only sells US power supplies -International customers must purchase power supplies locally.

(_____)	X	(_____)	=	(_____)
# Locks/Operators		cost each		Total Cost
(_____)	X	(_____)	=	(_____)
# additional components		cost each		Total Cost

Total System Cost (Using Components)
Add all the numbers in all Total Cost lines together

TOTAL SYSTEM COST: $_____