

SEC-INT-KP SmartKey INSTALLATION SHEETS

This document covers the mounting and wiring of the SEC-INT-KP remote intrusion arming display/keypad (SmartKey) in a VYKON® Security Appliance system, hosted by a Security JACE® controller (SEC-J-602 or SEC-J-616 model controller, abbreviated as S-JACE).

Table 1 SEC-INT-KP SmartKey description,

Description	Notes
Remote Intrusion Display/Keypad, to arm, disarm, and monitor intrusion zones.	Indoor location only, within secured space. Temperature range between 14° F to 131° F (-10° C to 55° C). Powered by 12Vdc reader output of S-JACE or SEC-R2R reader expansion module, @ 150mA.
Graphic LCD Display with white backlight, 128 x 64 dot resolution.	Communications via RS-485 wiring to the NPB-2X-485 option card installed in Security JACE.
3 column x 4 row Keypad with 4 function keys and blue backlight.	See Figure 4 on page 3 for wiring power and communications.

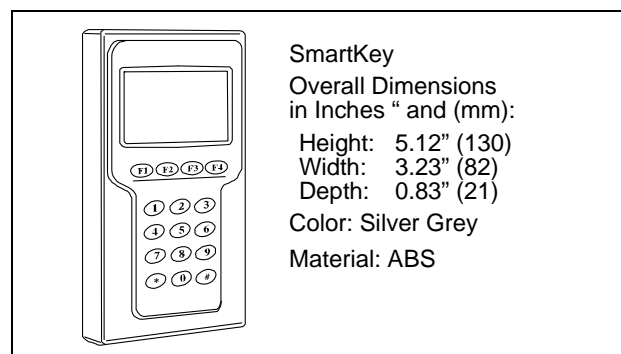
Note To use SmartKey(s), the S-JACE must have an NPB-2X-485 option card installed in its Option Card 2 slot. Refer to the *NPB-2X-485 Option Installation Sheet*.

Note A maximum of six (6) total SmartKeys can be installed in a system. When planning a system, note that each SmartKey draws 150mA (0.15A) at 12Vdc. For related details, see the "Estimating Power and Battery Requirements" section in the mounting and wiring guide for the S-JACE.

Not covered in this document is the *setup and operation* of installed SEC-INT-KP SmartKeys. Refer to the *Vykon Security Appliance Guide* for this information.

For all other related mounting and wiring details, refer to the appropriate mounting and wiring document. See "[Related Documentation](#)," page 4.

Figure 1 SEC-INT-KP SmartKey.



Included in this Package

Included in this package you should find the following items:

- An SEC-INT-KP SmartKey, with removable mounting backplate.
- A hardware bag with plugs, mounting screws, and screw for securing the keypad/display to the backplate.
- This document *SEC-INT-KP SmartKey Installation Sheets*, Part Number 11029 Rev 2, Updated: September 4, 2013

Material and Tools Required

The following supplies and tools are required for installation:

- Small wire nuts, for making wiring terminations to SmartKey terminals.
- Suitable tools for installing wall fasteners and preparing wires for connections.

Recommended Cable Types

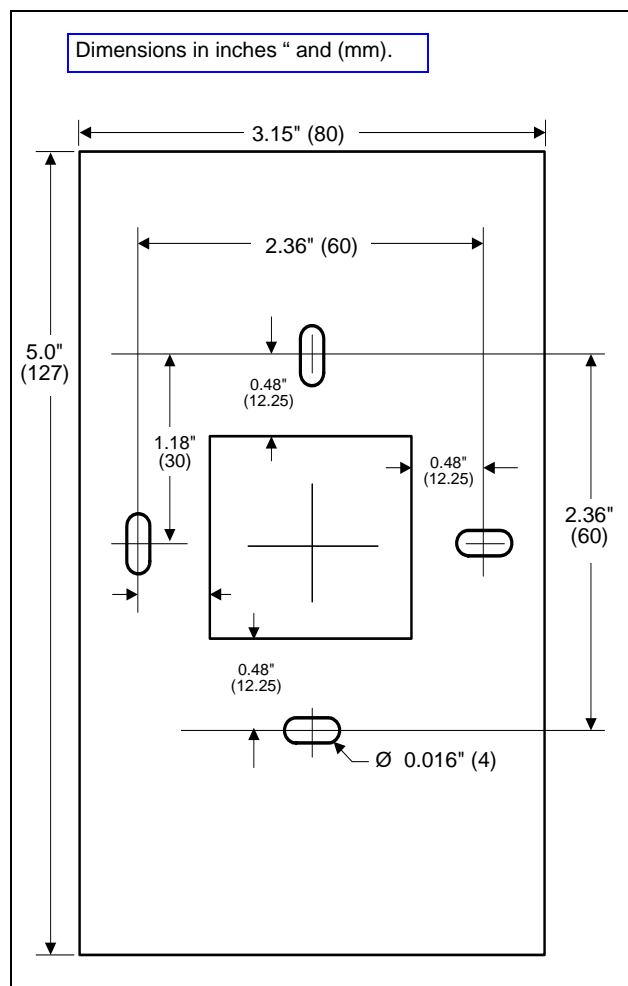
The following cable types are recommended for wiring between an SEC-INT-KP SmartKey and the S-JACE or SEC-R2R module (see [Figure 4](#) on page 3):

