



APPLICATION Note

TELECOM SOLUTIONS FOR THE 21ST CENTURY

SP437 Adds Keyless Entry to the C-250 Controller

July 30, 2014

Add Keyless Entry to the C-250 Controller



Viking engineers have created SP437 based on the C-250 that provides a short delay to allow for keyless entry. The SRC-1 provides the keyless entry capability and stores up to (32) one to six digit keyless entry codes. The user dials a “#” plus a valid keyless entry code to let themselves in.

SP437 can be ordered through any authorized Viking distributor.

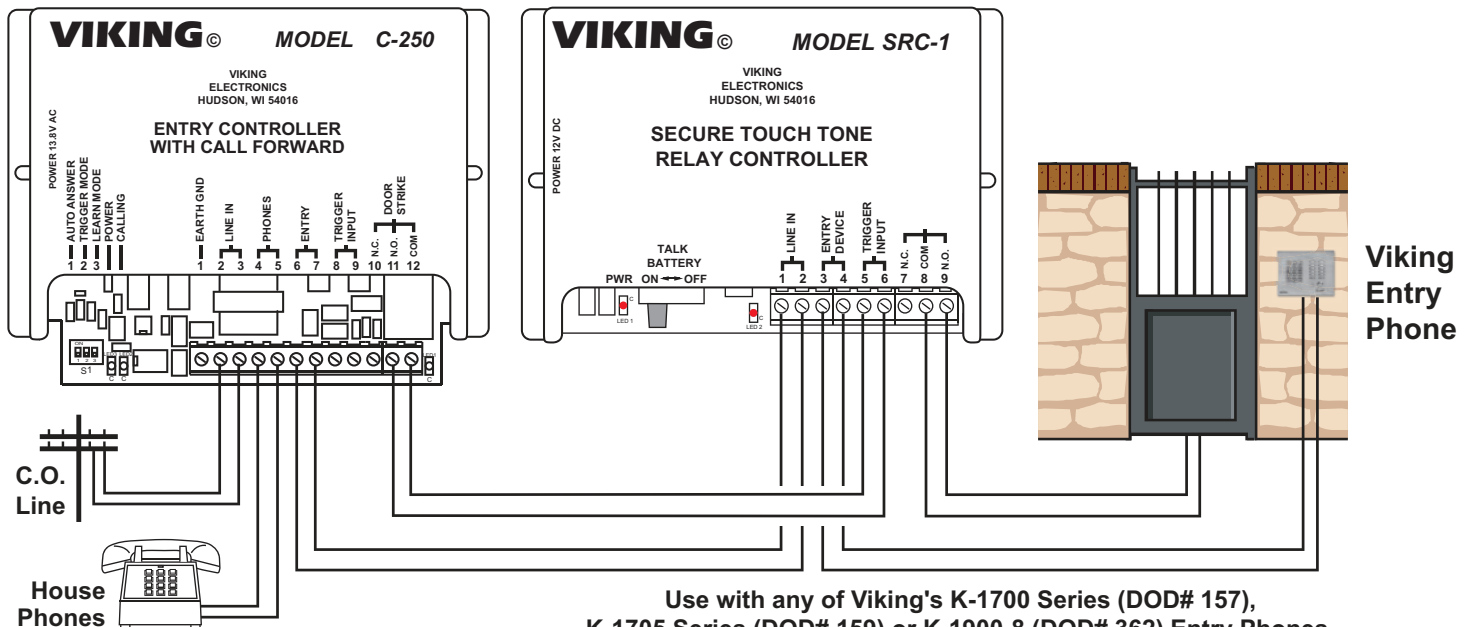
<http://www.vikingelectronics.com>

Phone...715.386.8861

Wiring

**Model SP437
(C-250 with C250-KE software)**

Model SRC-1



Use with any of Viking's K-1700 Series (DOD# 157), K-1705 Series (DOD# 159) or K-1900-8 (DOD# 362) Entry Phones.

Installation

1. Wire the SRC-1 between the SP437 (C-250 with C250-KE software) and the entry phone as shown.
2. With the SP437 relay output wired to the trigger input of the SRC-1 (as shown), the house phones (or remote party) will be disconnected from the entry phone after the touch tone relay command is dialed. If this operation is acceptable, program the SP437 with "00#40" (one half second relay timing) and program the SRC-1 with the desired relay time for the doorstrike, magnetic lock or gate (also stored in the "#40" memory position) and use the SRC-1 relay output to trigger the doorstrike, magnetic lock or gate. In this configuration, the doorstrike command in the SP437 can be programmed to be any one digit number.
3. If the house phones (or remote party) being disconnected from the entry phone after dialing the relay command is not acceptable (they want to stay connected to the entry phone and dial the relay command a second time if necessary), do not wire the SP437's relay output to the trigger input of the SRC-1. Program the desired relay time for the doorstrike, magnetic lock or gate into both the SP437 and SRC-1 and program the SP437 with a single digit doorstrike command in location "#41" (use 0 through 9 only, not * or #). If using the normally open contacts to trigger a doorstrike or gate, parallel the common and normally open contacts of the two controllers (SP437 terminals 11 and 12 to SRC-1 terminals 8 and 9). If using the normally closed contacts to trigger a magnetic lock, wire the normally closed contacts of the two controllers in series with one another (magnetic lock wire to SP437 terminal 10, SP437 terminal 12 wired to SRC-1 terminal 7, magnetic lock power wire to SRC-1 terminal 8).

Programming

1. The SP437 has "C250-KE" software installed so the house phones (or remote phones) do not ring while dialing keyless entry codes at the entry phone. The SP437 must be programmed with at least one keyless entry code, but this keyless code will never be used by the entry phone. Access the programming mode of the SP437 and dial any six digit number followed by "#10". Program the SP437 relay time to one half second if using wiring configuration 2 above or to the desired relay time for the door or gate if using wiring configuration 3 above.
2. The keyless entry codes used by the entry phone (up to 32 codes total) are programmed in the SRC-1. To access the program mode of the SRC-1, first access the program mode of the SP437 in the normal fashion, then dial "##1", wait for the entry phone to answer, then dial "*845464". The SRC-1 will provide two beeps and you are in the programming mode. The one to six digit keyless entry codes are stored in memory locations "#00" through "#31". At some point while in the program mode of the SRC-1, enable the "*5" mode ("unlimited dialing" mode). Program the desired relay time for the door or gate in the SRC-1 ("#40"), regardless of the wiring configuration used. When finished programming, simply hang up or dial "##7" then hang up.

Operation

If no keyless codes are programmed into the SP437 and the entry phone goes off hook, the house phones (or remote phones) will start ringing immediately. Once one keyless code is programmed into the SP437 (that is never used by the entry phone) and the entry phone goes off hook, the SP437 sends a single beep to the entry phone. The user then has 5 seconds to enter a touch tone "#" followed by a one to six digit keyless code to let themselves in. If a valid code is entered, the door strike will be energized and a buzz is heard at the entry phone. After the buzz sound, the SRC-1 attempts to hang up the entry phone by sending a CPC signal. If an invalid keyless code is entered, the SRC-1 also attempts to hang up the entry phone by sending a CPC signal. If the entry phone remains off hook after the SRC-1's CPC signal, the SP437 will produce a single beep again and the user has another 5 seconds to enter "#" plus a keyless code if desired. If the entry phone doesn't dial any touch tones at all or does not dial "#" before other touch tones, the house phones (or remote phones) will start to ring and standard operation will continue.

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