- RS-485 data communications: Belden 9501 (1 pair) or 9502 (2 pair), 24AWG shielded twisted-pair, or equivalent.
- 12Vdc power: Belden 9154, 1 pair 20AWG shielded twisted-pair, or equivalent.

Mounting

Mount the SEC-INT-KP backplate onto a wall junction box, with wiring cable(s) passed through center opening. See Figure 2 for dimensions.

Figure 2 SEC-INT-KP backplate dimensions.

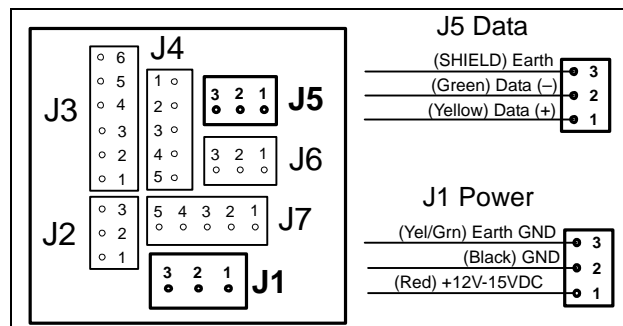


Fasten with the appropriate screws into the mounting slots.

Wiring

Only two connectors on the back of the SEC-INT-KP (Figure 3) are used: J1 (Power) and J5 (RS-485 comm).

Figure 3 Connector Detail, Rear View of SEC-INT-KP.



Connectors have pre-attached leads—make wiring terminations to leads using small wire nuts. Lead colors are shown (in parenthesis) in Figure 3.



Caution Before making wiring terminations, remove power from the S-JACE. Restore power only after making all wiring terminations and fastening the SEC-INT-KP SmartKey unit onto its mounted backplate.

Note that up to 6 SEC-INT-KP SmartKey units are supported, where RS-485 wiring from the S-JACE (NPB-2X-485 option card) is “daisy-chained” at the data J5 connector on each SmartKey. For any SmartKey installed on either end of this RS-485 buss, set its EOL Resistor JUMPER 1 to the ON position.

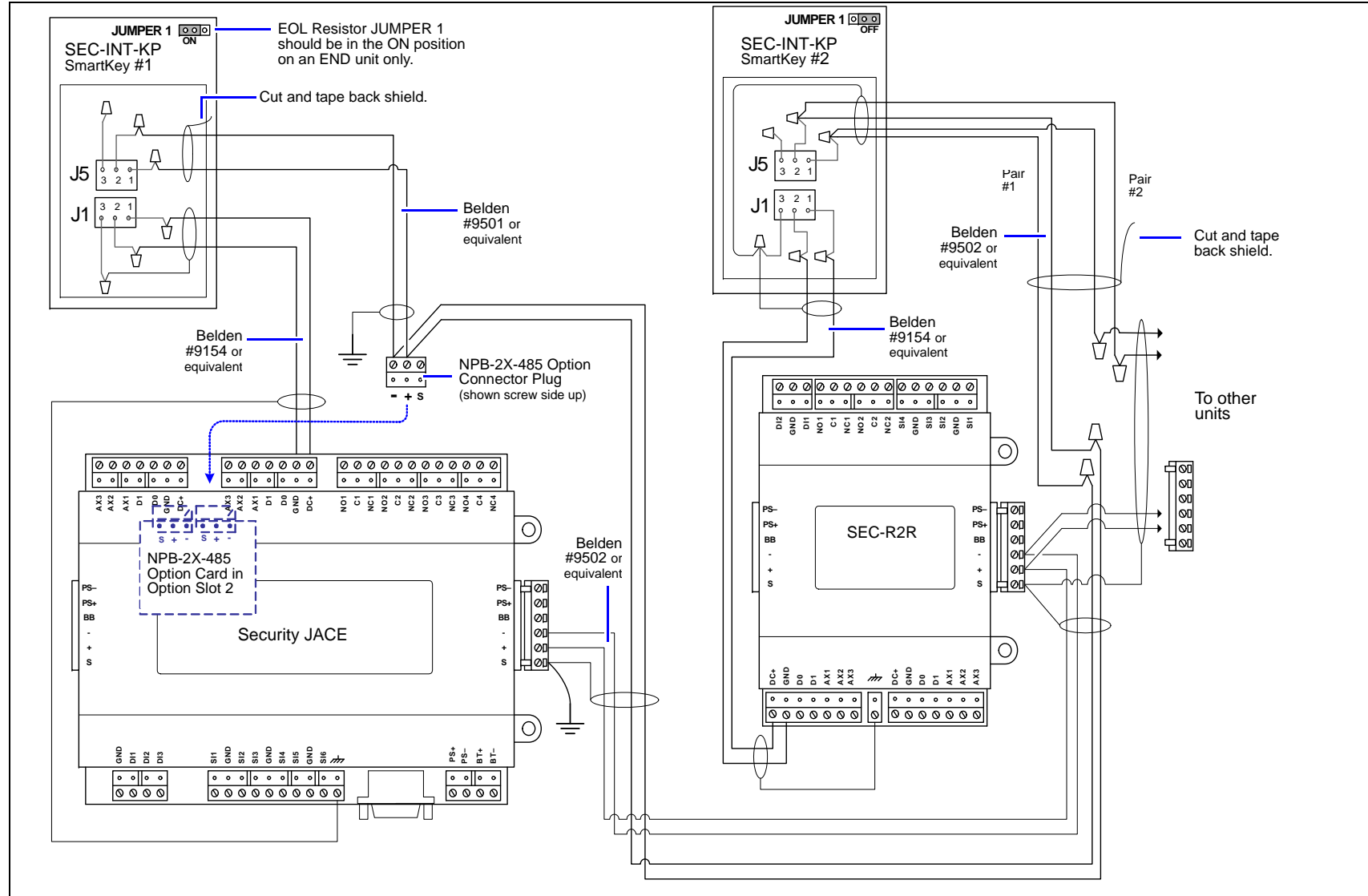
Wire 12Vdc power to the unit from the reader input of the S-JACE, or if closer, the reader input of an SEC-R2R module. Use shielded, twisted-pair cabling for all wiring, with the shield continuously connected and grounded to earth at one point only. See “Recommended Cable Types,” page 1.

Example Wiring Diagram

Figure 4 shows an example wiring diagram for a system using two SEC-INT-KP SmartKeys. Note in this example, SmartKey #1 is installed at the end of the RS-485 buss, on which the S-JACE is daisy-chain connected on its NPB-2X-485 option connector. From there, this SmartKey buss continues on one pair of a 2-pair cable run to the SEC-R2R module (the other pair is used for RS-485 communications between the S-JACE and its expansion modules).

From the SEC-R2R module, another 2-pair cable is run to the SmartKey #2 unit, which allows for RS-485 “multidrop” wiring (using one pair to return back to the SEC-R2R module). Wiring can continue in this fashion to other SEC-R2R modules and SmartKey units, if needed.

Figure 4 Example wiring diagram for system with two SEC-INT-KP SmartKey units.



When done wiring, insert the SEC-INT-KP SmartKey onto its backplate and secure with the screw in the bottom of its case.

Wiring Checkout

After completing wiring terminations and restoring power to the Security JACE, the LCD display on the SEC-INT-KP SmartKey should display time, and keys should be backlit in blue. This verifies power to the SmartKey.

To verify RS-485 communications, refer to the *Vykon Security Application Guide* for setup procedures.

Related Documentation

For more information on mounting and wiring a VYKON Security system, refer to the following documents:

- *Security JACE (SEC-J-602, SEC-J-616) Mounting & Wiring Guide*
- *Remote 2 Reader Module Mounting & Wiring Guide*
- *Remote I/O Module Mounting & Wiring Guide*
- *SEC-ENC-MED & SEC-ENC-LRG Enclosure Install Guide*
- *SEC-ENC-SML Enclosure Installation Sheet*

For details on software configuration for a fully functioning security system, refer to the following documents:

- *Vykon Security Appliance Guide*

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